

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

DOCKET NO. UE-17 _____

DOCKET NO. UG-17 _____

EXH. EMA-7

ELIZABETH M. ANDREWS

REPRESENTING AVISTA CORPORATION

EOP Rate Base Study
(Pro Forma including EOP 2017 Capital / Adjusted Capital Structure)
(Natural Gas)

Exh. EMA-7

AVISTA UTILITIES

WASHINGTON NATURAL GAS

INCLUDING EOP 2017 CAPITAL & ADJUSTED CAPITAL STRUCTURE

TWELVE MONTHS ENDED DECEMBER 31, 2016

(000'S OF DOLLARS)

		May 1, 2018				
Line No.	DESCRIPTION	WITH PRESENT RATES			WITH 05.2018 PROPOSED RATES	
		Actual Per Results Report	Total Adjustments	05.2018 Adjusted Total (1)	Proposed Revenues & Related Exp	2018 Proposed Total
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e</i>	<i>f</i>
REVENUES						
1	Total General Business	\$146,098	\$ (61,799)	\$84,299	\$8,269	\$92,568
2	Total Transportation	4,595	(62)	\$4,533		4,533
3	Other Revenues	69,723	(69,479)	\$244		244
4	Total Gas Revenues	220,416	(131,340)	89,076	8,269	97,345
EXPENSES						
Production Expenses						
5	City Gate Purchases	112,605	(112,605)	-		-
6	Purchased Gas Expense	988	31	1,019		1,019
7	Net Nat Gas Storage Trans	2,932	(2,932)	-		-
8	Total Production	116,525	(115,506)	1,019	-	1,019
Underground Storage						
9	Operating Expenses	974	-	974		974
10	Depreciation	492	37	529		529
11	Taxes	210	37	247		247
12	Total Underground Storage	1,676	74	1,750	-	1,750
Distribution						
13	Operating Expenses	12,049	644	12,693		12,693
14	Depreciation	9,866	1,078	10,944		10,944
15	Taxes	12,807	(6,539)	6,268	317	6,585
16	Total Distribution	34,722	(4,817)	29,905	317	30,222
17	Customer Accounting	7,352	(700)	6,652	40	6,692
18	Customer Service & Information	7,595	(6,618)	977		977
19	Sales Expenses	-	-	-		-
Administrative & General						
20	Operating Expenses	13,763	(43)	13,720	17	13,737
21	Depreciation/Amortization	6,260	2,143	8,403		8,403
22	Regulatory Amortizations	-	584	584		584
23	Taxes	-	-	-		-
24	Total Admin. & General	20,023	2,684	22,707	17	22,724
25	Total Gas Expense	187,893	(124,883)	63,010	374	63,384
26	OPERATING INCOME BEFORE FIT	32,523	(6,457)	26,066	7,895	33,961
FEDERAL INCOME TAX						
27	Current Accrual	(841)	(2,351)	(3,192)	2,763	(429)
28	Debt Interest	-	(312)	(312)	-	(312)
29	Deferred FIT	9,923	-	9,923		9,923
30	Amort ITC	(17)	-	(17)		(17)
31	NET OPERATING INCOME	23,458	(3,794)	19,664	5,132	24,796
RATE BASE: PLANT IN SERVICE						
32	Underground Storage	26,868	1,349	28,217		28,217
33	Distribution Plant	390,508	44,446	434,954		434,954
34	General Plant	82,624	15,489	98,113		98,113
35	Total Plant in Service	500,000	61,284	561,284	-	561,284
ACCUMULATED DEPREC/AMORT						
36	Underground Storage	(10,317)	(655)	(10,972)		(10,972)
37	Distribution Plant	(129,098)	(12,243)	(141,341)		(141,341)
38	General Plant	(23,473)	(5,603)	(29,076)		(29,076)
39	Total Accum. Depreciation/Amort.	(162,888)	(18,501)	(181,389)	-	(181,389)
40	NET PLANT	337,112	42,783	379,895	-	379,895
41	DEFERRED FIT	(73,856)	(11,641)	(85,497)		(85,497)
42	Net Plant After DFIT	263,256	31,142	294,398	-	294,398
43	GAS INVENTORY	9,116	-	9,116		9,116
44	GAIN ON SALE OF BUILDING	-	-	-		-
45	OTHER	(249)	1,474	1,225		1,225
46	WORKING CAPITAL	15,664	(864)	14,800		14,800
47	TOTAL RATE BASE	287,787	30,278	319,539	0	319,539
48	RATE OF RETURN	8.15%		6.15%		7.76%

AVISTA UTILITIES
CALCULATION OF REQUESTED GENERAL REVENUE REQUIREMENT
WASHINGTON NATURAL GAS
TWELVE MONTHS ENDED DECEMBER 31, 2016

Line No.	Description	May 1, 2018	
		(000's of Dollars)	
1	Pro Forma Rate Base	\$	319,539
2	Proposed Rate of Return		<u>7.76%</u>
3	Net Operating Income Requirement		\$24,796
4	Pro Forma Net Operating Income	\$	<u>19,664</u>
5	Net Operating Income Deficiency		\$5,132
6	Conversion Factor		0.620645
7	Revenue Requirement - 2016		\$8,269
8	Total Base Distribution Revenues*	\$	88,831
9	Percentage Base Distribution Revenue Increase		<u><u>9.31%</u></u>
10	Total Present Billed Revenue	\$	152,089
11	Percentage Billed Revenue Increase		<u><u>5.44%</u></u>

* Line 8 "Total General Business Revenues" includes special contract transportation revenues.

K-Factor Rate Adjustment for Rate Years 2 & 3 (5/1/2019 & 5/1/2020)			
12	K-Factor %	4.65%	per Exh. EMA-8, pg 6.
13	Delivery Related Revenues 5/1/2018 <i>(\$82,493 + \$8,269 = \$90,762)</i>	\$ 90,762	
		Incremental Revenue	Incremental % (Base)
14	Rate Year 2: 5/1/2019 - 4/30/2020	\$ 4,220	4.35%
		Incremental % (Billed)	
15	Delivery Related Revenues 5/1/2019 <i>(\$90,762 + \$4,220 = \$94,982)</i>	\$ 94,982	
16	Rate Year 3: 5/1/2020 - 4/30/2021	\$ 4,417	4.36%
		\$ 82,493	
		\$8,269	

* Current Delivery Related Revenues per Exh. EMA-8, pg 6
 5/1/2018 Proposed Revenue Increase from line 7

**AVISTA UTILITIES
PROPOSED COST OF CAPITAL
WASHINGTON NATURAL GAS**

Proposed Capital Structure*			
Component	Capital Structure	Cost	Weighted Cost
Total Debt	50.0%	5.62%	2.81%
Common Equity	50.0%	9.90%	4.95%
Total	<u>100.00%</u>		<u>7.76%</u>

* Based on rate year estimated capital structure and cost of debt.

**AVISTA UTILITIES
 REVENUE CONVERSION FACTOR
 WASHINGTON NATURAL GAS
 TWELVE MONTHS ENDED DECEMBER 31, 2016**

<u>Line No.</u>	<u>Description</u>	<u>Factor</u>
1	Revenues	1.000000
	Expense:	
2	Uncollectibles	0.004827
3	Commission Fees	0.002000
4	Washington Excise Tax	0.038334
6	Total Expense	<u>0.045161</u>
7	Net Operating Income Before FIT	0.954839
8	Federal Income Tax @ 35%	0.334194
9	REVENUE CONVERSION FACTOR	0.620645

EOP Rate Base Study
(Pro Forma including EOP 2017 Capital / Adjusted Capital Structure)
(Natural Gas)

Exh. EMA-7

AVISTA UTILITIES
WASHINGTON NATURAL GAS
TWELVE MONTHS ENDED DECEMBER 31, 2016
(000'S OF DOLLARS)

ACTUAL
RESULTS RESTATEMENT ADJUSTMENTS

Line No.	DESCRIPTION	Per Results Report	Deferred FIT Rate Base	Deferred Debits and Credits	Working Capital	Eliminate B & O Taxes	Restate Property Tax	Uncollectible Expense	Regulatory Expense	Injuries & Damages	FIT / DFIT Expense
		1.00	1.01	1.02	1.03	2.01	2.02	2.03	2.04	2.05	2.06
		G-ROO	G-DFIT	G-DDC	G-WC	G-EBO	G-RPT	G-UE	G-RE	G-ID	G-FIT
	Adjustment Number	1.00	1.01	1.02	1.03	2.01	2.02	2.03	2.04	2.05	2.06
	Workpaper Reference	G-ROO	G-DFIT	G-DDC	G-WC	G-EBO	G-RPT	G-UE	G-RE	G-ID	G-FIT
	REVENUES										
1	Total General Business	\$ 146,098	\$ -	\$ -	\$ -	\$ (5,097)	\$ -	\$ -	\$ -	\$ -	\$ -
2	Total Transportation	4,595	-	-	-	(118)	-	-	-	-	-
3	Other Revenues	69,723	-	-	-	-	-	-	-	-	-
4	Total Gas Revenues	220,416	-	-	-	(5,215)	-	-	-	-	-
	EXPENSES										
	Production Expenses										
5	City Gate Purchases	112,605	-	-	-	-	-	-	-	-	-
6	Purchased Gas Expense	988	-	-	-	-	-	-	-	-	-
7	Net Nat Gas Storage Trans	2,932	-	-	-	-	-	-	-	-	-
8	Total Production	116,525	-	-	-	-	-	-	-	-	-
	Underground Storage										
9	Operating Expenses	974	-	-	-	-	-	-	-	-	-
10	Depreciation/Amortization	492	-	-	-	-	-	-	-	-	-
11	Taxes	210	-	-	-	-	-	-	-	-	-
12	Total Underground Storage	1,676	-	-	-	-	-	-	-	-	-
	Distribution										
13	Operating Expenses	12,049	-	-	-	-	-	-	-	-	-
14	Depreciation/Amortization	9,866	-	-	-	-	-	-	-	-	-
15	Taxes	12,807	-	-	-	(5,183)	375	-	-	-	-
16	Total Distribution	34,722	-	-	-	(5,183)	375	-	-	-	-
17	Customer Accounting	7,352	-	2	-	-	-	(590)	-	-	-
18	Customer Service & Information	7,595	-	-	-	-	-	-	-	-	-
19	Sales Expenses	-	-	-	-	-	-	-	-	-	-
	Administrative & General										
20	Operating Expenses	13,763	-	-	-	-	-	-	(3)	76	-
21	Depreciation/Amortization	6,260	-	-	-	-	-	-	-	-	-
22	Regulatory Amortizations	-	-	-	-	-	-	-	-	-	-
23	Taxes	-	-	-	-	-	-	-	-	-	-
24	Total Admin. & General	20,023	-	-	-	-	-	-	(3)	76	-
25	Total Gas Expense	187,893	-	2	-	(5,183)	375	(590)	(3)	76	-
26	OPERATING INCOME BEFORE FIT	32,523	-	(2)	-	(32)	(375)	590	3	(76)	-
	FEDERAL INCOME TAX										
27	Current Accrual	(841)	-	(1)	-	(11)	(131)	207	1	(27)	-
28	Debt Interest	-	3	-	8	-	-	-	-	-	-
29	Deferred FIT	9,923	-	-	-	-	-	-	-	-	-
30	Amort ITC	(17)	-	-	-	-	-	-	-	-	-
31	NET OPERATING INCOME	\$ 23,458	\$ (3)	\$ (1)	\$ (8)	\$ (21)	\$ (244)	\$ 384	\$ 2	\$ (49)	\$ -
	RATE BASE										
	PLANT IN SERVICE										
32	Underground Storage	\$ 26,868	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33	Distribution Plant	390,508	-	-	-	-	-	-	-	-	-
34	General Plant	82,624	-	-	-	-	-	-	-	-	-
35	Total Plant in Service	500,000	-	-	-	-	-	-	-	-	-
	ACCUMULATED DEPRECIATION/AMORT										
36	Underground Storage	(10,317)	-	-	-	-	-	-	-	-	-
37	Distribution Plant	(129,098)	-	-	-	-	-	-	-	-	-
38	General Plant	(23,473)	-	-	-	-	-	-	-	-	-
39	Total Accumulated Depreciation/Amortization	(162,888)	-	-	-	-	-	-	-	-	-
40	NET PLANT	337,112	-	-	-	-	-	-	-	-	-
41	DEFERRED TAXES	(73,856)	(325)	-	-	-	-	-	-	-	-
42	Net Plant After DFIT	263,256	(325)	-	-	-	-	-	-	-	-
43	GAS INVENTORY	9,116	-	-	-	-	-	-	-	-	-
44	GAIN ON SALE OF BUILDING	-	-	-	-	-	-	-	-	-	-
45	OTHER	(249)	-	-	-	-	-	-	-	-	-
46	WORKING CAPITAL	15,664	-	-	(864)	-	-	-	-	-	-
47	TOTAL RATE BASE	\$ 287,787	\$ (325)	\$ -	\$ (864)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	RATE OF RETURN	8.15%									
50	REVENUE REQUIREMENT	-1,814	-35	2	-94	34	393	-618	-3	80	0
	Pro Forma Rate of Return	7.76%									
	Revenue Conversion Factor	0.620645									

EOP Rate Base Study
(Pro Forma including EOP 2017 Capital / Adjusted Capital Structure)
(Natural Gas)

Exh. EMA-7

AVISTA UTILITIES
WASHINGTON NATURAL GAS
TWELVE MONTHS ENDED DECEMBER 31, 2016
(000'S OF DOLLARS)

Line No.	DESCRIPTION	Office Space Charges to Subs	Restate Excise Taxes	Net Gains & Losses	Weather Normalization / Gas Cost Adjust	Eliminate Adder Schedules	Misc. Restating Non-Util / Non-Recurring Expenses	Project Compass Deferral	Restating Incentives	Restate Debt Interest	Restated TOTAL
	Adjustment Number	2.07	2.08	2.09	2.10	2.11	2.12	2.13	2.14	2.15	
	Worksheet Reference	G-OSC	G-RET	G-NGL	G-WNGC	G-EAS	G-MR	G-CD	G-RI	G-DI	R-Ttl
REVENUES											
1	Total General Business	\$ -	\$ -	\$ -	\$ 11,209	\$ (1,240)	\$ -	\$ -	\$ -	\$ -	\$ 150,970
2	Total Transportation	-	-	-	-	-	-	-	-	-	4,477
3	Other Revenues	-	-	-	(5,427)	(63,276)	-	-	-	-	1,020
4	Total Gas Revenues	-	-	-	5,782	(64,516)	-	-	-	-	156,467
EXPENSES											
Production Expenses											
5	City Gate Purchases	-	-	-	5,274	(54,419)	-	-	-	-	63,460
6	Purchased Gas Expense	-	-	-	6	-	-	-	-	-	994
7	Net Nat Gas Storage Trans	-	-	-	-	(2,932)	-	-	-	-	-
8	Total Production	-	-	-	5,280	(57,351)	-	-	-	-	64,454
Underground Storage											
9	Operating Expenses	-	-	-	-	-	-	-	-	-	974
10	Depreciation/Amortization	-	-	-	-	-	-	-	-	-	492
11	Taxes	-	-	-	-	-	-	-	-	-	210
12	Total Underground Storage	-	-	-	-	-	-	-	-	-	1,676
Distribution											
13	Operating Expenses	-	-	-	-	-	1	-	-	-	12,050
14	Depreciation/Amortization	-	-	(13)	-	-	-	-	-	-	9,853
15	Taxes	-	2	-	430	(48)	-	-	-	-	8,383
16	Total Distribution	-	2	(13)	430	(48)	1	-	-	-	30,286
17	Customer Accounting	-	-	-	54	(6)	-	-	-	-	6,812
18	Customer Service & Information	-	-	-	-	(6,632)	-	-	-	-	963
19	Sales Expenses	-	-	-	-	-	-	-	-	-	-
Administrative & General											
20	Operating Expenses	(9)	-	-	22	(2)	(316)	-	(181)	-	13,350
21	Depreciation/Amortization	-	-	-	-	-	-	-	-	-	6,260
22	Regulatory Amortizations	-	-	-	-	-	-	1,079	-	-	1,079
23	Taxes	-	-	-	-	-	-	-	-	-	-
24	Total Admin. & General	(9)	-	-	22	(2)	(316)	1,079	(181)	-	20,689
25	Total Gas Expense	(9)	2	(13)	5,786	(64,039)	(315)	1,079	(181)	-	124,880
26	OPERATING INCOME BEFORE FIT	9	(2)	13	(4)	(477)	315	(1,079)	181	-	31,587
FEDERAL INCOME TAX											
27	Current Accrual	3	(1)	5	(1)	(167)	110	(378)	63	(91)	(1,260)
28	Debt Interest	-	-	-	-	-	-	-	-	-	12
29	Deferred FIT	-	-	-	-	-	-	-	-	-	9,923
30	Amort ITC	-	-	-	-	-	-	-	-	-	(17)
31	NET OPERATING INCOME	\$ 6	\$ (1)	\$ 8	\$ (3)	\$ (310)	\$ 205	\$ (701)	\$ 118	\$ 91	\$ 22,929
RATE BASE											
PLANT IN SERVICE											
32	Underground Storage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,868
33	Distribution Plant	-	-	-	-	-	-	-	-	-	390,508
34	General Plant	-	-	-	-	-	-	-	-	-	82,624
35	Total Plant in Service	-	-	-	-	-	-	-	-	-	500,000
ACCUMULATED DEPRECIATION/AMORT											
36	Underground Storage	-	-	-	-	-	-	-	-	-	(10,317)
37	Distribution Plant	-	-	-	-	-	-	-	-	-	(129,098)
38	General Plant	-	-	-	-	-	-	-	-	-	(23,473)
39	Total Accumulated Depreciation/Amortization	-	-	-	-	-	-	-	-	-	(162,888)
40	NET PLANT	-	-	-	-	-	-	-	-	-	337,112
41	DEFERRED TAXES	-	-	-	-	-	-	-	-	-	(74,181)
42	Net Plant After DFIT	-	-	-	-	-	-	-	-	-	262,931
43	GAS INVENTORY	-	-	-	-	-	-	-	-	-	9,116
44	GAIN ON SALE OF BUILDING	-	-	-	-	-	-	-	-	-	-
45	OTHER	-	-	-	-	-	-	-	-	-	(249)
46	WORKING CAPITAL	-	-	-	-	-	-	-	-	-	14,800
47	TOTAL RATE BASE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 286,598
48	RATE OF RETURN	-	-	-	-	-	-	-	-	-	(1)
50	REVENUE REQUIREMENT	-9	2	-14	4	500	-330	1,130	-190	-147	-1,110

Pro Forma Rate of Return
Revenue Conversion Factor

(1) The Restated TOTAL column does not represent 12/31/2016 Test Period Commission Basis results of operation on a normalized basis (CBR basis). Difference exists due to inclusion of proposed cost of debt (pro forma versus CBR cost of debt) impacting Adjustment 2.15 above

EOP Rate Base Study
(Pro Forma including EOP 2017 Capital / Adjusted Capital Structure)
(Natural Gas)

Exh. EMA-7

AVISTA UTILITIES
WASHINGTON NATURAL GAS
TWELVE MONTHS ENDED DECEMBER 31, 2016
(000'S OF DOLLARS)

PRO FORMA ADJUSTMENTS

Line No.	DESCRIPTION	Pro Forma Atmospheric Testing & Leak Survey	Pro Forma Labor Non-Exec	Pro Forma Labor Exec	Pro Forma Employee Benefits	Pro Forma Incentive Adjustment	Pro Forma Property Tax	Pro Forma IS/IT Expense	Pro Forma Revenue Normalization
	Adjustment Number	3.01	3.02	3.03	3.04	3.05	3.06	3.07	3.08
	Worksheet Reference	G-PAT	G-PLN	G-PLE	G-PEB	G-PI	G-PPT	G-PIS	G-PREV
	REVENUES								
1	Total General Business	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	(66,671)
2	Total Transportation	-	-	-	-	-	-	-	56
3	Other Revenues	-	-	-	-	-	-	-	(776)
4	Total Gas Revenues	-	-	-	-	-	-	-	(67,391)
	EXPENSES								
	Production Expenses								
5	City Gate Purchases	-	-	-	-	-	-	-	(63,460)
6	Purchased Gas Expense	-	31	-	(6)	-	-	-	-
7	Net Nat Gas Storage Trans	-	-	-	-	-	-	-	-
8	Total Production	-	31	-	(6)	-	-	-	(63,460)
	Underground Storage								
9	Operating Expenses	-	-	-	-	-	-	-	-
10	Depreciation/Amortization	-	-	-	-	-	-	-	-
11	Taxes	-	-	-	-	-	37	-	-
12	Total Underground Storage	-	-	-	-	-	37	-	-
	Distribution								
13	Operating Expenses	348	371	-	(76)	-	-	-	-
14	Depreciation/Amortization	-	-	-	-	-	-	-	-
15	Taxes	-	-	-	-	-	439	-	(2,554)
16	Total Distribution	348	371	-	(76)	-	439	-	(2,554)
17	Customer Accounting	-	203	-	(41)	-	-	-	(322)
18	Customer Service & Information	-	18	-	(4)	-	-	-	-
19	Sales Expenses	-	-	-	-	-	-	-	-
	Administrative & General								
20	Operating Expenses	-	251	(10)	(49)	34	-	201	(133)
21	Depreciation/Amortization	-	-	-	-	-	-	-	-
22	Regulatory Amortizations	-	-	-	-	-	-	-	-
23	Taxes	-	-	-	-	-	-	-	-
24	Total Admin. & General	-	251	(10)	(49)	34	-	201	(133)
25	Total Gas Expense	348	874	(10)	(176)	34	476	201	(66,469)
26	OPERATING INCOME BEFORE FIT	(348)	(874)	10	176	(34)	(476)	(201)	(922)
	FEDERAL INCOME TAX								
27	Current Accrual	(122)	(306)	4	62	(12)	(167)	(70)	(323)
28	Debt Interest	-	-	-	-	-	-	-	-
29	Deferred FIT	-	-	-	-	-	-	-	-
30	Amort ITC	-	-	-	-	-	-	-	-
31	NET OPERATING INCOME	\$ (226)	\$ (568)	\$ 7	\$ 114	\$ (22)	\$ (309)	\$ (131)	\$ (599)
	RATE BASE								
	PLANT IN SERVICE								
32	Underground Storage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
33	Distribution Plant	-	-	-	-	-	-	-	-
34	General Plant	-	-	-	-	-	-	-	-
35	Total Plant in Service	-	-	-	-	-	-	-	-
	ACCUMULATED DEPRECIATION/AMORT								
36	Underground Storage	-	-	-	-	-	-	-	-
37	Distribution Plant	-	-	-	-	-	-	-	-
38	General Plant	-	-	-	-	-	-	-	-
39	Total Accumulated Depreciation/Amortization	-	-	-	-	-	-	-	-
40	NET PLANT	-	-	-	-	-	-	-	-
41	DEFERRED TAXES	-	-	-	-	-	-	-	-
42	Net Plant After DFIT	-	-	-	-	-	-	-	-
43	GAS INVENTORY	-	-	-	-	-	-	-	-
44	GAIN ON SALE OF BUILDING	-	-	-	-	-	-	-	-
45	OTHER	-	-	-	-	-	-	-	-
46	WORKING CAPITAL	-	-	-	-	-	-	-	-
47	TOTAL RATE BASE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	RATE OF RETURN	-	-	-	-	-	-	-	-
50	REVENUE REQUIREMENT	364	915	-10	-184	36	499	211	966
	Pro Forma Rate of Return								
	Revenue Conversion Factor								

EOP Rate Base Study
(Pro Forma including EOP 2017 Capital / Adjusted Capital Structure)
(Natural Gas)

Exh. EMA-7

AVISTA UTILITIES
WASHINGTON NATURAL GAS
TWELVE MONTHS ENDED DECEMBER 31, 2016
(000'S OF DOLLARS)

Line No.	DESCRIPTION	Pro Forma Regulatory Amortization	Pro Forma 2017 Threshold Capital Adds	Pro Forma O&M Offsets	Pro Forma Director Fees Expense	Pro Forma LEAP Deferral Gas Line Ext.	Pro Forma Sub-Total	EOP 2017 Capital Net Plant Adj	EOP Pro Forma Total
	Adjustment Number	3.09	3.10	3.11	3.12	3.13			
	Workpaper Reference	G-PRA	G-PCAP16	G-POFF	G-PDF	G-PLEAP	PF-STtl	G-EOPCAP17	
	REVENUES								
1	Total General Business	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 84,299	\$ -	\$ 84,299
2	Total Transportation	-	-	-	-	-	4,533	-	4,533
3	Other Revenues	-	-	-	-	-	244	-	244
4	Total Gas Revenues	-	-	-	-	-	89,076	-	89,076
	EXPENSES								
	Production Expenses								
5	City Gate Purchases	-	-	-	-	-	-	-	-
6	Purchased Gas Expense	-	-	-	-	-	1,019	-	1,019
7	Net Nat Gas Storage Trans	-	-	-	-	-	-	-	-
8	Total Production	-	-	-	-	-	1,019	-	1,019
	Underground Storage								
9	Operating Expenses	-	-	-	-	-	974	-	974
10	Depreciation/Amortization	-	-	-	-	-	492	37	529
11	Taxes	-	-	-	-	-	247	-	247
12	Total Underground Storage	-	-	-	-	-	1,713	37	1,750
	Distribution								
13	Operating Expenses	-	-	-	-	-	12,693	-	12,693
14	Depreciation/Amortization	-	366	-	-	-	10,219	725	10,944
15	Taxes	-	-	-	-	-	6,268	-	6,268
16	Total Distribution	-	366	-	-	-	29,180	725	29,905
17	Customer Accounting	-	-	-	-	-	6,652	-	6,652
18	Customer Service & Information	-	-	-	-	-	977	-	977
19	Sales Expenses	-	-	-	-	-	-	-	-
	Administrative & General								
20	Operating Expenses	-	-	(32)	108	-	13,720	-	13,720
21	Depreciation/Amortization	-	1,217	-	-	-	7,477	926	8,403
22	Regulatory Amortizations	(1,079)	-	-	-	584	584	-	584
23	Taxes	-	-	-	-	-	-	-	-
24	Total Admin. & General	(1,079)	1,217	(32)	108	584	21,781	926	22,707
25	Total Gas Expense	(1,079)	1,583	(32)	108	584	61,322	1,688	63,010
26	OPERATING INCOME BEFORE FIT	1,079	(1,583)	32	(108)	(584)	27,754	(1,688)	26,066
	FEDERAL INCOME TAX								
27	Current Accrual	378	(554)	11	(38)	(204)	(2,601)	(591)	(3,192)
28	Debt Interest	-	(175)	-	-	(15)	(178)	(134)	(312)
29	Deferred FIT	-	-	-	-	-	9,923	-	9,923
30	Amort ITC	-	-	-	-	-	(17)	-	(17)
31	NET OPERATING INCOME	\$ 701	\$ (853)	\$ 21	\$ (70)	\$ (365)	\$ 20,627	\$ (963)	\$ 19,664
	RATE BASE								
	PLANT IN SERVICE								
32	Underground Storage	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,868	\$ 1,349	\$ 28,217
33	Distribution Plant	-	14,510	-	-	-	405,018	29,936	434,954
34	General Plant	-	8,260	-	-	-	90,884	7,229	98,113
35	Total Plant in Service	-	22,770	-	-	-	522,770	38,514	561,284
	ACCUMULATED DEPRECIATION/AMORT								
36	Underground Storage	-	-	-	-	-	(10,317)	(655)	(10,972)
37	Distribution Plant	-	(163)	-	-	-	(129,261)	(12,080)	(141,341)
38	General Plant	-	(624)	-	-	-	(24,097)	(4,979)	(29,076)
39	Total Accumulated Depreciation/Amortization	-	(787)	-	-	-	(163,675)	(17,714)	(181,389)
40	NET PLANT	-	21,983	-	-	-	359,095	20,800	379,895
41	DEFERRED TAXES	-	(4,142)	-	-	-	(78,323)	(7,174)	(85,497)
42	Net Plant After DFIT	-	17,841	-	-	-	280,772	13,626	294,398
43	GAS INVENTORY	-	-	-	-	-	9,116	-	9,116
44	GAIN ON SALE OF BUILDING	-	-	-	-	-	-	-	-
45	OTHER	-	-	-	-	1,474	1,225	-	1,225
46	WORKING CAPITAL	-	-	-	-	-	14,800	-	14,800
47	TOTAL RATE BASE	\$ -	\$ 17,841	\$ -	\$ -	\$ 1,474	\$ 305,913	\$ 13,626	\$ 319,539
48	RATE OF RETURN								
50	REVENUE REQUIREMENT	-1,130	3,606	-34	113	773	5,013	3,256	8,269

Pro Forma Rate of Return
Revenue Conversion Factor

1 **Exh. EMA-7 – Natural Gas End of Period Rate Base Study**

2 **Q. Please explain the purpose of the natural gas EOP Rate Base Study.**

3 A. The Company’s natural gas End-of-Period (EOP) Rate Base Study is the
4 basis of the Company’s requested natural gas rate relief in this case for Rate Year 1
5 beginning May 1, 2018. The EOP Rate Base Study starts with the results of the Traditional
6 Pro Forma Study (discussed in Exh. EMA-1T and EMA-6), adjusted to EOP 2017 rate
7 base, and utilizing an adjusted capital structure¹. For Rate Years 2 and 3, an annual “K-
8 Factor” revenue escalator is applied to non-gas cost revenues to determine the Year 2 and
9 Year 3 proposed rate changes. The results of the natural gas EOP Rate Base Study for Rate
10 Year 1 is \$8,269,000. Results for Rate Years 2 and 3 for natural gas are approximately
11 \$4,220,000 and \$4,417,000, respectively.^{2/3}

12 The narrative that follows explains the natural gas EOP Rate Base Study and its
13 results. The Company has also provided workpapers, both in hard copy and electronic
14 formats, which include additional details related to the natural gas EOP Rate Base Study
15 and adjustments discussed in this exhibit.

16 **Q. Please explain what is shown on pages 1 – 4 of Exh. EMA-7.**

17 A. Exh. EMA-7, page 1, shows actual and rate year natural gas operating
18 results and rate base for the State of Washington. Column (b) of page 1 of Exh. EMA-7
19 shows twelve-months ending December 31, 2016 actual operating results and components

¹ The proposed capital structure in the EOP Rate Base Study has been adjusted to exclude short-term debt from the calculation. All other aspects of the calculation are the same as that presented in prior cases.

² Rate Years 2 and 3 use a K-Factor revenue escalator of 4.65% for natural gas applied to non-gas cost revenues, covering investment - related costs and operating expenses. The calculation of the K-Factor used in Years 2 and 3 is discussed in Exh. EMA-1T.

³ Revenue increases for Rate Years 2 and 3 are proposed to be implemented through Schedule 96 (electric) and 196 (natural gas), as discussed by Company witness Mr. Ehrbar.

1 of the average-of-monthly-average (AMA) rate base as recorded; Column (c) is the total of
2 all adjustments to net operating income and rate base to reflect the May 1, 2018 to April
3 30, 2019 rate year results; and column (d) is the rate year adjusted results of operations, all
4 under existing rates. Column (e) shows the revenue increase required to allow the
5 Company to earn a 7.76% rate of return for the rate year beginning May 1, 2018. Column
6 (f) reflects total rate year natural gas operating results with the requested increase of
7 \$8,269,000.

8 Page 2 of Exh. EMA-3 shows, at line 7, the calculation of the electric Pro Forma
9 level revenue requirement of \$8,269,000, or 9.31% base increase (5.44% on a billed basis).

10 Also Shown on page 2, at lines 12-16, are the proposed incremental rate adjustments
11 for Rate Year 2 (effective May 1, 2019) and Rate Year 3 (effective May 1, 2020). As shown
12 on line 12, the incremental Rate Year 2 and 3 revenue increases are based on the
13 Company's proposed "K-Factor" revenue escalator of 4.65% applied to non-gas cost
14 revenues. Non-gas cost revenues represent revenues covering investment - related costs
15 and operating expenses. The result of applying a 4.65% revenue escalator to non-gas cost
16 revenues as of April 30, 2019⁴ for Rate Year 2 is an incremental revenue requirement of
17 \$4,220,000, or 2.63% on a billed basis. The result of applying a 4.65% revenue escalator
18 to non-gas cost revenues as of April 30, 2020⁵ for Rate Year 3 is an incremental revenue
19 requirement of \$4,417,000, or 2.68% on a billed basis.

⁴ As shown on page 2, non-gas cost revenues as of April 30, 2019 include current authorized base non-gas cost revenues of \$82.5 million, plus the proposed Rate Year 1 base increase of \$8.3 million, totaling \$90.8 million in non-gas cost revenues at May 1, 2019.

⁵ As shown on page 2, non-gas cost revenues as of April 30, 2020 include base non-gas cost revenues as of May 1, 2019 of \$90.8 million (see footnote 4), plus the proposed Rate Year 2 increase of \$4.2 million, totaling \$95.0 million in non-gas cost revenues at May 1, 2020.

1 Page 3 of Exh. EMA-3, shows the proposed Cost of Capital and Capital Structure
2 requested by the Company, including: 1) 50% Common Equity / 50% Debt capital structure
3 (excludes short-term debt); 2) Return on Equity of 9.9%; and 3) cost of debt of 5.62%,
4 resulting in an overall Rate of Return (weighted average cost of capital) of 7.76%.
5 Company witness Mr. Thies discusses the Company's rate of return and the capital
6 structure proposed by the Company, while Company witness Mr. McKenzie provides
7 additional testimony related to the appropriate return on equity for Avista.

8 Page 4 shows the derivation of the natural gas net-operating-income-to-gross-
9 revenue conversion factor. The conversion factor takes into account uncollectible accounts
10 receivable, Commission fees and Washington State excise taxes. Federal income taxes are
11 reflected at 35%.

12 **Q. Now turning to pages pages 5 through 8 of Exh. EMA-7, please explain**
13 **what is included on those pages?**

14 A. Page 5 begins with actual operating results and rate base for the twelve-
15 months-ending December 31, 2016 test period on an AMA basis in column (1.00).
16 Individual normalizing and restating adjustments that are standard components of our
17 annual reporting to the Commission begin in column (1.01) on page 4 and continue through
18 column (2.15) on page 6. Individual Pro Forma adjustments are shown on pages 7 and 8
19 in columns (3.01) through (3.13).

20 The next column on page 8, labeled "Pro Forma Sub-Total" is the subtotal of the
21 previous columns (1.00) through (3.13), and produces the Traditional Pro Forma Study net
22 operating income (NOI) and total rate base amounts (includes impact of adjusted capital
23 structure discussed above). The result of this column shows the sub-total of the Pro Forma

1 revenue requirement per the EOP Rate Base Study is \$5,013,000.⁶ This amount is prior to
2 the 2017 EOP rate base adjustment discussed below.

3 Explanations for each Restating and Pro Forma adjustment are explained within the
4 Traditional Pro Forma Study Exh. EMA-6. As these adjustments are the same between the
5 EOP Rate Base and Traditional Pro Forma Studies, these descriptions will not be repeated
6 here. However, I do describe below where there are differences in rate base adjusted
7 restating and pro forma adjustments caused by the impact on restate debt interest. Changes
8 in the tax benefit of debt interest on rate based items are due to the use of the proposed
9 adjusted capital structure of 50% equity / 50% debt. This varies from the 48.5% equity /
10 51.5% debt included in the Traditional Pro Forma Study, resulting in an increase in both
11 the tax benefit of debt interest expense and resulting revenue requirement.

12 **Q. Please explain what is provided on the last page of Exh. EMA-7, page**
13 **8.**

14 A. The last columns on page 8 includes the following columns, which will be
15 discussed further below:

- 16 • (3.14) - EOP 2017 Net Rate Base;
- 17 • (PF-Ttl) "EOP Pro Forma Total."

18 Each of these columns are described in the section that follows.

⁶ The EOP Rate Base Study Pro Forma Total of \$5.013 million varies from this same column in the Traditional Pro Forma Study (totaling \$4.531 million); a difference of \$0.482 million. This result is the incremental revenue requirement impact of applying a 50% equity /50% debt capital structure within the EOP Rate Base Studies, versus the 48.5% equity /51.5% debt capital structure used within the Traditional Pro Forma Studies.

1 **Restating and Pro Forma Adjustments Impacted by Adjusted Capital Structure**

2 **Q. Please explain the restating and pro forma adjustments impacted by**
3 **the change in capital structure used within the EOP Study.**

4 A. As discussed above, the Company has proposed an adjusted capital
5 structure, excluding short-term debt, resulting in a 50% equity /50% debt capital structure.
6 The use of 50% equity/50% debt capital structure results in differences in revised tax
7 expense, related to the tax benefit of interest on rate base adjusted items, between the
8 natural gas EOP Rate Base Study (see page 3 of Exh. EMA-7) and that previously provided
9 in the natural gas Traditional Pro Forma Study (see page 2 of Exh. EMA-6). The
10 adjustments impacted by this change are described below.

11 Adjustment (1.03) **Working Capital** restates the working capital balance reflected
12 in the Company's Results of Operations column (1.00), to the adjusted working capital
13 balance. The Company uses the Investor Supplied Working Capital (ISWC) methodology
14 to calculate the amount of working capital reflected in its actual results of operations. The
15 federal income tax effect of the level of interest on the change in rate base increases current
16 taxes \$8,000. The net effect of this adjustment decreases net rate base by \$864,000 and
17 decreases net operating income by \$8,000.⁷

18 Adjustment (2.15) **Restate Debt Interest** restates debt interest using the
19 Company's pro forma weighted average cost of debt included in the EOP Rate Base Study
20 of 2.81%, on the Results of Operations level of rate base shown in column (1.00) only,
21 resulting in a revised level of tax deductible interest expense on actual test period rate base.

⁷ Per the Traditional Pro Forma Study adjustment (1.03), Working Capital, the federal income tax effect of the restate level of interest on the change in rate base increases current taxes \$9,000. The net effect of this adjustment reduces total rate base by \$864,000 and decreases net operating income by \$9,000.

1 The federal income tax effect of the restated level of interest for the test period reduces
2 current taxes \$91,000, increasing net operating income by \$91,000.⁸

3 Adjustment (3.10) **Pro Forma 2017 Threshold Capital Additions** reflects
4 increases related to certain 2017 capital additions, together with associated A/D and
5 ADFIT. This adjustment also includes associated depreciation expense for these 2017
6 additions. As sponsored and discussed by Company witness Ms. Schuh, based on
7 Commission Order 05, the Company identified electric and natural Pro Forma capital
8 projects that met the threshold of one-half of one percent of the Company's rate base (i.e.,
9 above \$6.9 million for electric and \$1.3 million for natural gas).^{9/10} The federal income
10 tax effect of the benefit of restate debt interest decreases current taxes \$175,000. The effect
11 of this adjustment increases rate base by \$17,841,000 and decreases net operating income
12 by \$853,000.¹¹

13 All remaining restating and pro forma adjustments affecting rate base, which were
14 included in both the EOP Rate Base and the Traditional Pro Forma Studies, were not
15 material enough to revise the restate debt interest current tax expense. Therefore, these
16 remaining adjustments were identical between the two studies.

⁸ The Traditional Pro Forma Study includes an equity layer of 48.5%, causing the pro forma weighted average cost of debt to equal 2.89%. For adjustment (2.15), per the Traditional Pro Forma Study adjustment, the federal income tax effect of the restated level of interest for the test period reduces current taxes \$171,000, increasing net operating income by \$171,000.

⁹ Order 05, Docket Nos. UE-150204 and G-150205 (Consolidated), paragraph 39 and 40.

¹⁰ The remaining planned capital projects for 2017, as well as adjusting total plant and associated A/D and ADFIT on a 2016 AMA basis, are discussed below in Pro Forma Adjustment (3.15).

¹¹ Per the Traditional Pro Forma Study adjustment (3.10), Pro Forma 2017 Threshold Capital Additions, the federal income tax effect of the benefit of restate debt interest decreases current taxes \$180,000. The effect of this adjustment increases rate base by \$17,841,000 and decreases net operating income by \$848,000.

1 **Additional EOP Rate Base Study Adjustment and Total Column**

2 **Q. Returning to page 8 of Exh. EMA-7, please explain the remaining**
3 **columns.**

4 A. The last adjustment column, column (3.14) **EOP 2017 Net Rate Base**, starts
5 with the Traditional Pro Forma Study net plant after ADFIT results and adjusts total net
6 plant after ADFIT, including all 2017 remaining capital additions, to a 2017 EOP basis.
7 Specifically, Avista reviewed the planned capital projects that were below the 0.5 percent
8 threshold for 2017 (i.e., those not included in the Traditional Pro Forma Study adjustment
9 3.10 Pro Forma 2017 “Threshold Capital Additions” discussed in Exh. EMA-6). These
10 additions were included in the EOP Rate Base Studies for 2017, together with the
11 associated A/D and ADFIT on a 2017 EOP basis, as well as annual depreciation expense.¹²
12 The associated ADFIT includes the repairs deduction and bonus tax depreciation expected
13 through 2017 on an EOP basis¹³. In addition, the plant-in-service for 2016 AMA was
14 adjusted to a 2017 EOP basis. The effect of this adjustment increases rate base by
15 \$13,626,000 and decreases net operating income by \$963,000.

16 The final column on page 8, **EOP Pro Forma Total**, provides the total EOP Rate
17 Base Study revenue requirement results of \$8,269,000. This represents the overall revenue

¹² The Company reviewed large capital additions in 2017 to determine any offsets (e.g., reduced O&M costs, reduced load losses, etc.). Maintenance records were reviewed to determine whether any specific maintenance costs were incurred in the test year that would be reduced or eliminated by the investment. Those costs were quantified and included as a reduction to O&M expenses in adjustment (3.11) Pro Forma O&M Savings included in Exh. EMA-6 and Exh. EMA-7.

¹³ The IRS extended bonus depreciation through 2019. The Company has included bonus depreciation through 2019 within its capital adjustments.

- 1 requirement shortfall per the natural gas EOP Rate Base Study¹⁴, as previously shown on
- 2 page 2 of Exh. EM-6.

¹⁴ As noted in Exh. EMA-1T, the results of the Traditional Pro Forma Study will not yield the electric and natural gas revenue increases necessary for the prospective rate year. The Traditional Pro Forma Studies alone do not provide sufficient rate relief; thereby warranting the use or inclusion of other “tools” available to this Commission. Approval of other “tools,” such as that proposed by Avista including EOP 2017 rate base and an adjusted capital structure, would allow the Company an opportunity to earn its authorized rate of return. The EOP Rate Base Studies represent the Company’s requested rate relief in this proceeding.