

**KENTUCKY-AMERICAN WATER COMPANY**  
**CASE NO. 2015-00418**  
**COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

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**Witness:      Scott Rungren**

1. Refer to KAWC's Application, Exhibit 37, Schedules A and J. On Schedule A, KAWC requests that the Commission allow it rates that will generate net operating income in the amount of \$33,197,797. Applying KAWC's weighted cost of capital to its 13-month Average Capital Structure results in an overall cost of capital of \$32,777,669.<sup>1</sup> Explain why KAWC requests rates that will generate a net operating income that exceeds its cost of capital.

**Response:**

It is correct that KAWC has requested rates that will generate net operating income in the amount of \$33,197,797. The Company has computed its net operating income using the traditional rate base-times rate-of-return-revenue requirement model. As always, it is inherent with the use of this model that the only instance in which the computation of net operating income, as determined by multiplying rate base by the weighted cost of capital, will equal the return requirements of investors is when rate base equals capitalization. However, due to various rate making conventions, rate base and capitalization are seldom equal. Further, timing differences between plant in service dates and the issuance of permanent financings to fund them will cause differences in rate base and capitalization values. Please also refer to the response to Item 2 of this same request.

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<sup>1</sup>	Total Adjusted Capital	\$ 398,755,027
	Times: 13-Month Average Weighted Cost	<u>8.220%</u>
	Forecasted Overall Cost of Capital	<u>\$ 32,777,663</u>

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**Witness:**      **Scott Rungren**

2.      Refer to KAWC's Application, Exhibit 9, Reconciliation of Rate Base to Capital used to determine its Revenue Requirements. KAWC identifies the following two items in its reconciliation: Accrued Pension of \$1,069,885 and Other (NET), Miscellaneous and Sundry Items of \$4,071,230. Provide a schedule that lists each item that make up the \$4,071,230 of Other (Net) Miscellaneous and Sundry Items, and include a detailed description of each item included on the schedule.

**Response:**

As outlined in KAWC's response to Item 1 of the Commission Staff's Second Set of Data Requests, the Company's capitalization will never exactly match the Company's rate base due to timing differences between plant in service dates and the issuance of permanent financings to fund them. The description of the "Other (Net) Miscellaneous is a general description of the variance and it would be challenging to attempt to itemize the difference for timing issues. In this instance the amount identified as Other (Net) Miscellaneous in Exhibit 9, is immaterial in nature since it is less than one percent of the Company's rate base and can be attributed to timing differences between plant in service dates and the issuance of permanent financings to fund them. The Company has obtained Commission approval for a \$5 million bond issuance (Case No. 2015-00400) to be issued before the end of 2017. The Company has this bond issuance budgeted for after the end of the pro forma period, but before the end of 2017. Therefore, due to the budgeted timing of the debt issuance it was not included in the Company's pro forma capital structure in this case. All else equal, this bond issuance will significantly reduce or eliminate the amount in question.

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**Witness:** Carl Meyers/Linda C. Bridwell

3. Refer to KAWC's Application Exhibit 37, Schedule A, Overall Summary; Schedule E-1.3, Federal Income Tax Calculation for the Forecast Period; and Schedule E-1.4, State Income Tax for the Forecast Period.
- a. On Schedule A, KAWC calculates its requested revenue increase of \$13,453,664; however, on Schedules E-1.3 and E-1.4, KAWC uses a revenue increase of \$12,788,480 to calculate its forecasted current federal and state income taxes. Provide a detailed explanation for the apparent discrepancies between the schedules.
  - b. Identify the correct revenue increase that KAWC is requesting in this proceeding.
  - c. If KAWC is requesting an increase of \$13,453,664, provide revisions to the following schedules:
    - (1) Schedule C-1, Operating Summary for the Base and Forecast Periods;
    - (2) Schedule E-1.3; and
    - (3) Schedule E-1.4.

**Response:**

- a. Schedule A is correct. The difference of \$665,184 is due to AFUDC not being reflected in proposed rates on schedules E-1.3 and E-1.4. This is an E-1.3 and E-1.4 presentation error only and does not impact the revenue requirement calculations. Please see the attached E-1.3 and E-1.4, as revised.
- b. Schedule A is correct. The correct revenue increase that KAWC is requesting in this proceeding is \$13,453,664.
- c. Schedule C-1 correctly shows the \$13,453,664. No revision is needed. Please see the attached revised Schedules E-1.3 & E-1.4.

Workpaper #:  
Excel Reference:

SCHEDULE E-1.3

Kentucky American Water Company  
Case No. 2015-00418  
Base Year Adjustment Employee Related Expense  
For the 12 Months Ending August 31, 2017

Witness Responsible: Linda Bridwell

W/P - 6-1

Type of Filing:  Original  Updated  Revised

Line	Category	Item	Current Rates		
			Federal Tax Calculation Forecast Period	At Proposed Rates Adjustments	Forecast Period At Proposed Rates
1	Book Revenue (+)				
2		Operating Revenue	\$88,350,996	\$13,453,664	\$101,804,660
3					
4	Book Deductions (-)				
5		O&M Expenses	(34,276,781)	(105,135)	(34,381,916)
6		Depreciation, Amortization, & Cost of Removal	(15,175,222)	-	(15,175,222)
7		Taxes Other Than Income	(6,193,611)	(25,573)	(6,219,184)
8		Current State Income Tax & Tax Amorts	(\$1,140,785.49)	(799,377)	(1,940,163)
9		Interest Expense	(12,463,394)	-	(12,463,394)
10		<b>Total Book Deductions (Sum Lines 5 - 9)</b>	<b>(\$69,249,794)</b>	<b>(\$930,085)</b>	<b>(\$70,179,879)</b>
11					
12		<b>Book Pre-Tax Income (Line 2 + Line 10)</b>	<b>\$19,101,202</b>	<b>\$12,523,578</b>	<b>\$31,624,781</b>
13					
14	Reconciling Items				
15		<b>Permanent Differences:</b>			
16		<b>(Deduction) or Reversal of Deduction</b>			
16		Non-Deductible Meals	17,963	-	17,963
17		Non-Deductible Penalties and Mandatory Dividends	191,050	-	191,050
18		<b>Pre-Tax Income After Perm. Differences (Line 12 + Line 16 + Line 17)</b>	<b>\$19,310,216</b>	<b>\$12,523,578</b>	<b>\$31,833,794</b>
19					
20		<b>Temporary Differences:</b>			
20		<b>(Deduction) or Reversal of Deduction; Revenue or (Reversal of Revenue)</b>			
21		Deduct Tax Depreciation (State or Federal)	(19,341,921)	-	(19,341,921)
22		Reverse Deduction of Book Depreciation	13,912,201	-	13,912,201
23		Reverse Deduction of Amortization of Property Losses	57,088	-	57,088
24		Reverse Deduction of Amortization of UPAA	0	-	-
25		Reverse Deduction of Deferred Maintenance Amortization	450,622	-	450,622
26		Deduct Actual Deferred Maintenance Expenditures	(\$3,570,000)	-	(3,570,000)
27		Reverse All CIAC Amortization Credits	(1,800,094)	-	(1,800,094)
28		Reflect Actual Taxable CIAC Received	115,320	-	115,320
29		Reflect Repairs Deduction	3,242,573	-	3,242,573
30		Reverse Book Cost of Removal	2,835,988	-	2,835,988
31		Reflect Actual Cost of Removal	(767,335)	-	(767,335)
32		<b>Net Temporary (Deductions) or Reversal of Deductions (Sum Lines 21 - 31)</b>	<b>(\$4,865,558)</b>	<b>\$0</b>	<b>(\$4,865,558)</b>
33					
34		<b>Pre-Tax Income After Permanent and Temporary Differences (Line 18 + Line 32)</b>	<b>\$14,444,658</b>	<b>\$12,523,578</b>	<b>\$26,968,236</b>
35					
36	Calculation of Current Federal Income Taxes				
37		Tax Rate	35%	35%	35%
38		<b>Current Taxes (Line 34 x Line 37)</b>	<b>\$5,055,630</b>	<b>\$4,383,252</b>	<b>\$9,438,883</b>
39					
40					
41	Calculation of Deferred Federal Income Taxes				
42		Federal Deferred Taxes Related to UPIS, CIAC, and Repairs	1,344,445	-	1,344,445
43		Federal Deferred Taxes Related to Deferred Maintenance	1,026,275	-	1,026,275
44		Federal Deferred Taxes Related to Property Losses	(18,782)	-	(18,782)
45		Federal Deferred Taxes Related to Cost of Removal	(680,587)	-	(680,587)
46		<b>Sum Items Deferred</b>	<b>\$1,671,352</b>	<b>\$0</b>	<b>\$1,671,352</b>
47					
48		<b>Amortization of Deferred Income Tax Assets &amp; Liabilities</b>			
49		Amortization of Deferred Regulatory Tax Assets & Tax Liabilities	(\$167,106)	-	(167,106)
50					
51		Amortization of Deferred ITC	(76,468)	-	(76,468)
52		<b>Sum Total Federal Deferred Taxes + Amortization of ITC</b>	<b>\$1,427,778</b>	<b>\$0</b>	<b>\$1,427,778</b>
53					
54					
55		<b>Total Current + Deferred Federal Income Taxes + Amortization of ITC (Line 38 + Line 52)</b>	<b>\$6,483,408</b>	<b>\$4,383,252</b>	<b>\$10,866,661</b>

Workpaper #:  
Excel Reference:

SCHEDULE E-1.4  
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Kentucky American Water Company  
Case No. 2015-00418  
Base Year Adjustment Employee Related Expense  
For the 12 Months Ending August 31, 2017

Witness Responsible: Linda Bridwell

W/P - 6-1

Type of Filing:  Original  Updated  Revised

Line	Category	Item	Current Rates State Tax Calculation Forecast Period	At Proposed Rates Adjustments	Forecast Period At Proposed Rates
1	<b>Book Revenue (+)</b>				
2		Operating Revenue	\$88,350,996	\$13,453,664	\$101,804,660
3					
4	<b>Book Deductions (-)</b>				
5		O&M Expenses	(34,276,781)	(105,135)	(34,381,916)
6		Depreciation, Amortization, & Cost of Removal	(15,175,222)	-	(15,175,222)
7		Taxes Other Than Income	(6,193,611)	(25,573)	(6,219,184)
8		Tax Amortizations	66,551	-	66,551
9		Interest Expense	(12,463,394)	-	(12,463,394)
10		<b>Total Book Deductions (Sum Lines 5 - 9)</b>	<b>(\$68,042,457)</b>	<b>(\$130,708)</b>	<b>(\$68,173,165)</b>
11					
12		<b>Book Pre-Tax Income (Line 2 + Line 10)</b>	<b>\$20,308,539</b>	<b>\$13,322,956</b>	<b>\$33,631,494</b>
13					
14	<b>Reconciling Items</b>				
15		<b>Permanent Differences:</b>			
16		<b>(Deduction) or Reversal of Deduction</b>			
17		Non-Deductible Meals	17,963	-	17,963
18		Non-Deductible Penalties and Mandatory Dividends	191,050	-	191,050
19		<b>Pre-Tax Income After Perm. Differences (Line 12 + Line 16 + Line 17)</b>	<b>\$20,517,552</b>	<b>\$13,322,956</b>	<b>\$33,840,508</b>
20		<b>Temporary Differences:</b>			
21		<b>(Deduction) or Reversal of Deduction; Revenue or (Reversal of Revenue)</b>			
22		Deduct Tax Depreciation (State or Federal)	(15,980,824)	-	(15,980,824)
23		Reverse Deduction of Book Depreciation	13,912,201	-	13,912,201
24		Reverse Deduction of Amortization of Property Losses	57,088	-	57,088
25		Reverse Deduction of Amortization of UPAA	-	-	-
26		Reverse Deduction of Deferred Maintenance Amortization	450,622	-	450,622
27		Deduct Actual Deferred Maintenance Expenditures	(3,570,000)	-	(3,570,000)
28		Reverse All CIAC Amortization Credits	(1,800,094)	-	(1,800,094)
29		Reflect Actual Taxable CIAC Received	115,320	-	115,320
30		Reflect Repairs Deduction	3,242,573	-	3,242,573
31		Reverse Book Cost of Removal	2,835,988	-	2,835,988
32		Reflect Actual Cost of Removal	(767,335)	-	(767,335)
33		<b>Net Temporary (Deductions) or Reversal of Deductions (Sum Lines 21 - 31)</b>	<b>(\$1,504,461)</b>	<b>\$0</b>	<b>(\$1,504,461)</b>
34		<b>Pre-Tax Income After Permanent and Temporary Differences (Line 18 + Line 32)</b>	<b>\$19,013,092</b>	<b>\$13,322,956</b>	<b>\$32,336,047</b>
35					
36	<b>Calculation of Current State Income Taxes</b>				
37		Tax Rate	6.0%	6.0%	6.0%
38		<b>Current Taxes (Line 34 x Line 37)</b>	<b>\$1,140,785</b>	<b>\$799,377</b>	<b>\$1,940,163</b>
39					
40					
41	<b>Calculation of Deferred State Income Taxes</b>				
42		State Deferred Taxes Related to UPIS, CIAC, and Repairs	30,649	-	30,649
43		State Deferred Taxes Related to Deferred Maintenance	187,163	-	187,163
44		State Deferred Taxes Related to Property Losses	(3,425)	-	(3,425)
45		State Deferred Taxes Related to Cost of Removal	(124,119)	-	(124,119)
46		<b>Sum Items Deferred</b>	<b>\$90,268</b>	<b>\$0</b>	<b>\$90,268</b>
47					
48		<b>Amortization of Deferred Income Tax Assets &amp; Liabilities</b>			
49		Amortization of Deferred Regulatory Tax Assets & Tax Liabilities	(66,551)	-	(66,551)
50		<b>Sum Total Deferred Taxes</b>	<b>\$23,717</b>	<b>\$0</b>	<b>\$23,717</b>
51					
52					
53		<b>Total Current + Deferred State Income Taxes (Line 38 + Line 50)</b>	<b>\$1,164,502</b>	<b>\$799,377</b>	<b>\$1,963,879</b>
54					

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2015-00418  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

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**Witness: Linda C. Bridwell**

- 4.** Refer to KAWC's Responses to the Commission Staff's First Request for Information ("Staff's First Request"), Item 6.
- a. Refer to pages 53, 55, 57, and 59 of 66. Several of the accounts that have variances above 5 percent have no explanation. Provide detailed explanations for these account variances.
  - b. Refer to pages 59-66 of 66. Confirm that column "Var %" should be calculated by dividing column "Variance" by column "Budget." Provide revised calculations and explanations of accounts with variances above 5 percent.

**Response:**

- a. Please see attached. Schedules have been updated to include explanations to variances above 5 percent that had no explanation.
- b. Please see attached. Variance percentages have been corrected and explanations for variances above 5 percent have been updated.

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2009**

	Balance at 12/31/2009	Plan Balance at 12/31/2009	Increase (Decrease)	% Change
<b>Operating Revenues</b>				
Water Revenues	59,037	65,224	(6,187)	-9% A
Other Revenues	2,664	2,226	438	20% B
<b>Total Operating Revenues</b>	<b>61,700</b>	<b>67,449</b>	<b>(5,749)</b>	<b>-9%</b>
<b>Operating Expenses</b>				
Labor	6,762	6,943	(181)	-3%
Purchased Water	124	141	(17)	-12% C
Fuel & Power	2,974	3,958	(984)	-25% D
Chemicals	2,217	2,607	(390)	-15% E
Waste Disposal	234	283	(49)	-17% F
Management Fees-Corporate	8,148	7,598	549	7% G
Group Insurance	2,173	1,885	288	15% H
Pensions	1,386	606	781	129% I
Regulatory Expense	245	279	(35)	-12% J
Ins Other Than Group	610	719	(109)	-15% K
Customer Accounting	1,617	1,725	(108)	-6% L
Rents	32	57	(25)	-44% M
General Office Exp	528	583	(55)	-9% N
Miscellaneous	3,065	3,599	(534)	-15% O
Maintenance Expense	1,227	1,197	31	3%
<b>Total Maintenance &amp; Operations Expense</b>	<b>31,341</b>	<b>32,178</b>	<b>(837)</b>	<b>-3%</b>
Depreciation	5,826	7,034	(1,208)	-17% P
Amortization	2,037	2,042	(5)	0%
General Taxes	3,500	3,599	(99)	-3%
State Income Taxes	1,142	820	323	39% Q
Federal Income Taxes	5,883	5,915	(32)	-1%
Tax Savings Aquisition Adj	-	-	-	0%
<b>Total Operating Expenses</b>	<b>49,728</b>	<b>51,587</b>	<b>(1,859)</b>	<b>-4%</b>
<b>Utility Operating Income</b>	<b>11,972</b>	<b>15,863</b>	<b>(3,890)</b>	<b>-25%</b>
<b>Other Income and Deductions</b>				
Interest Income	-	-	-	0%
AFUDC Equity	3,306	2,838	469	17% R
M&J Misc Income	(11)	-	(11)	0%
Gain/Loss in Disposition	-	-	-	0%
<b>Total Other Income</b>	<b>3,295</b>	<b>2,838</b>	<b>457</b>	<b>16%</b>
Misc Amortization	(0)	1	(1)	-155%
Misc Other Deductions	548	336	212	63% S
State Income Taxes	(30)	(28)	(2)	7% T
Federal Income Taxes	(163)	(108)	(55)	51% U
<b>Total Other Deductions</b>	<b>355</b>	<b>201</b>	<b>154</b>	<b>76%</b>
<b>Income before Interest Charges</b>	<b>14,912</b>	<b>18,499</b>	<b>(3,587)</b>	<b>-19%</b>
<b>Interest Charges</b>				
Interest on LTD	5,481	7,765	(2,284)	-29% V
Amort Debt Exp	105	117	(12)	-10% W
Interest on Bank Debt	355	1,308	(953)	-73% X
Other Interest Exp	1	-	1	0%
AFUDC Debt	(1,591)	(1,289)	(303)	23% Y
<b>Total Interest Charges</b>	<b>4,351</b>	<b>7,902</b>	<b>(3,551)</b>	<b>-45%</b>
<b>Net Income</b>	<b>10,561</b>	<b>10,597</b>	<b>(36)</b>	<b>0%</b>
Preferred Dividend Declared	78	78	0	0%
<b>Net Income to Common Stock</b>	<b>10,483</b>	<b>10,519</b>	<b>(36)</b>	<b>0%</b>

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2009**

- A Water revenue lower due to usage due to cool and wet weather and economy; and rate case settlement offset by AFUDC and tax exempt financing
- B Other revenue is over mainly due to Reconnection fees
- C Purchased water is lower than plan due to reduced PW requirements
- D Fuel&Power is lower than plan due to lower system delivery (result of lower usage and lower NRW)
- E Chemical expense is lower than plan due to lower system delivery (result of lower usage and lower NRW) and lower than planned chemical pricing
- F Waste Disposal is lower than planned due to improved raw water turbidity vs plan
- G Variance driven by then Eastern Division FRCC expenses that were not properly reflected in the plan.
- H Group Insurance is higher than due to increased FAS106 costs related to financial market conditions
- I Pensions are higher than plan due to increased FAS87 actuarial costs related to financial market conditions
- J Reg expense is lower due to lower than planned rate case expenses for 2009 case
- K Insurance other than group is lower primarily due to lower general liability costs
- L Variance driven by savings from multiple areas ( postage, forms and bank services).
- M Rent expense lower due to expiration of small office equipment rental
- N Variance driven by savings from misc office expenses combined
- O Miscellaneous expense is lower primarily due to lower actual transportation expenses
- P Depreciation is lower then plan due to higher composite rate used in the plan
- Q Reflects tax impact of net change in revenue and expense items
- R AFUDC equity is over plan due to the treatment of CWIP in rate base from the settled case, offset by the tax exempt financing
- S Misc other deductions over plan due to spend on communications regarding the new water treatment
- T Reflects tax impact of net change in revenue and expense items
- U Reflects tax impact of net change in revenue and expense items
- V LTD interest is under plan due to financing of \$71m with tax exempt financing, offset by lower AFUDC & revenues vs budget (AFUDC/Revenues offset due to outcomes of rate case)
- W Variance driven by lower than expected debt insurance expenses
- X Interest on Short Term Debt lower than plan due to lower rates
- Y AFUDC debt is over plan due to the treatment of CWIP in rate base from the settled case, offset by the tax exempt financing



**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2010**

	Balance at 12/31/2010	Plan Balance at 12/31/2010	Increase (Decrease)	% Change
<b>Operating Revenues</b>				
Water Revenues	70,525	72,574	(2,049)	-3%
Other Revenues	3,225	2,718	507	19% A
<b>Total Operating Revenues</b>	<b>73,750</b>	<b>75,292</b>	<b>(1,541)</b>	<b>-2%</b>
<b>Operating Expenses</b>				
Labor	7,135	7,650	(515)	-7% B
Purchased Water	116	144	(29)	-20% C
Fuel & Power	3,696	4,008	(312)	-8% D
Chemicals	1,816	2,387	(571)	-24% E
Waste Disposal	246	337	(91)	-27% F
Management Fees-Corporate	8,849	8,779	69	1%
Group Insurance	2,245	2,451	(205)	-8% G
Pensions	1,100	1,312	(212)	-16% H
Regulatory Expense	562	305	257	84% I
Ins Other Than Group	548	820	(272)	-33% J
Customer Accounting	1,904	1,922	(17)	-1%
Rents	31	37	(6)	-17% K
General Office Exp	636	737	(102)	-14% L
Miscellaneous	3,158	3,537	(379)	-11% M
Maintenance Expense	1,731	1,299	433	33% N
<b>Total Maintenance &amp; Operations Expense</b>	<b>33,774</b>	<b>35,723</b>	<b>(1,949)</b>	<b>-5%</b>
Depreciation	6,622	7,468	(845)	-11% O
Amortization	2,183	2,268	(86)	-4%
General Taxes	4,797	4,790	6	0%
State Income Taxes	1,338	999	339	34% P
Federal Income Taxes	7,731	7,075	657	9% Q
Tax Savings Aquisition Adj	-	-	-	0%
<b>Total Operating Expenses</b>	<b>56,445</b>	<b>58,323</b>	<b>(1,878)</b>	<b>-3%</b>
<b>Utility Operating Income</b>	<b>17,305</b>	<b>16,969</b>	<b>336</b>	<b>2%</b>
<b>Other Income and Deductions</b>				
Interest Income	3	-	3	0%
AFUDC Equity	2,244	2,165	80	4%
M&J Misc Income	148	-	148	0%
Gain/Loss in Disposition	-	-	-	0%
<b>Total Other Income</b>	<b>2,395</b>	<b>2,165</b>	<b>231</b>	<b>11%</b>
Misc Amortization	(0)	-	(0)	0%
Misc Other Deductions	707	603	104	17% R
State Income Taxes	(32)	-	(32)	0%
Federal Income Taxes	(176)	-	(176)	0%
<b>Total Other Deductions</b>	<b>499</b>	<b>603</b>	<b>(104)</b>	<b>-17%</b>
<b>Income before Interest Charges</b>	<b>19,202</b>	<b>18,530</b>	<b>671</b>	<b>4%</b>
<b>Interest Charges</b>				
Interest on LTD	6,862	7,606	(744)	-10% S
Amort Debt Exp	129	185	(56)	-30% T
Interest on Bank Debt	115	395	(280)	-71% U
Other Interest Exp	4	-	4	0%
AFUDC Debt	(1,127)	(1,726)	599	-35% V
<b>Total Interest Charges</b>	<b>5,983</b>	<b>6,460</b>	<b>(477)</b>	<b>-7%</b>
<b>Net Income</b>	<b>13,219</b>	<b>12,070</b>	<b>1,149</b>	<b>10%</b>
Preferred Dividend Declared	78	(381)	459	-120% W
<b>Net Income to Common Stock</b>	<b>13,141</b>	<b>12,451</b>	<b>690</b>	<b>6%</b>

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2010**

- A Operating Revenues favorable due to the LFUCG new stormwater billing erroneously planned in water revenue line
- B Favorable labor expenses driven by lower overtime expenses and savings from employee's movement to service company as well as savings from lower than expected headcount
- C Purchased water is lower than plan due to reduced PW requirements
- D Favorable expenses mainly driven by lower than expected system delivery
- E Chemical expense lower than plan due to lower system delivery, favorable chemical pricing and lower chemical usage due to better source water
- F Waste disposal expense lower than plan due to lower system delivery and lower dredge cost
- G Favorable group insurance due to updated actuarial which resulted lower than expected expenses
- H Pension expense lower due to updated FAS87 actuarial assumptions which resulted in expense decrease
- I Reg expense higher due to the 2010 Rate Order in which the PSC disallowed Reg Assets from the 2008 Rate resulting in write off of Cost of Service Study and Depreciation Study
- J Insurance other than group is lower primarily due to retro Insurance adjustments and lower general liability insurance premium and lower workers comp expense
- K Favorable expenses driven by savings from office printers
- L General Office expense is lower than plan due to relocation expenses
- M Miscellaneous expense is lower than plan due to lower transportation expenses, lower audit fees and other miscellaneous spending
- N Maintenance expense is higher primarily due to plant maintenance (including intake and pump repairs, painting, lab repairs) and T&D Maintenance (driven by meter registers for maintenance repairs and tank repair, paving and backfill)
- O Depreciation is lower than plan due to implementation of PSC approved new depreciation study (new rates and correction for over-depreciated assets)
- P Reflects tax impact of net change in revenue and expense items
- Q Reflects tax impact of net change in revenue and expense items
- R Misc other deductions over plan due to spending on Jacobson Park donation advertising
- S LTD Interest lower than plan due to June 2010 tax exempt financing at lower than plan rate
- T Amortization of debt expense lower due to lower than planned debt issuance fees
- U Interest on Short Term Debt lower than plan due to lower rates and decrease in s-t debt from plan
- V AFUDC debt is under plan mainly due to capitalized interest on June 2010 tax exempt financing, offset by
- W 2010 plan incorrect

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2011**

	Balance at 12/31/2011	Plan Balance at 12/31/2011	Increase (Decrease)	% Change
<b>Operating Revenues</b>				
Water Revenues	79,791	82,016	(2,224)	-3%
Other Revenues	3,221	3,164	57	2%
<b>Total Operating Revenues</b>	<b>83,013</b>	<b>85,180</b>	<b>(2,167)</b>	<b>-3%</b>
<b>Operating Expenses</b>				
Labor	7,647	7,615	32	0%
Purchased Water	225	118	106	90% A
Fuel & Power	3,663	4,045	(382)	-9% B
Chemicals	1,885	1,849	37	2%
Waste Disposal	302	346	(44)	-13% C
Management Fees-Corporate	7,751	8,290	(539)	-6% D
Group Insurance	2,093	2,354	(261)	-11% E
Pensions	923	981	(57)	-6% F
Regulatory Expense	215	370	(156)	-42% G
Ins Other Than Group	580	675	(94)	-14% H
Customer Accounting	1,857	1,929	(72)	-4%
Rents	32	36	(4)	-10%
General Office Exp	769	694	75	11% I
Miscellaneous	3,267	3,401	(134)	-4%
Maintenance Expense	1,579	1,534	45	3%
<b>Total Maintenance &amp; Operations Expense</b>	<b>32,788</b>	<b>34,237</b>	<b>(1,448)</b>	<b>-4%</b>
Depreciation	8,855	9,667	(812)	-8% J
Amortization	2,183	1,570	613	39% K
General Taxes	5,097	4,952	145	3%
State Income Taxes	1,451	1,370	81	6% L
Federal Income Taxes	8,119	8,046	73	1%
Tax Savings Aquisition Adj	-	-	-	0%
<b>Total Operating Expenses</b>	<b>58,493</b>	<b>59,841</b>	<b>(1,348)</b>	<b>-2%</b>
<b>Utility Operating Income</b>	<b>24,520</b>	<b>25,339</b>	<b>(819)</b>	<b>-3%</b>
<b>Other Income and Deductions</b>				
Interest Income	-	-	-	0%
AFUDC Equity	281	237	44	19% M
M&J Misc Income	19,083	(8)	19,092	-230077% N
Gain/Loss in Disposition	-	-	-	0%
<b>Total Other Income</b>	<b>19,364</b>	<b>228</b>	<b>19,136</b>	<b>8377%</b>
Misc Amortization	(0)	-	(0)	0%
Misc Other Deductions	19,514	336	19,177	5703% O
State Income Taxes	(714)	-	(714)	100% P
Federal Income Taxes	(3,912)	-	(3,912)	100% Q
<b>Total Other Deductions</b>	<b>14,887</b>	<b>336</b>	<b>14,551</b>	<b>4327%</b>
<b>Income before Interest Charges</b>	<b>28,996</b>	<b>25,231</b>	<b>3,765</b>	<b>15%</b>
<b>Interest Charges</b>				
Interest on LTD	10,864	11,762	(899)	-8% R
Amort Debt Exp	86	75	12	16% S
Interest on Bank Debt	73	78	(5)	-7% T
Other Interest Exp	(3)	-	(3)	0%
AFUDC Debt	(131)	(194)	62	-32% U
<b>Total Interest Charges</b>	<b>10,888</b>	<b>11,721</b>	<b>(833)</b>	<b>-7%</b>
<b>Net Income</b>	<b>18,108</b>	<b>13,510</b>	<b>4,599</b>	<b>34%</b>
Preferred Dividend Declared	78	84	(6)	-8% V
<b>Net Income to Common Stock</b>	<b>18,031</b>	<b>13,426</b>	<b>4,605</b>	<b>34%</b>

**Income Statement Fluctuation Analysis**  
**December 31, 2011**

- A Purchased water is higher than plan due to purchase water from Georgetown needed to resolve water quality issue for some customers in Owenton service area
- B Favorable variance due to plant efficiency implementation and lower system delivery
- C Waste disposal expense lower than plan due to lower system delivery and lower dredge cost
- D Favorable variance driven by savings from multiple business areas combined.
- E Lower than plan due to better rates and lower than planned headcount
- F Favorable variance driven by higher than planned capitalization rate which resulted lower O&M expenses.
- G Reg expense lower due write off in December 2010 of Cost of Service Study and Depreciation Study (planned to be amortized)
- H Insurance other than group is lower due to lower insurance premiums
- I General Office expense is over plan due to unplanned relocation expenses
- J Favorable depreciation expenses is offset in higher amortization expense as the actuals were different than the split used in the plan
- K Amortization is showing over plan however it is offset in depreciation expense as the actuals were different than the split used in the plan
- L State income taxes driven by higher than expected pre-tax incomes
- M AFUDC equity variance is offset in AFUDC debt as the actuals were different than the split used in the plan
- N M&J Misc Income is over plan due to the recording of the gain related to the market value increase of Jacobson Park
- O Misc Other Deductions is over plan due to the recording of the donation of Jacobson Park
- P State taxes are favorable to plan due to the tax benefit related to Jacobson Park donation
- Q Federal taxes are favorable to plan due to the tax benefit related to Jacobson Park donation
- R Favorable LTD interest expenses driven by savings from the planned LTD insurance that was no longer needed.
- S Variance driven by amortization timing of Debt insurance expense between actual and plan.
- T Variance driven by STD balances.
- U AFUDC debt is under plan mainly due to capitalized interest on June 2010 tax exempt financing, offset by favorable interest expense
- V Variance driven by planning error

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2012**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
<b>OPERATING REVENUE</b>					
Water revenues	83,011	81,821	1,190	1%	
Sewer revenues	0	0	0	0%	
Other operating revenues	2,677	2,014	662	33%	1
Management revenues					
Operating revenues	85,688	83,836	1,852	2%	
-					
<b>OPERATIONS &amp; MAINTENANCE EXPENSE</b>					
Purchased water	313	340	(27)	-8%	2
Fuel and power	3,849	4,030	(181)	-4%	
Chemicals	1,790	1,855	(66)	-4%	
Waste Disposal	340	275	65	23%	3
Total Production Costs	6,292	6,501	(209)	-3%	
-					
Salaries and Wages	7,203	7,687	(484)	-6%	4
Pensions	1,015	1,035	(20)	-2%	
Group insurances	1,989	2,070	(81)	-4%	
Other benefits	374	412	(38)	-9%	5
Total employee related	10,581	11,204	(623)	-6%	
-					
Service Company costs	9,115	8,885	230	3%	
-					
Contracted Services	834	1,002	(168)	-17%	6
Building maintenance and services	532	592	(59)	-10%	7
Telecommunication expenses	295	255	40	16%	8
Postage, printing and stationery	26	30	(4)	-14%	9
Office supplies and services	173	242	(69)	-29%	10
Advertising & marketing expenses	16	41	(24)	-60%	11
Employee related expense travel & entertainment	224	206	17	8%	12
Miscellaneous expenses	1,191	834	357	43%	13
Rents	52	35	17	48%	14
Transportation	507	490	17	3%	
Operating supplies and services	3,850	3,726	124	3%	
-					
Uncollectible Accounts Exp	597	585	12	2%	
Customer accounting other	1,049	1,212	(164)	-13%	15
Regulatory Expense	213	213	0	0%	
Insurance other than group	595	671	(76)	-11%	16
Maintenance service & supplies	1,561	1,752	(191)	-11%	17
Total operations and maintenance	33,852	34,749	(896)	-3%	
-					
Depreciation	9,977	9,426	552	6%	18
Amortization	207	196	11	6%	19
Removal Costs	1,550	2,015	(465)	-23%	20
Depreciation and Amortization	11,734	11,636	98	1%	
-					
General Taxes	4,908	4,914	(7)	0%	
Loss (gain) on sale of assets	(19)	0	(19)	100%	21
Impairment Charges					
Total operating expenses, net	50,476	51,300	(824)	-2%	
-					
Operating income (loss)	35,212	32,536	2,676	8%	
-					
<b>OTHER INCOME (EXPENSES)</b>					
Interest Income	0	0	0		
Interest on Long Term Debt	11,709	12,290	(582)	-5%	22
Interest on Short Term Debt	57	54	3	5%	
Other Interest Expense	0	0	0	0%	

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2012**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
Interest net (Income)/Expense	11,766	12,345	(579)	-5%	
-					
AFUDC Equity Income/(Expense)	674	429	246	57%	23
AFUDC Debt Income/(Expense)	316	329	(13)	-4%	
Amortization of Debt Expense (Income)/Expense	73	67	7	10%	24
-					
Other Net Income/(Expense)	(98)	(339)	241	-71%	25
-					
Total other Income/(Expense)	(10,947)	(11,993)	1,047	-9%	
-					
Income (loss) before income taxes	24,266	20,543	3,723	18%	
-					
Provision for Income Taxes	9,677	8,085	1,592	20%	26
Income (loss) from continuing operations	14,588	12,457	2,131	17%	
Income (loss) from discontinued operations net of tax					
-					
Net Income (loss)	14,588	12,457	2,131	17%	
Preferred dividend declared	40	0	40	100%	27
Net income attributable to non-controlling interest					
Net income available to common stockholders	14,548	12,457	2,091	17%	
Common dividends	14,702	7,641	7,061	92%	28
Current Year Retained Earnings	(154)	4,817	(4,970)	-103%	

- 1 Extension of 3rd party billing contract not in plan
- 2 Less purchased water required
- 3 Waste removal planned too low
- 4 Vacancies and reorgs
- 5 Unplanned capital credits for 401k and DCP
- 6 Savings on various contracted services (landscaping, excavation, external lab testing)
- 7 Reduced security expense
- 8 Increase in cell phone bills
- 9 Lower overnight shipping
- 10 Lower software license fees
- 11 Lower than planned marketing expenses
- 12 Higher than planned travel for SAP training
- 13 Conservation, Donations, Low Income Pay program budgeted in Other Net (see below)
- 14 Higher than planned copier lease rental
- 15 Lower than planned collection agency fees, forms, postage
- 16 Lower claims than planned
- 17 Less paving and backfill and material and supplies
- 18 Offset in Removal Cost line below, adjustments to automatic removal estimates, also miscalculated plan depr for 2H in service
- 19 Unfavorable variance driven by unplanned utility plant amortization and slightly higher than expected amortization on reg asset AFUDC
- 20 Offset in Deprecation line above, adjustments to automatic removal estimates
- 21 Property sale
- 22 Short term debt rates low, delayed LTD issuance
- 23 Miscalculated tax gross up in plan
- 24 Unplanned
- 25 Conservation, Donations, Low Income Pay program actuals in Misc. (see above)
- 26 Tax affect of above variances
- 27 Unplanned
- 28 Increased payout to 90% to maintain equity ratio below 45%, higher than planned 1Q payout due to Jacobson Park donation

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2013**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
<b>OPERATING REVENUE</b>					
Water revenues	81,509	86,696	(5,187)	-6%	1
Sewer revenues	0	0	0	0%	
Other operating revenues	1,833	2,026	(193)	-10%	2
Management revenues					
Operating revenues	83,342	88,723	(5,380)	-6%	
-					
<b>OPERATIONS &amp; MAINTENANCE EXPENSE</b>					
Purchased water	217	294	77	26%	3
Fuel and power	3,648	3,824	176	5%	
Chemicals	1,736	1,813	77	4%	
Waste Disposal	383	341	(41)	-12%	4
Total Production Costs	5,984	6,273	289	5%	
-					
Salaries and Wages	6,509	7,113	604	8%	5
Pensions	810	1,092	281	26%	6
Group insurances	1,699	1,966	267	14%	7
Other benefits	322	385	63	16%	8
Total employee related	9,340	10,556	1,216	12%	
-					
Service Company costs	9,164	9,596	432	5%	
-					
Contracted Services	800	899	98	11%	9
Building maintenance and services	454	477	23	5%	10
Telecommunication expenses	276	256	(20)	-8%	11
Postage, printing and stationery	24	35	12	33%	12
Office supplies and services	187	373	186	50%	13
Advertising & marketing expenses	6		(6)	100%	14
Employee related expense travel & entertainment	89	192	103	54%	15
Miscellaneous expenses	1,188	1,216	28	2%	
Rents	36	38	2	4%	
Transportation	570	478	(92)	-19%	16
Operating supplies and services	3,631	3,965	334	8%	
-					
Uncollectible Accounts Exp	1,092	568	(525)	-92%	17
Customer accounting other	1,048	1,169	121	10%	18
Regulatory Expense	260	292	31	11%	19
Insurance other than group	676	671	(5)	-1%	
Maintenance service & supplies	1,582	1,591	9	1%	
Total operations and maintenance	32,777	34,679	1,902	5%	
-					
Depreciation	11,490	10,866	(624)	-6%	20
Amortization	223	219	(4)	-2%	
Removal Costs	1,599	2,120	522	25%	21
Depreciation and Amortization	13,312	13,205	(106)	-1%	
-					
General Taxes	5,053	5,052	(1)	0%	
Loss (gain) on sale of assets					
Impairment Charges					
Total operating expenses, net	51,142	52,937	1,795	3%	
-					
Operating income (loss)	32,200	35,786	(3,585)	-10%	
-					
<b>OTHER INCOME (EXPENSES)</b>					
Interest Income					

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2013**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
Interest on Long Term Debt	11,905	12,234	329	3%	
Interest on Short Term Debt	46	96	50	52%	22
Other Interest Expense	1		(1)	100%	
Interest net (Income)/Expense	11,952	12,330	377	3%	
-					
AFUDC Equity Income/(Expense)	777	559	218	28%	23
AFUDC Debt Income/(Expense)	363	262	101	28%	24
Amortization of Debt Expense (Income)/Expense	89	77	(12)	-14%	25
-					
Other Net Income/(Expense)	(81)	(70)	(11)	13%	
-					
Total other Income/(Expense)	(10,982)	(11,656)	673	-6%	
-					
Income (loss) before income taxes	21,218	24,130	(2,912)	-14%	
-					
Provision for Income Taxes	8,364	9,692	1,329	16%	26
Income (loss) from continuing operations	12,855	14,438	(1,583)	-12%	
Income (loss) from discontinued operations net of tax					
-					
Net Income (loss)	12,855	14,438	(1,583)	-12%	
Preferred dividend declared					
Net income attributable to non-controlling interest					
Net income available to common stockholders	12,855	14,438	(1,583)	-12%	
Common dividends	8,291	9,680	1,389	17%	
Current Year Retained Earnings	4,563	4,758	(195)	-4%	

- 1 Lower revenues due to wet and cold summer, lower rate case award
- 2 Lower reconnect fees due to change from 25 days to 75 days
- 3 Purchased water credit from Winchester due to overpayment
- 4 Higher contracted waste disposal removal due to wet and cold weather
- 5 Continued reorganization and vacancies held due to lower sales
- 6 Reduction to required pension funding
- 7 Lower OPEB costs and lower headcount
- 8 Capitalized credits planned too low for 401k and DCP
- 9 Savings on external contracting/temp labor and legal
- 10 lower electric, heating and security
- 11 Higher cell phone bills
- 12 Lower overnight shipping
- 13 Software expense fees booked in maintenance
- 14 Planned in Misc. Expense
- 15 Travel cutback and SAP travel charged to corporate
- 16 Higher fuel and maintenance costs
- 17 Higher uncollectible reserves due to methodology change with new SAP system billings
- 18 Savings on bill inserts, forms and postage
- 19 Lower than planned reg expense amortization
- 20 Offset with removals below, the plan split incorrect
- 21 Offset with depr above, the plan split incorrect
- 22 lower STD rate
- 23 Unplanned tax gross up on AFUDC
- 24 Unplanned tax gross up on AFUDC
- 25 Unfavorable variance driven by higher than expected LTD insurance (\$7.8M vs Plan \$3M)



**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2014**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
<b>OPERATING REVENUE</b>					
Water revenues	86,369	87,713	(1,344)	-2%	
Sewer revenues	0	0	0		
Other operating revenues	2,052	1,746	306	17%	1
Management revenues					
Operating revenues	88,421	89,459	(1,038)	-1%	
-					
<b>OPERATIONS &amp; MAINTENANCE EXPENSE</b>					
Purchased water	143	230	87	38%	2
Fuel and power	3,753	3,732	(20)	-1%	
Chemicals	1,635	1,597	(38)	-2%	
Waste Disposal	278	400	122	30%	3
Total Production Costs	5,809	5,959	150	3%	
-					
Salaries and Wages	6,813	7,159	346	5%	4
Pensions	241	429	188	44%	5
Group insurances	1,403	1,578	176	11%	6
Other benefits	333	425	92	22%	7
Total employee related	8,790	9,592	802	8%	
-					
Service Company costs	8,776	9,095	319	4%	
-					
Contracted Services	723	723	0	0%	
Building maintenance and services	634	468	(166)	-36%	8
Telecommunication expenses	264	259	(6)	-2%	
Postage, printing and stationery	19	29	10	34%	9
Office supplies and services	162	385	223	58%	10
Advertising & marketing expenses	5	11	6	56%	11
Employee related expense travel & entertainment	137	178	41	23%	12
Miscellaneous expenses	896	1,081	185	17%	13
Rents	32	39	7	18%	14
Transportation	495	477	(19)	-4%	
Operating supplies and services	3,369	3,650	282	8%	
-					
Uncollectible Accounts Exp	1,042	541	(501)	-93%	15
Customer accounting other	1,051	1,057	6	1%	
Regulatory Expense	250	241	(9)	-4%	
Insurance other than group	736	676	(61)	-9%	16
Maintenance service & supplies	1,960	1,521	(438)	-29%	17
Total operations and maintenance	31,782	32,331	549	2%	
-					
Depreciation	11,812	11,894	83	1%	
Amortization	234	231	(4)	-2%	
Removal Costs	1,780	1,725	(55)	-3%	
Depreciation and Amortization	13,826	13,850	24	0%	
-					
General Taxes	5,753	5,305	(448)	-8%	18
Loss (gain) on sale of assets					
Impairment Charges					
Total operating expenses, net	51,361	51,487	126	0%	
-					
Operating income (loss)	37,060	37,972	(913)	-2%	
-					
<b>OTHER INCOME (EXPENSES)</b>					
Interest Income					

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2014**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
Interest on Long Term Debt	12,132	12,136	4	0%	
Interest on Short Term Debt	51	49	(2)	-5%	19
Other Interest Expense	0		(0)	0%	
Interest net (Income)/Expense	12,183	12,184	1	0%	
-					
AFUDC Equity Income/(Expense)	310	148	163	110%	20
AFUDC Debt Income/(Expense)	142	69	73	106%	21
Amortization of Debt Expense (Income)/Expense	91	88	(2)	-3%	
-					
Other Net Income/(Expense)	(72)	(6)	(67)	1218%	22
-					
Total other Income/(Expense)	(11,893)	(12,061)	168	-1%	
-					
Income (loss) before income taxes	25,166	25,911	(745)	-3%	
-					
Provision for Income Taxes	9,261	10,285	1,024	10%	23
Income (loss) from continuing operations	15,905	15,626	279	2%	
Income (loss) from discontinued operations net of tax					
-					
Net Income (loss)	15,905	15,626	279	2%	
Preferred dividend declared					
Net income attributable to non-controlling interest					
Net income available to common stockholders	15,905	15,626	279	2%	
Common dividends	11,849	11,562	(287)	-2%	
Current Year Retained Earnings	4,056	4,064	(9)	0%	

- 1 Higher due to late fees and application fees
- 2 Lower due to Winchester purchased water credit
- 3 Lower due to process change requiring less chemicals
- 4 Lower due to vacancies
- 5 Lower due to less funding required given interest rates and returns
- 6 Lower due to vacancies & favorable pricing
- 7 Lower due to various items including 401k and DCP
- 8 Higher due to groundskeeping (budgeted in contracted services)
- 9 Lower due to overnight shipping
- 10 Lower due to budget for software maintenance here, actuals in maintenance
- 11 Lower spend than planned
- 12 Less travel than planned
- 13 Lower due to EA expenses (donations) plus savings on lab supplies & general
- 14 Lower spend than planned on copiers
- 15 Higher due to increased write offs & bad debt reserves as result of 2013 SAP implementation
- 16 Higher due to increase in claims
- 17 Higher due to software maintenance (budgeted in Office Supplies), and higher than normal repairs on intake pumps and motors
- 18 Higher due to increase in property tax valuation method
- 19 Variance driven by higher than expected STD balance.
- 20 Higher due to Northern Connection project in-service date delay
- 21 Higher due to Northern Connection project in-service date delay
- 22 Higher due to unplanned lobbying expenses
- 23 Tax effect on above

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2015**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
<b>OPERATING REVENUE</b>					
Water revenues	88,532	86,357	2,175	3%	
Sewer revenues	0	0	0		
Other operating revenues	2,267	1,981	286	14%	1
Management revenues					
Operating revenues	90,800	88,339	2,461	3%	
-					
<b>OPERATIONS &amp; MAINTENANCE EXPENSE</b>					
Purchased water	223	156	(67)	-43%	2
Fuel and power	3,936	3,804	(133)	-3%	
Chemicals	1,590	1,510	(80)	-5%	3
Waste Disposal	241	320	80	25%	4
Total Production Costs	5,990	5,790	(200)	-3%	
-					
Salaries and Wages	7,142	7,375	233	3%	
Pensions	586	363	(223)	-62%	5
Group insurances	1,628	1,610	(18)	-1%	
Other benefits	447	413	(35)	-8%	6
Total employee related	9,804	9,760	(44)	0%	
-					
Service Company costs	8,326	7,861	(465)	-6%	7
-					
Contracted Services	1,072	683	(389)	-57%	8
Building maintenance and services	602	584	(18)	-3%	
Telecommunication expenses	228	273	44	16%	9
Postage, printing and stationery	30	22	(9)	-39%	10
Office supplies and services	243	215	(28)	-13%	11
Advertising & marketing expenses	14	11	(3)	-30%	12
Employee related expense travel & entertainment	339	159	(180)	-113%	13
Miscellaneous expenses	1,419	1,176	(243)	-21%	14
Rents	18	34	16	47%	15
Transportation	442	442	(0)	0%	
Operating supplies and services	4,408	3,598	(810)	-23%	
-					
Uncollectible Accounts Exp	906	758	(148)	-19%	15
Customer accounting other	1,100	998	(102)	-10%	16
Regulatory Expense	289	239	(50)	-21%	17
Insurance other than group	935	674	(261)	-39%	18
Maintenance service & supplies	1,981	1,711	(270)	-16%	19
Total operations and maintenance	33,739	31,390	(2,349)	-7%	
-					
Depreciation	11,499	12,047	548	5%	
Amortization	238	234	(4)	-2%	
Removal Costs	1,855	1,859	4	0%	
Depreciation and Amortization	13,593	14,141	548	4%	
-					
General Taxes	6,562	5,695	(867)	-15%	20
Loss (gain) on sale of assets	(33)		33	100%	21
Impairment Charges					
Total operating expenses, net	53,861	51,226	(2,635)	-5%	
-					
Operating income (loss)	36,939	37,113	(174)	0%	
-					
<b>OTHER INCOME (EXPENSES)</b>					
Interest Income					
Interest on Long Term Debt	12,138	12,154	16	0%	
Interest on Short Term Debt	99	57	(42)	-75%	22

**Kentucky American Water Company**  
**Income Statement Fluctuation Analysis**  
**December 31, 2015**  
**Water Only**

Structure	Actual	Budget	Variance	Var %	
Other Interest Expense	272		(272)	100%	23
Interest net (Income)/Expense	12,508	12,210	(298)	-2%	
-					
AFUDC Equity Income/(Expense)	758	710	48	7%	24
AFUDC Debt Income/(Expense)	346	334	12	3%	
Amortization of Debt Expense (Income)/Expense	105	98	(8)	-8%	25
-					
Other Net Income/(Expense)	173	(72)	245	-341%	26
-					
Total other Income/(Expense)	(11,336)	(11,335)	(1)	0%	
-					
Income (loss) before income taxes	25,603	25,778	(175)	-1%	
-					
Provision for Income Taxes	10,746	10,347	(398)	-4%	
Income (loss) from continuing operations	14,857	15,430	(573)	-4%	
Income (loss) from discontinued operations net of tax					
-					
Net Income (loss)	14,857	15,430	(573)	-4%	
Preferred dividend declared					
Net income attributable to non-controlling interest					
Net income available to common stockholders	14,857	15,430	(573)	-4%	
Common dividends	11,285	11,370	85	1%	
Current Year Retained Earnings	3,572	4,060	(488)	-12%	

- 1 Higher due to late payment fees
- 2 Higher due to unplanned purchased water
- 3 Higher due to system delivery over plan
- 4 Lower due to timing of lagoon cleaning
- 5 Higher due to increased funding requirement
- 6 Higher due to underplanned awards, physical exams, retiree medical
- 7 Higher due to increased pension funding & unmet call center challenge
- 8 Higher due to PWC fees for sales tax audit
- 9 Lower due to savings on land lines and cell phone plans
- 10 Higher due to unplanned printing
- 11 Higher due to software licenses and general supplies
- 12 Higher spend than planned
- 13 Higher due to relocation expenses
- 14 Higher due to penalties related to sales tax audit
- 15 Lower due to efficiencies on copier leases
- 15 Higher due to unplanned write offs and bad debt reserves
- 16 Higher due to collection agency fees
- 17 Higher due to rate case expense
- 18 Higher due to increase in claims and cost per claim
- 19 Higher due to unplanned repairs at plants (pumps) and in distribution (hydrants)
- 20 Higher due to increased property taxes and sales taxes from audit
- 21 Property Sale
- 22 Higher due to more short term debt than planned
- 23 Higher due to unplanned interest expense on sales tax audit finding
- 24 Higher due to timing of capital project spend
- 25 Higher due to unplanned write off for preferred stock redemption
- 26 Higher due to Charges for Property Damages

**KENTUCKY-AMERICAN WATER COMPANY**  
**CASE NO. 2015-00418**  
**COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

---

**Witness:**      **Linda C. Bridwell**

5.      Refer to KAWC's Responses to Staff's First Request, Item 8, page 4. Provide further explanation of "penalties due to sales audit" and "Charges for Property Damages."

**Response:**

There were penalties associated with a sales tax audit conducted by the Kentucky Department of Revenue. It is currently on the books of Kentucky-American. Kentucky-American has filed a protest concerning this matter and there is no resolution as of yet. We have excluded penalties from the rate case for recovery.

The comment included on KAW\_R\_PSCDR1\_NUM008\_Attachment for "Charges for Property Damages" refers to Merchandising and Jobbing (M&J) included in this line that is below the line and not included in the rate case. M&J on this line is the net of M&J revenue and M&J expense. An example of this is when someone hits a fire hydrant and it needs to be fixed. The expense to fix this hydrant is the M&J expense and the M&J revenue is when it is paid for by the person causing the damage. The Kentucky base year includes six months actual and six months budget. The plan did not include any M&J revenue so the expense would overshadow giving a negative result from historic base year to forecasted test year.

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2015-00418  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

---

**Witness: Brent O'Neill**

6. Refer to KAWC's Responses to Staff's First Request, Item 11.
  - a. Refer to page 3 of 35. The numbers in column "Percent of Budget" sum to 46.72 percent. Explain why this column does not sum to 100 percent.
  - b. Refer to pages 4 and 6 of 35. Explain why there are no entries for some projects in "Annual Original Budget."

**Response:**

- a. The Company's capital investment plan is divided into two distinct areas: 1) Recurring Projects ("RP") and 2) Major Projects identified as Investment Projects ("IP"). The items listed on page 3 of 35 represents the Recurring Projects that were undertaken in 2015 and accounted for 46.7 percent of the capital investment plan for 2015. The remaining 53.3% of the capital investment plan for 2015 was associated with the Investment Projects that are indicated on page 4 of 35 of KAWC's Responses to Staffs First Request, Item 11.
- b. There are no entries for some projects in the column marked "Annual Original Budget" on pages 4 and 6 of 35 of KAWC's Responses to Staffs First Request, Item 11 because those projects were not part of the Original Budget that was developed for 2015 or 2014 prior to the start of the budget year. The projects that were not part of the Original Budget were added during the year due to a project being delayed from 2014 or due to changes in priorities or unexpected needs that occurred during the year.

The Capital Investment Management Committee ("CIMC") reviews the request for these types of changes in the Original Budget and approves the movement of available capital from other budget lines to offset the changes in the capital spend. Through the monthly oversight of the CIMC, Kentucky American has been able to be more flexible in responding to emerging needs and changes to project spending that occur during the course of design and construction while providing oversight on capital expenditures.

**KENTUCKY-AMERICAN WATER COMPANY  
CASE NO. 2015-00418  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

---

**Witness: Linda C. Bridwell**

7. In Case No. 2012-00520, KAWC proposed to implement a Distribution System Improvement Charge ("DSIC") that would permit it to accelerate the replacement of KAWC's aging infrastructure.<sup>2</sup>
- a. Provide a comparative analysis listing the similarities and differences between the DSIC and the Qualified Infrastructure Program ("QIP") tariff rider KAWC has proposed to implement in this instant case.
  - b. Include detailed discussions for each similarity and difference noted in KAWC's comparative analysis.

**Response:**

a.

Name	Distribution System Improvement Charge	Qualified Infrastructure Program
Proposed Plant Accounts	331 Transmission and Distribution 333 Services 334 Meters and Meter Installations 335 Hydrants	331 Transmission and Distribution 333 Services 334 Meters and Meter Installations 335 Hydrants 311 Pumping Equipment
Test Period	Forecasted 13-month average	Forecasted 13-month average
Filing	90 days prior to effective date	90 days prior to effective date
Reconciliation	60 days after close of test period	60 days after close of test period
Depreciation Rates	Prior rate case	Prior rate case
Property Taxes	Prior rate case	Prior rate case
Revenue taxes	Prior rate case	Prior rate case
Interest on over/under revenues	Yes	Yes
Pre-defined program of replacement	No	Yes
Pre-defined goal of replacement	No	Yes
Cap on cumulative rate	10%	None
Defined safety considerations	No	Yes

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<sup>2</sup> Case No. 2012-00520, *Application of Kentucky-American Water Company for an Adjustment of Rates Supported by a Fully Forecasted Test Year* (Ky. PSC Oct. 25, 2013), Final Order at 57.

b.

Name	Kentucky American believed the revised name more accurately reflected the description of the goal to replace qualified infrastructure that was critical to maintaining the safety and environmental health of the public.
Proposed Plant Accounts	Kentucky American added the Pumping Equipment infrastructure, as the majority of pumping equipment is used at the treatment facilities to supply the distribution system or within the distribution system maintain system pressure. Maintaining system pressure is one of the most significant ways that a water system protects the public from contamination and supports adequate fire protection. Replacement of pumping equipment is also one of the most effective ways to reduce system costs through higher pump efficiencies and thus reduced power costs.
Test Period	A forecasted period has been proposed in both as Kentucky American believes that a forecasted mechanism will provide the greatest benefit in reducing regulatory lag and extending the period between rate cases.
Filing	Both proposals included a filing 90-days prior to the effective date of the annual adjustment.
Reconciliation	Both proposals included a reconciliation 60-days after the close of the test period.
Depreciation Rates	Both proposals included the depreciation expense and accumulated depreciation, to be calculated at the depreciation rates in the most recent rate case.
Property Taxes	Both proposals included property tax calculations at the rate of overall property tax in the most recent rate case.
Revenue taxes	Both proposals included revenue tax calculations at the rate of revenue tax in the most recent rate case.
Interest on over/under revenues	Both proposals included interest on either over collection of revenues or under collection of revenues.
Pre-defined program of replacement	The QIP proposal has a defined program for main replacement for the first five years that can be updated until the entire targeted replacement is completed. The DSIC did not define the target mains but was based on a general target of replacing smaller cast iron and galvanized mains.
Pre-defined goal of replacement	The QIP proposal is founded in a report on Aging Infrastructure that is attached to Mr. O'Neill's testimony. Additionally, the QIP has a target of main replacement within a 25-year program while the DSIC did not.
Cap on cumulative rate	The DSIC proposed a cap on the total amount of customer bill increase between rate cases of 10%. However, a cap would limit the ability to extend the time between rate cases and therefore a cap has not been proposed with the QIP.
Defined safety considerations	The QIP has defined the safety concerns with regard to not accelerating the infrastructure replacement including water quality



	risks, fire protection risks, and the risks for contamination. Although these risks were all very real at the time of the proposed DSIC, they were not well-defined with respect to the proposed DSIC.
--	--

**KENTUCKY-AMERICAN WATER COMPANY**  
**CASE NO. 2015-00418**  
**COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION**

---

**Witness:**      **Linda C. Bridwell**

- 8.**      Provide all correspondence, internal memoranda, electronic mail messages, and all other documents in which KAWC and/or American Water officers and employees discuss the use and development of a QIP.

**Response:**

Please refer to the attachment for a copy of all correspondence, internal memoranda, electronic mail messages, and all other documents since the previous rate case in which KAWC and/or American Water officers and employees discuss the use and development of a QIP at KAWC.

**KY DSIC Research**

**Linda Bridwell** to: Cheryl D Norton, keith.cartier, Brent E O'Neill

05/12/2015 05:15 PM

Cc: Cristy S Wheeler

Melissa has done an excellent job pulling together some info on DSIC. I think its really important that we understand our strategy and key points, so I thought I'd share this with you in advance of setting up a discussion so you can start to absorb some of it. I'll work with Peggy to get something set up in the next week to ten days.



KY DSIC -Findings of Background Research 1- ULHP Duke.docx



KY DSIC -Findings of Background Research 2- AW Experience.docx



KY DSIC Findings- Financials for Duke and Commission Ruling on Duke.pdf

**Linda Bridwell, PE** | Rates & Regulation Manager KY & TN| American Water, Central Division | 2300 Richmond Road | Lexington, KY 40502 | O: 859.268.6373 | M: 859.537.0747 | F: 859.268.6327 | VOIP: 533.6373

*Kentucky American Water is a proud recipient of the "2015 Best Places to Work in Kentucky Award."*

Infrastructure Strategy

2012-00529 KY PSC Order Reasons for Distribution Surcharge denial:

1. KAW already comes in every 2 years (average since 92-452 with future test year) so minimal regulatory lag.
2. KAW did not identify specific projects
3. No appreciable difference in main replacement rate projected – effect marginal
4. No savings identified
  - a. 6-inch main and smaller responsible for majority of leaks and failures but no identifiable cost savings in near term.
  - b. No identified customer service improvements
  - c. No identified water quality improvements
5. Accelerated gas main tariffs were allowed to address safety concerns and defined accelerated replacement period

Potential items for consideration

Identify project listing for next 10-20 years

Identify water quality concerns

Identify fire protection concerns

Identify savings for power by improving c-factor, maintenance costs for reduced breaks, construction cost inflations, fractional improvement in NRW?

Identify pressure improvements, fire flow improvements

What would our replacement rate be for accelerated replacement

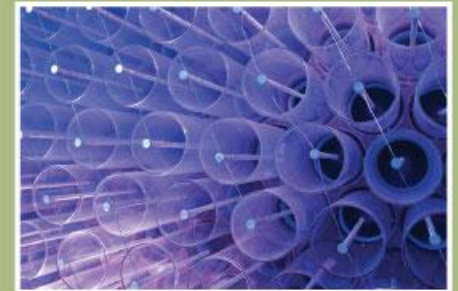


## Distribution System Improvement Charge

**Kentucky-American Water**

**Meeting with PSC/AG**

September 27, 2012





## Distribution System Improvement Charge (DSIC)

DSIC is a regulatory mechanism that allows for the recovery of costs between general rate cases related to distribution system improvement projects designed to enhance water quality, fire protection reliability and long-term system viability.



## Why is DSIC Needed?



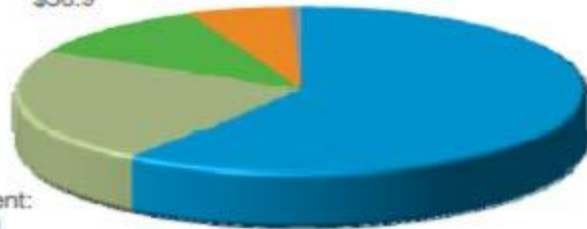
# Aging US Infrastructure Investment Remains Critical

## US EPA Estimated 20 Year Total Needs of US Public Water Systems\*

Total: \$334.8 Billion

Source: \$19.8  
Other: \$2.3

Storage:  
\$36.9



Transmission & Distribution:  
\$200.8

Treatment:  
\$75.1

- 2009: \$335 billion
- 2005: \$277 billion
- 2002: \$154 billion

## American Society of Civil Engineers (ASCE) grades US infrastructure

### REPORT CARD FOR AMERICA'S INFRASTRUCTURE

American's drinking water systems face an annual shortfall of at least \$11 billion to replace aging facilities that are near the end of their useful lives and to comply with existing and future federal water regulations. This does not account for growth in the demand for drinking water over the next 20 years. Leaking pipes lose an estimated 7 billions of clean drinking water a day.

WATER AND ENVIRONMENT  
**DRINKING WATER** 2009 GRADE **D-**

Aging systems discharge billions of gallons of untreated wastewater into U.S. surface waters each year. The Environmental Protection Agency estimates that the nation must invest \$390 billion over the next 20 years to update or replace existing systems and build new ones to meet increasing demand.

WATER AND ENVIRONMENT  
**WASTEWATER** 2009 GRADE **D-**

- 2009 Grade: D-
- 2005 Grade: D-
- 2001 Grade: D

\*Source: U.S. Environmental Protection Agency's 2007 Drinking Water Infrastructure Needs Survey and Assessment. In billions, adjusted to January 2007 dollars.

**US EPA estimates upwards to \$1 trillion needed for public water and wastewater systems\*\***

\*\*Source: 2002 U.S. Environmental Protection Agency Clean Water and Drinking Water Gap analysis





## Old Pipes = Failing Pipes





## Preventing Main Breaks

- Kentucky American has over 150 miles of small diameter mains that are made from cast iron or galvanized steel.
- 70% of Kentucky American Water main breaks involve these small diameter mains.
- DSIC would enable Kentucky American to replace these mains at a faster pace, thereby reducing the number of main breaks.



## DSIC Would Enable Kentucky American To:

- Accelerate its investment in new utility plant to replace aging distribution infrastructure;
- Recover fixed costs (depreciation and pre-tax return) of certain non-revenue producing, non-expense reducing infrastructure improvement costs placed into service between general rate cases;
- Reduce the frequency of general rate cases and associated rate case expenses;
- Better absorb increases in other categories of costs for a longer period of time; and
- Better comply with evolving regulatory requirements.



## DSIC Is Not A Revenue Increasing Mechanism:

DSIC-eligible additions are limited to revenue neutral projects, consisting principally of replacement investments.

The costs of extending facilities to serve new customers would not be recoverable through DSIC.



## A Number Of Consumer Protections Can Be Built Into System Improvement Charges:

- A cap on the DSIC rate of 5% - 7.5% of Revenue;
- An annual reconciliation of recoverable costs and revenues associated with DSIC by the PSC;
- Customer-notice requirements of changes in DSIC;
- A reset to zero if the company's quarterly or annual earnings reports – subject to review by the PSC – show that the company earnings are exceeding the allowable rate of return used to calculate fixed costs under the DSIC;
- PSC audits to make certain the money is spent on DSIC-eligible projects; and
- A reset to zero as of the effective date of new base rates that provide prospective recovery of annual costs that had been recovered under DSIC.



## The Main Benefits of a DSIC are that it:

- Mitigates rate shock;
- Results in significant decreases in main breaks;
- Extends the time between general rate proceedings; and
- Promotes economic development as it creates and maintains jobs in the Central Kentucky area.



## Jurisdictions With DSIC Programs Have Seen Numerous Benefits:

Water main replacement/rehabilitation increased substantially – from less than 4 miles per year pre-DSIC to 23 miles per year with the DSIC program in place.

Infrastructure investment increased from \$1.2 million per year pre-DSIC to \$2.7 million per year under DSIC.

Replacement/rehabilitation pace increased from replacing the entire system over a 900-year period to replacing the entire system over a 125-year period.

Intervals between general rate cases increased more than a year (much more in some instances).



## Endorsement of DSIC-Like Infrastructure Replacement Programs

As early as February, 1999, NARUC, by resolution, endorsed DSIC as “...an example of an innovative regulatory tool that other Public Utility Commissions may consider to solve infrastructure remediation challenges in their states.”

Resolution adopted February 24, 1999 <http://www.naruc.org/Resolutions/Distribution%20System%20Improvement%20Charge.pdf>

NARUC recognized DSIC-like programs as a “**Best Practice.**”

Resolution adopted July 27, 2005 [http://www.naruc.org/Resolutions/BestPractices\\_s0705.pdf](http://www.naruc.org/Resolutions/BestPractices_s0705.pdf)

DSIC-like programs included as **model legislation** by Council of State Governments in 1999  
Publications of Suggested State Legislation <http://ssl.csg.org/volumes/00ssl-all.pdf>



## Conclusion

There is a growing recognition that rate stabilization mechanisms benefit customers and water utilities.

The introduction of rate stabilization mechanisms for water utilities will provide significant benefits to Kentucky American Water's customers, including lower general rate increases and fewer main breaks.

Kentucky American looks forward to working cooperatively with the PSC, our customers, and other stakeholders as we pursue these initiatives in the near future.



# Questions?

Attachment PGS-2

**THE UNION LIGHT, HEAT AND POWER COMPANY**

**Accelerated Main Replacement Program  
Estimated 10 Year Revenue Requirement**

Line No.		1	2	3	4	5	6	7	8	9	10	Total
1	<b>Return on Investment</b>											
2	Additions to Plant In-service	\$ 3,542,880	\$ 7,085,760	\$ 7,085,760	\$ 7,085,760	\$ 7,085,760	\$ 7,085,760	\$ 7,085,760	\$ 7,085,760	\$ 7,085,760	\$ 7,085,760	\$ 67,314,720
3	Mains - Plastic	2,282,211	4,564,421	4,564,421	4,564,421	4,564,421	4,564,421	4,564,421	4,564,421	4,564,421	4,564,421	43,362,000
4	Services - Plastic	5,825,091	11,650,181	11,650,181	11,650,181	11,650,181	11,650,181	11,650,181	11,650,181	11,650,181	11,650,181	110,676,720
5	Current Year Additions											
6	Cumulative Additions	5,825,091	17,475,272	29,125,453	40,775,634	52,425,815	64,075,996	75,726,177	87,376,358	99,026,539	110,676,720	
7	Retirement of Existing Plant											
8	Mains - Cast Iron	(153,695)	(307,392)	(307,392)	(307,392)	(307,392)	(307,392)	(307,392)	(307,392)	(307,392)	(307,392)	(2,920,223)
9	- Bare Steel	(11,947)	(23,894)	(23,894)	(23,894)	(23,894)	(23,894)	(23,894)	(23,894)	(23,894)	(23,894)	(226,990)
10	Services - Bare Steel	(3,521)	(7,042)	(7,042)	(7,042)	(7,042)	(7,042)	(7,042)	(7,042)	(7,042)	(7,042)	(66,895)
11	Provision for Depreciation (1)											
12	Mains - Plastic	52,435	209,738	419,477	629,215	838,954	1,048,692	1,258,431	1,468,169	1,677,908	1,887,646	
13	Services - Plastic	41,194	164,776	329,551	494,327	659,102	823,878	988,654	1,153,429	1,318,205	1,482,980	
14	Current Year Provision	93,629	374,514	749,028	1,123,542	1,498,056	1,872,570	2,247,085	2,621,598	2,996,113	3,370,626	
15	Accumulated Provision	93,629	468,143	1,217,171	2,340,713	3,838,769	5,711,339	7,858,424	10,580,022	13,576,135	16,946,761	
16	Net Plant In-service (Line 6 - Line 15)	\$ 5,731,462	\$ 17,007,129	\$ 27,908,282	\$ 38,434,921	\$ 48,587,046	\$ 58,364,657	\$ 67,767,753	\$ 76,796,336	\$ 85,450,404	\$ 93,729,959	
17	Approved Pre-tax Rate of Return	14.01%	14.01%	14.01%	14.01%	14.01%	14.01%	14.01%	14.01%	14.01%	14.01%	
18	Annual Return on Utility Plant	\$ 802,978	\$ 2,382,699	\$ 3,908,950	\$ 5,384,732	\$ 6,807,045	\$ 8,176,888	\$ 9,494,262	\$ 10,759,167	\$ 11,971,602	\$ 13,131,567	
19	<b>Operating Expenses</b>											
20	Annual Provision for New Main Depreciation (Line 14)	93,629	374,514	749,028	1,123,542	1,498,056	1,872,570	2,247,085	2,621,598	2,996,113	3,370,626	
21	Annual Reduction in Retired Main Depreciation (1)	(3,135)	(12,542)	(25,083)	(37,625)	(50,166)	(62,708)	(75,250)	(87,791)	(100,333)	(112,874)	
22	Mains - Cast Iron	(173)	(693)	(1,386)	(2,079)	(2,772)	(3,465)	(4,158)	(4,850)	(5,543)	(6,236)	
23	- Bare Steel	(61)	(244)	(487)	(731)	(975)	(1,218)	(1,462)	(1,706)	(1,949)	(2,193)	
24	Services - Bare Steel	79,442	158,884	317,768	476,652	635,536	794,420	953,304	1,112,188	1,271,072	1,429,956	
25	Meter Relocation Costs	(133,000)	(252,000)	(357,000)	(448,000)	(525,000)	(588,000)	(637,000)	(672,000)	(693,000)	(700,000)	
26	Reduction in Mains Maintenance Expense	\$ 839,680	\$ 2,650,618	\$ 4,433,906	\$ 6,178,723	\$ 7,885,072	\$ 9,552,951	\$ 11,182,361	\$ 12,773,303	\$ 14,325,774	\$ 15,839,774	
27	<b>Annual Revenue Requirement</b>											
		\$ 802,978	\$ 2,382,699	\$ 3,908,950	\$ 5,384,732	\$ 6,807,045	\$ 8,176,888	\$ 9,494,262	\$ 10,759,167	\$ 11,971,602	\$ 13,131,567	

(1) Reflects proposed depreciation accrual rates

Next several pages are  
Appendix X of original Duke  
order laying out an AMRP filing  
format.

## APPENDIX G

### APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 2001-00092 DATED January 31, 2002

#### AMRP RIDER PERIODIC REPORTING AND ANNUAL FILING FORMATS

This Appendix includes the filing formats ULH&P will prepare when submitting its application for the annual adjustment to the AMRP Rider. ULH&P will not modify any filing format without prior consent of the Commission Staff.

In order for the Commission to properly monitor the accelerated main replacements, ULH&P will need to provide the following information:

- 1) A list of the names and addresses of the contractors utilized for AMRP projects.
- 2) A copy of the bid document signed with each contractor showing a description and scope of the work, construction specifications, and construction management.
- 3) Construction schedule for each job.
- 4) Reasonable size maps for each location.
- 5) A 3-month progress report showing the manner of replacing the pipes, progress and percentage of job finished, pressure testing, pictures, etc.
- 6) Copies of updated welding certification for each welder kept on site for inspection by the Commission's investigator.
- 7) Annual progress report for work completed, the amount of a progress payment and the costs of removal of the old pipes.

Items 1 through 3 are to be filed as contracts are issued. Items 4 and 6 are to be filed at the beginning of each project. Item 5 will be dependent upon the starting date of each project. Item 7 will be filed along with ULH&P's application for the annual adjustment of the AMRP Rider. ULH&P may request a conference with the Commission's Engineering Staff if clarifications are needed concerning Items 1 through 7.

**The Union Light, Heat and Power Company  
Annual AMRP Rider Filing**

**Determination of Annual Revenue Requirement Page 1**

	<u>Investment Reflected In Base Rates</u>	<u>AMRP for 12-Months Ending {Date}</u>	<u>Cumulative AMRP To Date</u>
<u>Return on Investment:</u>			
Original Cost of Plant in Service			
Mains Cast Iron			
Mains Bare Steel			
Mains Plastic			
Services Cast Iron			
Services Bare Steel			
Services Plastic			
Meter Relocations			
Customer Service Lines			
A. Total Original Cost of Plant in Service			
Accumulated Depreciation			
Mains Cast Iron			
Mains Bare Steel			
Mains Plastic			
Services Cast Iron			
Services Bare Steel			
Services Plastic			
Meter Relocations			
Customer Service Lines			
B. Total Accumulated Depreciation			
C. Deferred Income Taxes Associated with Referenced Plant in Service			
Net Rate Base for AMRP Purposes (A B C)			
Authorized Rate of Return, adjusted for Income Taxes	11.885%	11.885%	11.885%
D. Return on AMRP Related Investment			
<u>Operating Expenses:</u>			
Depreciation Expense			
Mains Cast Iron			
Mains Bare Steel			
Mains Plastic			
Services Cast Iron			
Services Bare Steel			
Services Plastic			
Meter Relocations			
Customer Service Lines			
Maintenance Expense Account 887			
E. Total Operating Expenses			
Total Annual Revenue Requirements (D + E)			
Increase (Decrease) in Annual Revenue Requirements			

**The Union Light, Heat and Power Company  
Annual AMRP Rider Filing**

**Determination of Annual Revenue Requirement Page 2**

Calculation of Authorized Rate of Return:

	% of Total Capital	Cost Rate Allowed	Weighted Aver. Cost of Capital	Gross-Up Factor	Authorized Rate of Return
Long-Term Debt	26.857%	7.296%	1.959%		1.959%
Short-Term Debt	20.415%	3.545%	0.724%		0.724%
Common Equity	52.728%	11.000%	5.800%	1.586546	9.202%
Totals	100.000%		8.483%		11.885%

Supporting Schedules:

Overall Project Recap & Summary

	Miles Replaced under AMRP	Total Cost of Replacement under ARMP	Percentage of Total AMRP Completed to Date
Original from Information submitted in Case No. 2001-00092			NA
Status of Total AMRP as of this Filing			

With each annual filing, ULH&P will prepare an Overall Project Recap & Summary. This schedule will compare information originally submitted in Case No. 2001-00092 with the current status of the AMRP as of the date of the filing.

**The Union Light, Heat and Power Company  
Annual AMRP Rider Filing**

**Determination of Annual Revenue Requirement Page 3**

Plant in Service Added Through AMRP

Project Identifier (Work Order Ref. #or Contract Ref.)	Date Project Started	Percentage Completed	Costs for Current 12 Months	Cumulative Total Project Costs
Mains Plastic				
(List Separately)				
Services Plastic				
(List Separately)				
Meter Relocations				
(List Separately)				
Customer Service Lines				
(List Separately)				
Totals				

All projects and/or jobs performed in association with AMRP will be included in this schedule. Each project or job will be identified by its Work Order Reference Number or a Contract Reference. ULH&P will maintain supporting documentation to support any cost shown on this schedule. Additional pages may be required for this supporting schedule.

**The Union Light, Heat and Power Company  
Annual AMRP Rider Filing**

**Determination of Annual Revenue Requirement Page 4**

Plant in Service Retired/Removed Through AMRP -

Project Identifier (Retirement Work Order Ref. #)	Date Project Started	Percentage Completed	Total Investment Retired or Removed
Mains Cast Iron			
(List Separately)			
Mains Bare Steel			
(List Separately)			
Services Cast Iron			
(List Separately)			
Services Bare Steel			
(List Separately)			
Meter Relocations			
(List Separately)			
Totals			

All retirements or replacements performed in association with AMRP will be included in this schedule. Each retirement or replacement will be identified by its Retirement Work Order Reference Number. ULH&P will maintain supporting documentation to support any cost shown on this schedule. Additional pages may be required for this supporting schedule.

Maintenance Expense Account 887

In support of the amounts reported for Account 887, ULH&P will submit a detailed schedule of the identified expenses. This schedule will include, at a minimum: a document or journal reference, the name of the vendor, the date of the transaction, the cost allocated to ULH&P's gas operations, and a description of the transaction. Any expenses included in this supporting schedule resulting from an allocation of costs from CG&E or Cinergy Services will also be detailed in the manner described. ULH&P will maintain any additional supporting documentation to support any expense shown on this schedule.



**The Union Light, Heat and Power Company  
Annual AMRP Rider Filing**

**Determination of Annual Revenue Requirement Page 5**

Calculation of Depreciation Expense and Accumulated Depreciation -

Depreciable Plant in Service	Depreciation Rate	Beginning Accumulated Depreciation Balance	Depreciation Expense for Current 12 Months	Adjustments Due to Retirement or Replacement	Ending Accumulated Depreciation Balance
Mains Cast Iron					
Mains Bare Steel					
Mains Plastic					
Services Cast Iron					
Services Bare Steel					
Services Plastic					
Meter Relocations					
Customer Service Lines					
Totals					

The balances shown for accumulated depreciation and the calculation of depreciation expense will be shown on this schedule. ULH&P will maintain supporting documentation to support any cost shown on this schedule. Additional pages may be required for this supporting schedule.

Customer Service Lines

Project Identifier (Work Order Ref. # or Contract Ref.)	Date Project Started	Cost of Lines Added Due to AMRP	Cost of Lines Added Due to Normal Operations
(List Each Project Separately)			
Totals			

This schedule will reflect those customer service lines ULH&P assumes ownership for in conjunction with AMRP and those assumed during the normal repairs, maintenance, or replacement. Only those customer service lines ULH&P assumes ownership over in conjunction with AMRP can be included for recovery through the AMRP Rider mechanism. ULH&P will maintain supporting documentation to support any cost shown on this schedule. Additional pages may be required for this supporting schedule.

## Findings of Background Research 1

### Kentucky's First Rate-Case Approved Main Replacement Program

### Union Light, Heat & Power (ULHP/ now Duke) Case No. 001-00092 & Court Cases

#### **BACKGROUND:**

In 2002, the Kentucky PSC ruled on Case No. 001-00092 and authorized a capital infrastructure program called AMRP for ULHP (now Duke). This authorized annual filings to seek surcharge recovery of the capital costs net of operational savings associated with ULHP's main replacement program. The PSC approved each of ULHP's annual applications for AMRP adjustment including its renewal in December 2005 via rate case.

In June 2005, three years after the first rate order, legislation was passed to make express regulatory provisions for this type of gas main replacement program part of the Kentucky statute (KRS 278.509).

The Attorney General appealed the 2002 rate order, the 2005 rate order, and each of the AMRP rulings. The Franklin Circuit Court vacated and remanded the PSC orders and ruled that the newly passed KRS 278.509 was unconstitutional based on single-subject provisions in the Kentucky Constitution. The Court of Appeals upheld the Franklin Circuit Court that prior to KRS 278.509, the orders were invalid, but upheld the constitutionality of KRS 278.509, and reversed the trial courts invalidation of the rider post KRS 278.509. The Kentucky Supreme Court ultimately disagreed with the Court of Appeals that a statute was necessary, and directed the trial court to reinstate the PSC orders.

#### **RECOMMENDATIONS / SUMMARY**

BASED ON 1<sup>ST</sup> KY RATE-CASE-APPROVED MAIN REPLACEMENT PROGRAM  
CASE 001-00092 UNION LIGHT, HEAT & POWER COMPANY (ULHP)

- In General:
  - **Try asking for a forecasted program.**
    - I think the Supreme Court order would support it.
      - “nothing requires that a utility can only recover costs for the previous year, as the Attorney General contends, rather such test periods appear aimed at predicting future costs when determining if proposed rates are fair, just, and reasonable.”
    - Follow Illinois QIP model (similar ratemaking to KY in lots of ways) or Tennessee model (more complicated).
    - ULHP was historic, but I think we have the latitude.
- To appease PSC:
  - **Support the need the replacement program is necessary & in the public interest**
    - Consider providing third party confirmation and lots of support for why replacement is important to safety and reliability, as ULHP did.
      - Not cited in order, but I presume this helped a great deal.
    - Show how the replacement program would differ from status quo
      - ULHP would have taken 50 years to replace lines, had they not embarked on the accelerated program

- **Show how the surcharge will “remove any impediment to the program’s success”. To do this consider enumerating the earnings erosion and requirement for frequent rate cases if program is undertaken and an infrastructure rider is not put in place.**
  - (Done by ULHP Duke, Commission Order in 2012 rate case noted a “lack of impact” in this area)
- **Consider finding a way to calculate some O&M saving associated with the investments.**
  - This was one of the steps in the Duke / ULHP calculation. It was relatively nominal. This was also an item noted as lacking in our 2012 rate order.
- **Offer a 60 day review period**
  - after filing and a notice period (check with SKO re: current practice)
- **Charge as a separate line item on the bill**
- **Propose as a 4 Year Pilot with Requirement for a Rate Case before renewal may be authorized**
  - This would be similar to the 3 year pilot they authorized for ULHP/Duke.
  - Longer because:
    - We would prefer to not have to file within 3 years
    - Our program is a bit slower than ULHP/Dukes, preventing the large build-up of bill impact that Duke might have seen in 3 years, so a longer permissible period before rate case makes sense
- To appease Supreme Court/PSC/AG:
  - **Ensure annual review is in place**
    - for determination of “fair just and reasonable rates”
  - **Talk about the benefits to Kentucky American and talk about national and local water and wastewater infrastructure needs, but stay away from the term “Policy”.**
    - In response to AG arguments about the requirement to promulgate regulations in the face of new *policies*, the PSC was explicit about the AMRP program being NOT a policy, and being specific to ULHP’s program, and that permissibility would apply on a case-by-case basis.
  - **Be cautious about “double recovery”.**
    - I would recommend including only replacement type projects and excluding plant installed for the purposes of bringing new customers onto the system

#### DETAILS FROM KY ULHP CASE:

1<sup>ST</sup> RATE CASE APPROVED KY MAIN REPLACEMENT PROGRAM : Case No. 2001-00092

#### ➤ KY SUPREME COURT:

Conditions Under Which the KY Supreme Court found KY PSC had the authority to establish the AMRP program without enabling Statute:

- **No Particular Rate-Setting Process Required:**

- “KRS 278.180 governs how rate changes must be made... KRS 278.180 does not require any particular process to allow a utility to change its rates other than complying with notice requirements.”
- Detail:
  - “KRS 278.190 covers the subject of “[p]rocedure when new schedule of rates filed.” Apparently the Court of Appeals construed this statute as requiring a certain process (a general rate case) in most cases in which some sort of new rate is requested or filed. Some

of the factors that may be considered by the PSC in ratemaking within general rate cases or otherwise, specifically those regarding valuation of utility property, are established in KRS 278.290.7 But the plain language of KRS 278.190 does not actually require that the PSC proceed with a general rate case or other particular process every time some new rate or change in rates is requested. To the contrary, the statute simply provides that upon filing of a schedule of new rates, the PSC “may” conduct a “hearing concerning the reasonableness of the new rates” on its own motion or if a complaint is filed by any person challenging the rates as unreasonable or otherwise contrary to law under KRS 278.260.8 If a complaint is filed by a person challenging rates as unreasonable or contrary to law, other provisions of KRS Chapter 278, KRS 278.2609 , KRS 278.27010 and KRS 288.280,11 authorize the PSC to conduct investigations and hearings and enter appropriate orders concerning rates or services. Hearings are not necessarily required to resolve the complaint.12 And these statutes do not mandate that a complaint compels a general rate case under KRS 278.190.

- **No Prohibition Against Single Issue Ratemaking:**

- “we find nothing in the statutes that would prohibit ‘single-issue ratemaking’-contrary to the Attorney General's arguments”

- **AG Didn’t Substantiate “Double Recovery” or “Guaranteed Return” Arguments:**

- “the Attorney General contends that the utilities were able to obtain a guaranteed return on their investment or obtained a double recovery of costs, he shows us no evidence of record that such events occurred”
  - *Note: If we anticipate the ‘double recovery’ argument coming, I would recommend that we build surcharge so as to request only “non-revenue producing” plant. This would mean we would seek only replacement plant costs (replacement mains, meters, hydrants, services), not “new” plant costs (mains, meters, hydrants, and services that bring new customers online).*

- **Fair, Just, and Reasonable Review Would Exist:**

- “Because utilities are allowed to charge consumers only “fair, just, and reasonable rates” under KRS 278.030(1), the PSC must ensure that utility rates are fair, just, and reasonable to discharge its duty under KRS 278.040 to ensure that utilities comply with state law.”
- “We note that the PSC required annual review of the surcharge and, on occasion, modified it. So the facts indicate that the PSC acted to ensure that the rates were fair, just, and reasonable by expedited annual proceedings to review the application of the rider or surcharge”

- **Supreme Court Members:**

- 4 of the 5 concurring justices from the ULHP AMRP case still sit on the 7 justice court (Minton, Abramson, Cunningham, Noble).
- Opinion was written by Chief Justice Minton, who is still Chief Justice in 2015.
- The 1-member dissent was written by Justice Venters) and he still sits on the court.

➤ **KY PSC:**

Conditions Under Which KY PSC Allowed ULHP;S AMRP Program:

- **Case-By-Case Basis:**

- “The decision reached by the Commission in this case is, and in all future cases will be, based on the specifics of the case before it. This decision is not, and shall not be construed as, a Commission policy nor a statement of general applicability.”
- In response to AG concern regarding lack of promulgated regulation on this as a “policy” matter.
  - “He asserts that if the Commission does in fact approve ULH&P s proposal, its decision will constitute a major policy change that must be accomplished through the promulgation of a

regulation pursuant to KRS Chapter 13A and not through an Order... The Commission finds that no general policy is implicated here”

- **Necessary and in the Public Interest:**

- “The Commission finds the replacement of ULH&Ps cast iron and bare steel mains within 10 years to be necessary and in the public interest.”
  - Notes in order about ULHP’s position:
    - “ULH&P s distribution system contains approximately 1,000 miles of distribution mains, 150 miles of which are cast iron and bare steel that date back to 1887 and 1906 respectively.<sup>177</sup> ULH&P asserts that cast iron and bare steel mains are more prone to leaks than coated steel or polyethylene, which may lead to higher operating and maintenance expenses, greater line losses and greater safety and reliability risks.<sup>178</sup> ULH&P states that it has not kept pace with the national average on its replacement of its cast iron and bare steel mains. Therefore, it has begun an AMRP pursuant to which it plans to replace all its cast iron and bare steel mains within 10 years.<sup>179</sup> ULH&P cites safety and reliability as the major reasons for its decision to accelerate its mains replacement.

- **Recovery Mechanism Should Be Established to Support Program Success:**

- “We also recognize the significant impact the accelerated main replacement program will have on ULH&P over the next 10 years The Commission believes we have the statutory authority to establish, and that we should establish a method of recovery that will help to eliminate any impediment to the success of the program.”
  - **Notes in order about ULHP’s position:**
    - “ULH&P projects that the capital expenditures required for this program will double its current investment in plant and that such an investment will have a substantial impact on its earnings.<sup>180</sup> In order to alleviate this impact, ULH&P proposes a tracking mechanism, the AMRP Rider, that would permit it to recover its investment costs on a more current basis than that which traditional rate-making permits.”

- **Temporary Basis with Rate Case Required After 3 Years**

- “the Commission finds at this time no reason to believe that the mechanism cannot be continued for 10 years. However, we believe that establishing the Rider for an initial 3-year period will allow both ULH&P and the Commission an opportunity to review the operation of the mechanism and make a decision on its renewal.”
- “If ULH&P wishes to continue the AMRP Rider, it will need to file a general rate application to roll-in the Rider and to justify its continuation. “
  - “The Commission believes it will be necessary to examine ULH&P s total gas operations in conjunction with a review to continue the AMRP Rider.”
  - “prevent the AMRP Rider from becoming too large a portion of the customer bill”

- **Minimum 60-Day Annual Review:**

- “The Commission believes it will need at a minimum **a 60-day review period, and will need to hold a hearing** for each annual revision of the AMRP Rider.”

- **Commission Rejected:**

- Post in Service AFUDC and Deferred Depreciation in conjunction with the rider.
- 30 Day Review

➤ **ULHP’s Case:**

The support provided by ULHP in winning the issue:

- Explanation of why the cast iron & bare steel mains should be replaced (**see 3<sup>rd</sup> Party Torpis testimony**)
  - Safety and reliability the major reasons

- ULHP described a number of characteristics specific to the cast iron & bare steel mains that could cause or contribute to gas leaks:
  - Cast iron wasn't welded, making it more susceptible to being pulled apart and to separation at the joints
  - Cast iron more susceptible to corrosion and graphitization due to lack of coating or cathodic protection
  - Bare steel subject to corrosion which reduces wall thickness
- Cast iron & bare steel no longer approved as a material for gas pipelines post 1971 (regulated by U.s. DOT)
- ULHP also cited higher operating expenses due to greater leaks
- ULHP also cited lower pressures, which weren't suitable to an increasing trend of distributed generation
- Explanation of the internal programs used to determine which mains to replace **(Torpis)**
  - In-house computer model "Cast Iron Maintenance Optimization System (CIMOS)"
    - Database keeps info on pipe segments (length, year installed, pipe size, operating pressure, number of breaks or leaks)
    - Program develops ratings for replacement priority based on these factors
- Explanation of why accelerated program (10 years) was adopted: **(Torpis)**
  - **CIMOS (in house program) shows that company has replaced at a 1.9% rate and that this rate could require 50 years before remainder of pipe is replaced**
    - "Beginning this year, ULH&P launched an accelerated cast iron and bare steel replacement program. The new program ranks mains for replacement priority according to whether the main is cast iron or bare steel, the date the main was installed, pipe joint type and the operating pressure. Under this new program, ULH&P is expected to replace all the cast iron and bare steel mains on its system within approximately ten years."
- Independent review (consultant Stone & Webster) of ULHP's accelerated replacement program with recommended alternatives if appropriate, that would enhance program
  - Hiring:
    - **"Stone & Webster was engaged by ULH&P in late 2000 to perform an independent review of ULH&P's distribution system and specifically ULH&P's cast iron and bare steel replacement program."**
  - Data gathered:
    - "We inspected records of ULH&P's distribution system, the type of materials used for the gas mains, the installation dates, operating pressures, leak frequency and maintenance records. We reviewed the leak repair records, computer programs and reports that the Company uses to manage its existing cast iron and bare steel replacement program. We conducted extensive interviews with the ULH&P engineering personnel along with the ULH&P operations and maintenance personnel. We conducted extensive computer modeling to evaluate the existing cast iron and bare steel replacement programs for ULH&P and to provide our recommendations."
  - Analysis Method:
    - "Stone & Webster used a multivariate regression analysis to develop an appropriate replacement program for cast iron and bare steel mains. This is a statistical technique that analyzes changes in one variable (the dependent variable) as a function of changes in various independent variables. The purpose of this analysis is to determine whether any significant relationship exists among the different variables."
  - Findings:

- Should the Accelerated Program Be Conducted?
  - “ULH&P should follow an accelerated cast iron and bare steel replacement program. Until this year, ULH&P has replaced its cast iron and bare steel pipe at a rate that could take approximately 50 years until all of the pipe is replaced. The remaining cast iron and bare steel pipe toward the end of that program would be upwards of 150 years old. This replacement rate was consistent with the replacement rate followed by the industry over the past several years, but is slower than the current standard industry replacement rate, as shown in the DOT Office of Pipeline Safety statistics cited earlier in my testimony. In 2001, ULH&P embarked on a plan to replace all of its cast iron and bare steel mains within 10 years. This is a reasonable approach for managing the cast iron and bare steel mains on ULH&P's distribution system.”
- What is the appropriate time frame?
  - “The appropriate length of time for a cast iron and bare steel replacement program is a function of the amount of cast iron and bare steel pipe in the distribution system, the replacement priorities and the resources available to conduct such a program. Our regression analysis indicates that there are many miles of cast iron and bare steel pipe in ULH&P's distribution system that should be replaced on a high priority basis. Our review of ULH&P resources for scheduling, contracting and supervising the work indicates that management is capable of executing a replacement program that would enable ULH&P to replace all the cast iron and bare steel pipe in its system within 10 years. In my opinion, this is a reasonable replacement rate and a reasonable length of time for ULH&P to conduct an accelerated cast iron and bare steel replacement program.”
- What other procedures should be followed?
  - “ULH&P should replace all cast iron and bare steel service lines in conjunction with its replacement of the cast iron and bare steel mains. In many cases, the service lines were installed at the same time the gas mains were installed. Cast iron and bare steel service lines present the same safety and reliability risks as cast iron and bare steel mains. It would be futile for ULH&P to replace the cast iron and bare steel mains but leave the service lines in place because the risk of leaks developing on the service lines would remain unabated. The service lines must be replaced at the same time as the mains in order to minimize this risk of leaks. Presently the service lines are under dual ownership: the portion of a service line between the main and the curb line belongs to UHL&P while the remaining portion, from the curb to the meter, belongs to the customer. We strongly recommend that UHL&P replace the entire service line from main to the meter, regardless of ownership issues.”
- Where is the report?
  - “It is entitled "Independent Review of Cast Iron and Bare Steel Pipe Replacement Program for ULH&P" and is contained in Volume 6 of this filing. This report was prepared under my direction and supervision. The report summarizes Stone & Webster's methods and conclusions arising from its independent review of ULH&P's cast iron and bare steel replacement program.”

## Findings of Background Research 2

### American Water Testimony from Rate-Case Won DSIC Programs

#### **American Water's Experience with Approval :**

The majority of American Water DSIC programs were achieved through legislation.

New York, Pennsylvania, and California are the only states who successfully sought DSIC through a rate proceeding. However, Pennsylvania's program was overturned by the PA Supreme Court and the Company had to make refunds. Pennsylvania DSIC is now authorized via statute / law. California's program was a pilot but the Company actually found it to be less effective than the 3-year rate plans currently used in general rate cases.

State	Approved Via Rate Order	Approved Via Promulgated Regulation	Approved Via Statute / Law
CA	2007-2011		
IL			1999
IN			2000
MO			2003
NJ		2012	
NY	2004		
PA	Pre 1996 but overturned by Supreme Court		1996 W; 2014 WW
TN			2013

#### **New York's Testimony & Order:**

#### **NY Direct Testimony (Ed Rex) – 2004 Rate Case**

#### **DISTRIBUTION SYSTEM IMPROVEMENT CHARGE ("DSIC")**

- Q. Why do you believe that a long-term distribution network system replacement program, such as the DSIC, is necessary for LIWC?
- A. The Company recognizes that it has approximately 48 miles of two- and four-inch mains that must be replaced. That total represents approximately 7% of the Company's system of mains. Those mains, which have a relatively smaller diameter, are inefficient, because they provide inadequate flow to meet current requirements. It is generally impractical to clean and line small diameter pipe, and makes more sense to replace it. In addition, the majority of those smaller mains, as well as additional distribution network facilities such as larger distribution and transmission mains, hydrants and services, have reached the end of their useful life.



- Q. What are the distribution network facilities and the activities that you propose be included in the DSIC?
- A. LIWC proposes to include in the DSIC costs associated with: mains installed as replacements; cleaning and lining of mains where practical; and replaced valves, services and hydrants (whether the installations are part of the main replacement program or are located elsewhere in the distribution system and are replaced because of age or condition).
- Q. Does the Company's Capital Expenditures Plan include costs for such investments during the rate year?
- A. Yes. The DSIC proposed here, however, would be effective after the end of the rate year in this case, which is March 31, 2006.
- Q. What is the projected level of costs that LIWC estimates it will incur to replace the distribution network facilities under the DSIC program?
- A. The Company projects that the annual expenditures under this program would average \$3.0 million to \$5.0 million.
- Q. Do you expect that the capital expenditures contemplated under the DSIC would produce increased revenues?
- A. No. Unlike main extensions, which usually are related to an increase in customers, the proposed program will only replace existing distribution network facilities that serve the existing customer base. Given the relatively built-out nature of the LIWC's system, the Company does not expect the DSIC investments to produce new customers over which to spread the costs of the program.
- Q. Do you expect that the projects to which the DSIC will apply would produce expense reductions?
- A. Over the long-term, the Company may realize some reduction in pumping costs and in lost and unaccounted for water. In light of the level of proposed annual investment, LIWC projects that any potential savings will be de minimis, at least for the first several years of the program.
- Q. Please explain the specifics of the proposed DSIC program.
- A. The Company proposes that, when there are actual expenditures for this program beyond the period covered by this rate case (or by subsequent rate cases), and the renewed/replaced distribution network facilities have been placed in service, then the amount of those expenditures (net of the associated (i) retirements, (ii) accumulated deferred income taxes ("ADIT"), and (iii) accumulated depreciation reserve, i.e., the net rate base) would be added to rate base. LIWC would be entitled to assess a surcharge on its customers' bills based on the most recently-approved pre-tax rate of return applied to the net rate base increase, plus the cost of depreciation expense. The DSIC program, and the surcharges collected pursuant to the program, would be separate and apart from the Revenue Adjustment Clause.
- Q. How would the surcharge be assessed?
- A. The surcharge would be assessed annually for the replaced/renewed distribution network facilities placed in service during the 12-month period ending one month prior to the effective date of the surcharge. The first year of the surcharge would be the twelve months ending March 31, 2007. Correspondingly, the first surcharge would be assessed on May 1, 2007. LIWC will provide detailed project information regarding the DSIC (such as dates, expenditures, replacements and retirements). During the one-month interval between the end of the surcharge period and the assessment, the Company will provide data within ten calendar days,

and Staff will have the balance of the month to verify the level of expenditures. The timeframes noted above, the one month interval and the ten-day submission, are proposals at this time and are subject to discussion.

Q. How will the surcharge be spread over the Company's customer base?

A. The surcharge will be a percentage, carried to two decimal places, and will be applied to the total amount billed to each customer. The formula of the calculation is as follows:

$$\frac{\text{Surcharge} = (\text{NRB} \times \text{ROR}) + \text{D}}{\text{AR}}$$

Where:

NRB = the cost of the distribution network facilities, net of associated (i) retirements, (ii) ADIT and (iii) accumulated depreciation reserve

ROR = the annual pretax rate of return allowed in LIWC's most recent rate case.

D = the annual depreciation expense on the net additions

AR = LIWC's projected annual revenues

Q. How will the Commission maintain continuing control over this program?

A. The Company proposes that there be an annual reconciliation for each 12-month surcharge period, starting with the 12 months ending March 31, 2007, except for those years in which there is an LIWC rate case pending before the Commission. In such years, the reconciliation would be subsumed into the rate case. Any true-ups or reconciliations would be reflected in the calculation of the subsequent year's surcharge.

Q. What would happen to the surcharge when a new rate case is filed?

A. The surcharge would be reset to zero on the effective date of new base rates. Those new base rates will recover costs that had been recouped previously through the surcharge. Future expenditures under the DSIC program, however, would then be reflected in a new surcharge.

Q. How does the Company propose to keep customers advised of the applicable surcharge?

A. LIWC's customers will be notified of the surcharge increase through a notice included with their service billing.

Q. In developing the DSIC surcharge proposal, did you draw on any models from the water industry?

A. Yes. The Company borrowed liberally from the long-term main renewal program approved for United Water New Rochelle in Case 99-W-0948.

Q. Does this conclude your direct testimony at this time?

A. Yes, it does.

**NY PSC Testimony in Response- 2004 Rate Case:**

Q. Please explain the company's proposal to develop a DSIC surcharge mechanism to recover the cost of replacing and renewing its distribution system.

A. The company has approximately 48 miles of 2 to 4 inch main that is old (average age of main less than 4 inches is approximately 78 years), undersized, and in need of replacement. This represents approximately 7.0% of LIWC's total distribution system. LIWC's total system consists of approximately 716 miles of main with an average service age of 62 years. The company proposes to begin to accelerate the removal and upgrading of this small diameter main with new larger main.

Q. Will increasing the size of the main provide any tangible benefits to customers?

A. Yes, over time customers in the areas served by the renewed mains should begin to see improved pressures and reduced turbidity problems, which may have occurred from old and tuberculated mains. There may also be some minimal decrease in pumping, leak repair and maintenance costs as older mains are replaced.

Q. What costs are proposed to be included in the surcharge?

A. The proposed surcharge is designed to recover the depreciation and return on the investment associated with the distribution main replacement project. Please explain the cost impact of the company's surcharge proposal using the proposed range of \$3.0 to \$5.0 million in annual capital expenditures for this program.

A. A \$5.0 million capital program would have an approximate \$750,000 annual revenue requirement and would produce an approximate 2.0% annual surcharge. Likewise, a \$3.0 million capital program would have an approximate \$450,000 annual revenue requirement and produce an approximate 1.25% annual surcharge.

Q. Has the company fully justified its basis for proposing the annual expenditure of up to \$5.0 million on this work?

A. To date, in my opinion, it has not. However, the stated primary goals of the program – to accelerate current programs to replace and improve mains (and associated appurtenances – namely, services and hydrants) under 4 inches in diameter with new mains, is reasonable.

Q. How much has LIWC been spending on this work during the last five years?

A. In response to Staff Information Request (IR) BEA-3, the company states that it has spent an annual average of just under \$1.3 million, in capital costs, for the period 19Q9 through 2003 for the replacement and or renewal of mains, services and fire hydrants. This equates to an annual average replacement rate of approximately 1.5 miles of main, 35 hydrants and 250 service per year.

Q. Does the company have a projection of spending in this area for the next few years?

A. Yes, in response to Staff IR BEA-2, the company plans to continue spending approximately \$1.3 million for each of the years 2006 through 2008.

Q. What do you recommend?

A. I recommend that the company be directed to spend the proposed annual average of \$1.3 million for routine construction associated with replacing its old "undersized mains" as it indicated in its response to Staff IR BEA-2. Further, I recommend that any dollars in excess of the proposed \$1.3 million annual average, for any distribution or transmission main related system improvement activities (including new mains and associated appurtenances) should be allowed recovery through the proposed DSIC surcharge mechanism up to an annual cap of \$3.0 million. The recommended \$3.0 million level of spending, which is almost twice the current indicated level of expenditures for

this area (transmission and distribution main and associated activities combined) should be in place for at least the first three years of the program. This three year program will allow sufficient time to determine if appropriate system improvements are being made and that the level of spending is reasonable, given other competing program priorities, and that the company is able to properly manage and systematically plan for future improvements. Such information will be used to help determine the optimal level of future funding levels for the program's continuation.

Q. What would Staff require for proper oversight of such a program?

A. The company's proposal includes a basic level of information, but the additional program flexibility provided under the above proposal requires that the company develop and provide a more formal prioritized list of main replacement and renewal projects going forward.

Q. Please be more specific.

A. At a minimum I suggest that the company develop a five year plan that identifies which specific mains (distribution and/or transmission) should be renewed, replaced or constructed. For each project, the plan should include an explanation of why such work is recommended and the project's funding priority in terms of dollar amount and schedule. The plan should also be coordinated with local municipal plans such that any street rehabilitations or local development plans are accounted for in an effort to minimize street opening and closing costs. Staff would review the plan with the company and use it as a flexible planning tool to monitor the company's activities in this area to ensure that related investments achieve the best possible result both economically and operationally.

Q. Do you have any other comments related to this area?

A. Yes,. because the above described proposal includes transmission main related projects, the projected expenditures identified in the company's response to Staff IR BEA-2, under Major Investment Project Construction, may be included within the DSIC. If they are, those projects should be eliminated from the level of construction spending used to set base rates in the instant case.

Q. In the event that the parties can establish a multi-year agreement, what do you propose for an overall going forward construction expenditure level?

A. After the distribution and transmission projects, shown in the company's response to Staff IR BEA-2, for both routine and major projects are combined, and eliminating the above noted transmission main work, I would set the overall annual minimum capital spending limit at \$2.8 million. This \$2.8 million annual figure includes \$1.3 million earmarked for the above noted "routine replacement of small distribution mains and associated work" for the years 2006 through 2008. Further, this proposed minimum level of expenditure assumes that the company's two iron removal and treatment plants projects, at Plant 12 in Baldwin and Plant 24 in Lynbrook, have been completed according to the cost and schedule shown in Mr. Tambini's Exhibit 8 and further that any Automatic Meter Read (AMR) project costs are excluded, for reasons explained by Staff witnesses Visalli and Siegel.

Q. Please explain why you would remove the capital associated with the two Iron Removal Plants at Plant 12 in Baldwin and Plant 24 in Lynbrook.

A. Those two facilities are currently on schedule for an in-service date prior to year end 2005. Further the prior rate- plan with LIWC, in Case 01-W-1949, capped the combined capital cost, for these two facilities, that would flow to rates at \$7.7 million.

Q. How long would you recommend that the proposed DSIC surcharge mechanism remain in place?

A. As the company proposed, I recommend that the surcharge remain in place until the company's next general rate case is decided, at which time all previously collected surcharge amounts would be accounted for and included in base rates. The net effect to a customer's bill would be transparent, as the related revenues will simply shift from the existing DSIC surcharge to base rates.

Q. Can you add anything else with regard to your surcharge proposal?

A. Not at this time, as further discussions between the company and Staff are necessary to fully detail a workable surcharge mechanism, including setting an appropriate level of time for the Staff review of the company's annual DSIC work activities, prior to the surcharge going into effect. The DSIC program review process should also include a project planning and work completion verification procedure.

Q. How long would you anticipate these discussions with the company to take?

A. I expect that, within two months time, Staff and the company should be able to reach a resolution of these issues, such that the most significant details will have been identified and agreed to.

Q. Does this conclude your testimony at this time?

A. Yes.

### **NY Rebuttal Testimony (Ed Rex) – 2004 Rate Case**

#### **DSIC Adjustments**

Q. Please summarize those adjustments to the Company's DSIC proposal that LIWC is contesting.

A. LIWC proposed a DSIC program amounting to \$3 million to \$5 million in annual capital expenditures, commencing in April 1, 2006. First, Mr. Alch overestimates (at page 13) the annual revenue requirement associated with that range of capital expenditures. Second, Mr. Alch's testimony with respect to the treatment of the \$1.3 million (relating to the replacement and/or renewal of mains, services and fire hydrants) is unclear. As discussed below, that amount should be included as part of the \$3 million to \$5 million DSIC-related capital expenditures in the years following the rate year. Third, it is unclear whether Mr. Alch recognizes and accepts LIWC's proposal to commence the DSIC program only after the end of the rate year.

Q. Please explain the basis for the statement Mr. Alch has overestimated the annual revenue requirement associated with a DSIC program of \$3 million to \$5 million.

A. I have prepared an exhibit, Exhibit\_(HER-2), to demonstrate the approximate revenue requirement impact at both the lower end of the proposed expenditures range of \$3.0 million and the upper end of \$5.0 million. That analysis, which, for demonstration purposes only, assumes the Staff's proposed pre-tax cost of capital of 10.06% and proposed water sales revenue level \$40,964,441 (Exhibit\_KJH-1, Schedule 1, page 1 of 9), results in an annual revenue requirement of \$367,418 or 0.90% and \$612,380 or 1.49% respectively.

Q. Please clarify how the Company proposes to treat the \$1.3 million of capital costs for the routine replacements and/or renewals (included in rate year rate base) under the DSIC program.

A. The \$1.3 million of capital costs included in the rate year rate base will be recovered through base rates as established in this proceeding. In subsequent years LIWC proposes that such capital costs be recovered through the DSIC.

Q. Does the Company propose to implement the DSIC in the rate year?

A. No. I have proposed (at page 10, lines 17-20, and page 12, lines 5-16, of my direct testimony) that the DSIC commence after the rate year. Capital expenditures on projects that qualify for DSIC recovery, including the approximate annual average of \$1.3 million of routine DSIC-type expenditures, occurring after the rate year ending March 31, 2006, i.e., the first DSIC year April 1, 2006-March 31, 2007, would be recovered through a DSIC charge implemented at the conclusion of the first DSIC year, or approximately May 1, 2007.

Q. Do you agree with Mr. Alch's recommendation to cap DSIC expenditures at \$3.0 million?

- A. No. A cap at that level does not provide sufficient additional capital expenditures to allow for the needed acceleration of the Company's infrastructure replacement.

**NY Order:**

The parties propose that a separate charge be established for recovery of the revenue requirement associated with certain improvements occurring in the second and third years of the rate plan: distribution and transmission mains installed as replacements or reinforcements; cleaning and lining of mains; and valve, service, and hydrant replacements (whether associated with the mains work or because of their age and/or condition). LIWC would spend between \$1.3 million and \$4 million each year.

DSIC-eligible projects would be identified in a five-year plan submitted by LIWC no later than 60 days before the beginning of the second year of the rate plan. The five-year plan would specify the plant that should be renewed, replaced, or constructed, with an explanation of their selection and the company's priorities. Planning would be coordinated with local street rehabilitation and development plans, to minimize street

In support of the DSIC proposal, Staff argues that it affords financial protection to LIWC while ensuring that safe and adequate service continues to be provided. LIWC notes that

similar provisions were included in rate plans approved by the Commission for three other water utilities.<sup>6</sup>

**Order / Stayout (may be unrelated to dsic. NY has a multi-year rate plan routinely)**

Other Provisions

1. Stayout

Should the rate plan be approved, LIWC would not file an application to increase annual revenues recovered from base rates before May 1, 2007, for a rate year beginning April 1, 2008, unless a temporary increase is required pursuant to PSL §§89-j and 114 to protect the company's financial integrity. The company could file revenue-neutral tariffs for new or revised service offerings.