

# AVISTA UTILITIES

2017 Washington PGA Filing

December Commodity WACOG Update

ATTACHMENT “C”

Workpapers<sup>1</sup>

December 22, 2017

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<sup>1</sup> Only those workpapers which are color-coded in light blue have been updated. In the electronic format, the individual worksheets (tabs) are also color-coded in blue. All other worksheets (not highlighted) were utilized in the order UG-170932 (November 2017 PGA Filing) and are not updated in this “Out of Cycle” filing.

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Avista Utilities  
State of Washington  
Total Revenue Change

Line No.	Forecast Volumes (10 Months)	Rate Schedule 150			Rate Schedule 155		Total PGA Change		% Change Calculation		
		Commodity	Demand	Total	Revenue Change	Rate Change	Revenue Change	Rate Change	Revenue Change	Total GRC Billed Revenue*	% Change
1	Rate Schedule 101	86,121,276	\$ (0.05641)	\$ (0.05641)	\$ (4,858,101)	\$ -	\$ -	\$ (0.05641)	\$ (4,858,101)	\$ 75,070,319	-6.5%
2	Rate Schedule 111	37,276,331	\$ (0.05641)	\$ (0.05641)	\$ (2,102,758)	\$ -	\$ -	\$ (0.05641)	\$ (2,102,758)	\$ 21,887,968	-9.6%
3	Rate Schedule 112 (No customers)	-	\$ (0.05641)	\$ (0.05641)	\$ -	\$ -	\$ -	\$ (0.05641)	\$ -	\$ -	0.0%
4	Rate Schedule 121	2,877,961	\$ (0.05641)	\$ (0.05641)	\$ (162,346)	\$ -	\$ -	\$ (0.05641)	\$ (162,346)	\$ 1,534,939	-10.6%
5	Rate Schedule 122	392,449	\$ (0.05641)	\$ (0.05641)	\$ (22,138)	\$ -	\$ -	\$ (0.05641)	\$ (22,138)	\$ 210,336	-10.5%
6	Rate Schedule 131 (no customers)	-	\$ (0.05641)	\$ (0.05641)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
7	Rate Schedule 132	1,900,020	\$ (0.05641)	\$ (0.05641)	\$ (107,180)	\$ -	\$ -	\$ (0.05641)	\$ (107,180)	\$ 335,754	-31.9%
8	Rate Schedule 146	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,429,660	0.0%
9	Rate Schedule 148	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,321,840	0.0%
10		128,568,037			\$ (7,252,523)	\$ -	\$ -	\$ -	\$ (7,252,523)	\$ 102,790,816	-7.1%
11		128,568,037									
12	Individual Customers**				\$ -	\$ -	\$ -	\$ -	\$ -		0.0%
13											
14	Total	128,568,037			<u>\$ (7,252,523)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (7,252,523)</u>	<u>\$ (7,252,523)</u>	<u>\$ 102,790,816</u>	<u>-7.1%</u>
15											

Avista Utilities  
State of Washington  
Rate Schedule Changes for 150  
(Commodity and Demand)

		Rate Schedule 150					
Summary of Changes		Without Revenue Sensitive Costs			With Revenue Sensitive Costs		
Line No.		Demand	Commodity	Total Gas Cost Rate	Demand	Commodity	Total Gas Cost Rate
	<b>Present</b>						
1	Rate Schedule 101	\$0.10744	\$0.21817	\$0.32561	\$0.11261	\$0.22868	\$0.38298
2	Rate Schedule 111/112	\$0.09865	\$0.21817	\$0.31682	\$0.10341	\$0.22868	\$0.37445
3	Rate Schedule 121/122	\$0.10433	\$0.21817	\$0.32250	\$0.10936	\$0.22868	\$0.37106
4	Rate Schedule 131/132	\$0.06248	\$0.21817	\$0.28065	\$0.06548	\$0.22868	\$0.32798
5	Rate Schedule 146	\$0.00054	\$0.00000	\$0.00054	\$0.00056	\$0.00000	\$0.00056
6							
7	<b>Proposed</b>						
8	Rate Schedule 101	\$0.10744	\$0.16436	\$0.27180	\$0.11261	\$0.17227	\$0.28488
9	Rate Schedule 111/112	\$0.09865	\$0.16436	\$0.26301	\$0.10341	\$0.17227	\$0.27568
10	Rate Schedule 121/122	\$0.10433	\$0.16436	\$0.26869	\$0.10936	\$0.17227	\$0.28163
11	Rate Schedule 131/132	\$0.06248	\$0.16436	\$0.22684	\$0.06548	\$0.17227	\$0.23775
12	Rate Schedule 146	\$0.00054	\$0.00000	\$0.00054	\$0.00056	\$0.00000	\$0.00056
13							
14	<b>Change</b>						
15	Rate Schedule 101	\$0.00000	(\$0.05381)	(\$0.05381)	\$0.00000	(\$0.05641)	(\$0.05641)
16	Rate Schedule 111/112	\$0.00000	(\$0.05381)	(\$0.05381)	\$0.00000	(\$0.05641)	(\$0.05641)
17	Rate Schedule 121/122	\$0.00000	(\$0.05381)	(\$0.05381)	\$0.00000	(\$0.05641)	(\$0.05641)
18	Rate Schedule 131/132	\$0.00000	(\$0.05381)	(\$0.05381)	\$0.00000	(\$0.05641)	(\$0.09023)
19	Rate Schedule 146	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00000

STATE OF WASHINGTON  
ANNUAL PGA FILING

\*AN -- Allocated North sum of Washington + Idaho

Line  
No.

VOLUME FORECAST											10 MONTHS
Demand Forecast	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Total
Rate Schedule 101	22,259,360	17,730,049	15,093,057	9,139,987	4,933,991	2,947,345	2,341,775	2,171,370	2,572,702	6,931,638	86,121,276
Rate Schedule 111/112	8,156,679	6,452,481	5,578,170	3,589,019	2,132,626	1,603,325	1,603,390	1,721,494	2,085,011	4,354,136	37,276,331
Rate Schedule 121/122	519,728	481,781	386,210	286,809	217,201	191,022	218,783	246,374	257,983	464,519	3,270,411
<b>FIRM DEMAND THERMS</b>	<b>30,935,766</b>	<b>24,664,311</b>	<b>21,057,437</b>	<b>13,015,816</b>	<b>7,283,819</b>	<b>4,741,693</b>	<b>4,163,949</b>	<b>4,139,238</b>	<b>4,915,696</b>	<b>11,750,293</b>	<b>126,668,017</b>
Rate Schedule 131/132	464,036	369,965	315,862	195,237	109,257	71,125	62,459	62,089	73,735	176,254	1,900,020
<b>COMMODITY THERMS (SALES)</b>	<b>31,399,803</b>	<b>25,034,275</b>	<b>21,373,299</b>	<b>13,211,053</b>	<b>7,393,076</b>	<b>4,812,818</b>	<b>4,226,408</b>	<b>4,201,327</b>	<b>4,989,431</b>	<b>11,926,547</b>	<b>128,568,037</b>
Fuel	403,175	362,788	344,045	202,153	113,038	73,651	64,804	64,427	116,200	254,487	1,998,768
<b>TOTAL PURCHASE THERMS</b>	<b>31,802,978</b>	<b>25,397,064</b>	<b>21,717,344</b>	<b>13,413,206</b>	<b>7,506,113</b>	<b>4,886,469</b>	<b>4,291,212</b>	<b>4,265,754</b>	<b>5,105,631</b>	<b>12,181,034</b>	<b>130,566,805</b>
COMMODITY											10 MONTHS
Commodity Allocation (based on Calendar											
Volumes)	69.99%	70.63%	69.44%	69.29%	68.29%	67.23%	65.27%	64.79%	66.68%	67.13%	
<b>Hedges</b>											
<b>Executed</b>											
AN* System Total Volumes (Th)	20,188,750	15,610,000	14,376,250	4,650,000	3,611,500	2,932,500	3,030,250	3,030,250	2,932,500	3,611,500	73,973,500
AN* System Total Dollars (\$)	\$ 5,194,620	\$ 4,140,297	\$ 3,994,745	\$ 720,498	\$ 568,790	\$ 485,754	\$ 501,946	\$ 501,946	\$ 485,754	\$ 577,508	\$ 17,171,857
WA Volumes (Th)	14,130,106	11,025,343	9,982,868	3,221,985	2,466,293	1,971,520	1,977,844	1,963,299	1,955,391	2,424,400	51,119,049
WA Dollars (\$)	3,635,714	2,924,292	2,773,951	499,233	388,426	326,572	327,620	325,211	323,901	387,681	11,912,602
WACOG	\$ 0.25730	\$ 0.26523	\$ 0.27787	\$ 0.15495	\$ 0.15749	\$ 0.16565	\$ 0.16565	\$ 0.16565	\$ 0.16565	\$ 0.15991	\$ 0.233040
<b>Deferred Exchange Credits</b>											
AN* Deferred Exchange	\$ (375,000)	\$ (375,000)	\$ (375,000)	\$ (375,000)	\$ (375,000)	\$ (375,000)	\$ (375,000)	\$ (375,000)	\$ (375,000)	\$ (375,000)	(3,750,000)
WA Deferred Exchange	\$ (262,463)	\$ (264,863)	\$ (260,400)	\$ (259,838)	\$ (256,088)	\$ (252,113)	\$ (244,763)	\$ (242,963)	\$ (250,050)	\$ (251,738)	(2,545,275)
<b>Price Forecast (per Dth)</b>											
<b>30 Day average Price based on: 12-18-2017</b>	<b>Jan-18</b>	<b>Feb-18</b>	<b>Mar-18</b>	<b>Apr-18</b>	<b>May-18</b>	<b>Jun-18</b>	<b>Jul-18</b>	<b>Aug-18</b>	<b>Sep-18</b>	<b>Oct-18</b>	10 MONTHS
Aeco	1.4946	1.4772	1.3476	1.1959	1.1737	1.2097	1.2275	1.2325	1.2416	1.3609	
Sumas	2.9659	2.6179	2.0970	1.7253	1.6800	1.7496	2.0791	2.0941	2.1183	2.0926	
Rockies	2.6817	2.6444	2.4086	2.2047	2.1368	2.2504	2.3761	2.3926	2.3764	2.3592	
<b>Basin Weighting</b>											
Aeco	88%	91%	100%	100%	100%	76%	79%	93%	84%	79%	89%
Sumas	12%	8%	0%	0%	0%	24%	15%	6%	13%	1%	8%
Rockies	1%	0%	0%	0%	0%	0%	7%	1%	3%	20%	3%
Basin-Weighted Index Price	\$ 1.6745	\$ 1.5750	\$ 1.3476	\$ 1.1959	\$ 1.1737	\$ 1.3400	\$ 1.4292	\$ 1.2971	\$ 1.3929	\$ 1.5719	
Index Volumes	17,672,872	14,371,721	11,734,476	10,191,221	5,039,820	2,914,949	2,313,368	2,302,455	3,150,240	9,756,634	79,447,756
Index \$	\$ 2,959,395	\$ 2,263,605	\$ 1,581,375	\$ 1,218,790	\$ 591,502	\$ 390,615	\$ 330,618	\$ 298,642	\$ 438,783	\$ 1,533,622	\$ 11,606,947
<b>Embedded Charges</b>											
Variable Transportation	\$ 12,311	\$ 8,783	\$ 11,363	\$ 21,570	\$ 27,335	\$ 20,482	\$ 19,171	\$ 19,124	\$ 6,149	\$ 10,615	156,905
<b>TOTAL Commodity</b>	<b>\$ 6,344,958</b>	<b>\$ 4,931,817</b>	<b>\$ 4,106,289</b>	<b>\$ 1,479,756</b>	<b>\$ 751,177</b>	<b>\$ 485,557</b>	<b>\$ 432,647</b>	<b>\$ 400,014</b>	<b>\$ 518,783</b>	<b>\$ 1,680,181</b>	<b>\$ 21,131,179</b>

Avista Utilities  
 State of Washington  
 Gas Cost Calculation (per Therm)

	Executed Hedges		Index Cost		Total Cost to Serve Average Load (including fuel)		Variable Charges	Deferred Exchange	Total Estimated Commodity Costs	Sales Volumes (to customers)	WACOG
	Volumes (a)	Dollars (b)	Volumes (g)	Dollars (h)	Volumes (a) + (c) + (e) + (g)	Dollars (b) + (d) + (f) + (h)	Dollars (i)	Dollars (j)	Dollars (k)		
Jan-18	14,130,106	\$ 3,635,714	17,672,872	\$ 2,959,395	31,802,978	\$ 6,595,109	\$ 12,311	\$ (262,463)	\$ 6,344,958	31,399,803	\$ 0.20207
Feb-18	11,025,343	\$ 2,924,292	14,371,721	\$ 2,263,605	25,397,064	\$ 5,187,897	\$ 8,783	\$ (264,863)	\$ 4,931,817	25,034,275	\$ 0.19700
Mar-18	9,982,868	\$ 2,773,951	11,734,476	\$ 1,581,375	21,717,344	\$ 4,355,326	\$ 11,363	\$ (260,400)	\$ 4,106,289	21,373,299	\$ 0.19212
Apr-18	3,221,985	\$ 499,233	10,191,221	\$ 1,218,790	13,413,206	\$ 1,718,023	\$ 21,570	\$ (259,838)	\$ 1,479,756	13,211,053	\$ 0.11201
May-18	2,466,293	\$ 388,426	5,039,820	\$ 591,502	7,506,113	\$ 979,929	\$ 27,335	\$ (256,088)	\$ 751,177	7,393,076	\$ 0.10161
Jun-18	1,971,520	\$ 326,572	2,914,949	\$ 390,615	4,886,469	\$ 717,188	\$ 20,482	\$ (252,113)	\$ 485,557	4,812,818	\$ 0.10089
Jul-18	1,977,844	\$ 327,620	2,313,368	\$ 330,618	4,291,212	\$ 658,238	\$ 19,171	\$ (244,763)	\$ 432,647	4,226,408	\$ 0.10237
Aug-18	1,963,299	\$ 325,211	2,302,455	\$ 298,642	4,265,754	\$ 623,853	\$ 19,124	\$ (242,963)	\$ 400,014	4,201,327	\$ 0.09521
Sep-18	1,955,391	\$ 323,901	3,150,240	\$ 438,783	5,105,631	\$ 762,684	\$ 6,149	\$ (250,050)	\$ 518,783	4,989,431	\$ 0.10398
Oct-18	2,424,400	\$ 387,681	9,756,634	\$ 1,533,622	12,181,034	\$ 1,921,303	\$ 10,615	\$ (251,738)	\$ 1,680,181	11,926,547	\$ 0.14088
	<b>51,119,049</b>	<b>\$ 11,912,602</b>	<b>79,447,756</b>	<b>\$ 11,606,947</b>	<b>130,566,805</b>	<b>\$ 23,519,549</b>	<b>\$ 156,905</b>	<b>\$ (2,545,275)</b>	<b>\$ 21,131,179</b>	<b>128,568,037</b>	<b>\$ 0.16436</b>
Average Price		\$ 0.23304		\$ 0.1461		\$ 0.1801					

RCF: 1.048150

Proposed Rate	
Proposed WACOG without RCF	\$ 0.16436
Proposed WACOG with RCF	\$ 0.17227

Current	
WACOG without RCF	\$ 0.21817
WACOG with RCF	\$ 0.22868

Change WACOG without RCF	(0.05381)
Change WACOG with RCF	(0.05641)