

Kentucky American Water Company  
Case No. 2012-00520  
**Computation of Rate Base Adjustments**

Workpaper SMR-1

	<u>Rate Base Adjustment</u>	<u>W/P SMR-5 Pre-tax WACC</u>	
ADIT - Repairs Deduction (FIN 48) <sup>1</sup>	\$ (3,922,247)	9.63%	\$ (377,617.56)
Working Capital <sup>2</sup>	\$ (3,946,000)	9.63%	\$ (379,904.40)
			<u>\$ -</u>
Total Rate Base Adjustments	<u>\$ (7,868,247)</u>		<u>\$ (757,522)</u>

<sup>1</sup> AG 2 - 13

<sup>2</sup> KAWC Application, Exhibit 37, Sch B-1, page 2-2

**Computation of Income Statement Adjustments**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
<u>Class</u>	<u>Monthly Usage / Customer</u>	<u>Customers</u>	<u>(Col. 1 * 2) Water Usage</u>	<u><sup>2</sup> Company Usage</u>	<u>(Col. 3 - 4) Usage Difference</u>	<u><sup>3</sup> Rate / MM Gallon</u>	<u>(Col. 5 * 6) Revenue Difference</u>
Residential	4.58 <sup>1</sup>	112,673 <sup>2</sup>	6,190,423	6,058,213	132,210	\$5.3004	\$ 700,765
Commercial	37.20 <sup>1</sup>	8,807 <sup>2</sup>	3,931,401	3,806,938	124,463	\$4.8280	\$ 600,908
Industrial	2,092.00 <sup>2</sup>	24 <sup>1</sup>	602,496	527,179	75,317	\$3.8947	\$ 293,336
OPA	229.58 <sup>1</sup>	533 <sup>1</sup>	1,468,372	1,353,437	114,935	\$4.2452	\$ 487,922
OWU	2,930.00 <sup>2</sup>	13 <sup>1</sup>	457,080	421,923	35,157	\$4.2093	<u>\$ 147,988</u>
Total Water Sales Revenues							\$ 2,230,920
Increase in Fuel Cost Fuel Cost/MM Gallon					482,083	\$ 0.3178 <sup>4</sup>	\$ 153,206
Increase in Chemical Cost/MM Gallon					482,083	\$ 0.1460 <sup>4</sup>	<u>\$ 70,371</u>
Net Adjustment							<u><u>\$ 2,007,343</u></u>

<sup>1</sup> AG 1 - 170

<sup>2</sup> KAWC Workpaper Exhibits\Revenue\Average Water Usage.xlsx

<sup>3</sup> KAWC Workpaper Exhibits\Revenue[Revenue.xlsx

<sup>4</sup> Workpaper SMR-7

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Chemicals Increase

Workpaper SMR-3

AG 1 - 85

Total Chemical Cost

	<u>Actual Cost</u>	<u>Absolute Change</u>
2010	\$ 1,843,239	
2011	\$ 1,876,913	\$ 33,674
2012	\$ 1,783,215	\$ 93,698
2013	\$ 1,813,311	\$ 30,096
Average	\$ 1,824,480	\$ 52,489
Annual % Change		2.88%

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Electric Increase

Workpaper SMR-4

AG 1 - 100

Total Electric Cost

	<u>Actual Cost</u>	<u>Level Cost</u>	<u>Average Increase</u>
2010	\$ 3,696,000		1.14%
2011	\$ 3,663,000	\$ 3,738,190	
2012	\$ 3,849,000	\$ 3,780,861	
2013	\$ 3,824,000	\$ 3,824,020	
Average Annual Change	\$ 42,667		

**Computation of Cost of Capital Adjustments**

Exhibit 37, Schedule J-1.1/J-1.2  
Exhibits\Capital Structure\Capital Structure 2012.xls\Sch J

Line No.	Class of Capital	13 Month Average Amount	% of Total	JDITC	Adjusted Capital	Cost Rate	Weighted Average Cost of Capital	Woolridge Debt 6.05%	Difference	Woolridge ROE 8.50%	Difference	Woolridge Pre-tax WACC	Company Pre-tax WACC
1													
2	Short-Term Debt	\$ 7,832,734	2.041%	\$ 13,199	\$ 7,845,933	0.81%	0.02%	0.02%	0.00%	0.02%	0.00%	0.02%	0.02%
3													
4	Long-Term Debt	\$ 199,750,138	52.037%	\$ 336,517	\$ 200,086,655	6.14%	3.20%	3.15%	-0.05%	3.15%	0.00%	3.17%	3.22%
5													
6	Preferred Stock	\$ 4,482,398	1.168%	\$ 7,553	\$ 4,489,951	8.52%	0.10%	0.10%	0.00%	0.10%	0.00%	0.16%	0.16%
7													
8	Common Equity	\$ 171,796,415	44.754%	\$ 289,418	\$ 172,085,833	10.90%	4.88%	4.88%	0.00%	3.80%	-1.08%	6.27%	8.05%
9													
10	Total Capital	\$ 383,861,686	100.00%	\$ 646,687	\$ 384,508,373		8.20%	8.15%	-0.05%	7.07%	-1.08%	9.63%	11.45%
11													
12	Rate Base								\$385,994,705		\$ 385,994,705		
13													
14	Revenue Requirement								\$ (199,797)		\$ (4,152,956)		
15													
16	Conversion Fact W/P SMR-6								1.0073		1.6486		
	Gross Revenue Requirement								\$ (201,253)		\$ (6,846,527)		

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Workpaper SMR-6

**Computation of the Gross Revenue Conversion Factor for the Forecast Period**

Exhibit 37, Schedule H

Exhibits\[Revenue Requirement and Conversion Factor.xlsx]Rev Conversion Factor - SCH H

Line #	Gross Revenue Conversion Factor Calculation	Total Rate	Gross Revenue Conversion Factor %	Percent of Total Conversion Factor
1	Gross Income from Revenue		1.000000	
2	Less: Bad Debt Rate/ Uncollectible Expense	0.5759%	0.005759	1.46%
3	Less: PSC / Utility Reg Assessment Fee	0.1478%	0.001478	0.38%
4	Net Income After Uncoll & Reg Assess Fees		0.992763	
5				
6				
7	Less: State Income Tax @ 6.0%	6.0000%	0.059566	15.14%
9	Net Income After Uncollectibles, Reg Assessment Fees & State Tax		0.933198	
10				
11	Less: Federal income Tax @ 35%	35.0000%	0.326619	83.02%
12				
13	Net Income After Uncollectibles, Reg Assessment Fees, & State & Federal Income Taxes:		0.606578	100.00%
14				
15	Gross Revenue Conversion Factor (1 / Line 13)		1.648591	
16				
17	Revenue Conversion Factor For Debt (1 / Line 20)		1.007289	

Company Workpapers: Chemical & Fuel and Power Expense Exhibit.xlsx, System Delivery tabs

Description	Adjusted Test Year	
Usage	12,568,829	12,568,829
Non-Revenue Water	1,317,172	1,317,172
System Delivery	<u>13,886,001</u>	<u>13,886,001</u>
Chemical cost per 1000 gallons	<u>0.1321</u>	<u>0.2877</u>
Calculated Chemical Costs for Test Year	1,834,701	3,994,390
Adjusted Chemical Cost / Usage	<b>0.1460</b>	<b>0.3178</b>

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Usage / Customer

Workpaper SMR-8

Annual Average Monthly Usage by Customer Class  
(1000 Gallons)

Year	Residential	Commercial	Industrial	OPA	OWU
2005	5.41	43.79	3,198.87	265.43	3,703.48
2006	5.16	42.25	2,733.28	243.68	3,110.82
2007	5.26	41.24	3,047.37	272.99	4,065.95
2008	5.04	39.52	2,436.44	277.94	3,837.02
2009	4.63	36.10	1,955.66	231.63	3,239.41
2010	4.79	38.67	2,086.20	252.84	3,342.13
2011	4.46	35.66	1,755.07	217.21	2,974.33
2012	4.58	37.20	1,916.90	229.58	2,940.24
KAWC Proposed Usage	4.5	36.0	2,092.0	212.4	2,930.0



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Reconciliation of Revenue Requirement

Workpaper SMR-9

Cost of Service Component		<u>Witness</u>
Company's Revenue Requirement	\$ 12,317,702	
<u>Cost of Capital:</u>		
Cost of Long-term Debt	\$ (201,253)	Woolridge
Return On Equity	\$(6,846,527)	Woolridge
<u>Rate Base:</u>		
ADIT - Repairs Deduction (FIN 48)	\$ (377,618)	Rackers
Working Capital	\$ (379,904)	Rackers
<u>Expenses:</u>		
Chemicals	\$ 70,371	Rackers
Electricity	\$ 153,206	Rackers
<u>Revenues:</u>		
Additional Usage and Customers	\$(2,230,920)	Rackers
Additional Public Fire Hydrants	<u>\$ (21,342)</u>	LFUCG-1-10
Total Adjustments	<u>\$ (9,833,987)</u>	
Attorney General / LFUCG Revenue Requirement	<u>\$ 2,483,715</u>	
KAWC Annual Service Revenues @ Current Rates	\$ 81,832,138	
AG / LFUCG Revenue Adjustments	<u>\$ 2,252,262</u>	
AG / LFUCG Annual Revenues @ Current Rates	\$ 84,084,400	
AG / LFUCG Proposed Rate Increase	<u>\$ 2,483,715</u>	
Pro forma Service Revenues	<u>\$ 86,568,115</u>	
Increase Over Current Rates	2.95%	