BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES	)))	**CASE NO. 2014-00371**

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB-2)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

HISTORICAL BOND YIELDS
AVERAGE PUBLIC UTILITY BOND VS 20-YEAR TREASURY BOND

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES	)))	**CASE NO. 2014-00371**

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB -3)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

Credit Suisse
20th Annual Energy Summit

February 23 - 25, 2015
Vail, Colorado

U.K. Regulated

KY Regulated

PA Regulated

Supply

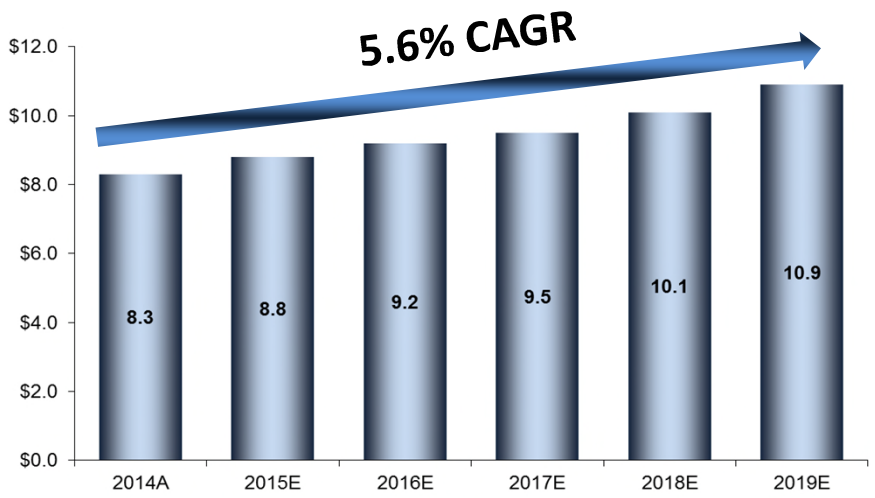
ppl

Kentucky Regulated Segment Investment Highlights

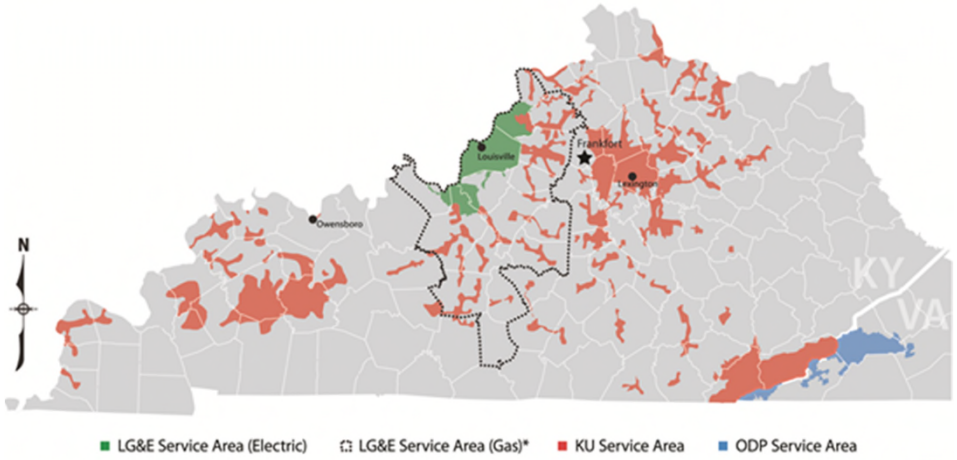
- Efficient, well-run utilities focused on safety, reliability and customer service
- Constructive regulatory environment that provides a timely return on a substantial amount of planned capex over the next 5 years
  - Environmental Cost Recovery (ECR): $2.3 billion estimated spend on projects approved by the KPSC with a 10.25% ROE – virtually no regulatory lag
  - Other supportive recovery mechanisms include Construction Work In Progress, Fuel Adjustment Clause, Gas Supply Clause Adjustment and Demand Side Management recovery

($ in billions)

Significant Rate Base Growth



Kentucky Delivery Territories



BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES	)))	**CASE NO. 2014-00371**

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB -4)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Feb-15	Jan-15	Dec-14	Nov-14	Oct-14	Sep-14
ALLETE	High Price ($)	57.770	59.730	57.970	53.260	52.680	48.820
	Low Price ($)	52.380	54.300	50.490	49.560	44.190	44.390
	Avg. Price ($)	55.075	57.015	54.230	51.410	48.435	46.605
	Dividend ($)	0.505	0.490	0.490	0.490	0.490	0.490
	Mo. Avg. Div.	3.67%	3.44%	3.61%	3.81%	4.05%	4.21%
	6 mos. Avg.	3.80%					
Alliant Energy	High Price ($)	69.350	70.800	69.780	63.730	62.300	59.360
	Low Price ($)	62.890	65.300	61.940	61.350	55.380	54.690
	Avg. Price ($)	66.120	68.050	65.860	62.540	58.840	57.025
	Dividend ($)	0.550	0.510	0.510	0.510	0.510	0.510
	Mo. Avg. Div.	3.33%	3.00%	3.10%	3.26%	3.47%	3.58%
	6 mos. Avg.	3.29%					
Avista Corp.	High Price ($)	37.650	38.340	37.370	35.980	35.960	32.880
	Low Price ($)	33.280	34.910	33.200	33.190	30.550	30.450
	Avg. Price ($)	35.465	36.625	35.285	34.585	33.255	31.665
	Dividend ($)	0.330	0.318	0.318	0.318	0.318	0.318
	Mo. Avg. Div.	3.72%	3.47%	3.60%	3.68%	3.82%	4.02%
	6 mos. Avg.	3.72%					
CMS Energy	High Price ($)	38.120	38.660	36.870	33.460	32.910	30.830
	Low Price ($)	34.280	34.650	32.790	32.050	29.590	29.150
	Avg. Price ($)	36.200	36.655	34.830	32.755	31.250	29.990
	Dividend ($)	0.290	0.270	0.270	0.270	0.270	0.270
	Mo. Avg. Div.	3.20%	2.95%	3.10%	3.30%	3.46%	3.60%
	6 mos. Avg.	3.27%					
Consolidated Edison	High Price ($)	69.690	72.250	68.920	64.730	64.000	58.120
	Low Price ($)	62.370	65.360	62.620	61.450	56.400	55.800
	Avg. Price ($)	66.030	68.805	65.770	63.090	60.200	56.960
	Dividend ($)	0.650	0.630	0.630	0.630	0.630	0.630
	Mo. Avg. Div.	3.94%	3.66%	3.83%	3.99%	4.19%	4.42%
	6 mos. Avg.	4.01%					
Dominion Resources	High Price ($)	78.880	79.890	80.890	74.590	72.240	71.330
	Low Price ($)	71.610	75.330	71.340	71.340	65.530	67.290
	Avg. Price ($)	75.245	77.610	76.115	72.965	68.885	69.310
	Dividend ($)	0.600	0.600	0.600	0.600	0.600	0.600
	Mo. Avg. Div.	3.19%	3.09%	3.15%	3.29%	3.48%	3.46%
	6 mos. Avg.	3.28%					

COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Feb-15	Jan-15	Dec-14	Nov-14	Oct-14	Sep-14
Duke Energy	High Price ($)	87.290	89.970	87.290	83.900	82.680	75.210
	Low Price ($)	77.790	82.610	80.160	78.510	74.330	72.950
	Avg. Price ($)	82.540	86.290	83.725	81.205	78.505	74.080
	Dividend ($)	0.795	0.795	0.795	0.795	0.795	0.795
	Mo. Avg. Div.	3.85%	3.69%	3.80%	3.92%	4.05%	4.29%
	6 mos. Avg.	3.93%					
Edison International	High Price ($)	68.460	69.590	68.740	63.660	62.900	59.540
	Low Price ($)	62.310	64.780	62.780	61.390	55.880	54.120
	Avg. Price ($)	65.385	67.185	65.760	62.525	59.390	56.830
	Dividend ($)	0.417	0.417	0.355	0.355	0.355	0.355
	Mo. Avg. Div.	2.55%	2.48%	2.16%	2.27%	2.39%	2.50%
	6 mos. Avg.	2.39%					
Empire District Electric	High Price ($)	30.940	31.490	31.200	28.870	29.240	25.950
	Low Price ($)	24.330	29.160	27.400	27.520	24.090	24.000
	Avg. Price ($)	27.635	30.325	29.300	28.195	26.665	24.975
	Dividend ($)	0.260	0.260	0.260	0.255	0.255	0.255
	Mo. Avg. Div.	3.76%	3.43%	3.55%	3.62%	3.83%	4.08%
	6 mos. Avg.	3.71%					
Eversource Energy	High Price ($)	56.520	56.830	56.660	50.920	49.980	46.570
	Low Price ($)	50.420	52.930	49.930	48.650	44.370	43.880
	Avg. Price ($)	53.470	54.880	53.295	49.785	47.175	45.225
	Dividend ($)	0.393	0.393	0.393	0.393	0.393	0.393
	Mo. Avg. Div.	2.94%	2.86%	2.95%	3.16%	3.33%	3.48%
	6 mos. Avg.	3.12%					
IDACORP	High Price ($)	68.400	70.480	70.050	63.520	64.120	56.970
	Low Price ($)	60.900	65.040	61.350	60.550	53.390	53.200
	Avg. Price ($)	64.650	67.760	65.700	62.035	58.755	55.085
	Dividend ($)	0.470	0.470	0.470	0.470	0.430	0.430
	Mo. Avg. Div.	2.91%	2.77%	2.86%	3.03%	2.93%	3.12%
	6 mos. Avg.	2.94%					
Northwestern Corp.	High Price ($)	58.340	59.710	58.700	54.420	53.450	49.550
	Low Price ($)	52.700	55.260	52.020	51.400	45.140	45.120
	Avg. Price ($)	55.520	57.485	55.360	52.910	49.295	47.335
	Dividend ($)	0.400	0.400	0.400	0.400	0.400	0.400
	Mo. Avg. Div.	2.88%	2.78%	2.89%	3.02%	3.25%	3.38%
	6 mos. Avg.	3.03%					

COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Feb-15	Jan-15	Dec-14	Nov-14	Oct-14	Sep-14
OGE Energy	High Price ($)	35.750	36.480	36.700	37.900	37.560	37.760
	Low Price ($)	32.120	33.440	32.850	35.640	33.060	35.150
	Avg. Price ($)	33.935	34.960	34.775	36.770	35.310	36.455
	Dividend ($)	0.250	0.250	0.250	0.250	0.250	0.225
	Mo. Avg. Div.	2.95%	2.86%	2.88%	2.72%	2.83%	2.47%
	6 mos. Avg.	2.78%					
Pinnacle West	High Price ($)	70.710	73.310	71.110	63.500	61.560	57.740
	Low Price ($)	63.810	67.690	62.600	60.610	54.590	54.130
	Avg. Price ($)	67.260	70.500	66.855	62.055	58.075	55.935
	Dividend ($)	0.595	0.595	0.595	0.595	0.568	0.568
	Mo. Avg. Div.	3.54%	3.38%	3.56%	3.84%	3.91%	4.06%
	6 mos. Avg.	3.71%					
Portland General Electric	High Price ($)	40.260	41.040	40.310	37.290	36.860	34.550
	Low Price ($)	36.040	37.820	36.510	35.500	32.070	31.700
	Avg. Price ($)	38.150	39.430	38.410	36.395	34.465	33.125
	Dividend ($)	0.280	0.280	0.280	0.280	0.280	0.275
	Mo. Avg. Div.	2.94%	2.84%	2.92%	3.08%	3.25%	3.32%
	6 mos. Avg.	3.06%					
Southern Company	High Price ($)	51.140	53.160	51.280	47.970	47.690	44.820
	Low Price ($)	45.220	48.840	47.070	46.300	43.550	43.040
	Avg. Price ($)	48.180	51.000	49.175	47.135	45.620	43.930
	Dividend ($)	0.525	0.525	0.525	0.525	0.525	0.525
	Mo. Avg. Div.	4.36%	4.12%	4.27%	4.46%	4.60%	4.78%
	6 mos. Avg.	4.43%					
Westar Energy	High Price ($)	43.310	44.030	43.150	39.620	37.910	37.070
	Low Price ($)	38.600	40.330	38.520	37.240	33.730	33.760
	Avg. Price ($)	40.955	42.180	40.835	38.430	35.820	35.415
	Dividend ($)	0.350	0.350	0.350	0.350	0.350	0.350
	Mo. Avg. Div.	3.42%	3.32%	3.43%	3.64%	3.91%	3.95%
	6 mos. Avg.	3.61%					
Xcel Energy	High Price ($)	37.840	38.350	37.580	34.100	33.760	32.480
	Low Price ($)	34.600	35.600	33.490	32.950	30.180	30.120
	Avg. Price ($)	36.220	36.975	35.535	33.525	31.970	31.300
	Dividend ($)	0.300	0.300	0.300	0.300	0.300	0.300
	Mo. Avg. Div.	3.31%	3.25%	3.38%	3.58%	3.75%	3.83%
	6 mos. Avg.	3.52%					
Average Dividend Yield		3.42%					

Source: Yahoo! Finance

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB -5)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

COMPARISON GROUP
DCF Growth Rate Analysis

Company	(1) Value Line DPS	(2) Value Line EPS	(3) Value Line B x R	(4) Zacks	(5) IBES
ALLETE, Inc.	4.00%	6.00%	3.50%	6.00%	6.00%
Alliant Energy Corporation	4.50%	6.00%	5.00%	4.90%	5.40%
Avista Corporation	4.50%	5.50%	3.00%	5.00%	5.00%
CMS Energy Corporation	6.00%	6.50%	6.00%	6.20%	6.73%
Consolidated Edison, Inc.	2.50%	2.50%	3.00%	3.00%	2.77%
Dominion Resources, Inc.	7.50%	7.50%	4.50%	6.30%	5.83%
Duke Energy Corporation	2.50%	5.00%	3.00%	4.70%	4.41%
Edison International	9.50%	2.50%	5.50%	7.10%	3.53%
Empire District Electric Co.	4.50%	4.00%	3.50%	3.00%	3.00%
Eversource Energy	7.00%	8.00%	4.00%	6.40%	6.25%
IDACORP, Inc.	8.00%	1.50%	3.50%	4.00%	3.00%
NorthWestern Corp.	6.50%	6.50%	4.00%	7.60%	7.60%
OGE Energy	9.50%	5.50%	5.50%	5.60%	5.10%
Pinnacle West Capital Corp.	3.00%	4.00%	3.50%	4.00%	4.20%
Portland General Electric Company	4.50%	5.00%	4.00%	5.90%	5.26%
Southern Company	3.50%	4.00%	4.50%	3.60%	3.40%
Westar Energy, Inc.	3.00%	6.00%	4.50%	3.80%	3.37%
Xcel Energy Inc.	5.00%	5.50%	4.00%	4.70%	4.51%
Averages	5.31%	5.08%	4.14%	5.10%	4.74%
Median Values	4.50%	5.50%	4.00%	4.95%	4.76%

Sources: **Value Line Investment Survey, December 19,2014 and January 30 and February 20, 2015**
Yahoo! Finance for IBES growth rates retrieved February 27, 2015
Zacks growth rates retrieved February 27, 2015
IBES growth rates were used in the Zacks column for ALLETE and Avista

COMPARISON GROUP
DCF RETURN ON EQUITY

	(1) Value Line Dividend Gr.	(2) Value Line Earnings Gr.	(3) Zack's Earning Gr.	(4) IBES Earning Gr.	(5) Average of All Gr. Rates
Method 1:					
Dividend Yield	3.42%	3.42%	3.42%	3.42%	3.42%
Average Growth Rate	5.31%	5.08%	5.10%	4.74%	5.06%
Expected Div. Yield	3.51%	3.51%	3.51%	3.50%	3.51%
DCF Return on Equity	***8.82%***	***8.59%***	***8.61%***	***8.24%***	***8.57%***
Method 2:					
Dividend Yield	3.42%	3.42%	3.42%	3.42%	3.42%
Median Growth Rate	4.50%	5.50%	4.95%	4.76%	4.93%
Expected Div. Yield	3.50%	3.52%	3.51%	3.50%	3.51%
DCF Return on Equity	***8.00%***	***9.02%***	***8.46%***	***8.26%***	***8.44%***

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KENTUCKY PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB -6)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

COMPARISON GROUP
Capital Asset Pricing Model Analysis
Comparison Group

20-Year Treasury Bond, Value Line Beta

Line No.		Value Line
1	Market Required Return Estimate	10.02%
2	Risk-free Rate of Return, 20-Year Treasury Bond	
3	Average of Last Six Months	2.71%
4	Risk Premium	
5	(Line 1 minus Line 3)	7.32%
6	Comparison Group Beta	0.73
7	Comparison Group Beta * Risk Premium	
8	(Line 5 * Line 6)	5.31%
9	CAPM Return on Equity	
10	(Line 3 plus Line 8)	8.01%

5-Year Treasury Bond, Value Line Beta

1	Market Required Return Estimate	10.02%
2	Risk-free Rate of Return, 5-Year Treasury Bond	
3	Average of Last Six Months	1.60%
4	Risk Premium	
5	(Line 1 minus Line 3)	8.43%
6	Comparison Group Beta	0.73
7	Comparison Group Beta * Risk Premium	
8	(Line 5 * Line 6)	6.11%
9	CAPM Return on Equity	
10	(Line 3 plus Line 8)	7.71%

COMPARISON GROUP
Capital Asset Pricing Model Analysis
Comparison Group

Supporting Data for CAPM Analyses

20 Year Treasury Bond Data

	Avg. Yield
August-14	2.94%
September-14	3.01%
October-14	2.77%
November-14	2.76%
December-14	2.55%
January-15	2.20%
6 month average	2.71%

5 Year Treasury Bond Data

	Avg. Yield
August-14	1.63%
September-14	1.77%
October-14	1.55%
November-14	1.62%
December-14	1.64%
January-15	1.37%
6 month average	1.60%

Source: www.federalreserve.gov, Selected Interest Rates (Dalily) - H.15

Value Line Market Return Data:

Forecasted Data:

Value Line Median Growth Rates:	
Earnings	12.00%
Book Value	8.50%
Average	10.25%
Median Dividend Yield	0.76%
Estimated Market Return	11.05%
Value Line Projected 3-5 Yr. Median Annual Total Return	9.00%
Average of Projected Mkt. Returns	10.02%

Source: Value Line Investment Survey for Windows retreived February 25, 2015

Comparison Group Betas:	Value Line
ALLETE, Inc.	0.80
Alliant Energy Corporation	0.80
Avista Corporation	0.80
CMS Energy Corporation	0.70
Consolidated Edison, Inc.	0.60
Dominion Resources, Inc.	0.70
Duke Energy Corporation	0.60
Edison International	0.75
Empire District Electric Co.	0.70
Eversource Energy	0.75
IDACORP, Inc.	0.80
NorthWestern Corp.	0.70
OGE Energy	0.90
Pinnacle West Capital Corp.	0.70
Portland General Electric Company	0.80
Southern Company	0.55
Westar Energy, Inc.	0.75
Xcel Energy Inc.	0.65
Average	0.73

Source: Value Line Investment Survey

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KENTUCKY PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB -7)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

COMPARISON GROUP
Capital Asset Pricing Model Analysis
Historic Market Premium

	Geometric Mean	Arithmetic Mean	Adjusted Arithmetic Mean
Long-Term Annual Return on Stocks	10.10%	12.10%	
Long-Term Annual Income Return on Long-Term Treas. Bonds	5.09%	5.09%	
Historical Market Risk Premium	5.01%	7.01%	6.12%
Comparison Group Beta, Value Line	0.73	0.73	0.73
Beta * Market Premium	3.63%	5.08%	4.44%
Current 20-Year Treasury Bond Yield	2.71%	2.71%	2.71%
CAPM Cost of Equity, Value Line Beta	**6.34%**	**7.79%**	**7.14%**

Source: *Ibbotson SBBI 2014 Classic Yearbook,* Morningstar, pp. 39 - 40, 152, 157 - 158

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

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In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB -8)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

LG&E REVISED COST OF LONG-TERM DEBT

LINE NO.	DEBT ISSUE TYPE	COUPON RATE	DATE ISSUED (DAY/MO/YR)	MATURITY DATE (DAY/MO/YR)	AVERAGE PRINCIPAL AMOUNT	UNAMORT. (DISCOUNT) OR PREMIUM	UNAMORT. DEBT EXPENSE	UNAMORT. LOSS ON REACQUIRED DEBT	CARRYING VALUE	ANNUAL COST					
										INTEREST	AMORT. (DISCOUNT) OR PREMIUM	AMORT. DEBT EXPENSE	AMORT. LOSS ON REACQUIRED DEBT	LETTER OF CREDIT AND OTHER FEES	TOTAL
		(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H=D+E-F-G)	(I=AxD)	(J)	(K)	(L)	(M)	(N=I+J+K+L+M)
		%			$	$	$	$	$	$	$	$	$	$	$
1	LG&E_PCB Variable due June 1, 2033	1.60%	Apr. 26, 2007	June 1, 2033	35,200,000	-	77,291	571,863	34,550,846	563,200	-	54,562	32,902		650,664
2	LG&E_PCB 4.60% due June 1, 2033	4.60%	Apr. 26, 2007	June 1, 2033	60,000,000	-	827,998	829,165	58,342,836	2,760,000	-	47,541	47,705		2,855,246
3	LG&E_PCB Variable due Aug 1, 2030	1.96%	Aug. 9, 2000	Aug 1, 2030	83,335,000	-	564,534	2,095,404	80,675,062	1,630,935	-	38,791	143,983	254,997	2,068,706
4	LG&E_PCB Variable due Sep 1, 2027	1.96%	Sep. 11, 2001	Sep 1, 2027	10,104,000	-	237,948	-	9,866,052	197,744	-	20,436	-	30,403	248,583
5	LG&E_PCB Variable due Sep 1, 2026	1.25%	Mar. 6, 2002	Sep 1, 2026	22,500,000	-	105,857	825,874	21,568,269	281,250	-	9,943	77,575	-	368,769
6	LG&E_PCB Variable Series CC due Sep 1, 2026	1.25%	Mar. 6, 2002	Sep 1, 2026	27,500,000	-	115,097	697,508	26,687,395	343,750	-	10,811	65,518	-	420,079
7	LG&E_PCB Variable Series DD due Nov 1, 2027	1.45%	Mar. 22, 2002	Nov 1, 2027	35,000,000	-	130,121	580,349	34,289,530	507,500	-	11,018	49,140	-	567,658
8	LG&E_PCB Variable Series EE due Nov 1, 2027	1.45%	Mar. 22, 2002	Nov 1, 2027	35,000,000	-	130,143	578,221	34,291,636	507,500	-	11,020	48,960	-	567,480
9	LG&E_PCB Variable due Oct 1, 2032	1.96%	Oct. 23, 2002	Oct 1, 2032	41,665,000	-	623,500	934,937	40,106,563	815,418	-	37,297	55,927	146,578	1,055,220
10	LG&E_PCB due Oct 1,2033	1.65%	Nov. 20, 2003	Oct 1,2033	128,000,000	-	191,357	5,542,462	122,266,180	2,112,000	-	152,432	314,334		2,578,766
11	LG&E_PCB due May 1, 2027	1.45%	May 19, 2000	May 1, 2027	25,000,000	-	49,364	1,399,892	23,550,744	361,601	-	53,858	123,805		539,264
12	LG&E_PCB due Feb 1, 2035	3.00%	Apr. 13, 2005	Feb 1, 2035	40,000,000	-	253,633	1,614,655	38,131,713	1,200,000	-	70,946	84,769		1,355,715
13	LG&E_PCB due June 1, 2033	1.15%	Apr. 26, 2007	June 1, 2033	31,000,000	-	90,968	615,895	30,293,137	356,500	-	64,342	35,435		456,277
14	LG&E_FMB due Nov. 15, 2015	1.625%	Nov. 16, 2010	Nov. 15, 2015	93,750,000	(14,189)	41,762	-	93,694,049	1,523,438	66,638	196,128	-		1,786,203
15	LG&E_FMB due Nov. 15, 2040	5.125%	Nov. 16, 2010	Nov. 15, 2040	285,000,000	(2,571,033)	2,965,651	-	279,463,316	14,606,250	103,560	119,456	-		14,829,266
16	LG&E_FMB due Nov 1, 2043	4.65%	Nov. 14, 2013	Nov. 15, 2043	250,000,000	(1,672,426)	2,547,906	-	245,779,668	11,625,000	60,120	91,587	-		11,776,707
17	LG&E_2015 Projected Issuance due 2045	3.70%	Oct. 1, 2015	Oct. 1, 2045	225,000,000	-	-	-	225,000,000	8,325,000	-	-	-		8,325,000
18	LG&E_2015 Projected Issuance due 2025	3.70%	Oct. 1, 2015	Oct. 1, 2025	187,500,000	-	-	-	187,500,000	6,937,500	-	-	-		6,937,500
19	UNAM EXP-S-3 SHELF REGISTRATION 3/15				-	-	-	-	-	-	-	-	-		-
20	Revolving Credit Facility				-	-	2,083,920	204,197	(2,288,117)	-	-	584,249	57,249	625,000	1,266,498
21	JP Morgan Chase Bank 5.495% - Trimble Co. 2000 Series A				-	-	-	-	-	3,950,097					3,950,097
22	Morgan Stanley Capital Services 3.657% - Louisville Metro 2003 Series A				-	-	-	-	-	935,549					935,549
23	Morgan Stanley Capital Services 3.645% - Louisville Metro 2003 Series A				-	-	-	-	-	931,709					931,709
24	Bank of America - Louisville Metro 2003 Series A				-	-	-	-	-	947,709					947,709
25	Regulatory Liability - Swap Hedging FMB				-	-	-	-	-	(1,410,166)					(1,410,166)
			TOTALS		1,615,554,000	(4,257,649)	11,037,050	16,490,423	1,583,768,878	60,009,485	230,318	1,574,417	1,137,301	1,056,978	64,008,500
	EMBEDDED COST OF LONG-TERM DEBT (N / H)														4.04%

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC RATES	)))	**CASE NO. 2014-00371**

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY FOR AN ADJUSTMENT OF ITS ELECTRIC AND GAS RATES	))))	**CASE NO. 2014-00372**

EXHIBIT (RAB -9)

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 6, 2015

Docket No. 120015-EI
Interest Rate Trends
Exhibit WEA-2, Page 1 of 1

	Current (a)	2012	2013	2014	2015	2016
30-Yr. Treasury						
Value Line (b)	3.4%	3.9%	4.1%	4.5%	5.0%	--
IHS Global Insight (c)	3.4%	3.3%	3.8%	4.5%	5.1%	5.3%
Blue Chip (d)	3.4%	3.7%	4.2%	4.8%	5.3%	5.5%
AAA Corporate						
Value Line (b)	4.2%	4.6%	4.7%	5.2%	5.7%	--
IHS Global Insight (c)	4.2%	4.2%	4.5%	5.1%	6.0%	6.2%
Blue Chip (d)	4.2%	4.3%	4.7%	5.4%	5.8%	6.2%
S&P (e)	4.2%	4.2%	4.6%	5.1%	6.0%	--
AA Utility						
IHS Global Insight (c)	4.3%	4.4%	4.9%	5.6%	6.5%	6.8%
EIA (f)	4.3%	4.7%	4.8%	5.7%	6.8%	6.9%

(a) Based on monthly average bond yields for the six-month period Jul. - Dec. 2011 reported at www.credittrends.moodys.com and http://www.federalreserve.gov/releases /h15/data.htm.

(b) The Value Line Investment Survey, Forecast for the U.S. Economy (Nov. 25, 2011).

(c) IHS Global Insight, *U.S. Economic Outlook* at 25 (Dec. 2011).

(d) *Blue Chip Financial Forecasts,* Vol. 30, No. 12 (Dec. 1, 2011).

(e) Standard & Poor's Corporation, "U.S. Economic Forecast: Just Like Ol' Times," *RatingsDirect* (Jan. 12, 2012).

(f) Energy Information Administration, *Annual Energy Outlook 2012, Early Release* (Jan. 23, 2012).

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY POWER COMPANY FOR A GENERAL ADJUSTMENT OF ITS RATES FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVINGS ITS TARIFFS AND RIDERS; AND (4) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	**CASE NO. 2014-00396**

DIRECT TESTIMONY

AND EXHIBITS

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 23, 2015

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY POWER COMPANY FOR A GENERAL ADJUSTMENT OF ITS RATES FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVINGS ITS TARIFFS AND RIDERS; AND (4) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	**CASE NO. 2014-00396**

TABLE OF CONTENTS

BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY POWER COMPANY FOR A GENERAL ADJUSTMENT OF ITS RATES FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVINGS ITS TARIFFS AND RIDERS; AND (4) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	**CASE NO. 2014-00396**

DIRECT TESTIMONY OF RICHARD A. BAUDINO

I. QUALIFICATIONS AND SUMMARY

Q. Please state your name and business address.

A. My name is Richard A. Baudino. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by whom are you employed?

A. I am a consultant with Kennedy and Associates.

Q. Please describe your education and professional experience.

A. I received my Master of Arts degree with a major in Economics and a minor in Statistics from New Mexico State University in 1982. I also received my Bachelor of Arts Degree with majors in Economics and English from New Mexico State in 1979.

I began my professional career with the New Mexico Public Service Commission Staff in October 1982 and was employed there as a Utility Economist. During my employment with the Staff, my responsibilities included the analysis of a broad range of issues in the ratemaking field. Areas in which I testified included cost of service, rate of return, rate design, revenue requirements, analysis of sale/leasebacks of generating plants, utility finance issues, and generating plant phase-ins.

In October 1989, I joined the utility consulting firm of Kennedy and Associates as a Senior Consultant where my duties and responsibilities covered substantially the same areas as those during my tenure with the New Mexico Public Service Commission Staff. I became Manager in July 1992 and was named Director of Consulting in January 1995. Currently, I am a consultant with Kennedy and Associates.

Exhibit No. ___(RAB-1) summarizes my expert testimony experience.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Kentucky Industrial Utility Customers, Inc. ("KIUC"). The members of KIUC participating in this proceeding are: Air Products and Chemicals, Inc., Air Liquide Industrial U.S. LP, AK Steel Corporation, EQT Corporation, and Marathon Petroleum Company LP.

Q. What is the purpose of your Direct Testimony?

A. The purpose of my Direct Testimony is to address the allowed return on equity for regulated electric operations for Kentucky Power Company ("KPC", or "Company").

I will also respond to the Direct Testimony of Dr. William Avera and Mr. Adrien McKenzie, witnesses for the Company.

Q. Please summarize your conclusions and recommendations.

A. Based on current financial market conditions, I recommend that the Kentucky Public Service Commission ("KPSC" or "Commission") adopt a 8.75% return on equity for Kentucky Power Company in this proceeding. My recommendation is based on the results of a Discounted Cash Flow ("DCF") model analysis. My DCF analysis incorporates my standard approach to estimating the investor required return on equity and includes a group of 14 comparison companies and dividend and earnings growth forecasts from the Value Line Investment Survey, IBES, and Zacks.

I also included two Capital Asset Pricing Model ("CAPM") analyses for additional information. I did not incorporate the results of the CAPM in my recommendation, however the results from the CAPM support my 8.75% ROE recommendation for KPC. In fact, my CAPM results are somewhat lower than my DCF results.

In Section IV, I respond to the testimony and ROE recommendation of the Company's witnesses Avera/McKenzie. I will demonstrate that their recommended ROE of 10.62% significantly overstates the current investor required return for the Company. The current financial environment of low interest rates has been deliberately and methodically supported by Federal Reserve policy actions since 2009 and is ongoing. A 10.62% ROE for a regulated electric utility such as KPC simply cannot be supported at this time and would contribute to a burdensome rate

increase for Kentucky ratepayers. I strongly recommend that the KPSC reject the Companies' requested ROE in this proceeding.

II. REVIEW OF ECONOMIC AND FINANCIAL CONDITIONS

Q. Mr. Baudino, what has the trend been in long-term capital costs over the last few years?

A. Generally speaking, interest rates have declined over the last 10 years. Exhibit No. ___(RAB-2) presents a graphic depiction of the trend in interest rates from January 2005 through December 2014. The interest rates shown in this exhibit are for the 20-year U.S. Treasury Bond and the average public utility bond from the Mergent Bond Record. In January 2005, the average public utility bond yield was 5.80% and the 20-year Treasury Bond yield was 4.77%. As of December 2014 the average public utility bond yield was 4.18%, representing a decline of 162 basis points, or 1.62% from January 2005. Likewise, the 20-year Treasury bond declined to 2.55% in December 2014, a decline of 2.22% (222 basis points) from January 2005.

Q. Was there a significant change in Federal Reserve policy during the historical period shown in Exhibit No. ___(RAB-2)?

A. Yes. In response to the 2007 financial crisis and severe recession that followed in December 2007, the Federal Reserve ("Fed") undertook a series of steps to stabilize the economy, ease credit conditions, and lower unemployment and interest rates. These steps are commonly known as Quantitative Easing ("QE") and were implemented in three distinct stages: QE1, QE2, and QE3. The Fed's stated purpose

of QE was "to support the liquidity of financial institutions and foster improved conditions in financial markets."[1]

QE1 was implemented from November 2008 through approximately March 2010. During this time, the Fed cut its key Federal Funds Rate to nearly 0% and purchased $1.25 trillion of mortgage-backed securities and $175 billion of agency debt purchases.

QE2 was implemented in November 2010 with the Fed announcing that it would purchase an additional $600 billion of Treasury securities by the second quarter of 2011.[2]

Beginning in September 2011, the Federal Reserve initiated a "maturity extension program" in which it sold or redeemed $667 billion of shorter-term Treasury securities and used the proceeds to buy longer-term Treasury securities. This program, also known as "Operation Twist" was designed by the Federal Reserve to lower long-term interest rates and support the economic recovery.

QE3 began in September 2012 with the Fed announcing an additional bond purchasing program of $40 billion per month of agency mortgage backed securities. On June 19, 2013, the Federal Open Market Committee ("FOMC") issued a press

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1 http://www.federalreserve.gov/monetarypolicy/bst_crisisresponse.htm

2 http://www.federalreserve.gov/newsevents/press/monetary/20101103a.htm

release indicating that it intended to extend "Operation Twist." In its press release, the Federal Reserve stated:

> To support a stronger economic recovery and to help ensure that inflation, over time, is at the rate most consistent with its dual mandate, the Committee decided to continue purchasing additional agency mortgage-backed securities at a pace of $40 billion per month and longer-term Treasury securities at a pace of $45 billion per month. The Committee is maintaining its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. Taken together, these actions should maintain downward pressure on longer-term interest rates, support mortgage markets, and help to make broader financial conditions more accommodative.

More recently, the Federal Reserve began to pare back its purchases of securities. For example, on January 29, 2014 the Federal Reserve stated that beginning in February 2014 it would reduce its purchases of long-term Treasury securities to $35 billion per month. The Federal Reserve continued to reduce these purchases throughout the year and in a press release issued October 29, 2014 announced that it decided to close this asset purchase program in October.[3]

Q. Since the Federal Reserve's announcements of scaling back and finally ending its purchases of long-term Treasury securities, what has the trend been in long-term Treasury yields from 2014 through 2015?

A. The yield on the 20-year Treasury bond has actually declined since the beginning of 2014. The January 2014 yield on the 20-year Treasury bond was 3.52%. The closing yield for the week ending March 13, 2015 was 2.50%, a decline of 102 basis

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[3] http://www.federalreserve.gov/newsevents/press/monetary/20141029a.htm

points since January 2014. Average utility bond yields have followed a similar trend, starting January at 4.72% and closing at 4.01% as of March 16, 2015.

Q. Mr. Baudino, why is it important to understand the Fed's actions with respect to monetary policy since 2007?

A. The Fed's monetary policy actions since 2007 were deliberately undertaken to lower interest rates and support economic recovery. The Fed's actions have been quite successful in lowering interest rates given that the 20-year Treasury Bond yield in June 2007 was 5.29% and the public utility bond yield was 6.34%. The U.S. economy is currently in a low interest rate environment that, in my opinion, will likely continue at least through this year. As I will demonstrate later in my testimony, low interest rates have also significantly lowered investors' required return on equity for the stocks of regulated utilities.

Q. Has the Fed recently signaled that it is considering raising interest rates?

A. Yes. In the Fed's Semiannual Monetary Policy Report to Congress on February 24, 2015 Chair Janet Yellen stated the following:

> "The FOMC's assessment that it can be patient in beginning to normalize policy means that the Committee considers it unlikely that economic conditions will warrant an increase in the target range for the federal funds rate for at least the next couple of FOMC meetings. If economic conditions continue to improve, as the Committee anticipates, the Committee will at some point begin considering an increase in the target range for the federal funds rate on a meeting-by-meeting basis."[4]

[4] http://www.federalreserve.gov/newsevents/testimony/yellen20150224a.htm

In a press release dated March 18, 2015, the Fed reaffirmed its view that "the current 0 to 1/4 percent target range for the federal funds rate remains appropriate." The Fed also stated that it will be appropriate to raise the target range for the federal funds rate when it has seen further improvement in the labor market and is "reasonably confident" that inflation will move back to a 2% rate.[5]

It appears that for the time being, the Fed will not raise its Federal Funds Rate.

Q. Are current interest rates indicative of investor expectations regarding future policy actions by the Federal Reserve?

A. Yes. Securities markets are efficient and most likely reflect investors' expectations about future interest rates. As Dr. Roger Morin pointed out in *New Regulatory Finance:*

> "A considerable body of empirical evidence indicates that U.S. capital markets are efficient with respect to a broad set of information, including historical and publicly available information."[6]

I acknowledge that the U.S. economy is operating in a low interest rate environment. It is likely at some point in the near future that the Federal Reserve will begin to raise short-term interest rates. However, the timing and the level of any such move are not known at this time. It is important to realize that investor expectations of higher interest rates, if any, are already embodied in current securities prices, which include debt securities and stock prices.

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[5] http://www.federalreserve.gov/newsevents/press/monetary/20150318a.htm

[6] Morin, Roger A., *New Regulatory Finance,* Public Utilities Reports, Inc. (2006) at 279.

It would not be advisable for utility regulators to raise ROEs in anticipation of higher interest rates that may or may not occur.

Q. How does the investment community regard the electric utility industry as a whole?

A. The Value Line Investment Survey's March 20, 2015 summary report on the Electric Utility (Central) Industry noted the following regarding interest rates and utility stocks.

> " The price of almost every electric utility issue has declined in 2015, and several have fallen by more than 10%. This is in sharp contrast to the broader market averages, which are near where they were at the start of the year. Investors are worried about the possibility that the Federal Reserve will raise interest rates later this year. Indeed, the yield on the 10-year Treasury note, which declined in early 2015, has risen to the point where it is higher than at the end of 2014. Even if interest rates had remained stable, though, it would not have been surprising to see a reversion to the mean after two years of significant outperformance."

Edison Electric Institute ("EEI") recently reported that the utility industry's average credit rating was BBB+ by the third quarter of 2014.[7] EEI reported that credit outlooks remained stable to positive due to "derisking of business models through renewed focus on regulated activities and improved industry regulation."

The *2014 Ibbotson SBBI Classic Yearbook* published by Morningstar stated the following with respect to the outlook for utilities in 2014:

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[7] *EEI Q3 2014 Financial Update, Credit Ratings*, page 1.

> Adding to the sector's attractiveness going into 2014 is its average 4 percent dividend yield, nearly double the average S&P 500 dividend yield and more than 1 percentage point higher than 10-year U.S Treasuries. Our analysis of returns going back 20 years suggests that 10-year U.S. Treasuries could climb to 4 percent from 3 percent today, with little impact on utilities' total returns. We think utilities with 3 percent to 5 percent earnings growth prospects during the next few years offer a compelling risk-adjusted total-return package for any investor.[8]

Q. What do you conclude from the aforementioned quotes?

A. Utilities continue to be safe, solid stock choices for investors. Even with uncertainty regarding the Federal Reserve's decision on when to raise interest rates, utilities' prices have made solid gains since the beginning of 2014. For example, the Dow Jones utility average opened January 2014 at 490.31 and closed at 572.92 for the week ending March 13, 2015. This represents a gain of 16.85%. Morningstar also indicated that interest rates could rise 100 basis points with little effect on utilities' overall return. Of course, Value Line pointed out the utility stocks have retreated somewhat since the beginning of 2015. However, the current low interest rate environment continues to favor utility stocks.

It appears that the Fed will continue a relatively accommodating stance with respect to monetary policy and has signaled that it does not intend to raise short-term interest rates at this time. The volatile economic conditions that were present in the 2008 - 2009 period are over and the U.S. economy continues to slowly recover from the recession that began in 2007.

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[8] *2014 Ibbotson SBBI Classic Yearbook,* Morningstar, page 31.

Q. What are the current credit ratings and bond ratings for KPC?

A. Standard and Poor's ("S&P") current credit rating for the Company is BBB and its senior unsecured bond rating is BBB. Moody's current long-term issuer rating for the KPC is Baa2, with a rating of Baa2 for senior unsecured bonds. These credit ratings are relatively consistent with the recent average utility credit rating of BBB+ as reported by EEI.

III. DETERMINATION OF FAIR RATE OF RETURN

Q. Please describe the methods you employed in estimating a fair rate of return for KPC.

A. I employed a Discounted Cash Flow ("DCF") analysis using a group of regulated electric utilities. My DCF analysis is my standard constant growth form of the model that employs four different growth rate forecasts from the Value Line Investment Survey, IBES, and Zacks. I also employed Capital Asset Pricing Model ("CAPM") analyses using both historical and forward-looking data. Although I did not rely on the CAPM for my recommended 8.75% ROE for KPC, the results from the CAPM tend to support this recommendation.

Q. What are the main guidelines to which you adhere in estimating the cost of equity for a firm?

A. Generally speaking, the estimated cost of equity should be comparable to the returns of other firms with similar risk structures and should be sufficient for the firm to attract capital. These are the basic standards set out by the United States Supreme Court in Federal Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944) and Bluefield W.W. & Improv. Co. v. Public Service Comm'n, 262 U.S. 679 (1922).

From an economist's perspective, the notion of "opportunity cost" plays a vital role in estimating the return on equity. One measures the opportunity cost of an investment equal to what one would have obtained in the next best alternative. For example, let us suppose that an investor decides to purchase the stock of a publicly traded electric utility. That investor made the decision based on the expectation of

dividend payments and perhaps some appreciation in the stock's value over time; however, that investor's opportunity cost is measured by what she or he could have invested in as the next best alternative. That alternative could have been another utility stock, a utility bond, a mutual fund, a money market fund, or any other number of investment vehicles.

The key determinant in deciding whether to invest, however, is based on comparative levels of risk. Our hypothetical investor would not invest in a particular electric company stock if it offered a return lower than other investments of similar risk. The opportunity cost simply would not justify such an investment. Thus, the task for the rate of return analyst is to estimate a return that is equal to the return being offered by other risk-comparable firms.

Q. What are the major types of risk faced by utility companies?

A. In general, risk associated with the holding of common stock can be separated into three major categories: business risk, financial risk, and liquidity risk. Business risk refers to risks inherent in the operation of the business. Volatility of the firm's sales, long-term demand for its product(s), the amount of operating leverage, and quality of management are all factors that affect business risk. The quality of regulation at the state and federal levels also plays an important role in business risk for regulated utility companies.

Financial risk refers to the impact on a firm's future cash flows from the use of debt in the capital structure. Interest payments to bondholders represent a prior call on the

firm's cash flows and must be met before income is available to the common shareholders. Additional debt means additional variability in the firm's earnings, leading to additional risk.

Liquidity risk refers to the ability of an investor to quickly sell an investment without a substantial price concession. The easier it is for an investor to sell an investment for cash, the lower the liquidity risk will be. Stock markets, such as the New York and American Stock Exchanges, help ease liquidity risk substantially. Investors who own stocks that are traded in these markets know on a daily basis what the market prices of their investments are and that they can sell these investments fairly quickly. Many electric utility stocks are traded on the New York Stock Exchange and are considered liquid investments.

Q. Are there any sources available to investors that quantify the total risk of a company?

A. Bond and credit ratings are tools that investors use to assess the risk comparability of firms. Bond rating agencies such as Moody's and Standard and Poor's perform detailed analyses of factors that contribute to the risk of a particular investment. The end result of their analyses is a bond and/or credit rating that reflect these risks.

Discounted Cash Flow ("DCF") Model

Q. Please describe the basic DCF approach.

A. The basic DCF approach is rooted in valuation theory. It is based on the premise that the value of a financial asset is determined by its ability to generate future net cash flows. In the case of a common stock, those future cash flows generally take the

form of dividends and appreciation in stock price. The value of the stock to investors is the discounted present value of future cash flows. The general equation then is:

$$V = \frac{R}{(1+r)} + \frac{R}{(1+r)^2} + \frac{R}{(1+r)^3} + \cdots \frac{R}{(1+r)^n}$$

Where: V = *asset value*
R = *yearly cash flows*
r = *discount rate*

This is no different from determining the value of any asset from an economic point of view; however, the commonly employed DCF model makes certain simplifying assumptions. One is that the stream of income from the equity share is assumed to be perpetual; that is, there is no salvage or residual value at the end of some maturity date (as is the case with a bond). Another important assumption is that financial markets are reasonably efficient; that is, they correctly evaluate the cash flows relative to the appropriate discount rate, thus rendering the stock price efficient relative to other alternatives. Finally, the model I typically employ also assumes a constant growth rate in dividends. The fundamental relationship employed in the DCF method is described by the formula:

$$k = {}^{D_1}/_{P_0} + g$$

Where: D_1 = *the next period dividend*
P_0 = *current stock price*
g = *expected growth rate*
k = *investor-required return*

Under the formula, it is apparent that "k" must reflect the investors' expected return. Use of the DCF method to determine an investor-required return is complicated by the need to express investors' expectations relative to dividends, earnings, and book

value over an infinite time horizon. Financial theory suggests that stockholders purchase common stock on the assumption that there will be some change in the rate of dividend payments over time. We assume that the rate of growth in dividends is constant over the assumed time horizon, but the model could easily handle varying growth rates if we knew what they were. Finally, the relevant time frame is prospective rather than retrospective.

Q. What was your first step in conducting your DCF analysis for KPC?

A. My first step was to construct a comparison group of companies with a risk profile that is reasonably similar to the Companies. Since KPC is a subsidiary of American Electric Power, it does not have publicly traded stock. Thus, one cannot estimate a DCF cost of equity on the Company directly. It is necessary to use a group of companies that are similarly situated and have reasonably similar risk profiles to KPC.

Q. Please describe your approach for selecting a comparison group of electric companies.

A. I used several criteria to select a comparison group. First, using the March 2015 issue of AUS Utility Reports, I selected electric and combination electric and gas companies whose bonds were rated Baa by Moody's or BBB by Standard and Poor's. KPC currently carries senior unsecured bond ratings of BBB from S&P and Baa2 from Moody's, so using the either/or criterion for a BBB/Baa rating assures that the companies in the comparison group carry bond ratings that are similar to KPC's bond ratings.

From that group, I then selected companies that derived at least 50% of total revenue from regulated electric operations according to AUS Utility Reports, and that had long-term earnings growth forecasts from Value Line and either Zacks or IBES.

From this group, I then eliminated companies that had recently cut or eliminated dividends, were recently or currently involved in merger activities, or had recent experience with significant earnings fluctuations. Companies that did not pass these screens are not appropriate candidates for a DCF analysis because of unrepresentative market prices (in terms of companies that are merger candidates) or non-constant growth in earnings or dividends. I also eliminated any companies that had recently been or were currently being restructured in a significant way. These screens eliminated the following companies:

- Cleco Corporation - pending merger.
- FirstEnergy Corporation - dividend reduction in 2014.
- Hawaiian Electric - pending acquisition by NextEra Energy.
- Pepco Holdings, Inc. - pending acquisition by Exelon.
- PG&E Corp. - uncertainties of effect on earnings from San Bruno gas pipeline explosion.
- PPL Holdings - spin-off of unregulated energy supply business.
- TECO Energy - recent acquisition of New Mexico Gas Company.

The resulting comparison group of 14 electric companies that I used in my analysis is shown in Table 1 below.

TABLE 1
COMPARISON GROUP

	Company	S&P Bond Rating	Moody's Bond Rating
1	Ameren Corporation	BBB+/BBB	Baa1
2	American Electric Power Co.	BBB/BBB-	Baa1
3	Avista Corporation	A-	Baa1
4	CMS Energy Corporation	BBB+/BBB	A3/Baa1
5	Duke Energy Corporation	BBB+	A3
6	Edison International	BBB+	A2/A3
7	El Paso Electric Company	BBB+	Baa1
8	Empire District Electric Co.	A-	Baa1
9	Entergy Corporation	BBB+/BBB	Baa2/Baa3
10	Great Plains Energy Incorporated	BBB	Baa2
11	OGE Energy Corp.	BBB+	A3
12	Pinnacle West Capital Corp.	BBB	A3/Baa1
13	PNM Resources, Inc.	BBB	Baa2
14	SCANA Corporation	BBB+	Baa1/Baa2

Source: AUS Monthly Utility Report, March 2015

Q. What was your first step in determining the DCF return on equity for the comparison group?

A. I first determined the current dividend yield, D_1/P_0, from the basic equation. My general practice is to use six months as the most reasonable period over which to estimate the dividend yield. The six-month period I used covered the months from September 2014 through February 2015. I obtained historical prices and dividends from Yahoo! Finance. The annualized dividend divided by the average monthly price represents the average dividend yield for each month in the period.

The resulting average dividend yield for the comparison group is 3.41%. These calculations are shown in Exhibit No. ___(RAB-3).

Q. Having established the average dividend yield, how did you determine the investors' expected growth rate for the electric comparison group?

A. The investors' expected growth rate, in theory, correctly forecasts the constant rate of growth in dividends. The dividend growth rate is a function of earnings growth and the payout ratio, neither of which is known precisely for the future. We refer to a perpetual growth rate since the DCF model has no arbitrary cut-off point. We must estimate the investors' expected growth rate because there is no way to know with absolute certainty what investors expect the growth rate to be in the short term, much less in perpetuity.

For my analysis in this proceeding, I used three major sources of analysts' forecasts for growth. These sources are The Value Line Investment Survey, Zacks, and IBES. This is the method I typically use for estimating growth for my DCF calculations.

Q. Please briefly describe Value Line, Zacks, and IBES.

A. The Value Line Investment Survey is a widely used and respected source of investor information that covers approximately 1,700 companies in its Standard Edition and several thousand in its Plus Edition. It is updated quarterly and probably represents the most comprehensive of all investment information services. It provides both historical and forecasted information on a number of important data elements. Value Line neither participates in financial markets as a broker nor works for the utility industry in any capacity of which I am aware.

Zacks gathers opinions from a variety of analysts on earnings growth forecasts for numerous firms including regulated electric utilities. The estimates of the analysts

responding are combined to produce consensus average estimates of earnings growth. I obtained Zacks' earnings growth forecasts from its web site.

Like Zacks, IBES also compiles and reports consensus analysts' forecasts of earnings growth. I obtained these forecasts from Yahoo! Finance.

Q. Why did you rely on analysts' forecasts in your analysis?

A. Return on equity analysis is a forward-looking process. Five-year or ten-year historical growth rates may not accurately represent investor expectations for future dividend growth. Analysts' forecasts for earnings and dividend growth provide better proxies for the expected growth component in the DCF model than historical growth rates. Analysts' forecasts are also widely available to investors and one can reasonably assume that they influence investor expectations.

Q. Please explain how you used analysts' dividend and earnings growth forecasts in your constant growth DCF analysis.

Q. Page 1, Columns (1) through (5) of Exhibit No. ____(RAB-4) shows the forecasted dividend, earnings, and retention growth rates from Value Line and the earnings growth forecasts from IBES and Zacks. In my analysis I used four of these growth rates: dividend and earnings growth from Value Line and earnings growth from Zacks and IBES. It is important to include dividend growth forecasts in the DCF model since the model calls for forecasted cash flows. Value Line is the only sources of which I am aware that forecasts dividend growth and my approach gives this forecast equal weight with each of the three earnings growth forecasts.

Q. How did you proceed to determine the DCF return of equity for the comparison group?

A. To estimate the expected dividend yield (D_1), the current dividend yield must be moved forward in time to account for dividend increases over the next twelve months. I estimated the expected dividend yield by multiplying the current dividend yield by one plus one-half the expected growth rate.

Page 2 of Exhibit No. ___(RAB-4) presents my standard method of calculating dividend yields, growth rates, and return on equity for the comparison group of companies. The DCF Return on Equity Calculation section shows the application of each of four growth rates I used in my analysis to the current group dividend yield of 3.41% to calculate the expected dividend yield. I then added the expected growth rates to the expected dividend yield. In evaluating investor expected growth rates, I use both the average and the median values for the comparison group under consideration. The calculations of the resulting DCF returns on equity for both methods are presented on page 2 of Exhibit No. ____(RAB-4). Please note that Zacks did not have earnings growth rate estimates for Avista Corp. For this company I substituted the corresponding IBES growth rates.

Q. What are the results of your constant growth DCF model?

A. For the average growth rates, the results range from 8.37% to 9.00%, with the average of these results being 8.75%. Using the median growth rates, the results range from 8.05% to 8.50%, with the average of these results being 8.29%.

Capital Asset Pricing Model

Q. Briefly summarize the Capital Asset Pricing Model ("CAPM") approach.

A. The theory underlying the CAPM approach is that investors, through diversified portfolios, may combine assets to minimize the total risk of the portfolio. Diversification allows investors to diversify away all risks specific to a particular company and be left only with market risk that affects all companies. Thus, the CAPM theory identifies two types of risks for a security: company-specific risk and market risk. Company-specific risk includes such events as strikes, management errors, marketing failures, lawsuits, and other events that are unique to a particular firm. Market risk includes inflation, business cycles, war, variations in interest rates, and changes in consumer confidence. Market risk tends to affect all stocks and cannot be diversified away. The idea behind the CAPM is that diversified investors are rewarded with returns based on market risk.

Within the CAPM framework, the expected return on a security is equal to the risk-free rate of return plus a risk premium that is proportional to the security's market, or non-diversifiable, risk. Beta is the factor that reflects the inherent market risk of a security and measures the volatility of a particular security relative to the overall market for securities. For example, a stock with a beta of 1.0 indicates that if the market rises by 15%, that stock will also rise by 15%. This stock moves in tandem with movements in the overall market. Stocks with a beta of 0.5 will only rise or fall 50% as much as the overall market. So with an increase in the market of 15%, this stock will only rise 7.5%. Stocks with betas greater than 1.0 will rise and fall more

than the overall market. Thus, beta is the measure of the relative risk of individual securities vis-à-vis the market.

Based on the foregoing discussion, the equation for determining the return for a security in the CAPM framework is:

$$K = Rf + \beta(MRP)$$

Where: K = *Required Return on equity*
Rf = *Risk-free rate*
MRP = *Market risk premium*
β = *Beta*

This equation tells us about the risk/return relationship posited by the CAPM. Investors are risk averse and will only accept higher risk if they expect to receive higher returns. These returns can be determined in relation to a stock's beta and the market risk premium. The general level of risk aversion in the economy determines the market risk premium. If the risk-free rate of return is 3.0% and the required return on the total market is 15%, then the risk premium is 12%. Any stock's required return can be determined by multiplying its beta by the market risk premium. Stocks with betas greater than 1.0 are considered riskier than the overall market and will have higher required returns. Conversely, stocks with betas less than 1.0 will have required returns lower than the market as a whole.

Q. In general, are there concerns regarding the use of the CAPM in estimating the return on equity?

A. Yes. There is some controversy surrounding the use of the CAPM.[9] There is evidence that beta is not the primary factor for determining the risk of a security. For example, Value Line's "Safety Rank" is a measure of total risk, not its calculated beta coefficient. Beta coefficients usually describe only a small amount of total investment risk.

There is also substantial judgment involved in estimating the required market return. In theory, the CAPM requires an estimate of the return on the total market for investments, including stocks, bonds, real estate, etc. It is nearly impossible for the analyst to estimate such a broad-based return. Often in utility cases, a market return is estimated using the S&P 500 or the return on Value Line's stock market composite. However, these are limited sources of information with respect to estimating the investor's required return for all investments. In practice, the total market return estimate faces significant limitations to its estimation and, ultimately, its usefulness in quantifying the investor required ROE.

In the final analysis, a considerable amount of judgment must be employed in determining the risk-free rate and market return portions of the CAPM equation. The analyst's application of judgment can significantly influence the results obtained from the CAPM. My past experience with the CAPM indicates that it is prudent to use a wide variety of data in estimating investor-required returns. Of course, the

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[9] For a more complete discussion of some of the controversy surrounding the use of the CAPM, refer to *A Random Walk Down Wall Street* by Burton Malkiel, pp. 206 - 211, 2007 edition.

range of results may also be wide, indicating the difficulty in obtaining a reliable estimate from the CAPM.

Q. How did you estimate the market return portion of the CAPM?

A. The first source I used was the Value Line Investment Analyzer, Plus Edition, for February 25, 2015. This edition covers several thousand stocks. The Value Line Investment Analyzer provides a summary statistical report detailing, among other things, forecasted growth rates for earnings and book value for the companies Value Line follows as well as the projected total annual return over the next 3 to 5 years. I present these growth rates and Value Line's projected annual return on page 2 of Exhibit No.____(RAB-5). I included median earnings and book value growth rates. The estimated market returns using Value Line's market data range from 9.00% to 11.05%. The average of these three market returns is 10.02%.

Q. Is this a change to how you calculated expected market return in the past?

A. Yes. In my past testimonies I used the average expected growth rates for earnings and book value from Value Line in calculating an expected market return. However, I have concluded that using median growth rates is likely a more accurate method of estimating the central tendency of Value Line's large data set. Average earnings and book value growth rates may be unduly influenced by very high or very low 3 - 5 year growth rates that are unsustainable in the long run. For example, Value Line's Statistical Summary shows both the highest and lowest value for earnings and book value growth forecasts. For earnings growth, Value Line showed the highest earnings growth forecast to be 98% and the lowest growth rate to be -25.5%. The

median growth rate is not influenced by such extremes because it represents the middle value of the range of earnings growth rates.

I also added Value Line's projected 3-5 year percentage annual total return from the Statistical Summary, which in this case is 9.0%. This projected annual return is substantially less than the DCF return on the Value Line companies of 11.05%, suggesting that the DCF ROE for the Value Line companies may be overstated. However, I believe that using both of these measures of expected returns on the market provide a reasonable range of possible outcomes in this proceeding.

Q. Please continue with your market return analysis.

A. I also considered a supplemental check to the Value Line projected market return estimates. Morningstar publishes a study of historical returns on the stock market in its *Ibbotson SBBI 2014 Classic Yearbook.* Some analysts employ this historical data to estimate the market risk premium of stocks over the risk-free rate. The assumption is that a risk premium calculated over a long period of time is reflective of investor expectations going forward. Exhibit No. ____(RAB-6) presents the calculation of the market returns using the historical data.

Q. Please explain how this historical risk premium is calculated.

A. Exhibit No. ___(RAB-6) shows both the geometric and arithmetic average of yearly historical stock market returns over the historical period from 1926 - 2013. The average annual income return for 20-year Treasury bond is subtracted from these historical stocks returns to obtain the historical market risk premium of stock returns

over long-term Treasury bond income returns. The historical market risk premium range is 5.01% - 7.01%.

Q. Did you add an additional measure of the historical risk premium in this case?

A. Yes. Morningstar reported the results of a study by Dr. Roger Ibbotson and Dr. Peng Chen indicating that the historical risk premium of stock returns over long-term government bond returns has been significantly influenced upward by substantial growth in the price/earnings ("P/E") ratio for stocks from 1980 through 2001.[10] Morningstar recommended adjusting this growth in the P/E ratio for stocks out of the historical risk premium because "it is not believed that P/E will continue to increase in the future." Morningstar's adjusted historical arithmetic market risk premium is 6.12%, which I have also included in Exhibit No. ___(RAB-6).

Q. How did you determine the risk free rate?

A. I used the average yields on the 20-year Treasury bond and five-year Treasury note over the six-month period from September 2014 through February 2015. The 20-year Treasury bond is often used by rate of return analysts as the risk-free rate, but it contains a significant amount of interest rate risk. The five-year Treasury note carries less interest rate risk than the 20-year bond and is more stable than three-month Treasury bills. Therefore, I have employed both of these securities as proxies for the risk-free rate of return. This approach provides a reasonable range over which the CAPM return on equity may be estimated.

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[10] *2014 Ibbotson SBBI Classic Yearbook,* Morningstar, pp. 156 - 158.

Q. How did you determine the value for beta?

A. I obtained the betas for the companies in the electric company comparison group from most recent Value Line reports. The average of the Value Line betas for the comparison group is 0.75.

Q. Please summarize the CAPM results.

A. For my forward-looking CAPM return on equity estimates, the CAPM results are 7.91% - 8.17%. Using historical risk premiums, the CAPM results are 6.36% - 7.86%.

Conclusions and Recommendations

Q. Please summarize the cost of equity results for your DCF and CAPM analyses.

A. Table 2 below summarizes my return on equity results using the DCF and CAPM for my comparison group of companies.

TABLE 2
SUMMARY OF ROE ESTIMATES

Baudino DCF Methodology:	
Average Growth Rates	
- High	9.00%
- Low	8.37%
- Average	8.75%
Median Growth Rates:	
- High	8.50%
- Low	8.05%
- Average	8.29%
CAPM:	
- 5-Year Treasury Bond	7.91%
- 20-Year Treasury Bond	8.17%
- Historical Returns	6.36% - 7.86%

Q. What is your recommended return on equity for KPC?

A. I recommend that the KPSC adopt an 8.75% return on equity for KPC. My recommendation is consistent with the average DCF results from my constant growth DCF model. Based on current market evidence, an 8.75% return on equity is fair and reasonable for BBB/Baa-rated electric utility company like KPC.

Q. Mr. Baudino, are you concerned that your recommended cost of equity is too low?

A. No, not at all. All of the market evidence I examined fully supports my ROE recommendation for KPC in this proceeding. As I described in Section II of my testimony, the U. S. economy is in a low interest rate environment, one that has been supported in a deliberate and considered fashion by Federal Reserve monetary policy. Both my DCF and CAPM ROE estimates show that the investor required ROE for KPC, as well as other regulated electric and gas utilities, reflects this low interest rate environment. An 8.75% ROE recommendation for BBB/Baa-rated electric utilities such as KPC is by no means too low in the current economic and financial environment.

Q. What is your recommended weighted cost of capital?

A. My weighted cost of capital is based on the capital structure, cost of debt, and cost of equity recommended by Mr. Kollen and myself. Mr. Kollen addresses the Company's cost of debt and capital structure in his Direct Testimony. Table 3 below presents the weighted cost of capital for KPC.

TABLE 3
Kentucky Power Company
Weighted Cost of Capital

	Pct.	Cost Rate	Weighted Cost
Long-term Debt	51.46%	5.41%	2.78%
Accts. Receivable	4.65%	1.07%	0.05%
Common Equity	43.89%	8.75%	3.84%
Total	100.00%		6.67%

Q. How does the Company's capital structure compare with the capital structure of your comparison group?

A. Table 4 below presents the 2013 equity and debt ratios for the companies in my comparison group as well as the group average capital structure components. These numbers were taken from the most recent Value Line reports for each company.

TABLE 4
Comparison Group 2013 Capital Structure

	Common Equity	Preferred Equity	Long-term Debt
Ameren Corp.	53.7%	1.1%	45.2%
American Electric Power	48.9%	0.0%	51.1%
Avista Corporation	48.6%	0.0%	51.4%
CMS Energy Corporation	32.2%	0.3%	67.5%
Duke Energy Corporation	52.0%	0.0%	48.0%
Edison International	46.2%	8.1%	45.7%
El Paso Electric Co.	48.6%	0.0%	51.4%
Empire District Electric Co.	50.2%	0.0%	49.8%
Entergy Corporation	43.6%	1.3%	55.1%
Great Plains Energy Inc.	49.4%	0.6%	50.0%
OGE Energy	56.9%	0.0%	43.1%
Pinnacle West Capital Corp.	60.0%	0.0%	40.0%
PNM Resources, Inc.	49.7%	0.3%	50.0%
SCANA Corp.	46.4%	0.0%	53.6%
Averages	49.0%	0.8%	50.1%

When long-term debt and common equity are considered, KIUC's recommended common equity ratio for KPC is 46.03%. This common equity ratio is somewhat lower than the comparison group's average common equity ratio of 49.0%. Other things being equal, this suggests that KPC has somewhat higher financial risk than my comparison group. However, I would also note that my recommended 8.75% ROE recommendation for KPC is at the upper end of my DCF results and is significantly higher than the DCF results that employ the median expected growth rates. Thus, my 8.75% ROE recommendation is reasonable and appropriate for KPC in this proceeding.

IV. RESPONSE TO KENTUCKY POWER TESTIMONY

Q. Have you reviewed the Direct Testimony of Dr. Avera and Mr. McKenzie?

A. Yes.

Q. Please summarize your conclusions with respect to their testimony and return on equity recommendation.

A. Dr. Avera's and Mr. McKenzie's[11] recommended 10.62% return on equity is grossly overstated and is completely unjustified in the current low interest rate environment. As I shall demonstrate later in this section of my testimony, the Company witnesses systematically made judgments that served to inflate their ROE results, particularly for the DCF and CAPM. As such, the Company witnesses provided very little useful guidance for the Commission with respect to the investor required ROE for KPC.

Q. Beginning on page 11 of their Direct Testimony, the Company witnesses contended that current capital market conditions do not provide a representative basis on which to evaluate a fair ROE and that prevailing capital market conditions are "an anomaly" (page 13, lines 3 - 5). Do you agree with this assertion?

A. No. The fact is that the economy is in a low interest rate environment that is being supported quite deliberately by Federal Reserve policy. The Federal Reserve has supported the current low interest rate environment for several years, so it is hardly an "anomaly" as the Company witnesses characterized it. Lower current capital costs are

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[11] For ease of reference, I will refer to Dr. Avera and Mr. McKenzie as "Company witnesses".

not consistent with the Company witnesses' 10.62% recommendation return on equity in this proceeding.

Furthermore, current financial market conditions do indeed provide a representative basis for estimating the cost of equity capital for KPC and for utilities generally. The fact that interest rates are relatively low by historical standards does not preclude the rate of return analyst from making a reasonable assessment of investor required ROEs using current stock prices and interest rates.

Q. On page 14 of the Company witnesses' Direct Testimony, Figure 2 shows higher forecasted interest rates through 2019 from several different forecasting sources. Should the Commission increase its allowed return on equity based on these higher interest rate forecasts?

A. No. Higher interest rates have been forecasted for the last few years and they have not come to pass. Please refer to Table 5 below, which presents forecasted interest rates for 2014 included in Dr. Avera's Direct Testimony filed with the Florida Public Service Commission in Docket No. 120015-EI on behalf of Florida Power and Light Company ("FPL"). Dr. Avera's testimony was filed on March 19, 2012. Exhibit No. ___(RAB-7) provides his Exhibit WEA-2, which contains the sources of the interest rate forecasts used by Dr. Avera in that case. These interest rate forecasts were from November 25, 2011 through January 23, 2012.

TABLE 5

2014 Forecasted Interest Rates
Avera FP&L Testimony
Docket No. 120015-EI

	2014
30-Year Treasury	
- Value Line	4.5%
- IHS Global	4.5%
- Blue Chip	4.5%
AA Utility	
- IHS Global	5.6%
- EIA	5.7%

On page 29 of his Direct Testimony in Docket No. 120015-EI Dr. Avera testified that there was a "clear consensus that the cost of permanent capital will be higher in the 2012 - 2016 timeframe" and that current cost of capital estimates were conservative "because they are likely to understate investors' requirements at the time the rates set in this proceeding become effective."

Obviously, time has proven that the higher interest rate forecasts contained in Dr. Avera's FPL testimony failed to materialize. The current 30-year Treasury bond yield is approximately 2.72% and the Aa utility bond as of March 16, 2015 was 3.70%, around 200 basis points lower than the forecasts presented by Dr. Avera. This points out why interest rate forecasts should not be used to justify higher (or lower) returns on equity than those based on current market conditions.

I will now address the Company witnesses' various approaches to estimating the investor required ROE for KPC.

DCF Model

Q. Briefly summarize the Company witnesses' approach to the DCF model.

A. The Company witnesses constructed a group of electric utilities for purposes of estimating the DCF ROE for the Companies. They used several sources of growth rate forecasts, which included IBES, Zacks, Reuters, and Value Line as well as an estimate of sustainable growth.

In their Exhibit WEA/AMM 6, the Company witnesses adjusted their DCF ROE results by excluding certain company ROE results that, in their view, were too low. These results ranged from -.04% to 7.4%. They did not exclude any DCF ROE results for being too high. After excluding low-end DCF results, their resulting range was 8.6% to 10.1% using an average of the remaining results. The midpoints ranged from 8.9% to 10.8%.

Q. Please respond to the Company witnesses' approach to formulating their DCF recommendation to the Commission.

A. Dr. Avera and Mr. McKenzie conducted a highly biased approach in formulating their DCF recommendations. They applied a test for excluding ROE results that, in their view, were too low but failed to examine whether any results should be excluded as being too high. In fact, there are several results that could be rejected as being too high based on current market conditions. For example, the average Commission-allowed ROE for 2013 that was reported by the Company witnesses in their Exhibit WEA/AMM 9 was 10.02%. In their response to the Commission Staff's Second Set of Data Requests, Item No. 15, the Company witnesses updated their risk premium analysis and showed that average 2014 Commission allowed

ROE was 9.92%. With recent Commission allowed ROEs of around 10%, the Company witnesses included ROEs in their Exhibit WEA/AMM 6 ranging from 12.2% to 13.0%. *A review of Commission allowed returns contained in their Exhibit WEA/AMM 9 reveals that 1992 was the last year that allowed returns on equity were as high as 11%. Further, the last Commission allowed return near 13% was in 1989.*

It is abundantly clear that the KPC witnesses' one-sided approach to excluding ROE results from their DCF analysis had the effect of inflating their DCF ROE recommendation.

Q. Have you conducted an alternative analysis that includes all of the DCF results from the Company witnesses' Exhibit WEA/AMM 6?

A. Yes. Table 6 below presents the average and median ROEs utilizing all of the DCF results from the Company witnesses' Exhibit WEA/AMM 6. I excluded negative ROE results from my calculation of the averages.

TABLE 6
Avera/McKenzie DCF Results

Company	Earnings Growth V Line	IBES	Zacks	Reuters	br+sv Growth
Ameren Corp.	8.6%	13.0%	12.4%	13.0%	8.1%
American Elec Pwr	8.4%	8.9%	8.8%	8.9%	7.8%
Black Hills Corp.	12.7%	10.2%	NA	NA	7.4%
CMS Energy Corp.	10.2%	10.5%	9.8%	10.5%	10.0%
Entergy Corp.	5.2%	5.9%	3.1%	5.8%	8.4%
FirstEnergy Corp.	8.6%	3.6%	-0.4%	0.8%	8.1%
Great Plains Energy	9.8%	8.8%	8.8%	8.8%	6.9%
Hawaiian Elec.	8.6%	8.6%	8.6%	8.6%	8.5%
IDACORP, Inc.	4.8%	7.3%	7.3%	NA	6.9%
PG&E Corp.	9.0%	10.9%	9.6%	12.2%	6.9%
SCANA Corp.	9.2%	8.8%	8.6%	8.8%	9.2%
Sempra Energy	9.6%	10.1%	10.1%	10.1%	8.7%
Westar Energy	10.0%	7.2%	7.8%	7.2%	8.8%
Average	8.8%	8.8%	8.6%	8.6%	8.1%
Median	9.0%	8.8%	8.7%	8.8%	8.1%

Source: Exhibit WEA/AMM 6

Rather than arbitrarily excluding low-end results as the Company witnesses did, I recommend that the median be used as an alternative measure of central tendency. As I testified in Section III, the median is not affected by extremely high or low results, but instead represents the middle value of the data set. If there are concerns about DCF results that are either too high or too low, the median may be used as an additional reference for the investor required ROE.

Table 6 shows that when all results are considered, the average and median results from the Company witnesses' DCF analyses are quite close. In my opinion, this suggests that low-end results are offset by high-end results. Table 6 also shows how the Company witnesses' one-sided approach to excluding individual DCF results

biased their results upward. If all DCF results are considered, the Company witnesses' average and median ROEs are quite close to my recommended ROE of 8.75%.

ECAPM

Q. Beginning on page 45 of their Direct Testimony, the Company witnesses describe the Empirical CAPM ("ECAPM") analysis. Is this a reasonable method to use to estimate the investor required ROE for KPC?

A. No. The ECAPM is supposed to account for the possibility that the CAPM understates the return on equity for companies with betas less than 1.0. I believe it is highly unlikely that investors use the ECAPM formulation shown in Company witnesses' Exhibit WEA/AMM 8 to "correct" CAPM returns for electric utilities. To the extent investors use the CAPM to estimate their required returns, I believe it is much more likely that they use the traditional CAPM equation that I used in Section III of my testimony. The Company witnesses presented no evidence that investors use the adjustment factors contained their ECAPM analyses. Moreover, the use of an adjustment factor to "correct" the CAPM results for companies with betas less than 1.0 suggests that published betas by such sources as Value Line are incorrect and that investors should not rely on them. In fact, the Company witnesses testified on page 49, lines 3 through 5 of their Direct Testimony that Value Line "is the most widely referenced source for beta in regulatory proceedings."

Q. Please continue your evaluation of the results of the Company witnesses' ECAPM analysis.

A. I disagree with the Company witnesses' general formulation of the ECAPM and in particular with their estimate of the expected market return. They estimated the

market return portion of the ECAPM by estimating the current market return for dividend paying stocks in the S&P 500. This limited the so-called "market" return to only 408 companies.

The market return portion of the CAPM or ECAPM should represent the most comprehensive estimate of the total return for all investment alternatives, not just a small subset of publicly traded stocks. In practice, of course, finding such an estimate is difficult and is one of the more thorny problems in estimating an accurate ROE when using the CAPM. If one limits the market return to stocks, then there are more comprehensive measures of the stock market available, such as the Value Line Investment Survey that I used in my CAPM analysis. Value Line's projected earnings growth used a sample of 2,280 stocks and its book value growth estimate used 1,531 stocks. Value Line's projected annual percentage return included 1,664 stocks. These are much broader samples than the KPC witnesses' limited sample of dividend paying stocks from the S&P 500.

Q. Did the Company witnesses overstate the expected market return component of the ECAPM.

A. Yes, most definitely. My forward-looking market returns show an expected return on the market of around 10%, far less than the 13.1% expected return result for the limited sample of companies that the Company witnesses used for their ECAPM market return.

It is also instructive to look at long-term historical risk premiums in connection with current expected returns. The historical risk premiums I included from Morningstar

range from 5.01% to 7.01%. In stark contrast, the market premium used by the Company witnesses is 9.8%.

Q. On pages 49 through 50 of their Direct Testimony, the Company witnesses explained that they incorporated a size adjustment to their ECAPM results, thereby increasing the average ECAPM cost of equity from 11.3% to 12.2%. Is this size adjustment appropriate?

A. No. The data that the Company witnesses relied upon to make this adjustment came from the *Ibbotson SBBI 2014 Classic Yearbook* published by Morningstar. The groups of companies from which the Company witnesses took this significant upward adjustment to their ECAPM results contain many unregulated companies. Further, the decile groups from which these adjustments were taken had average betas ranging from 0.91 to 1.30. These betas are greatly in excess of the their utility group average beta of 0.76, suggesting that the companies the Company witnesses used to make their size adjustment are more risky than the regulated utilities that comprise their utility group. There is no evidence to suggest that the size premium used by the Company witnesses applies to regulated utility companies, which on average are quite different from the group of companies included in the Morningstar research on size premiums. I recommend that the Commission reject the Company witnesses' size premium in the CAPM ROE.

Q. On page 50 of their Direct Testimony, the Company witnesses recommended using projected bond yields in their risk premium and ECAPM ROE models. Should the Commission consider using forecasted bond yields in its ROE analysis in this proceeding?

A. Definitely not. Current interest rates and bond yields embody all of the relevant market data and expectations of investors, including expectations of changing future interest rates. The forecasted bond yields used by the Company witnesses are

speculative at best and may never come to pass. Current interest rates present tangible market evidence of investor return requirements today, and these are the interest rates and bond yields that should be used in both the ECAPM and in the bond yield plus risk premium analysis. To the extent that investors give forecasted interest rates any weight at all, they are already incorporated in current securities prices.

Further, the Company witnesses' use of forecasted bond yields results in overstated ECAPM results that are completely out of line with recent Commission-allowed ROEs. I mentioned earlier that the average Commission-allowed ROE was 9.92% in 2014. Using forecasted bond yields in the ECAPM and with the size adjustment implies a cost of equity of 12.4%. Without the size adjustment the ECAPM result would be 11.6%. Both of these ROE estimates are far in excess of recently allowed Commission returns and should be rejected by the Commission.

Utility Risk Premium

Q. Please summarize the Company witnesses' risk premium approach.

A. The Company witnesses developed an historical risk premium using Commission-allowed returns for regulated utility companies from 1974 through 2013. They also used regression analysis to estimate the value of the inverse relationship between interest rates and risk premiums during that period. On page 55 of their Direct Testimony, the Company witnesses calculated the risk premium return on equity to be 10.08% using the current BBB utility bond yield and 11.27% using a forecasted bond yield.

Q. Please respond to the Company witnesses' risk premium analysis.

A. Generally, the bond yield plus risk premium approach is imprecise and can only provide very general guidance on the current required ROE for a regulated electric utility. Risk premiums can change substantially over time and with varying risk perceptions of investors. As such, this approach is a "blunt instrument", if you will, for estimating the ROE in regulated proceedings. In my view, a properly formulated DCF model using current stock prices and growth forecasts is far more reliable and accurate than the bond yield plus risk premium approach, which relies on an historical risk premium analysis over a certain period of time.

Finally, for the reasons I discussed earlier, the use of forecasted bond yields is inappropriate and should be rejected.

Flotation Costs

Q. Beginning on page 56 of their Direct Testimony, the Company witnesses discuss flotation costs. Are flotation costs a legitimate consideration for the Commission's determination of ROE in this proceeding?

A. No. The Company witnesses recommended that the Commission consider adding an adjustment of 12 basis to recognize flotation costs. A flotation cost adjustment attempts to recognize and collect the costs of issuing common stock. Such costs typically include legal, accounting, and printing costs as well as well as broker fees and discounts.

In my opinion, it is likely that flotation costs are already accounted for in current stock prices and that adding an adjustment for flotation costs amounts to double counting. A

DCF model using current stock prices should already account for investor expectations regarding the collection of flotation costs. Multiplying the dividend yield by a 3.6% flotation cost adjustment, for example, essentially assumes that the current stock price is wrong and that it must be adjusted downward to increase the dividend yield and the resulting cost of equity. I do not believe that this is an appropriate assumption. Current stock prices most likely already account for flotation costs, to the extent that such costs are even accounted for by investors.

Expected Earnings Approach

Q. Beginning on page 60 of their Direct Testimony, the Company witnesses presented an expected earnings approach based on expected returns on equity using Value Line's rates of return on common equity for electric utilities over its 2017 - 2019 forecast horizon. Is this a reasonable method for estimating the current required return on equity in this proceeding?

A. No. The Commission should not rely on forecasted utility ROEs for 2017 - 2019 for the same reasons that it should not rely on interest rate forecasts. These forecasts return on equity have little value in today's market, especially considering that current DCF returns are significantly lower than these forecasts. Once again, I recommend that the Commission rely on current market data as the best measure of investor required returns today, and not forecasted accounting returns on book equity several years from now.

Low Risk Non-Utility DCF

Q. Beginning of page 63 of their Direct Testimony, the Company witnesses present the results of a low-risk non-utility DCF model. Is it appropriate to use a group of unregulated companies to estimate a fair return on equity for KPC?

A. Absolutely not. The Company witnesses' use of unregulated non-utility companies

to estimate a fair rate of return for KPC is completely inappropriate and should be rejected by the Commission.

Utilities have protected markets, e.g. service territories, and may increase the prices they charge in the face of falling demand or loss of customers. This is contrary to competitive, unregulated companies who often lower their prices when demand for their products decline. Generally, the non-utility companies simply do not have these characteristics and must compete with other firms selling the same product for sales and for customers. Obviously, the non-utility companies have higher overall risk structures than a lower risk electric company like KPC and will have higher required returns from their shareholders. It is not at all surprising that the Company witnesses' DCF ROE results for their Non-Utility Proxy Group were substantially higher than the results for their utility group. Given the higher business risk for the non-utility group of companies, this is exactly the result that would have been expected. However, these results do not form any kind of reasonable basis to estimate the investor required ROE for KPC. Quite the contrary, the returns from the non-utility proxy group are a good measure of returns that are, by definition, substantially in excess of those to be expected in the utility segment.

Q. Does this complete your Direct Testimony?

A. Yes.

AFFIDAVIT

STATE OF GEORGIA)

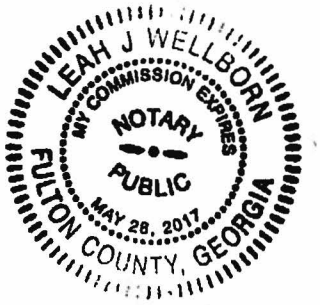
COUNTY OF FULTON)

RICHARD A. BAUDINO, being duly sworn, deposes and states: that the attached are his sworn Testimony and Exhibits and that the statements contained are true and correct to the best of his knowledge, information and belief.

Richard A. Baudino

Sworn to and subscribed before me on this
23rd day of March 2015.

Notary Public



BEFORE THE

KENTUCKY PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY POWER COMPANY FOR A GENERAL ADJUSTMENT OF ITS RATES FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVINGS ITS TARIFFS AND RIDERS; AND (4) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	**CASE NO. 2014-00396**

EXHIBITS

OF

RICHARD A. BAUDINO

ON BEHALF OF

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

MARCH 23, 2015

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR (1) GENERAL ADJUSTMENT OF ITS RATERS FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVING ITS TARIFFS AND RIDERS; AND (45) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	Case No. 2014-00396

EXHIBIT__(RAB-1)

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

March 2015

RESUME OF RICHARD A. BAUDINO

EDUCATION

New Mexico State University, M.A.
Major in Economics
Minor in Statistics

New Mexico State University, B.A.
Economics
English

Thirty-two years of experience in utility ratemaking and the application of principles of economics to the regulation of electric, gas, and water utilities. Broad based experience in revenue requirement analysis, cost of capital, rate of return, cost and revenue allocation, and rate design.

REGULATORY TESTIMONY

Preparation and presentation of expert testimony in the areas of:

Cost of Capital for Electric, Gas and Water Companies
Electric, Gas, and Water Utility Cost Allocation and Rate Design
Revenue Requirements
Gas and Electric industry restructuring and competition
Fuel cost auditing
Ratemaking Treatment of Generating Plant Sale/Leasebacks

RESUME OF RICHARD A. BAUDINO

EXPERIENCE

1989 to Present: **Kennedy and Associates: Consultant** - Responsible for consulting assignments in the area of revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, electric and gas industry restructuring/competition and water utility issues.

1982 to 1989: **New Mexico Public Service Commission Staff: Utility Economist** - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

CLIENTS SERVED

Regulatory Commissions

Louisiana Public Service Commission
Georgia Public Service Commission
New Mexico Public Service Commission

Other Clients and Client Groups

Ad Hoc Committee for a Competitive Electric Supply System
Air Products and Chemicals, Inc.
Arkansas Electric Energy Consumers
Arkansas Gas Consumers
AK Steel
Armco Steel Company, L.P.
Assn. of Business Advocating Tariff Equity
CF&I Steel, L.P.
Climax Molybdenum Company
Cripple Creek & Victor Gold Mining Co.
General Electric Company
Holcim (U.S.) Inc.
IBM Corporation
Industrial Energy Consumers
Kentucky Industrial Utility Consumers
Lexington-Fayette Urban County Government
Large Electric Consumers Organization
Newport Steel
Northwest Arkansas Gas Consumers
Maryland Energy Group
Occidental Chemical
PSI Industrial Group
Large Power Intervenors (Minnesota)
Tyson Foods
West Virginia Energy Users Group
The Commercial Group
Wisconsin Industrial Energy Group
South Florida Hospital and Health Care Assn.
PP&L Industrial Customer Alliance
Philadelphia Area Industrial Energy Users Gp.
West Penn Power Intervenors
Duquesne Industrial Intervenors
Met-Ed Industrial Users Gp.
Penelec Industrial Customer Alliance
Penn Power Users Group
Columbia Industrial Intervenors
U.S. Steel & Univ. of Pittsburg Medical Ctr.
Multiple Intervenors
Maine Office of Public Advocate
Missouri Office of Public Counsel
University of Massachusetts - Amherst
WCF Hospital Utility Alliance
West Travis County Public Utility Agency

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop.	Rate design.
11/84	1833	NM	New Mexico Public Service Commission Palo Verde	El Paso Electric Co.	Service contract approval, rate design, performance standards for nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/85	1907	NM	New Mexico Public Service Commission	Jornada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.
10/87	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464-EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transportation rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania charge proposals.	Evaluation of cost allocation, rate design, rate plan, and carrying
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035-E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
8/94	8652	MD	Westvaco Corp. Co.	Potomac Edison	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343-000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.,Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
1/97	RP96-199-000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions.
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania-American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.
7/98	R-00984280	PA	PG Energy, Inc. Intervenors	PGE Industrial	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States,Inc.	Cost of debt.

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity Assignment.
01/00	8829	MD & United States	Maryland Industrial Gr.	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Commission	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity
06/05	050045-EI	FL	South Florida Hospital and HeallthCare Assoc.	Florida Power & Light Co.	Return on equity
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116 Commission	LA	Louisiana Public Service	Entergy Louisiana, LLC	Transmission Issues
07/06	U-23327 Commission	LA	Louisiana Public Service	Southwestern Electric Power Company	Return on equity, Service quality
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T	WV	West Virginia Energy Users Group	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112	AK	AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric	Return on equity, weighted cost of capital.
09/07	07-07-01	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power	Return on equity, weighted cost of capital
10/07	05-UR-103	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Return on equity
11/07	29797	LA	Louisiana Public Service Commission	Cleco Power :LLC & Southwestern Electric Power	Lignite Pricing, support of settlement
01/08	07-551-EL-AIR	OH	Ohio Energy Group	Ohio Edison, Cleveland Electric, Toledo Edison	Return on equity
03/08	07-0585, 07-0585, 07-0587, 07-0588, 07-0589, 07-0590, (consol.)	IL	The Commercial Group	Ameren	Cost allocation, rate design
04/08	07-0566	IL	The Commercial Group	Commonwealth Edison	Cost allocation, rate design
06/08	R-2008-2011621	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Cost and revenue allocation, Tariff issues
07/08	R-2008-2028394	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy	Cost and revenue allocation, Tariff issues

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
07/08	R-2008-2039634	PA	PPL Gas Large Users Group	PPL Gas	Retainage, LUFG Pct.
08/08	6680-UR-116	WI	Wisconsin Industrial Energy Group	Wisconsin P&L	Cost of Equity
08/08	6690-UR-119	WI	Wisconsin Industrial Energy Group	Wisconsin PS	Cost of Equity
09/08	ER-2008-0318	MO	The Commercial Group	AmerenUE	Cost and revenue allocation
10/08	R-2008-2029325	PA	U.S. Steel & Univ. of Pittsburgh Med. Ctr.	Equitable Gas Co.	Cost and revenue allocation
10/08	08-G-0609	NY	Multiple Intervenors	Niagara Mohawk Power	Cost and Revenue allocation
12/08	27800-U	GA	Georgia Public Service Commission	Georgia Power Company	CWIP/AFUDC issues, Review financial projections
03/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Capital Structure
04/09	E002/GR-08-1065	MN	The Commercial Group	Northern States Power	Cost and revenue allocation and rate design
05/09	08-0532	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation
07/09	080677-EI	FL	South Florida Hospital and Health Care Association	Florida Power & Light	Cost of equity, capital structure, Cost of short-term debt
07/09	U-30975	LA	Louisiana Public Service Commission	Cleco LLC, Southwestern Public Service Co.	Lignite mine purchase
10/09	4220-UR-116	WI	Wisconsin Industrial Energy Group	Northern States Power	Class cost of service, rate design
10/09	M-2009-2123945	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Smart Meter Plan cost allocation
10/09	M-2009-2123944	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Smart Meter Plan cost allocation
10/09	M-2009-2123951	PA	West Penn Power Industrial Intervenors	West Penn Power	Smart Meter Plan cost allocation
11/09	M-2009-2123948	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Smart Meter Plan cost allocation
11/09	M-2009-2123950	PA	Met-Ed Industrial Users Group Penelec Industrial Customer Alliance, Penn Power Users Group	Metropolitan Edison, Pennsylvania Electric Co., Pennsylvania Power Co.	Smart Meter Plan cost allocation

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
03/10	09-1352-	WV E-42T	West Virginia Energy Users Group	Monongahela Power	Return on equity, rate of return Potomac Edison
03/10	E015/GR-09-1151	MN	Large Power Intervenors	Minnesota Power	Return on equity, rate of return
04/10	2009-00459	KY	Kentucky Industrial Utility Consumers	Kentucky Power	Return on equity
04/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
05/10	10-0261-E-GI	WV	West Virginia Energy Users Group	Appalachian Power Co./ Wheeling Power Co.	EE/DR Cost Recovery, Allocation, & Rate Design
05/10	R-2009-2149262	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Class cost of service & cost allocation
06/10	2010-00036	KY	Lexington-Fayette Urban County Government	Kentucky American Water Company	Return on equity, rate of return, revenue requirements
06/10	R-2010-2161694	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Rate design, cost allocation
07/10	R-2010-2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Return on equity
07/10	R-2010-2161592	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Cost and revenue allocation
07/10	9230	MD	Maryland Energy Group	Baltimore Gas and Electric	Electric and gas cost and revenue allocation; return on equity
09/10	10-70	MA	University of Massachusetts-Amherst	Western Massachusetts Electric Co.	Cost allocation and rate design
10/10	R-2010-2179522	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Cost and revenue allocation, rate design
11/10	P-2010-2158084	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Transmission rate design
11/10	10-0699-E-42T	WV	West Virginia Energy Users Group	Appalachian Power Co. & Wheeling Power Co.	Return on equity, rate of Return
11/10	10-0467	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation and rate design
04/11	R-2010-2214415	PA	Central Pen Gas Large Users Group	UGI Central Penn Gas, Inc.	Tariff issues, revenue allocation
07/11	R-2011-2239263	PA	Philadelphia Area Energy Users Group	PECO Energy	Retainage rate

Expert Testimony Appearances
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Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
08/11	R-2011-2232243	PA	AK Steel	Pennsylvania-American Water Company	Rate Design
08/11	11AL-151G	CO	Climax Molybdenum	PS of Colorado	Cost allocation
09/11	11-G-0280	NY	Multiple Intervenors	Corning Natural Gas Co.	Cost and revenue allocation
10/11	4220-UR-117	WI	Wisconsin Industrial Energy Group	Northern States Power	Cost and revenue allocation, rate design
02/12	11AL-947E	CO	Climax Molybdenum, CF&I Steel	Public Service Company of Colorado	Return on equity, weighted cost of capital
07/12	120015-EI	FL	South Florida Hospitals and Health Care Association	Florida Power and Light Co,	Return on equity, weighted cost of capital
07/12	12-0613-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal for Century Aluminum
07/12	R-2012-2290597	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities Corp.	Cost allocation
09/12	05-UR-106	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Class cost of service, cost and revenue allocation, rate design
09/12	2012-00221 2012-00222	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
10/12	9299	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design Cost of equity, weighted cost of capital
10/12	4220-UR-118	WI	Wisconsin Industrial Energy Group	Northern States Power Company	Class cost of service, cost and revenue allocation, rate design
10/12	473-13-0199	TX	Steering Committee of Cities Served by Oncor	Cross Texas Transmission, LLC	Return on equity, capital structure
01/13	R-2012-2321748 et al.	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation
02/13	12AL-1052E	CO	Cripple Creek & Victor Gold Mining, Holcim (US) Inc.	Black Hills/Colorado Electric Utility Company	Cost and revenue allocations
06/13	8009	VT	IBM Corporation	Vermont Gas Systems	Cost and revenue allocation, rate design
07/13	130040-EI	FL	WCF Hospital Utility Alliance	Tampa Electric Co.	Return on equity, rate of return
08/13	9326	MD	Maryland Energy Group	Baltimore Gas and Electric	Cost and revenue allocation, rate design, special rider

Expert Testimony Appearances
of
Richard A. Baudino
As of March 2015

Date	Case	Jurisdict.	Party	Utility	Subject
08/13	P-2012-2325034	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities, Corp.	Distribution System Improvement Charge
09/13	4220-UR-119	WI	Wisconsin Industrial Energy Group	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
11/13	13-1325-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal, Felman Production
06/14	R-2014-2406274	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation, rate design
08/14	05-UR-107	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Cost and revenue allocation, rate design
10/14	ER13-1508 et al.	FERC	Louisiana Public Service Comm.	Entergy Services, Inc.	Return on equity
11/14	14AL-0660E	CO	Climax Molybdenum Co. and CFI Steel, LP	Public Service Co. of Colorado	Return on equity, weighted cost of capital
11/14	R-2014-2428742	PA	AK Steel	West Penn Power Company	Cost and revenue allocation
12/14	42866	TX	West Travis Co. Public Utility Agency	Travis County Municipal Utility District No. 12	Response to complain of monopoly power
3/15	2014-00371 2014-00372	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric, Kentucky Utilities	Return on equity, cost of debt, weighted cost of capital
3/15	2014-00396	KY	Kentucky Industrial Utility Customers	Kentucky Power Co.	Return on equity, weighted cost of capital

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR (1) GENERAL ADJUSTMENT OF ITS RATERS FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVING ITS TARIFFS AND RIDERS; AND (45) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	**Case No. 2014-00396**

EXHIBIT__(RAB-2)

OF

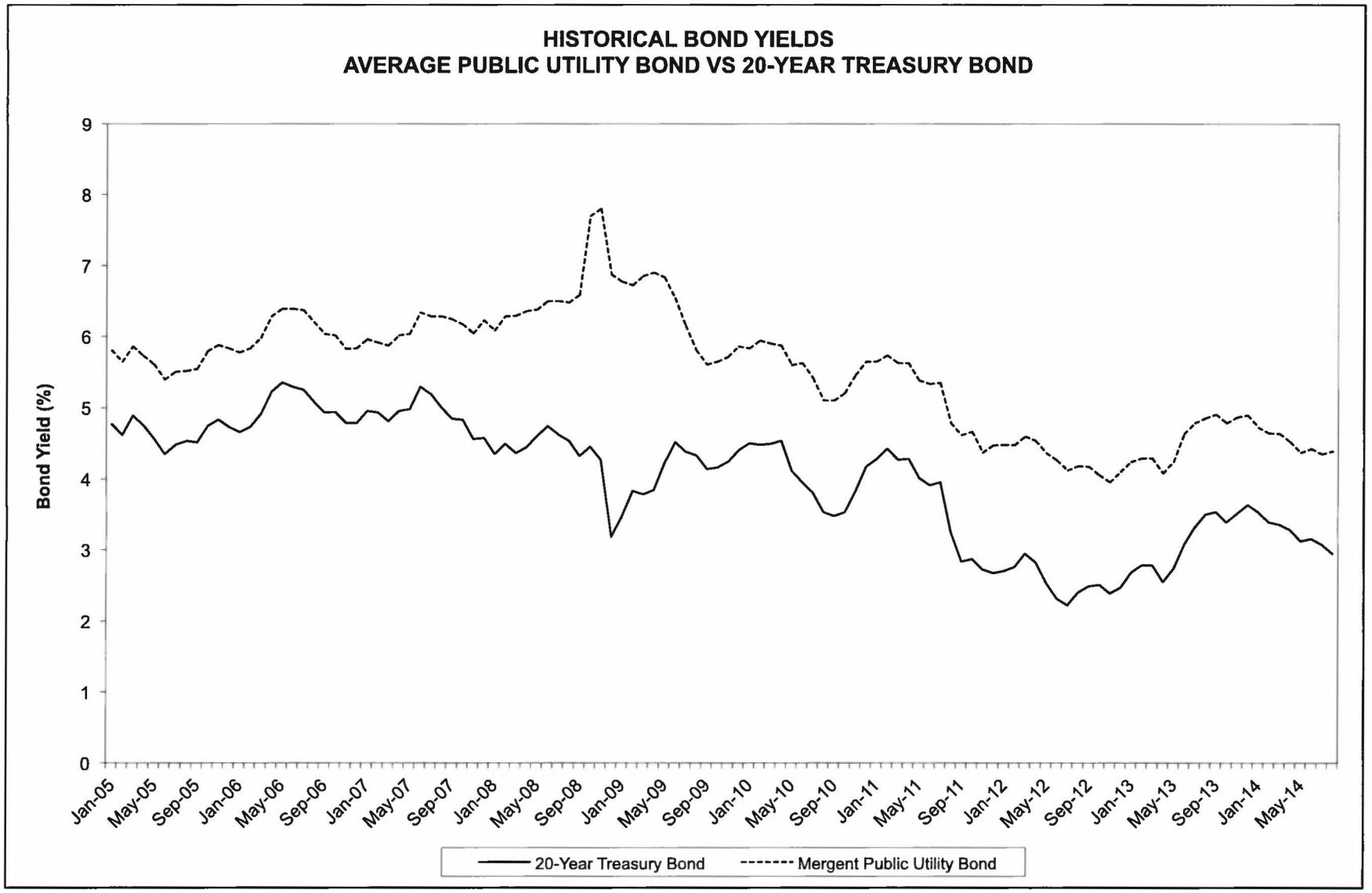
RICHARD A. BAUDINO

ON BEHALF OF THE

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

March 2015


HISTORICAL BOND YIELDS
AVERAGE PUBLIC UTILITY BOND VS 20-YEAR TREASURY BOND
Bond Yield (%)
0
1
2
3
4
5
6
7
8
9
Jan-05
May-05
Sep-05
Jan-06
May-06
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May-11
Sep-11
Jan-12
May-12
Sep-12
Jan-13
May-13
Sep-13
Jan-14
May-14
20-Year Treasury Bond
Mergent Public Utility Bond

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR (1) GENERAL ADJUSTMENT OF ITS RATERS FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVING ITS TARIFFS AND RIDERS; AND (45) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	Case No. 2014-00396

EXHIBIT__(RAB-3)

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

March 2015

COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Feb-15	Jan-15	Dec-14	Nov-14	Oct-14	Sep-14
Ameren Corp.	High Price ($)	45.660	46.810	48.140	44.220	42.710	40.310
	Low Price ($)	41.140	44.640	42.150	41.890	38.250	37.530
	Avg. Price ($)	43.400	45.725	45.145	43.055	40.480	38.920
	Dividend ($)	0.410	0.410	0.410	0.400	0.400	0.400
	Mo. Avg. Div.	3.78%	3.59%	3.63%	3.72%	3.95%	4.11%
	6 mos. Avg.	3.80%					
American Electric Power	High Price ($)	63.510	65.380	63.220	59.840	58.610	53.880
	Low Price ($)	57.010	59.970	56.970	55.900	51.970	51.580
	Avg. Price ($)	60.260	62.675	60.095	57.870	55.290	52.730
	Dividend ($)	0.530	0.530	0.530	0.530	0.500	0.500
	Mo. Avg. Div.	3.52%	3.38%	3.53%	3.66%	3.62%	3.79%
	6 mos. Avg.	3.58%					
Avista Corp.	High Price ($)	37.650	38.340	37.370	35.980	35.960	32.880
	Low Price ($)	33.280	34.910	33.200	33.190	30.550	30.450
	Avg. Price ($)	35.465	36.625	35.285	34.585	33.255	31.665
	Dividend ($)	0.330	0.318	0.318	0.318	0.318	0.318
	Mo. Avg. Div.	3.72%	3.47%	3.60%	3.68%	3.82%	4.02%
	6 mos. Avg.	3.72%					
CMS Energy	High Price ($)	38.120	38.660	36.870	33.460	32.910	30.830
	Low Price ($)	34.280	34.650	32.790	32.050	29.590	29.150
	Avg. Price ($)	36.200	36.655	34.830	32.755	31.250	29.990
	Dividend ($)	0.290	0.270	0.270	0.270	0.270	0.270
	Mo. Avg. Div.	3.20%	2.95%	3.10%	3.30%	3.46%	3.60%
	6 mos. Avg.	3.27%					
Duke Energy	High Price ($)	87.290	89.970	87.290	83.900	82.680	75.210
	Low Price ($)	77.790	82.610	80.160	78.510	74.330	72.950
	Avg. Price ($)	82.540	86.290	83.725	81.205	78.505	74.080
	Dividend ($)	0.795	0.795	0.795	0.795	0.795	0.795
	Mo. Avg. Div.	3.85%	3.69%	3.80%	3.92%	4.05%	4.29%
	6 mos. Avg.	3.93%					
Edison International	High Price ($)	68.460	69.590	68.740	63.660	62.900	59.540
	Low Price ($)	62.310	64.780	62.780	61.390	55.880	54.120
	Avg. Price ($)	65.385	67.185	65.760	62.525	59.390	56.830
	Dividend ($)	0.417	0.417	0.355	0.355	0.355	0.355
	Mo. Avg. Div.	2.55%	2.48%	2.16%	2.27%	2.39%	2.50%
	6 mos. Avg.	2.39%					

COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Feb-15	Jan-15	Dec-14	Nov-14	Oct-14	Sep-14
El Paso Electric Co.	High Price ($)	40.720	41.320	42.170	39.630	38.260	39.410
	Low Price ($)	37.000	38.690	36.770	37.370	35.340	36.050
	Avg. Price ($)	38.860	40.005	39.470	38.500	36.800	37.730
	Dividend ($)	0.280	0.280	0.280	0.280	0.280	0.280
	Mo. Avg. Div.	2.88%	2.80%	2.84%	2.91%	3.04%	2.97%
	6 mos. Avg.	2.91%					
Empire District Electric	High Price ($)	30.940	31.490	31.200	28.870	29.240	25.950
	Low Price ($)	24.330	29.160	27.400	27.520	24.090	24.000
	Avg. Price ($)	27.635	30.325	29.300	28.195	26.665	24.975
	Dividend ($)	0.260	0.260	0.260	0.255	0.255	0.255
	Mo. Avg. Div.	3.76%	3.43%	3.55%	3.62%	3.83%	4.08%
	6 mos. Avg.	3.71%					
Entergy Corp.	High Price ($)	89.520	90.330	92.020	84.440	84.580	78.370
	Low Price ($)	78.150	85.170	82.180	80.040	76.510	75.290
	Avg. Price ($)	83.835	87.750	87.100	82.240	80.545	76.830
	Dividend ($)	0.830	0.830	0.830	0.830	0.830	0.830
	Mo. Avg. Div.	3.96%	3.78%	3.81%	4.04%	4.12%	4.32%
	6 mos. Avg.	4.01%					
Great Plains Energy	High Price ($)	29.650	30.250	29.460	27.380	27.000	25.800
	Low Price ($)	26.310	27.430	25.940	25.630	24.110	23.910
	Avg. Price ($)	27.980	28.840	27.700	26.505	25.555	24.855
	Dividend ($)	0.245	0.245	0.245	0.245	0.230	0.230
	Mo. Avg. Div.	3.50%	3.40%	3.54%	3.70%	3.60%	3.70%
	6 mos. Avg.	3.57%					
OGE Energy	High Price ($)	35.750	36.480	36.700	37.900	37.560	37.760
	Low Price ($)	32.120	33.440	32.850	35.640	33.060	35.150
	Avg. Price ($)	33.935	34.960	34.775	36.770	35.310	36.455
	Dividend ($)	0.250	0.250	0.250	0.250	0.250	0.225
	Mo. Avg. Div.	2.95%	2.86%	2.88%	2.72%	2.83%	2.47%
	6 mos. Avg.	2.78%					
Pinnacle West	High Price ($)	70.710	73.310	71.110	63.500	61.560	57.740
	Low Price ($)	63.810	67.690	62.600	60.610	54.590	54.130
	Avg. Price ($)	67.260	70.500	66.855	62.055	58.075	55.935
	Dividend ($)	0.595	0.595	0.595	0.595	0.568	0.568
	Mo. Avg. Div.	3.54%	3.38%	3.56%	3.84%	3.91%	4.06%
	6 mos. Avg.	3.71%					

COMPARISON GROUP
AVERAGE PRICE, DIVIDEND AND DIVIDEND YIELD

		Feb-15	Jan-15	Dec-14	Nov-14	Oct-14	Sep-14
PNM Resources	High Price ($)	30.900	31.180	31.600	29.620	29.330	26.970
	Low Price ($)	27.640	29.300	27.410	28.190	24.810	24.760
	Avg. Price ($)	29.270	30.240	29.505	28.905	27.070	25.865
	Dividend ($)	0.200	0.185	0.185	0.185	0.185	0.185
	Mo. Avg. Div.	2.73%	2.45%	2.51%	2.56%	2.73%	2.86%
	6 mos. Avg.	2.64%					
SCANA Corp.	High Price ($)	64.040	65.570	63.410	57.390	55.250	52.230
	Low Price ($)	56.510	59.940	56.020	54.830	47.770	48.810
	Avg. Price ($)	60.275	62.755	59.715	56.110	51.510	50.520
	Dividend ($)	0.525	0.525	0.525	0.525	0.525	0.525
	Mo. Avg. Div.	3.48%	3.35%	3.52%	3.74%	4.08%	4.16%
	6 mos. Avg.	3.72%					
Average Dividend Yield		3.41%					

Source: Yahoo! Finance

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

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EXHIBIT__(RAB-4)

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

March 2015

COMPARISON GROUP
DCF Growth Rate Analysis

Company	(1) Value Line DPS	(2) Value Line EPS	(3) Value Line B x R	(4) Zacks	(5) IBES
Ameren Corp.	2.00%	5.00%	4.50%	7.30%	6.85%
American Electric Power	5.00%	5.50%	4.50%	4.80%	5.21%
Avista Corporation	4.50%	5.50%	3.00%	5.00%	5.00%
CMS Energy Corporation	6.50%	5.50%	5.00%	6.20%	6.73%
Duke Energy Corporation	2.50%	5.00%	3.00%	4.70%	4.52%
Edison International	9.50%	2.50%	5.50%	7.10%	3.53%
El Paso Electric Co.	7.00%	1.50%	4.50%	6.70%	7.00%
Empire District Electric Co.	4.50%	4.00%	3.50%	3.00%	3.00%
Entergy Corp.	2.00%	-0.50%	3.50%	3.00%	-1.17%
Great Plains Energy Inc.	5.50%	5.00%	3.00%	4.80%	4.60%
OGE Energy	10.00%	3.00%	3.50%	5.00%	4.00%
Pinnacle West Capital Corp.	3.00%	4.00%	3.50%	4.00%	4.20%
PNM Resources	12.00%	11.00%	5.00%	8.90%	9.86%
SCANA Corp.	3.00%	6.00%	5.00%	4.20%	4.30%
Averages excluding negatives	5.50%	4.88%	4.07%	5.34%	5.29%
Median Values	4.75%	5.00%	4.00%	4.90%	4.56%

Sources: **Value Line Investment Survey, January 30, February 20, and March 20, 2015**
Yahoo! Finance for IBES growth rates retrieved March 12, 2015
Zacks growth rates retrieved March 12, 2015
IBES growth rate was used in the Zacks column for Avista

COMPARISON GROUP
DCF RETURN ON EQUITY

	(1) Value Line Dividend Gr.	(2) Value Line Earnings Gr.	(3) Zack's Earning Gr.	(4) IBES Earning Gr.	(5) Average of All Gr. Rates
Method 1:					
Dividend Yield	3.41%	3.41%	3.41%	3.41%	3.41%
Average Growth Rate	5.50%	4.88%	5.34%	5.29%	5.25%
Expected Div. Yield	3.50%	3.49%	3.50%	3.50%	3.50%
DCF Return on Equity	***9.00%***	***8.37%***	***8.84%***	***8.79%***	***8.75%***
Method 2:					
Dividend Yield	3.41%	3.41%	3.41%	3.41%	3.41%
Median Growth Rate	4.75%	5.00%	4.90%	4.56%	4.80%
Expected Div. Yield	3.49%	3.50%	3.49%	3.49%	3.49%
DCF Return on Equity	***8.24%***	***8.50%***	***8.39%***	***8.05%***	***8.29%***

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR (1) GENERAL ADJUSTMENT OF ITS RATERS FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVING ITS TARIFFS AND RIDERS; AND (45) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	Case No. 2014-00396

EXHIBIT__(RAB-5)

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

March 2015

COMPARISON GROUP
Capital Asset Pricing Model Analysis

20-Year Treasury Bond, Value Line Beta

Line No.		Value Line
1	Market Required Return Estimate	10.02%
2	Risk-free Rate of Return, 20-Year Treasury Bond	
3	Average of Last Six Months	2.61%
4	Risk Premium	
5	(Line 1 minus Line 3)	7.42%
6	Comparison Group Beta	0.75
7	Comparison Group Beta * Risk Premium	
8	(Line 5 * Line 6)	5.56%
9	CAPM Return on Equity	
10	(Line 3 plus Line 8)	8.17%

5-Year Treasury Bond, Value Line Beta

1	Market Required Return Estimate	10.02%
2	Risk-free Rate of Return, 5-Year Treasury Bond	
3	Average of Last Six Months	1.57%
4	Risk Premium	
5	(Line 1 minus Line 3)	8.45%
6	Comparison Group Beta	0.75
7	Comparison Group Beta * Risk Premium	
8	(Line 5 * Line 6)	6.34%
9	CAPM Return on Equity	
10	(Line 3 plus Line 8)	7.91%

COMPARISON GROUP
Capital Asset Pricing Model Analysis

Supporting Data for CAPM Analyses

20 Year Treasury Bond Data

	Avg. Yield
September-14	3.01%
October-14	2.77%
November-14	2.76%
December-14	2.55%
January-15	2.20%
February-15	2.34%
6 month average	2.61%

5 Year Treasury Bond Data

	Avg. Yield
September-14	1.77%
October-14	1.55%
November-14	1.62%
December-14	1.64%
January-15	1.37%
February-15	1.47%
6 month average	1.57%

Source: www.federalreserve.gov, Selected Interest Rates (Dalily) - H.15

Value Line Market Return Data:

Forecasted Data:

Value Line Median Growth Rates:	
Earnings	12.00%
Book Value	8.50%
Average	10.25%
Median Dividend Yield	0.76%
Estimated Market Return	11.05%
Value Line Projected 3-5 Yr. Median Annual Total Return	9.00%
Average of Projected Mkt. Returns	10.02%

Source: Value Line Investment Survey for Windows retreived February 25, 2015

Comparison Group Betas:

	Value Line
Ameren Corporation	0.75
American Electric Power Co.	0.70
Avista Corporation	0.80
CMS Energy Corporation	0.75
Duke Energy Corporation	0.60
Edison International	0.75
El Paso Electric Company	0.70
Empire District Electric Co.	0.70
Entergy Corporation	0.70
Great Plains Energy Incorporated	0.85
OGE Energy Corp.	0.90
Pinnacle West Capital Corp.	0.70
PNM Resources, Inc.	0.85
SCANA Corporation	0.75
Average	0.75

Source: Value Line Investment Survey

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR (1) GENERAL ADJUSTMENT OF ITS RATERS FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVING ITS TARIFFS AND RIDERS; AND (45) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	Case No. 2014-00396

EXHIBIT__(RAB-6)

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

March 2015

COMPARISON GROUP
Capital Asset Pricing Model Analysis
Historic Market Premium

	Geometric Mean	Arithmetic Mean	Adjusted Arithmetic Mean
Long-Term Annual Return on Stocks	10.10%	12.10%	
Long-Term Annual Income Return on Long-Term Treas. Bonds	5.09%	5.09%	
Historical Market Risk Premium	5.01%	7.01%	6.12%
Comparison Group Beta, Value Line	0.75	0.75	0.75
Beta * Market Premium	3.76%	5.26%	4.59%
Current 20-Year Treasury Bond Yield	2.61%	2.61%	2.61%
CAPM Cost of Equity, Value Line Beta	**6.36%**	**7.86%**	**7.20%**

Source: *Ibbotson SBBI 2014 Classic Yearbook,* Morningstar, pp. 39 - 40, 152, 157 - 158

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF:

THE APPLICATION OF KENTUCKY POWER COMPANY FOR (1) GENERAL ADJUSTMENT OF ITS RATERS FOR ELECTRIC SERVICE; (2) AN ORDER APPROVING ITS 2014 ENVIRONMENTAL COMPLIANCE PLAN; (3) AN ORDER APPROVING ITS TARIFFS AND RIDERS; AND (45) AN ORDER GRANTING ALL OTHER REQUIRED APPROVALS AND RELIEF	))))))))	Case No. 2014-00396

EXHIBIT__(RAB-7)

OF

RICHARD A. BAUDINO

ON BEHALF OF THE

KENTUCKY INDUSTRIAL UTILITY CUSTOMERS, INC.

J. KENNEDY AND ASSOCIATES, INC.
ROSWELL, GEORGIA

March 2015

Docket No. 120015-EI
Interest Rate Trends
Exhibit WEA-2, Page 1 of 1

	Current (a)	2012	2013	2014	2015	2016
30-Yr. Treasury						
Value Line (b)	3.4%	3.9%	4.1%	4.5%	5.0%	–
IHS Global Insight (c)	3.4%	3.3%	3.8%	4.5%	5.1%	5.3%
Blue Chip (d)	3.4%	3.7%	4.2%	4.8%	5.3%	5.5%
AAA Corporate						
Value Line (b)	4.2%	4.6%	4.7%	5.2%	5.7%	–
IHS Global Insight (c)	4.2%	4.2%	4.5%	5.1%	6.0%	6.2%
Blue Chip (d)	4.2%	4.3%	4.7%	5.4%	5.8%	6.2%
S&P (e)	4.2%	4.2%	4.6%	5.1%	6.0%	–
AA Utility						
IHS Global Insight (c)	4.3%	4.4%	4.9%	5.6%	6.5%	6.8%
EIA (f)	4.3%	4.7%	4.8%	5.7%	6.8%	6.9%

(a) Based on monthly average bond yields for the six-month period Jul. - Dec. 2011 reported at www.credittrends.moodys.com and http://www.federalreserve.gov/releases /h15/data.htm.

(b) The Value Line Investment Survey, Forecast for the U.S. Economy (Nov. 25, 2011).

(c) IHS Global Insight, *U.S. Economic Outlook* at 25 (Dec. 2011).

(d) *Blue Chip Financial Forecasts,* Vol. 30, No. 12 (Dec. 1, 2011).

(e) Standard & Poor's Corporation, "U.S. Economic Forecast: Just Like Ol' Times," *RatingsDirect* (Jan. 12, 2012).

(f) Energy Information Administration, *Annual Energy Outlook 2012, Early Release* (Jan. 23, 2012).

BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Northern States Power Company, a Wisconsin Corporation, for Authority to Adjust Electric and Natural Gas Rates — Docket No. 4220-UR-121

DIRECT TESTIMONY OF RICHARD BAUDINO

Q. Please state your name and business address.

A. My name is Richard A. Baudino. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by whom are you employed?

A. I am a consultant with Kennedy and Associates.

Q. Please describe your education and professional experience.

A. I received my Master of Arts degree with a major in Economics and a minor in Statistics from New Mexico State University in 1982. I also received my Bachelor of Arts Degree with majors in Economics and English from New Mexico State in 1979.

I began my professional career with the New Mexico Public Service Commission Staff in October 1982 and was employed there as a Utility Economist. During my employment with the Staff, my responsibilities included the analysis of a broad range of issues in the ratemaking field. Areas in which I testified included cost of service, rate of return, rate design, revenue requirements, analysis of sale/leasebacks of generating plants, utility finance issues, and generating plant phase-ins.

In October 1989, I joined the utility consulting firm of Kennedy and Associates as a Senior Consultant where my duties and responsibilities covered substantially the same areas as those during my tenure with the New Mexico Public Service Commission Staff. I became Manager in July 1992 and was named Director of Consulting in January 1995. Currently, I am a consultant with Kennedy and Associates.

A summary of my expert testimony experience is found in Ex.-WIEG-Baudino-1.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the Wisconsin Industrial Energy Group, Inc. (“WIEG”).

Q. What is the purpose of your Direct Testimony?

A. The purpose of my Direct Testimony is to provide recommendations to the Public Service Commission of Wisconsin ("Commission" or "PSCW") regarding class cost of service, revenue allocation, and rate design. I will also respond to the prefiled Direct Testimonies of Gerald Marx and Donald Dahl, witnesses for Northern States Power Company Wisconsin ("NSPW" or "Company").

Q. Please summarize your conclusions and recommendations.

A. My conclusions and recommendations are as follows.

First, I agree with NSPW witness Mr. Gerald Marx on the allocation of fixed production costs, which is consistent with my position in past NSPW proceedings. I recommend that the Commission adopt a class cost of service study ("CCOSS") that allocates fixed production costs using the 4 coincident peak (“4CP”) allocation method. This approach most accurately tracks customer cost causation on NSPW’s system, which is strongly summer peaking.

Second, I recommend that the Commission follow my revenue allocation recommendation, which is founded upon a CCOSS using the 4CP allocator for fixed production costs and the E8760 allocator for energy costs. In particular, the Real Time Pricing ("RTP") classes should receive no rate increase in this proceeding.

Third, I disagree with Mr. Dahl's general approach to rate design for the Large time-of-day customer classes and recommend that the Commission reject his proposed rate design for these classes. Instead, I recommend the Commission adopt a rate design structure that moves current demand charges closer toward cost-based charges.

Fourth, I recommend that the Commission reject the class cost of service studies contained in Mr. Marx's Supplemental Direct Testimony.

COST OF SERVICE ALLOCATION AND PROPER PRICING

Q. Please briefly summarize the important aspects of a class cost of service study.

A. A class cost of service study allocates a utility's cost to serve customers to the classes of customers causing the utility to incur those costs.. In certain limited instances, the utility can identify and directly assign specific costs to specific customer classes. However, for the vast majority of costs, a cost of service study is used to properly allocate costs to those customer classes causing the utility to incur costs.

The development of a class cost of service study consists of three steps: functionalization, classification, and allocation. Step 1, functionalization, involves separating the utility's investment and expenses into major functional categories. The FERC Uniform System of Accounts provides the method by which costs are identified

and segregated into these various functional categories. Step 2 is classification. Once functionalization is complete, the utility's costs are classified into demand, energy, and customer components. Demand-related costs are fixed in the short run and are sized based on the yearly demands of the utility's customers. Fixed production and transmission costs and a significant portion of the distribution system investment in poles, wires, etc. is considered demand-related. Energy-related costs vary with kWh consumption and include fuel and variable purchased power costs. Customer-related costs are associated with the number of customers and include items such as meters and services. It is also appropriate to classify a portion of distribution investment in FERC Accounts 364 through 370 as customer-related.

Step 3 is allocation. After costs are classified, they are allocated to customer classes based on each class' contribution to the respective cost classifications. Generally speaking, demand costs are allocated based on class contributions to system peak and/or non-coincident peaks. Energy costs are allocated based on class kWh consumption. Customer costs are allocated based on the number of customers or on weighted customer allocation factors.

Q. Why is a properly constructed CCOSS important in the ratemaking process?

A. A properly performed class cost of service study assigns and allocates the utility's total cost of service to the customer classes that cause the utility to incur those costs. Based on current class revenues, the regulatory commission may then determine whether each customer class is paying its fair share of costs and can then allocate any revenue increase (or decrease) accordingly. For example, a customer class that is not paying its fair share

of costs should receive a percentage revenue increase greater than the overall system increase. Likewise, a customer class that is paying more than its fair share of costs should receive a lower than average percentage increase. In certain cases, it may be appropriate for such a class of customers to receive no increase or even a decrease in rates if that class is paying rates greatly in excess of its allocated cost of service.

Accurate cost allocation also promotes economic efficiency. If electricity prices are based on an accurate assessment of the underlying cost to serve customers, then customers can make correctly informed decisions about their usage of electricity. For example, many industrial firms use significant amounts of electricity in their production processes. If the price these companies pay for electricity is based on costs, then they will be able to produce their goods and services at the lowest and most efficient cost for society. If electricity prices are set above the actual underlying cost, then these goods and services will be overpriced, under produced, or both.

Q. Is economic efficiency an important consideration to WIEG members?

A. Yes, economic efficiency is vitally important. For WIEG's energy intensive members, the cost of electricity is a major component of their cost of production. WIEG members must compete in national and international markets and must remain cost competitive. Therefore, it is important that the rates they pay for electricity be reasonable and based on the cost to serve.

I am advised that WIEG members compete with other facilities located in the Midwest and Southeast regions of the United States. Table 1 below presents average 2014 industrial rates in cents per kWh for several regions of the United States and for Wisconsin from the U.S. Energy Information Administration. Wisconsin is included in

the East North Central region of the U.S. I also included NSPW's average rate in cents per kWh for its Large customer tariffs using NSP's 2014 FERC Form 1 data.

TABLE 1

2014 AVERAGE INDUSTRIAL ELECTRICITY PRICES (Cents / kWh)

United States (Average all states)	7.01
East North Central U.S.	6.93
West North Central U.S.	6.72
South Atlantic U.S.	6.73
Wisconsin	7.65
NSPW	7.48

Source: U.S. Energy Information Administration,
NSP FERC Form 1, 2014

Table 1 shows that Wisconsin's average industrial rate is 9.1% higher than the national average and 10.4% higher than the East North Central region in which Wisconsin is included. NSPW's average industrial rate is lower than the average Wisconsin rate, but 7.7% higher than the East North Central region and 6.7% higher than the national average. Given Wisconsin's high industrial rates, it is imperative that NSPW's rates for its Large customers reflect both cost responsibility and economic efficiency. A CCOSS that allocates fixed production costs on the basis of NSPW's 4CP will accomplish both of these goals.

NSPW CCOSS Approach and Issues

Q. Please summarize NSPW's approach to cost allocation in this proceeding.

A. Mr. Marx presented the results of three CCOSSs on page Direct-NSPW-Marx-4 of his Direct Testimony. These CCOSS studies use three different methods of allocating fixed production costs and include: Method 1 using 12CP, Method 2 using a blended 4CP demand and energy-based allocation, and Method 3 using the 4CP.

Q. Does NSPW support a particular production cost allocation methodology in this proceeding?

A. Mr. Marx testified on page Direct-NSPW-Marx-6 that the Company supports a range of results bounded by Methods 2 and 3. Mr. Marx testified that the 4CP allocator puts more emphasis on the four summer peak demands, "which is appropriate because ... NSPW is likely to experience the peak load during one of the four summer months." Mr. Marx's Schedule 3 shows graphically that NSPW is a strongly summer peaking utility. Schedule 3 presents monthly CP demands for the 2016 test year. Table 2 below presents those monthly CPs for 2016 and two analyses that relate summer peaks to non-summer peaks.

TABLE 2
NSPW 2016 MONTHLY CP ANALYSIS

Month	CP MW Demand	CP MW Summer	CP MW Non-Summer	CP as % of 2016 CP
1	1,058		1,058	75.1%
2	1,034		1,034	73.4%
3	999		999	70.9%
4	919		919	65.2%
5	1,066		1,066	75.7%
6	***1,285***	***1,285***		***91.2%***
7	***1,409***	***1,409***		***100.0%***
8	***1,332***	***1,332***		***94.5%***
9	***1,234***	***1,234***		***87.6%***
10	971		971	68.9%
11	1,005		1,005	71.3%
12	1,110		1,110	78.8%
Average	1,119	1,315	1,020	
Pct. Summer CP over Non-Summer CP			28.9%	

Table 2 shows that the average of the four summer peaks, June through September, is 1,315 megawatts ("mW"). The average of the non-summer months is 1,020 mWs. The average summer peak month is 28.9% higher than the average non-summer month.

Table 2 also presents the summer peak month and the remaining eleven monthly CPs as percentages of that summer peak month. The summer CPs are highlighted in bold and italics. The lowest summer CP is only 87.6% of the July summer peak. Non-summer CPs range from a low of 65.2% (April) to 78.8% (December) of the July system peak. It is obvious from NSPW's monthly coincident peaks that the Company is a strongly summer peaking electric utility and that the four summer peaks are significantly higher than the non-summer CPs.

Q. Mr. Baudino, what is your conclusion with respect to NSPW's recommended approach to classifying and allocating production plant and expenses?

A. I acknowledge the Company's continued move toward a more demand-based allocation of production costs and away from an energy-based allocation. Including the 4CP class allocator in Methods 2 and 3 greatly improves the accuracy of NSPW's cost and revenue allocation to its customers. WIEG also appreciates the Company's acceptance and use of the E8760 allocator for energy-related costs. This allocator is more accurate than the E10 allocator used by NSPW in past cases. All in all, Mr. Marx's CCOSS approach represents a major step forward in ensuring that all customers are allocated their fair share of costs.

I continue to disagree with any CCOSS that allocates fixed production costs on the basis of energy and this includes the Company's Method 2 CCOSS.

Q. Please explain why a CCOSS should allocate fixed production costs using an allocation factor based on customer class contribution to system peak demands.

A. Classifying and allocating production demand costs on the basis of class contribution to system peak recognizes the critical importance of having NSPW's full production plant capability online and available to meet the peak demand requirements of its customers. Allocating cost responsibility to customer classes based on each class' contribution to system peak forges the important link between how production capacity is actually used and how it should be paid for.

Excess capacity exists during off-peak periods, which enables the Company to take its generating units offline for maintenance. Thus, off-peak loads and energy consumption do not require the Company's full production capacity. With this being the

case, production costs should not be allocated to customers based on off-peak demand and energy usage.

As in past NPSW cases, I recommend that the Commission adopt the Method 3 CCOSS results that use a 4CP allocation factor for NSPW's production demand costs.

Q. Please describe the disadvantages of classifying and allocating fixed production costs using and energy allocation factor.

A. Because an energy-based methodology such as Method 2 assigns such a large percentage of fixed production plant on the basis of energy use (39.9%), NSPW's customers get a price signal that tells them that additional off-peak energy usage imposes a cost on the Company that is greater than actual off-peak energy costs. This occurs because each additional kWh of off-peak usage results in additional fixed production costs (return, depreciation, fixed O&M expenses) being assigned to the rate class. This results in an inefficient use of the Company's generation resources because the effective rate charged to customers is substantially above marginal off-peak energy costs.

Additionally, high load factor customers, particularly the larger commercial and industrial customers, are penalized for their more even and efficient use of energy throughout the year. If these customers were to consider moving a portion of their load to off-peak periods, they would be faced with off-peak rates that are overstated. Likewise, all customers would have less incentive to reduce their peak demand because their demand charges will be lower than the costs actually incurred by the Company to serve the system peak.

Q. How did NSPW determine the energy-related portion of fixed production costs?

A. Mr. Marx described the methodology he employed beginning on page Direct-NSPW-Marx-8. The blended production capacity allocation factor was calculated based on a ratio derived from NSPW's retail electric demand data. For the Method 2 CCOSS, the 60.1% portion attributable to demand was calculated based on the average of four summer monthly peak demands divided by the sum of the average of the four summer monthly peak demands plus the average annual demand. Mr. Marx testified on lines 5 and 6 that this blended allocator "reflects the dual function of generating units to provide both capacity and energy output."

Q. Is the Company's approach to its blended production demand allocator appropriate?

A. No. Mr. Marx provided no sound basis for classifying 39.9% of the Company's fixed production plant based on energy. His blended production demand allocator fails to fully recognize the Company's summer peak period as the driver of the Company's production costs. While it is correct that NSPW's generation provides electrical energy throughout the year, it is the peak period from June through September when the Company must have all of its generating units on line to serve its customers.

Moreover, fixed production costs do not vary with energy consumption throughout the year. In other words, NSPW does not incur lower fixed production costs when kilowatt-hour ("kWh") consumption declines during the non-summer months. The costs that vary with energy consumption are mainly fuel, purchased energy, and certain variable operations and maintenance expenses. It is these variable costs that should be classified and allocated based on energy usage, not fixed production costs.

Q. Does the fact that base load units have higher capacity factors justify classifying and allocating their fixed costs partly on the basis of energy consumption?

A. No, not at all. The higher fixed cost of a base load unit may not have been justified by its lower energy cost. Rather, generation planning decisions may also have considered other factors such as the longer life of a base load unit which, when combined with fuel savings, justified the higher cost base load unit. Without a detailed generating planning analysis, it is nearly impossible to identify the "cost causation" underlying each of the Company's generating units. Nevertheless, the fact remains that NSPW's peaking, intermediate, and base load units all must be online during the Company's peak summer months. This fact alone fully supports classifying and allocating production capacity costs based on the summer 4CP.

Q. How did the Company allocate energy production costs in its CCOSS?

A. Mr. Marx described the Company's approach allocating energy production costs to customer classes beginning on Direct-NSPW-Marx-10. The Company allocated production energy costs in its CCOSS using the E8760 allocator. As Mr. Marx described on Direct-NSPW-Marx-12 the E8760 allocator reflects customer class production energy cost responsibility for each of the 8760 hours of the year.

WIEG appreciates the Company's adoption of the E8760 allocation factor for energy-related costs. The E8760 is a superior method of determining customer class responsibility for energy production costs and has been advocated by WIEG in past NSPW cases. I support Mr. Marx's use of the E8760 allocator in this proceeding.

Q. Please summarize the results of the CCOSS Methods 2 and 3.

A. Table 3 summarizes the results for the major rate classes from CCOSS Methods 2 and 3.

TABLE 3

NSPW CUSTOMER CLASS INCREASES

CCOSS METHODS 2 & 3

Demand Energy	4CP 60.1%	4CP 100.0%
Residential	3.9%	5.1%
Small General	2.3%	3.4%
Total Medium	2.4%	2.4%
Total Large	4.9%	3.8%
Total NSPW Retail	3.9%	3.9%

Q. What is your recommendation regarding the appropriate CCOSS for the Commission to use to allocate cost and revenue responsibility in this case?

A. Based on the foregoing discussion in my testimony, I recommend that the Commission rely upon Method 3, which uses the 4CP allocator for NSPW's fixed production costs.

REVENUE ALLOCATION AND RATE DESIGN

Q. Did NSPW prepare an analysis that compared its recommended class revenue allocation with its recommended range of CCOSS results?

A. Yes. Mr. Dahl presented such a comparison in Ex.-NSPW-Dahl-3, Schedule No. 3. Table 4 below presents this comparison for certain Large customer classes, which include Cg-9, Cp-1, and RTP.

TABLE 4

COMPARISON OF NSPW REVENUE ALLOCATION AND CCOSS RESULTS

	(1) NSP Proposed	(3) 4CP 60.1% D E8760E	(4) 4CP 100% D
Large TOD Secondary			
Cg-9	4.6%	4.7%	4.9%
Cp-1	5.0%	4.7%	4.9%
Large TOD Primary			
Cg-9	4.0%	5.6%	3.7%
Cp-1	4.4%	5.6%	3.7%
Large TOD Transmission			
Cg-9tt	3.0%	6.1%	3.0%
Cg-9tu	2.9%	6.1%	3.0%
Cp-1tt	3.2%	6.1%	3.0%
RTPtt	0.9%	3.3%	-1.9%
RTPtu	0.7%	3.3%	-1.9%

Q. How did Mr. Dahl approach the Company's recommended revenue allocation?

A. Mr. Dahl described NSPW's revenue allocation on Direct-NSPW-Dahl-22. Mr. Dahl testified that the Company's rate design moves each overall class increase toward the midpoint of the two CCOSS methods supported by Mr. Marx (Methods 2 and 3). Mr. Dahl further testified that the Company proposes a customer charge increase, a small increase in the demand rates, and larger increases in energy charges for large time-of-day ("TOD") classes.

Q. What is your conclusion with respect to NSPW's recommended class revenue allocation?

A. With respect to the Large customer classes, Mr. Dahl's proposed class revenue allocation is generally reasonable and approximates the revenue allocation under WIEG's recommended 4CP CCOSS. However, the RTP classes are already paying more that their fair share of costs and should actually receive rate decreases in this case.

Q. Please present your recommendation for class revenue allocation.

A. I recommend that the RTP classes receive no increase in this proceeding. Although a rate decrease for these classes is certainly justified and reasonable based on cost responsibility, no increase is a reasonable compromise given the rate increase that the Company is proposing in this case.

Q. Do you agree with the Company's general approach to rate design for CP-1 and CG-9?

A. I am in agreement with the proposed increase in customer charges, customer demand charges, and with the proposed increase in the high load factor discount from $0.010 per kWh to $0.011 per kWh. I do not agree with the large increases in energy charges relative to demand charges for these classes. In past NSPW cases, the Company proposed higher increases in demand charges relative to energy charges as this approach was supported by the CCOSS results in those cases.

However, NSPW's demand charges for its large TOD classes are significantly understated based on the CCOSS results. Mr. Dahl also noted on Direct-NSPW-Dahl-28 that "[b]iasing demand rates on the low side requires a corresponding increase in energy rates, which has a significant impact on high load factor customers, increasing their

overall costs above what they would be under a strictly "cost of service" rate." I agree with Mr. Dahl.

Table 5 presents a comparison of NSPW's current demand charges with cost-based demand charges from the Method 2 CCOSS.

TABLE 5

NSPW DEMAND CHARGES
ACTUAL VS. COST BASED (METHOD 2)

	Current		Cost Based	
	Summer	Wnter	Summer	Wnter
Cg-9 Secondary	$11.65	$9.65	$25.86	$22.64
Cg-9 Primary	$11.42	$9.46	$28.24	$23.79
Cg-9 Transmission	$10.66	$8.83	$38.71	$33.74

NSPW's current Large customer demand charges are simply too low and cannot be justified at their current levels. In addition to the deleterious effects these demand rates have on high load factor customers, they provide less revenue stability to the utility company. This is because energy usage tends to fluctuate more than demand. Higher demand charges would, other things equal, be a benefit to NSPW.

Q. Based on the foregoing analysis and discussion, what is your recommended rate design for the Large classes?

A. I recommend the following with respect to rate design for the Large TOD classes:

1. Accept NSPW's proposed customer charge, customer demand charge, and high load factor discount.

2. Hold current energy charges constant.

3. Collect the remaining class revenue increase through increased summer and winter demand charges.

My rate design recommendation will move demand charges toward cost based rates, mitigate the impact of overstated energy charges on high load factor customers, and provide more revenue stability to NSPW.

Q. Please provide an example of how your proposed rate design would work.

A. Table 6 below shows how my proposed rate design would work using the Cg-9 Secondary rates as an example.

TABLE 6

Rate Schedule Cg-9 Secondary
WIEG Proposed Rate Design

	Current Rate	Proposed Rate	Pct. Change
Bills-Regular	$ 155.00	$ 200.00	29.0%
Bills-Optional	$ 55.00	$ 75.00	36.4%
LM kW - CL1	$ (3.00)	$ (3.00)	0.0%
kW-On-Peak-S	$ 11.65	$ 13.21	13.4%
kW-On-Peak-W	$ 9.65	$ 10.95	13.5%
kW-On-Peak			
kW-Customer	$ 1.50	$ 1.75	16.7%
MWh-Delivery			
MWh-Energy-On-Sum	$ 0.082550	$ 0.082550	0.0%
MWh-Energy-On-Win	$ 0.074460	$ 0.074460	0.0%
MWh-Energy-On-peak			
MWh-Energy-Off-Sum	$ 0.048630	$ 0.048630	0.0%
MWh-Energy-Off-Win	$ 0.048630	$ 0.048630	0.0%
MWh-Energy-Off-peak			
MWh-LF Dsct	$ (0.010000)	$ (0.011000)	10.0%
Act 141 Credit	$ (0.001250)	$ (0.001220)	-2.4%

Note that WIEG's proposed kW demand rates shown in Table 6 are still far below the cost based rates from CCOSS Method 2 presented by Mr. Marx and presented in my Table 5. NSPW did not calculate cost based demand charges for CCOSS Method 3, which I support. However, it is likely that the cost based demand charges from Method 3 would be slightly higher than those from Method 2.

Q. Should the current rate design for the RTP classes remain the same?

A. Yes. Given the unique nature of the pricing structure for RTP customers and given the fact that I recommend no increase for these classes, the current rate design for RTP should remain the same.

Q. Do you have any other observations or concerns with NSPW's proposals as they relate to large customers?

A. Yes. First, I agree with Mr. Marx that the Commission should approve extension of the RTP-1 service expiration date to at least December 31, 2017. Second, a decision on NSPW's proposal to modify interruptible load certification for Cp-1 and Cp-3 services should not be made until we know how the changes are likely to affect those Cp-1 and Cp-3 customers specifically, and all customers generally.

SUPPLEMENTAL DIRECT OF GERALD MARX

Q. Did Mr. Marx file Supplemental Direct Testimony in this proceeding?

A. Yes. Mr. Marx filed Supplemental Direct Testimony on August 5, 2015. This testimony contained two additional CCOSS runs that the Company conducted in response to a request by the PSCW Staff. These additional runs were labeled Method 4 and Method 5

and Mr. Marx presented the allocator assumptions for these runs on Direct-NSPW-Marx-3-s.

Q. Do you have any general concerns regarding Mr. Marx's Supplemental Direct Testimony?

A. Yes. It appears that Mr. Marx's Supplemental Direct Testimony was filed based on requests for additional CCOSS runs from the PSCW Staff. It is not clear from Mr. Marx's testimony whether or not the Company actually supports the reasonableness of these new studies.

Q. Did the Company provide any rationale for the allocator assumptions on Direct-NSPW-Marx-3-s?

A. No, and these new allocator assumptions massively impact the CCOSS results for Methods 4 and 5. For example, production plant is allocated 40% on Gross 12-CP demand and 60% on marginal energy in both studies. Yet, no basis is provided for this significant change. Distribution plant is allocated based on 100% non-coincident peak ("NCP") demands, rather than the Company's minimal size distribution study. Again, no basis is provided for this change. Inexplicably, the Staff's Methods 4 and 5 allocate production O&M based on 25% firm 12-CP demand and 75% marginal energy. Like all the other allocator changes, there is no basis whatsoever provided by the Company for this allocation of production O&M.

Q. What is your recommendation with respect to CCOSS Methods 4 and 5 filed with Mr. Marx's Supplemental Direct Testimony?

A. I strongly recommend that the Commission reject these studies.

First, the parties are being put in the unenviable position of having to respond to new CCOSS runs that are not supported by the Company or explained by the Staff. They merely exist as a fait accompli, with no evidentiary support or basis for the significant changes in assumptions.

Second, Methods 4 and 5 should be rejected due to their reliance on energy consumption to allocate fixed production costs. I have discussed in detail why this is inappropriate earlier in my testimony. Moreover, no basis has been provided for the demand and energy allocation percentages contained in these new CCOSS runs.

Third, the Company's minimal size system study should be accepted for classifying and allocating distribution plant. No basis has been presented in this proceeding for allocating distribution plant on the basis of 100% NCP demands.

Q. Does this complete your testimony?

A. Yes.

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December 7, 2015

VIA HAND DELIVERY
Ms. Ingrid Ferrell
Executive Secretary
Public Service Commission of West Virginia
201 Brooks Street
Charleston, WV 25301

Re: CASE NO. 15-1600-G-390P
HOPE GAS, INC., dba DOMINION HOPE, a public utility, Clarksburg, Harrison County
Application for Approval of a Pipeline Replacement and Expansion Program (PREP) with PREP Cost Recovery Mechanism and of an Initial PREP Rate, pursuant to W. Va. Code § 24-2-1k (Senate Bill 390)

Dear Ms. Ferrell:

Please find enclosed for filing in the above-referenced case, on behalf of the West Virginia Energy Users Group, an original and twelve (12) copies of the *"Direct Testimony and Exhibits of Richard A. Baudino."*

Please contact me if you have any questions concerning this filing.

Sincerely,

Susan J. Riggs (WV State Bar # 5246)
Lee F. Feinberg (WV State Bar # 1173)
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lfeinberg@spilmanlaw.com

Derrick Price Williamson
Barry A. Naum (WV State Bar # 12791)
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SJR.sds.8000608
Enclosures
c: Certificate of Service

CERTIFICATE OF SERVICE

I, Susan J. Riggs, counsel to the West Virginia Energy Users Group, do hereby certify that on this 7th day of December, 2015, a copy of the foregoing *"Direct Testimony and Exhibits of Richard A. Baudino"* was served upon the parties and/or counsel of record in this proceeding as follows:

VIA HAND DELIVERY

John Little, Esquire
Staff Attorney
Public Service Commission of West Virginia
201 Brooks Street
Charleston, WV 25301
Counsel for Commission Staff

VIA U.S. MAIL

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Charleston, WV 25326-1588
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Dominion Resources Services, Inc.
925 White Oaks Boulevard
Bridgeport, WV 26330
Counsel for Hope Gas, Inc., dba Dominion Hope

Tom White, Esquire
Consumer Advocate Division
700 Union Building
723 Kanawha Boulevard, East
Charleston, WV 25301
Counsel for Consumer Advocate Division

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P.O. Box 1386
Charleston, WV 25325-1386
Counsel for The Independent Oil and Gas Association of West Virginia, Inc.

Susan J. Riggs (WV State Bar # 5246)

WVEUG Exhibit RAB-D

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

CASE NO. 15-1600-G-390P

HOPE GAS, INC., dba DOMINION HOPE, a public utility, Clarksburg, Harrison County.

Application for Approval of a Pipeline Replacement and Expansion Program (PREP) with PREP Cost Recovery Mechanism and of an Initial PREP Rate, pursuant to W. Va. Code § 24-2-1k (Senate Bill 390).

DIRECT TESTIMONY

AND EXHIBITS

OF

RICHARD A. BAUDINO

ON BEHALF OF

THE WEST VIRGINIA ENERGY USERS GROUP

J. KENNEDY AND ASSOCIATES, INC.

DECEMBER 7, 2015

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

CASE NO. 15-1600-G-390P

HOPE GAS, INC., dba DOMINION HOPE, a public utility, Clarksburg, Harrison County.

Application for Approval of a Pipeline Replacement and Expansion Program (PREP) with PREP Cost Recovery Mechanism and of an Initial PREP Rate, pursuant to W. Va. Code § 24-2-1k (Senate Bill 390).

DIRECT TESTIMONY OF RICHARD A. BAUDINO

Q. Please state your name and business address.

A. My name is Richard A. Baudino. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by whom are you employed?

A. I am a consultant to J. Kennedy and Associates.

Q. Please describe your education and professional experience.

A. I received my Master of Arts degree with a major in Economics and a minor in Statistics from New Mexico State University in 1982. I also received my Bachelor of Arts Degree with majors in Economics and English from New Mexico State in 1979.

I began my professional career with the New Mexico Public Service Commission Staff in October 1982 and was employed there as a Utility Economist. During my employment

with the Staff, my responsibilities included the analysis of a broad range of issues in the ratemaking field. Areas in which I testified included cost of service, rate of return, rate design, revenue requirements, analysis of sale/leasebacks of generating plants, utility finance issues, and generating plant phase-ins.

In October 1989, I joined the utility consulting firm of Kennedy and Associates as a Senior Consultant where my duties and responsibilities covered substantially the same areas as those during my tenure with the New Mexico Public Service Commission Staff. I became Manager in July 1992 and was named Director of Consulting in January 1995. Currently, I am a consultant with Kennedy and Associates.

Exhibit No. ___(RAB-1) summarizes my expert testimony experience.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the West Virginia Energy Users Group ("WVEUG").[1]

Q. What is the purpose of your Direct Testimony?

A. The purpose of my Direct Testimony is to address the proposed rate design of Hope Gas Inc., dba Dominion Hope's ("Dominion Hope" or "Company") Pipeline Replacement and Expansion Program ("PREP").

[1] WVEUG members taking service from Hope Gas, Inc., dba Dominion Hope ("Hope Gas") include, but are not limited to, The Chemours Company, Essroc Cement Company, Novelis Corporation, and Weyerhaeuser, NR.

Q. Please summarize your recommendations to the Public Service Commission of West Virginia ("Commission").

A. First, I recommend that the Commission approve Dominion Hope's proposal to utilize a fixed charge per customer to collect the PREP revenue requirement that is ultimately approved by the Commission. A commodity-based charge is not an appropriate rate design to collect the fixed costs that would be included in the Company's PREP revenue requirement.

Second, I recommend that the Commission reject the Company's proposal to collect the entirety of its PREP costs from all customers using the allocation factors from the Company's last rate case. Instead, all costs and revenue requirements associated with Extension of Mains for Unserved Gas Sales Service Customers should be directly allocated to and collected from residential customers in Schedule RS. This is because only new residential customers will incur costs in this category and, as such, customers taking service under the Company's other rate schedules should not have to bear these costs.

Third, the Commission should limit the term of the Company's proposed PREP to five years. The parties in Mountaineer Gas Company's ("Mountaineer") recent Infrastructure Replacement and Expansion Program ("IREP") case have recommended to the Commission that a five-year term be approved for the IREP. A five-year limit on the Company's PREP would be consistent with that recommended result.

Q. Have you conducted a review of the revenue requirement associated with the Company's requested PREP?

A. No, I have not. My testimony is limited to how any PREP revenue requirement that is ultimately approved by the Commission be collected from Dominion Hope's customers.

Q. Briefly describe Dominion Hope's proposed PREP.

A. According to Dominion Hope's Program Summary Document filed as Attachment A to its Application in this case, the PREP contains the Company's plan for "replacing, upgrading, expanding, and extending the Company's natural gas pipeline infrastructure " pursuant to Senate Bill 390. Dominion Hope's PREP contains the following three major categories of program expenditures:

1. General Program Construction – Replacing, Upgrading, and Expanding.
2. Extension of Mains for Unserved Gas Sales Service Customers.
3. Existing Gas Sales Service Customer Service Piping Program ("CSPP").

On page 4 of his Direct Testimony, Company witness Kenneth Smith presented the projected annual level of PREP investment over the next 5 years. Expenditures in 2016 are expected to be $24.4 million, rising to $34.6 million in 2020. The Company's expected revenue requirement associated with its 2016 PREP investment is $1.012 million.

Q. How does the Company propose to collect the revenue requirement from its customers?

A. Dominion Hope allocated the PREP revenue requirement based on the approved rate case increases in Case No. 08-1783-G-42T. Exhibit 6A of the Company's Application shows that it proposes to collect the PREP revenue requirement through a fixed monthly charge from its customers. However, Company witness Carol Farmer testified that the Company was not opposed to collecting its PREP costs through a volumetric rate. Customer class volume rates were presented in Company Exhibit 6B.

Q. Should the Commission approve the use of a fixed charge to collect PREP costs from Dominion Hope's customers?

A. Yes. All of the costs the Company seeks to collect from customers are fixed costs, and therefore do not vary with the amount of gas consumed. As such, these costs are most appropriately recovered through a fixed monthly charge per customer.

Q. Do you agree with a volumetric charge for the collection of PREP costs?

A. No. I recommend that the Commission reject using a volumetric charge for the collection of Dominion Hope's PREP costs.

Q. Why should a volumetric charge for the PREP be rejected?

A. As I stated previously, the costs subject to collection through the PREP are all fixed costs. As such, they do not vary with gas consumption. Thus, they should not be collected in a volumetric charge.

Q. How are costs normally classified and allocated for purposes of ratemaking purposes?

A. Ratemaking begins with a class cost of service study ("CCOSS"). A CCOSS allocates and assigns the total cost of providing utility service to the classes of customers receiving that service. The development of a class cost of service study consists of three steps: functionalization, classification, and allocation.

Pursuant to the FERC Uniform System of Accounts, costs are identified and segregated into various major functional categories. For natural gas utilities such as Dominion Hope, these categories include production, storage, transmission, and distribution functions.

Once functionalization is complete, the utility's costs are classified into demand, commodity, and customer components. Demand-related costs are fixed and do not vary with the monthly and yearly gas commodity consumption by the utility's customers. These costs are driven by demands placed on the system during the winter peak period and include such items as gas main investment and expenses. Commodity-related expenses vary with the amount of gas consumed by customers and include the cost of gas and certain operation and maintenance expenses. Customer-related costs are associated with the number of customers and include items such as a portion of main investment, meters, and customer services. This general approach to the classification of costs is described more fully in the National Association of Regulatory Utility Commissioners ("NARUC") publication entitled *Gas Distribution Rate Design Manual* published

June 1989.

Q. With respect to the investments and costs being collected through the PREP, how would they be classified for purposes of a CCOSS?

A. Mains should be classified as part demand related and part customer related using either a minimum sized system or zero intercept analysis. Services are generally customer related. Measuring and regulating equipment may be classified as demand related or a combination of demand and customer related. The main point here is that none of these costs can be classified as commodity related. With this being the case, the PREP costs should not be collected from customers using a commodity charge.

Q. Would a volumetric charge for customers in the Company's larger rate classes result in intra-class inequities?

A. Yes. The problem is that high load factor customers in these classes would pay more than their fair share of costs and, conversely, lower load factor customers will pay less than their fair share. This is because high load factor customers use more Mcfs for a given level of Mcf demand than low load factor customers.

A simple example will illustrate how this inequity occurs. Assume two LGS customers with a maximum daily demand of 500 Mcfs each. Further assume that Customer 1 uses an average of 400 Mcfs per day and that Customer 2 uses an average of 200 Mcfs per day. Both have the same maximum demand (500 Mcfs), but Customer 1 has a higher load factor (80%) than Customer 2 (40%).

In terms of cost responsibility, Customers 1 and 2 have the same responsibility for Dominion Hope's demand-related PREP costs because their peak demands are the same. But since Customer 2 consumes less gas in relation to its maximum daily demand, it will pay less than its fair share of the Company's demand related PREP costs due to the use of a volumetric charge. On the flip side of the coin, Customer 1 will pay more than its fair share due to its relatively higher Mcf consumption.

Q. Should the Commission approve the Company's proposed method of allocating PREP revenue requirements to customer classes?

A. No. PREP costs associated with Category 2,Extension of Mains for Unserved Gas Sales Service Customers ("Category 2"), should be directly allocated to residential customers taking service under Schedule RS.

Q. Please explain why PREP costs associated with Extension of Mains for Unserved Gas Sales Service Customers should be directly allocated to Schedule RS customers.

A. According to Dominion Hope's filing, Schedule 4, the Company projects adding 150 new customers from Category 2 investments and all of these new customers will take service under Schedule RS. No new SGS or LGS customers would be added from any Category 2 investments. Therefore, investment and expenses incurred by Dominion Hope for adding new RS customers should be directly assigned to the RS class. Schedule SGS and LGS customers are not responsible for any Category 2 PREP costs and should not be charged for such costs.

Q. What are the 2016 investment and revenue requirement associated with the Company's Category 2 PREP costs?

A. Please refer to my Exhibit No. ___(RAB-2) for the calculation of Category 2 PREP investment and the estimated revenue requirement. Category 2 PREP investment is expected to be $4.943 million for 2016. Mr. Smith explained on page 18 of his Direct Testimony that this projected investment amount is set forth in Schedule 13, lines 3, 6, 8, and 9. I estimated the revenue requirement for Category 2 investment by applying the percentage of total expected PREP investment ($24.4 million) represented by Category 2 expected investment, which was 20.2%. Then I subtracted expected new customer revenues and added allocated income taxes. Category 2 PREP revenue requirement for 2016 is estimated at $195,975. It is this amount that should be directly allocated to Schedule RS customers.

Please note that when the yearly PREP revenue requirement is trued up the following year, the Company should use the actual revenue requirement associated with known and measureable costs and revenues associated with Category 2 PREP investment. Exhibit No. ___(RAB-2) provides an illustrative example showing how Category 2 PREP revenue requirement should be allocated and assigned to Schedule RS customers. The remainder of the yearly PREP revenue requirement, $559,478, should be allocated to all customer classes using the Company's recommended percentages from Case No. 08-1783-G-42T.

Q. Does Dominion Hope's proposed PREP have a termination date?

A. No. The Company's proposed PREP would continue indefinitely, presumably at the Company's discretion.

Q. Should the Company's proposed PREP have a termination date, or at least a defined term?

A. Yes. I recommend that the Company's PREP be limited to a 5-year term, after which it must come into the Commission for a full base rate proceeding. The problem with the Company's proposed PREP is that it could delay a full rate review by the Commission indefinitely. This is not in the best interests of the Company's ratepayers. A five-year term would be consistent with the recommendation the parties in Mountaineer's IREP case have made to the Commission. Therefore, I recommend that the Commission order Dominion Hope to limit its PREP program to five years. The Company should then be required to file a base rate proceeding during which PREP investments can be added to the Company's rate base and revenue requirements and reviewed by the Commission, its Staff, and other parties.

Q. Does this conclude your Direct Testimony?

A. Yes.

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EXHIBITS

OF

RICHARD A. BAUDINO

ON BEHALF OF

THE WEST VIRGINIA ENERGY USERS GROUP

J. KENNEDY AND ASSOCIATES, INC.

DECEMBER 7, 2015

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

CASE NO. 15-1600-G-390P

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EXHIBIT NO. ___(RAB-1)

OF

RICHARD A. BAUDINO

ON BEHALF OF

THE WEST VIRGINIA ENERGY USERS GROUP

J. KENNEDY AND ASSOCIATES, INC.

DECEMBER 7, 2015

RESUME OF RICHARD A. BAUDINO

EDUCATION

New Mexico State University, M.A.
Major in Economics
Minor in Statistics

New Mexico State University, B.A.
Economics
English

Thirty-two years of experience in utility ratemaking and the application of principles of economics to the regulation of electric, gas, and water utilities. Broad based experience in revenue requirement analysis, cost of capital, rate of return, cost and revenue allocation, and rate design.

REGULATORY TESTIMONY

Preparation and presentation of expert testimony in the areas of:

Cost of Capital for Electric, Gas and Water Companies
Electric, Gas, and Water Utility Cost Allocation and Rate Design
Revenue Requirements
Gas and Electric industry restructuring and competition
Fuel cost auditing
Ratemaking Treatment of Generating Plant Sale/Leasebacks

RESUME OF RICHARD A. BAUDINO

EXPERIENCE

1989 to Present: Kennedy and Associates: **Consultant** - Responsible for consulting assignments in the area of revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, electric and gas industry restructuring/competition and water utility issues.

1982 to 1989: New Mexico Public Service Commission Staff: **Utility Economist** - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

CLIENTS SERVED

Regulatory Commissions

Louisiana Public Service Commission
Georgia Public Service Commission
New Mexico Public Service Commission

Other Clients and Client Groups

Ad Hoc Committee for a Competitive Electric Supply System
Air Products and Chemicals, Inc.
Arkansas Electric Energy Consumers
Arkansas Gas Consumers
AK Steel
Armco Steel Company, L.P.
Assn. of Business Advocating Tariff Equity
CF&I Steel, L.P.
Climax Molybdenum Company
Cripple Creek & Victor Gold Mining Co.
General Electric Company
Holcim (U.S.) Inc.
IBM Corporation
Industrial Energy Consumers
Kentucky Industrial Utility Consumers
Lexington-Fayette Urban County Government
Large Electric Consumers Organization
Newport Steel
Northwest Arkansas Gas Consumers
Maryland Energy Group
Occidental Chemical
PSI Industrial Group
Large Power Intervenors (Minnesota)
Tyson Foods
West Virginia Energy Users Group
The Commercial Group
Wisconsin Industrial Energy Group
South Florida Hospital and Health Care Assn.
PP&L Industrial Customer Alliance
Philadelphia Area Industrial Energy Users Gp.
West Penn Power Intervenors
Duquesne Industrial Intervenors
Met-Ed Industrial Users Gp.
Penelec Industrial Customer Alliance
Penn Power Users Group
Columbia Industrial Intervenors
U.S. Steel & Univ. of Pittsburg Medical Ctr.
Multiple Intervenors
Maine Office of Public Advocate
Missouri Office of Public Counsel
University of Massachusetts - Amherst
WCF Hospital Utility Alliance
West Travis County Public Utility Agency
Steering Committee of Cities Served by Oncor

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop.	Rate design.
11/84	1833	NM	New Mexico Public Service Commission Palo Verde	El Paso Electric Co.	Service contract approval, rate design, performance standards for nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/85	1907	NM	New Mexico Public Service Commission	Jornada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.
10/87	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.

Expert Testimony Appearances
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Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464-EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transportation rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania charge proposals.	Evaluation of cost allocation, rate design, rate plan, and carrying
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035-E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.

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Date	Case	Jurisdict.	Party	Utility	Subject
8/94	8652	MD	Westvaco Corp. Co.	Potomac Edison	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343-000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.,Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.

Expert Testimony Appearances
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As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
1/97	RP96-199-000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions.
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania-American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.
7/98	R-00984280	PA	PG Energy, Inc. Intervenors	PGE Industrial	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States,Inc.	Cost of debt.

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Date	Case	Jurisdict.	Party	Utility	Subject
10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity Assignment.
01/00	8829	MD & United States	Maryland Industrial Gr.	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Commission	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity
06/05	050045-EI	FL	South Florida Hospital and HealthCare Assoc.	Florida Power & Light Co.	Return on equity
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.

Expert Testimony Appearances
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Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116 Commission	LA	Louisiana Public Service	Entergy Louisiana, LLC	Transmission Issues
07/06	U-23327 Commission	LA	Louisiana Public Service	Southwestern Electric Power Company	Return on equity, Service quality
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T	WV	West Virginia Energy Users Group	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112	AK	AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric	Return on equity, weighted cost of capital.
09/07	07-07-01	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power	Return on equity, weighted cost of capital
10/07	05-UR-103	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Return on equity
11/07	29797	LA	Louisiana Public Service Commission	Cleco Power :LLC & Southwestern Electric Power	Lignite Pricing, support of settlement
01/08	07-551-EL-AIR	OH	Ohio Energy Group	Ohio Edison, Cleveland Electric, Toledo Edison	Return on equity
03/08	07-0585, 07-0585, 07-0587, 07-0588, 07-0589, 07-0590, (consol.)	IL	The Commercial Group	Ameren	Cost allocation, rate design
04/08	07-0566	IL	The Commercial Group	Commonwealth Edison	Cost allocation, rate design
06/08	R-2008-2011621	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Cost and revenue allocation, Tariff issues
07/08	R-2008-2028394	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy	Cost and revenue allocation, Tariff issues

Expert Testimony Appearances
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Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
07/08	R-2008-2039634	PA	PPL Gas Large Users Group	PPL Gas	Retainage, LUFG Pct.
08/08	6680-UR-116	WI	Wisconsin Industrial Energy Group	Wisconsin P&L	Cost of Equity
08/08	6690-UR-119	WI	Wisconsin Industrial Energy Group	Wisconsin PS	Cost of Equity
09/08	ER-2008-0318	MO	The Commercial Group	AmerenUE	Cost and revenue allocation
10/08	R-2008-2029325	PA	U.S. Steel & Univ. of Pittsburgh Med. Ctr.	Equitable Gas Co.	Cost and revenue allocation
10/08	08-G-0609	NY	Multiple Intervenors	Niagara Mohawk Power	Cost and Revenue allocation
12/08	27800-U	GA	Georgia Public Service Commission	Georgia Power Company	CWIP/AFUDC issues, Review financial projections
03/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Capital Structure
04/09	E002/GR-08-1065	MN	The Commercial Group	Northern States Power	Cost and revenue allocation and rate design
05/09	08-0532	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation
07/09	080677-EI	FL	South Florida Hospital and Health Care Association	Florida Power & Light	Cost of equity, capital structure, Cost of short-term debt
07/09	U-30975	LA	Louisiana Public Service Commission	Cleco LLC, Southwestern Public Service Co.	Lignite mine purchase
10/09	4220-UR-116	WI	Wisconsin Industrial Energy Group	Northern States Power	Class cost of service, rate design
10/09	M-2009-2123945	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Smart Meter Plan cost allocation
10/09	M-2009-2123944	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Smart Meter Plan cost allocation
10/09	M-2009-2123951	PA	West Penn Power Industrial Intervenors	West Penn Power	Smart Meter Plan cost allocation
11/09	M-2009-2123948	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Smart Meter Plan cost allocation
11/09	M-2009-2123950	PA	Met-Ed Industrial Users Group Penelec Industrial Customer Alliance, Penn Power Users Group	Metropolitan Edison, Pennsylvania Electric Co., Pennsylvania Power Co.	Smart Meter Plan cost allocation

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
03/10	09-1352-	WV E-42T	West Virginia Energy Users Group	Monongahela Power	Return on equity, rate of return Potomac Edison
03/10	E015/GR-09-1151	MN	Large Power Intervenors	Minnesota Power	Return on equity, rate of return
04/10	2009-00459	KY	Kentucky Industrial Utility Consumers	Kentucky Power	Return on equity
04/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
05/10	10-0261-E-GI	WV	West Virginia Energy Users Group	Appalachian Power Co./ Wheeling Power Co.	EE/DR Cost Recovery, Allocation, & Rate Design
05/10	R-2009-2149262	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Class cost of service & cost allocation
06/10	2010-00036	KY	Lexington-Fayette Urban County Government	Kentucky American Water Company	Return on equity, rate of return, revenue requirements
06/10	R-2010-2161694	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Rate design, cost allocation
07/10	R-2010-2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Return on equity
07/10	R-2010-2161592	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Cost and revenue allocation
07/10	9230	MD	Maryland Energy Group	Baltimore Gas and Electric	Electric and gas cost and revenue allocation; return on equity
09/10	10-70	MA	University of Massachusetts-Amherst	Western Massachusetts Electric Co.	Cost allocation and rate design
10/10	R-2010-2179522	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Cost and revenue allocation, rate design
11/10	P-2010-2158084	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Transmission rate design
11/10	10-0699-E-42T	WV	West Virginia Energy Users Group	Appalachian Power Co. & Wheeling Power Co.	Return on equity, rate of Return
11/10	10-0467	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation and rate design
04/11	R-2010-2214415	PA	Central Pen Gas Large Users Group	UGI Central Penn Gas, Inc.	Tariff issues, revenue allocation
07/11	R-2011-2239263	PA	Philadelphia Area Energy Users Group	PECO Energy	Retainage rate

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
08/11	R-2011-2232243	PA	AK Steel	Pennsylvania-American Water Company	Rate Design
08/11	11AL-151G	CO	Climax Molybdenum	PS of Colorado	Cost allocation
09/11	11-G-0280	NY	Multiple Intervenors	Corning Natural Gas Co.	Cost and revenue allocation
10/11	4220-UR-117	WI	Wisconsin Industrial Energy Group	Northern States Power	Cost and revenue allocation, rate design
02/12	11AL-947E	CO	Climax Molybdenum, CF&I Steel	Public Service Company of Colorado	Return on equity, weighted cost of capital
07/12	120015-EI	FL	South Florida Hospitals and Health Care Association	Florida Power and Light Co,	Return on equity, weighted cost of capital
07/12	12-0613-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal for Century Aluminum
07/12	R-2012-2290597	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities Corp.	Cost allocation
09/12	05-UR-106	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Class cost of service, cost and revenue allocation, rate design
09/12	2012-00221 2012-00222	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
10/12	9299	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design Cost of equity, weighted cost of capital
10/12	4220-UR-118	WI	Wisconsin Industrial Energy Group	Northern States Power Company	Class cost of service, cost and revenue allocation, rate design
10/12	473-13-0199	TX	Steering Committee of Cities Served by Oncor	Cross Texas Transmission, LLC	Return on equity, capital structure
01/13	R-2012-2321748 et al.	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation
02/13	12AL-1052E	CO	Cripple Creek & Victor Gold Mining, Holcim (US) Inc.	Black Hills/Colorado Electric Utility Company	Cost and revenue allocations
06/13	8009	VT	IBM Corporation	Vermont Gas Systems	Cost and revenue allocation, rate design
07/13	130040-EI	FL	WCF Hospital Utility Alliance	Tampa Electric Co.	Return on equity, rate of return
08/13	9326	MD	Maryland Energy Group	Baltimore Gas and Electric	Cost and revenue allocation, rate design, special rider

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
08/13	P-2012-2325034	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities, Corp.	Distribution System Improvement Charge
09/13	4220-UR-119	WI	Wisconsin Industrial Energy Group	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
11/13	13-1325-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal, Felman Production
06/14	R-2014-2406274	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation, rate design
08/14	05-UR-107	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Cost and revenue allocation, rate design
10/14	ER13-1508 et al.	FERC	Louisiana Public Service Comm.	Entergy Services, Inc.	Return on equity
11/14	14AL-0660E	CO	Climax Molybdenum Co. and CF&I Steel, LP	Public Service Co. of Colorado	Return on equity, weighted cost of capital
11/14	R-2014-2428742	PA	AK Steel	West Penn Power Company	Cost and revenue allocation
12/14	42866	TX	West Travis Co. Public Utility Agency	Travis County Municipal Utility District No. 12	Response to complain of monopoly power
3/15	2014-00371 2014-00372	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric, Kentucky Utilities	Return on equity, cost of debt, weighted cost of capital
3/15	2014-00396	KY	Kentucky Industrial Utility Customers	Kentucky Power Co.	Return on equity, weighted cost of capital
6/15	15-0003-G-42T	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Cost and revenue allocation, Infrastructure Replacement Program
8/15	44746	TX	Steering Committee of Cities Served by Oncor	Wind Energy Transmission Texas, LLC	Return on equity, capital structure, weighted cost of capital
9/15	15-0676-W-42T	WV	West Virginia Energy Users Gp.	West Virginia-American Water Company	Appropriate test year, Historical vs. Future
9/15	15-1256-G-390P	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Rate design for Infrastructure Replacement and Expansion Program
10/15	4220-UR-121	WI	Wisconsin Industrial Energy Gp.	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
12/15	15-1600-G-390P	WV	West Virginia Energy Users Gp.	Dominion Hope	Rate design and allocation for Pipeline Replacement & Expansion Prog.

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
12/15	45188	TX	Steering Committee of Cities Served by Oncor	Oncor Electric Delivery Co.	Ring-fence protections for cost of capital

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

CASE NO. 15-1600-G-390P

HOPE GAS, INC., dba DOMINION HOPE, a public utility, Clarksburg, Harrison County.

Application for Approval of a Pipeline Replacement and Expansion Program (PREP) with PREP Cost Recovery Mechanism and of an Initial PREP Rate, pursuant to W. Va. Code § 24-2-1k (Senate Bill 390).

EXHIBIT NO. ___(RAB-2)

OF

RICHARD A. BAUDINO

ON BEHALF OF

THE WEST VIRGINIA ENERGY USERS GROUP

J. KENNEDY AND ASSOCIATES, INC.

DECEMBER 7, 2015

Exhibit No. ___(RAB-2)

CATEGORY 2 PREP INVESTMENT

ESTIMATED REVENUE REQUIREMENT

1	Category 2 PREP - Extension of Mains for Unserved Gas Sales Service Customers	$4,943,492
2	Total 2016 PREP Projected Investment	$24,440,273
3	Percentage of Category 2 to Total PREP Projected Investment (Line 1 divided by Line 2)	20.2%
4	Total Recoverable 2016 PREP Costs (Schedule 1, Line 3)	$758,453
5	Recoverable 2016 Category 2 Costs (Line 3 * Line 4)	$153,411
6	Less Imputed Revenue from new customers (Schedule 1, Line 4)	-$7,174
7	Total Recoverable Category 2 PREP Costs Before Income Taxes	$146,237
8	Projected Income Taxes (Line 3 * Schedule 1, Line 6)	$52,738
9	Total Recoverable Category 2 PREP Costs (Exclusive of B&O Taxes).	$198,975
10	Remaining PREP Costs Allocated to All Customer Classes	$559,478

SPILMAN THOMAS & BATTLE, PLLC

ATTORNEYS AT LAW

Susan J. Riggs
304.340.3867
sriggs@spilmanlaw.com

September 30, 2015

VIA HAND DELIVERY

01:19 PM SEP 30 2015 PSC EXEC SEC DIV

Ms. Ingrid Ferrell
Executive Secretary
Public Service Commission of West Virginia
201 Brooks Street
Charleston, WV 25301

Re: CASE NO. 15-1256-G-390P
MOUNTAINEER GAS COMPANY, a public utility,
Charleston, West Virginia.
Infrastructure Replacement and Expansion Program
filing for 2016.

Dear Ms. Ferrell:

Please find enclosed for filing in the above-referenced case, on behalf of the West Virginia Energy Users Group, an original and twelve (12) copies of the ***"Direct Testimony and Exhibit of Richard A. Baudino."***

Please contact me if you have any questions concerning this filing.

Sincerely,

Susan J. Riggs (WV State Bar #5246)
Lee F. Feinberg (WV State Bar #1173)
sriggs@spilmanlaw.com
lfeinberg@spilmanlaw.com

Derrick Price Williamson
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Mechanicsburg, PA 17050
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bnaum@spilmanlaw.com

SJR.sds.7791446
Enclosures
c: Certificate of Service

CERTIFICATE OF SERVICE

I, Susan J. Riggs, counsel to the West Virginia Energy Users Group, do hereby certify that on this 30th day of September, 2015, a copy of the foregoing ***"Direct Testimony and Exhibit of Richard A. Baudino"*** was served upon the parties and/or counsel of record in this proceeding as follows:

VIA HAND DELIVERY

Linda Bouvette, Esquire
Staff Attorney
Public Service Commission of West Virginia
201 Brooks Street
Charleston, WV 25301
Counsel for Commission Staff

VIA U.S. MAIL

John Philip Melick, Esquire
Christopher L. Callas, Esquire
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Jackson Kelly PLLC
P.O. Box 553
Charleston, WV 25322-0553
Counsel for Mountaineer Gas Company

Tom White, Esquire
Heather B. Osborn, Esquire
Consumer Advocate Division
700 Union Building
723 Kanawha Boulevard, East
Charleston, WV 25301
Counsel for Consumer Advocate Division

Susan J. Riggs (WV State Bar #5246)

WVEUG Exhibit RAB-D

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

CASE NO. 15-1256-G-390P

MOUNTAINEER GAS COMPANY
Infrastructure Replacement and Expansion Program filing for 2016.

DIRECT TESTIMONY
AND EXHIBIT
OF
RICHARD A. BAUDINO

ON BEHALF OF

THE WEST VIRGINIA ENERGY USERS GROUP

J. KENNEDY AND ASSOCIATES, INC.

SEPTEMBER 30, 2015

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

CASE NO. 15-1256-G-390P

MOUNTAINEER GAS COMPANY
Infrastructure Replacement and Expansion Program
filing for 2016.

DIRECT TESTIMONY OF RICHARD A. BAUDINO

Q. Please state your name and business address.

A. My name is Richard A. Baudino. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by whom are you employed?

A. I am a consultant to Kennedy and Associates.

Q. Please describe your education and professional experience.

A. I received my Master of Arts degree with a major in Economics and a minor in Statistics from New Mexico State University in 1982. I also received my Bachelor of Arts Degree with majors in Economics and English from New Mexico State in 1979.

I began my professional career with the New Mexico Public Service Commission Staff in October 1982 and was employed there as a Utility Economist. During my employment with the Staff, my responsibilities included the analysis of a broad range of issues in the ratemaking field. Areas in which I testified included cost of service, rate of return, rate design, revenue requirements, analysis of sale/leasebacks of generating plants, utility finance issues, and generating plant phase-ins.

In October 1989, I joined the utility consulting firm of Kennedy and Associates as a Senior Consultant where my duties and responsibilities covered substantially the same areas as those during my tenure with the New Mexico Public Service Commission Staff. I became Manager in July 1992 and was named Director of Consulting in January 1995. Currently, I am a consultant with Kennedy and Associates.

Exhibit No. ___(RAB-1) summarizes my expert testimony experience.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of the West Virginia Energy Users Group ("WVEUG").

Q. What is the purpose of your Direct Testimony?

A. The purpose of my Direct Testimony is to address the proposed rate design of Mountaineer Gas Company's ("Mountaineer" or "Company") Infrastructure Replacement and Expansion Program ("IREP"). As part of this response I will address the Direct Testimony of Company witness Scott Klemm.

Q. Please summarize your conclusions and recommendations to the Commission.

A. The Company's proposed volumetric rate for LGS and IS customers should be rejected. Instead, I recommend that the Rate Component of Mountaineer's proposed IREP consist of a fixed charge per customer for customers in the LGS and IS classes. Special contract customers should not have the IREP applied to them.

Q. Have you conducted a review of the revenue requirement associated with the Company's requested IREP?

A. No, I have not. My testimony is limited to how any IREP revenue requirement that is ultimately approved by the Commission will be collected from LGS and IS customers.

Q. Briefly describe Mountaineer's proposed IREP.

A. Mountaineer is proposing a five-year plan to collect costs associated with infrastructure projects pursuant to Senate Bill 390. According to Company witness Thomas Westfall, Mountaineer's IREP anticipates a total of $73 million in infrastructure spending, which is approximately $14 million per year. Asset improvements covered by the IREP are:

- Mains
- Services
- Encoder Receiver Transmitter
- Regulator Stations
- Other Measurement Equipment

Mountaineer's Exhibit 3 presents its anticipated IREP projects for 2016. According to Exhibit 8, Schedule A the 2016 revenue requirement is estimated to be $566,418.

Q. How does the Company propose to collect the revenue requirement from its customers?

A. Mountaineer allocated the IREP revenue requirement based on the settlement in Case No. 15-0003-G-42T. Exhibit 6 of Mountaineer's Application shows that the Company proposes to collect the IREP revenue requirement through a volumetric charge from its customers. This would apply to both sales and transportation customers. It was not clear based on my review of Exhibit 6 whether or not special contract customers are included.

Q. Do you agree with a volumetric charge for the collection of IREP costs?

A. No. I recommend that the Commission reject Mountaineer's proposed volumetric charge for the LGS and IS classes.

Q. Why should a volumetric charge for the IREP be rejected?

A. The costs subject to collection through the IREP are all fixed costs. As such, they do not vary with gas consumption. Thus, they should not be collected in a volumetric charge. In my opinion, this is an important matter of ratemaking policy that could establish a troublesome precedent if applied to Mountaineer and other utilities.

Q. How are costs normally classified and allocated for purposes of ratemaking purposes?

A. Ratemaking begins with a class cost of service study ("CCOSS"). A CCOSS allocates and assigns the total cost of providing utility service to the classes of customers receiving that service. The development of a class cost of service study consists of three steps: functionalization, classification, and allocation.

Pursuant to the FERC Uniform System of Accounts, costs are identified and segregated into various major functional categories. For natural gas utilities such as Mountaineer, these categories include production, storage, transmission, and distribution functions.

Once functionalization is complete, the utility's costs are classified into demand, commodity, and customer components. Demand-related costs are fixed and do not vary with the monthly and yearly gas commodity consumption by the utility's customers. These costs are driven by demands placed on the system during the winter peak period and include such items as gas main investment and expenses. Commodity-related expenses vary with the amount of gas consumed by customers and include the cost of gas and certain operation and maintenance expenses. Customer-related costs are associated with the number of customers and include items such as a portion of main investment, meters, and customer services. This general approach to the classification of costs is described more fully in the National Association of Regulatory Utility Commissioners ("NARUC") publication entitled *Gas Distribution Rate Design Manual* published June 1989.

Q. With respect to the investments and costs being collected through the IREP, how would they be classified for purposes of a CCOSS?

A. Mains should be classified as part demand related and part customer related using either a minimum sized system or zero intercept analysis. Services are generally customer related. Measuring and regulating equipment may be classified as demand related or a combination of demand and customer related. In the CCOSS provided in its recent base rate case, Mountaineer allocated regulator installations based on the number of meters, which suggests

a customer classification of these costs. The point here is that none of these costs can be classified as commodity related. With this being the case, the IREP costs should not be collected from customers using a commodity charge.

Q. Would a volumetric charge for customers in the LGS and IS classes result in intra-class inequities?

A. Yes. The problem is that high load factor customers in these classes will pay more than their fair share of costs and, conversely, lower load factor customers will pay less than their fair share. This is because high load factor customers use more Mcfs for a given level of Mcf demand than low load factor customers.

A simple example will illustrate how this inequity occurs. Assume two LGS customers with a maximum daily demand of 500 Mcfs each. Further assume that Customer 1 uses an average of 400 Mcfs per day and that Customer 2 uses an average of 200 Mcfs per day. Both have the same maximum demand (500 Mcfs), but Customer 1 has a higher load factor (80%) than Customer 2 (40%).

In terms of cost responsibility, Customers 1 and 2 have the same responsibility for Mountaineer's demand-related IREP costs because their peak demands are the same. But since Customer 2 consumes less gas in relation to its maximum daily demand, it will pay less than its fair share of Mountaineer's demand related IREP costs due to the use of a volumetric charge. On the flip side of the coin, Customer 1 will pay more than its fair share due to its relatively higher Mcf consumption.

Q. How should an IREP rate be designed for the LGS and IS classes?

A. Ideally, the IREP revenue requirement would be classified into demand and customer related components. The demand related revenue requirement would be collected through an Mcf demand charge based on customer contribution to peak demand. Customer related revenue requirements would be collected through a fixed charge per customer.

Since Mountaineer does not have an Mcf demand charge for its LGS and IS customers, I recommend that the IREP revenue requirements be collected on a fixed charge per customer in order to avoid the discriminatory rate impact described above.

Q. Are you proposing that the IREP charge be modified for other customer classes?

A. No. While a volumetric charge for infrastructure replacement costs is generally improper as a matter of policy, given that these costs have no relation to the amount of gas consumed by any customer, I am not recommending a modification for other classes. I understand that a volumetric charge, even if incorrect as a matter of ratemaking policy, might be a better practical solution for other customer classes.

Q. Does this conclude your Direct Testimony?

A. Yes.

PUBLIC SERVICE COMMISSION
OF WEST VIRGINIA
CHARLESTON

CASE NO. 15-1256-G-390P

MOUNTAINEER GAS COMPANY
Infrastructure Replacement and Expansion Program filing for 2016.

EXHIBIT NO. ___(RAB-1)

OF

RICHARD A. BAUDINO

ON BEHALF OF

THE WEST VIRGINIA ENERGY USERS GROUP

J. KENNEDY AND ASSOCIATES, INC.

SEPTEMBER 30, 2015

RESUME OF RICHARD A. BAUDINO

EDUCATION

New Mexico State University, M.A.
Major in Economics
Minor in Statistics

New Mexico State University, B.A.
Economics
English

Thirty-two years of experience in utility ratemaking and the application of principles of economics to the regulation of electric, gas, and water utilities. Broad based experience in revenue requirement analysis, cost of capital, rate of return, cost and revenue allocation, and rate design.

REGULATORY TESTIMONY

Preparation and presentation of expert testimony in the areas of:

Cost of Capital for Electric, Gas and Water Companies
Electric, Gas, and Water Utility Cost Allocation and Rate Design
Revenue Requirements
Gas and Electric industry restructuring and competition
Fuel cost auditing
Ratemaking Treatment of Generating Plant Sale/Leasebacks

RESUME OF RICHARD A. BAUDINO

EXPERIENCE

1989 to Present: **Kennedy and Associates: Consultant** - Responsible for consulting assignments in the area of revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, electric and gas industry restructuring/competition and water utility issues.

1982 to 1989: **New Mexico Public Service Commission Staff: Utility Economist** - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

CLIENTS SERVED

Regulatory Commissions

Louisiana Public Service Commission
Georgia Public Service Commission
New Mexico Public Service Commission

Other Clients and Client Groups

Ad Hoc Committee for a Competitive Electric Supply System
Air Products and Chemicals, Inc.
Arkansas Electric Energy Consumers
Arkansas Gas Consumers
AK Steel
Armco Steel Company, L.P.
Assn. of Business Advocating Tariff Equity
CF&I Steel, L.P.
Climax Molybdenum Company
Cripple Creek & Victor Gold Mining Co.
General Electric Company
Holcim (U.S.) Inc.
IBM Corporation
Industrial Energy Consumers
Kentucky Industrial Utility Consumers
Lexington-Fayette Urban County Government
Large Electric Consumers Organization
Newport Steel
Northwest Arkansas Gas Consumers
Maryland Energy Group
Occidental Chemical
PSI Industrial Group
Large Power Intervenors (Minnesota)
Tyson Foods
West Virginia Energy Users Group
The Commercial Group
Wisconsin Industrial Energy Group
South Florida Hospital and Health Care Assn.
PP&L Industrial Customer Alliance
Philadelphia Area Industrial Energy Users Gp.
West Penn Power Intervenors
Duquesne Industrial Intervenors
Met-Ed Industrial Users Gp.
Penelec Industrial Customer Alliance
Penn Power Users Group
Columbia Industrial Intervenors
U.S. Steel & Univ. of Pittsburg Medical Ctr.
Multiple Intervenors
Maine Office of Public Advocate
Missouri Office of Public Counsel
University of Massachusetts - Amherst
WCF Hospital Utility Alliance
West Travis County Public Utility Agency
Steering Committee of Cities Served by Oncor

Expert Testimony Appearances
of
Richard A. Baudino
As of September 2015

Date	Case	Jurisdict.	Party	Utility	Subject
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop.	Rate design.
11/84	1833	NM	New Mexico Public Service Commission Palo Verde	El Paso Electric Co.	Service contract approval, rate design, performance standards for nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/85	1907	NM	New Mexico Public Service Commission	Jornada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.
10/87	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.

Expert Testimony Appearances
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As of September 2015

Date	Case	Jurisdict.	Party	Utility	Subject
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.

Expert Testimony Appearances
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As of September 2015

Date	Case	Jurisdict.	Party	Utility	Subject
09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464-EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transportation rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania charge proposals.	Evaluation of cost allocation, rate design, rate plan, and carrying
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035-E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.

Expert Testimony Appearances
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Date	Case	Jurisdict.	Party	Utility	Subject
8/94	8652	MD	Westvaco Corp. Co.	Potomac Edison	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343-000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.,Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.

Expert Testimony Appearances
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Date	Case	Jurisdict.	Party	Utility	Subject
1/97	RP96-199-000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions.
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania-American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.
7/98	R-00984280	PA	PG Energy, Inc. Intervenors	PGE Industrial	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States,Inc.	Cost of debt.

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As of September 2015

Date	Case	Jurisdict.	Party	Utility	Subject
10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity Assignment.
01/00	8829	MD & United States	Maryland Industrial Gr.	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Commission	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.

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Date	Case	Jurisdict.	Party	Utility	Subject
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity
06/05	050045-EI	FL	South Florida Hospital and HealthCare Assoc.	Florida Power & Light Co.	Return on equity
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.

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Date	Case	Jurisdict.	Party	Utility	Subject
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116 Commission	LA	Louisiana Public Service	Entergy Louisiana, LLC	Transmission Issues
07/06	U-23327 Commission	LA	Louisiana Public Service	Southwestern Electric Power Company	Return on equity, Service quality
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T	WV	West Virginia Energy Users Group	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112	AK	AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric	Return on equity, weighted cost of capital.
09/07	07-07-01	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power	Return on equity, weighted cost of capital
10/07	05-UR-103	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Return on equity
11/07	29797	LA	Louisiana Public Service Commission	Cleco Power :LLC & Southwestern Electric Power	Lignite Pricing, support of settlement
01/08	07-551-EL-AIR	OH	Ohio Energy Group	Ohio Edison, Cleveland Electric, Toledo Edison	Return on equity
03/08	07-0585, 07-0585, 07-0587, 07-0588, 07-0589, 07-0590, (consol.)	IL	The Commercial Group	Ameren	Cost allocation, rate design
04/08	07-0566	IL	The Commercial Group	Commonwealth Edison	Cost allocation, rate design
06/08	R-2008-2011621	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Cost and revenue allocation, Tariff issues
07/08	R-2008-2028394	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy	Cost and revenue allocation, Tariff issues

Expert Testimony Appearances
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As of September 2015

Date	Case	Jurisdict.	Party	Utility	Subject
07/08	R-2008-2039634	PA	PPL Gas Large Users Group	PPL Gas	Retainage, LUFG Pct.
08/08	6680-UR-116	WI	Wisconsin Industrial Energy Group	Wisconsin P&L	Cost of Equity
08/08	6690-UR-119	WI	Wisconsin Industrial Energy Group	Wisconsin PS	Cost of Equity
09/08	ER-2008-0318	MO	The Commercial Group	AmerenUE	Cost and revenue allocation
10/08	R-2008-2029325	PA	U.S. Steel & Univ. of Pittsburgh Med. Ctr.	Equitable Gas Co.	Cost and revenue allocation
10/08	08-G-0609	NY	Multiple Intervenors	Niagara Mohawk Power	Cost and Revenue allocation
12/08	27800-U	GA	Georgia Public Service Commission	Georgia Power Company	CWIP/AFUDC issues, Review financial projections
03/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Capital Structure
04/09	E002/GR-08-1065	MN	The Commercial Group	Northern States Power	Cost and revenue allocation and rate design
05/09	08-0532	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation
07/09	080677-EI	FL	South Florida Hospital and Health Care Association	Florida Power & Light	Cost of equity, capital structure, Cost of short-term debt
07/09	U-30975	LA	Louisiana Public Service Commission	Cleco LLC, Southwestern Public Service Co.	Lignite mine purchase
10/09	4220-UR-116	WI	Wisconsin Industrial Energy Group	Northern States Power	Class cost of service, rate design
10/09	M-2009-2123945	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Smart Meter Plan cost allocation
10/09	M-2009-2123944	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Smart Meter Plan cost allocation
10/09	M-2009-2123951	PA	West Penn Power Industrial Intervenors	West Penn Power	Smart Meter Plan cost allocation
11/09	M-2009-2123948	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Smart Meter Plan cost allocation
11/09	M-2009-2123950	PA	Met-Ed Industrial Users Group Penelec Industrial Customer Alliance, Penn Power Users Group	Metropolitan Edison, Pennsylvania Electric Co., Pennsylvania Power Co.	Smart Meter Plan cost allocation

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Date	Case	Jurisdict.	Party	Utility	Subject
03/10	09-1352-	WV E-42T	West Virginia Energy Users Group	Monongahela Power	Return on equity, rate of return Potomac Edison
03/10	E015/GR-09-1151	MN	Large Power Intervenors	Minnesota Power	Return on equity, rate of return
04/10	2009-00459	KY	Kentucky Industrial Utility Consumers	Kentucky Power	Return on equity
04/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
05/10	10-0261-E-GI	WV	West Virginia Energy Users Group	Appalachian Power Co./ Wheeling Power Co.	EE/DR Cost Recovery, Allocation, & Rate Design
05/10	R-2009-2149262	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Class cost of service & cost allocation
06/10	2010-00036	KY	Lexington-Fayette Urban County Government	Kentucky American Water Company	Return on equity, rate of return, revenue requirements
06/10	R-2010-2161694	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Rate design, cost allocation
07/10	R-2010-2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Return on equity
07/10	R-2010-2161592	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Cost and revenue allocation
07/10	9230	MD	Maryland Energy Group	Baltimore Gas and Electric	Electric and gas cost and revenue allocation; return on equity
09/10	10-70	MA	University of Massachusetts-Amherst	Western Massachusetts Electric Co.	Cost allocation and rate design
10/10	R-2010-2179522	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Cost and revenue allocation, rate design
11/10	P-2010-2158084	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Transmission rate design
11/10	10-0699-E-42T	WV	West Virginia Energy Users Group	Appalachian Power Co. & Wheeling Power Co.	Return on equity, rate of Return
11/10	10-0467	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation and rate design
04/11	R-2010-2214415	PA	Central Pen Gas Large Users Group	UGI Central Penn Gas, Inc.	Tariff issues, revenue allocation
07/11	R-2011-2239263	PA	Philadelphia Area Energy Users Group	PECO Energy	Retainage rate

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Date	Case	Jurisdict.	Party	Utility	Subject
08/11	R-2011-2232243	PA	AK Steel	Pennsylvania-American Water Company	Rate Design
08/11	11AL-151G	CO	Climax Molybdenum	PS of Colorado	Cost allocation
09/11	11-G-0280	NY	Multiple Intervenors	Corning Natural Gas Co.	Cost and revenue allocation
10/11	4220-UR-117	WI	Wisconsin Industrial Energy Group	Northern States Power	Cost and revenue allocation, rate design
02/12	11AL-947E	CO	Climax Molybdenum, CF&I Steel	Public Service Company of Colorado	Return on equity, weighted cost of capital
07/12	120015-EI	FL	South Florida Hospitals and Health Care Association	Florida Power and Light Co,	Return on equity, weighted cost of capital
07/12	12-0613-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal for Century Aluminum
07/12	R-2012-2290597	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities Corp.	Cost allocation
09/12	05-UR-106	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Class cost of service, cost and revenue allocation, rate design
09/12	2012-00221 2012-00222	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
10/12	9299	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design Cost of equity, weighted cost of capital
10/12	4220-UR-118	WI	Wisconsin Industrial Energy Group	Northern States Power Company	Class cost of service, cost and revenue allocation, rate design
10/12	473-13-0199	TX	Steering Committee of Cities Served by Oncor	Cross Texas Transmission, LLC	Return on equity, capital structure
01/13	R-2012-2321748 et al.	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation
02/13	12AL-1052E	CO	Cripple Creek & Victor Gold Mining, Holcim (US) Inc.	Black Hills/Colorado Electric Utility Company	Cost and revenue allocations
06/13	8009	VT	IBM Corporation	Vermont Gas Systems	Cost and revenue allocation, rate design
07/13	130040-EI	FL	WCF Hospital Utility Alliance	Tampa Electric Co.	Return on equity, rate of return
08/13	9326	MD	Maryland Energy Group	Baltimore Gas and Electric	Cost and revenue allocation, rate design, special rider

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Date	Case	Jurisdict.	Party	Utility	Subject
08/13	P-2012-2325034	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities, Corp.	Distribution System Improvement Charge
09/13	4220-UR-119	WI	Wisconsin Industrial Energy Group	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
11/13	13-1325-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal, Felman Production
06/14	R-2014-2406274	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation, rate design
08/14	05-UR-107	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Cost and revenue allocation, rate design
10/14	ER13-1508 et al.	FERC	Louisiana Public Service Comm.	Entergy Services, Inc.	Return on equity
11/14	14AL-0660E	CO	Climax Molybdenum Co. and CFI Steel, LP	Public Service Co. of Colorado	Return on equity, weighted cost of capital
11/14	R-2014-2428742	PA	AK Steel	West Penn Power Company	Cost and revenue allocation
12/14	42866	TX	West Travis Co. Public Utility Agency	Travis County Municipal Utility District No. 12	Response to complain of monopoly power
3/15	2014-00371 2014-00372	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric, Kentucky Utilities	Return on equity, cost of debt, weighted cost of capital
3/15	2014-00396	KY	Kentucky Industrial Utility Customers	Kentucky Power Co.	Return on equity, weighted cost of capital
6/15	15-0003-G-42T	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Cost and revenue allocation, Infrastructure Replacement Program
8/15	44746	TX	Steering Committee of Cities Served by Oncor	Wind Energy Transmission Texas, LLC	Return on equity, capital structure, weighted cost of capital
9/15	15-0676-W-42T	WV	West Virginia Energy Users Gp.	West Virginia-American Water Company	Appropriate test year, Historical vs. Future

PUC DOCKET NO. 45188

JOINT REPORT AND APPLICATION OF ONCOR ELECTRIC DELIVERY COMPANY LLC, OVATION ACQUISITION I, L.L.C., OVATION ACQUISITION II, L.L.C., AND SHARY HOLDINGS, L.L.C. FOR REGULATORY APPROVALS PURSUANT TO PURA §§ 14.101, 37.154, 39.262(l)-(m), AND 39.915	§	BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS

REDACTED DIRECT TESTIMONY

OF

RICHARD A. BAUDINO

ON BEHALF OF

THE STEERING COMMITTEE OF CITIES

SERVED BY ONCOR

DECEMBER 7, 2015

REDACTED DIRECT TESTIMONY OF
RICHARD A. BAUDINO

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ATTACHMENTS

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.

A. My name is Richard A. Baudino, a Consultant with J. Kennedy and Associates, Inc., an economic consulting firm specializing in utility ratemaking and planning issues. My business address is 570 Colonial Park Drive, Suite 305, Roswell, Georgia.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.

A. I provide this information in Attachment 1, including a list of my testimony experience.

Q. ON WHOSE BEHALF ARE YOU PROVIDING TESTIMONY IN THIS PROCEEDING?

A. I am providing testimony on behalf of the Steering Committee of Cities Served by Oncor ("Cities").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to present my analysis and recommendations regarding the proposed transaction between Oncor Electric Delivery Company, L.L.C. ("Oncor"), Ovation Acquisition I, L.L.C. ("Ovation 1"), Ovation Acquisition II, L.L.C. and Shary Holdings, L.L.C.,[1] and the restructuring of Oncor into two utilities, Oncor Asset Company ("Oncor AssetCo") and Oncor Electric Delivery Company ("OEDC"). More specifically, my analysis and evaluation of this proposed transaction includes the following:

[1] Ovation Acquisition I, L.L.C., Ovation Acquisition II, L.L.C. and Shary Holdings, L.L.C. shall be referred to as "the Purchasers" from here on in.

1. Review the potential effects of proposed restructuring on Oncor's cost of capital.

2. Review and report on rating agency reports and evaluations of proposed transaction.

3. Discuss ring fencing as it applies to protection of the regulated rate of return for the combined utilities, including the capital structure, cost of debt, and return on equity.

4. Discuss and evaluate issues relating to the separate revolving credit facilities that a restructured Oncor will have.

5. Discuss and evaluate the Purchasers' claim that the proposed Real Estate Investment Trust ("REIT") will provide greater access to capital markets and, therefore, is one of the alleged benefits of the proposed transaction.

6. Offer recommendations to the Public Utility Commission of Texas ("Commission") with respect to ratepayer protections regarding Oncor's regulated rate of return.

Q. WILL YOU OPINE ON WHETHER THE COMMISSION SHOULD APPROVE THE PROPOSED TRANSACTION BETWEEN ONCOR AND THE PURCHASERS?

A. No. Other Cities witnesses recommend the Commission reject the proposed transaction. However, if the Commission decides to approve this proposed transaction, my testimony will support the ring fencing and other ratepayer protection mechanisms that should be ordered and implemented with respect to Oncor's cost of debt, cost of equity and capitalization.

II. SUMMARY OF TESTIMONY

Q. PLEASE SUMMARIZE YOUR CONCLUSIONS FOR THE COMMISSION.

A. The proposed transaction between Oncor and the Purchasers is very complex and the REIT structure proposed for Oncor is nearly unprecedented in terms of how regulated utilities in this country are structured. The transaction raises additional concerns with respect to potential risks regarding the cost of debt and equity for Oncor AssetCo and OEDC. Moody's and Standard and Poor's ("S&P"), securities rating agencies that evaluated and provided opinions on the proposed transaction, expressed similar concerns quite clearly.

Given the additional risks and unknowns presented by the proposed transaction, I recommend the Commission move decisively to protect ratepayers from any possible increases in Oncor's cost of debt and equity.

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS TO THE COMMISSION.

A. If the Commission decides to approve the proposed unconventional transaction and REIT structure, then certain cost of capital protections must be put into place to prevent ratepayers from paying higher rates from any increases in the cost of debt and equity that may result from the transaction. Specifically, I recommend the following:

1. The Commission should require the combined utilities maintain a 40% common equity and 60% long-term debt capitalization ratio for ratemaking purposes, the same condition imposed on Oncor in Docket No. 34077.[2]

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[2] *Joint Report and Application of Oncor Electric Delivery Company and Texas Energy Future Holdings Limited Partnership Pursuant to PURA §14.101*, Docket No. 34077 (Feb. 22, 2008).

2. The Commission should use the lower of (1) an imputed A-rated debt cost, or (2) the actual debt cost, whichever is lower, for new issuances of long-term debt.

3. The Commission should determine the combined utilities' return on equity based on a comparison group of A-rated electric utilities regardless of the actual debt rating(s) of the utilities.

4. The Commission should use the lower of (1) an imputed A-rated debt cost, or (2) the actual debt cost, whichever is lower, for short-term debt, including the cost of debt borrowed through the proposed two revolving credit facilities. Mr. Kollen recommends a related adjustment to ensure the incremental costs of separate credit facilities are not included in the revenue requirement in future ratemaking proceedings.

5. Oncor has been able to access capital markets under its present structure on reasonable terms and conditions and without any problems. The Purchasers failed to demonstrate that its proposed REIT would provide any greater access to capital markets than Oncor's current corporate structure or that the REIT provides any benefit in that regard.

III. THE PROPOSED TRANSACTION AND COST OF CAPITAL PROTECTIONS

Q. BRIEFLY DESCRIBE THE PROPOSED TRANSACTION BETWEEN ONCOR AND THE PURCHASERS.

A. Ovation Acquisition I, LLC, Ovation Acquisition II, LLC (collectively, "Ovation"), Energy Future Holdings Corp. ("EFH") and Energy Future Intermediate Holding Company LLC ("EFIH") entered into a Purchase Agreement and Agreement and Plan of Merger ("Merger Agreement"). The Merger Agreement proposes that the

Purchasers would acquire the indirect majority interest in Oncor currently held by EFH and that Oncor would be restructured such that it would be separated into Oncor AssetCo and OEDC. Currently, Oncor is owned by EFH, which owns an 80.03% interest; Texas Transmission Investment L.L.C. ("TTI"), which owns a 19.75% interest; and Oncor Management Investment L.L.C., which owns a 0.22% interest.

Under the proposed transaction, Ovation I would be the upstream owner of Oncor AssetCo. Ovation I would then qualify under federal law as a REIT as a way to access capital markets. OEDC's upstream owner would be the Hunt Affiliates as described more fully in the direct testimony of the Purchasers' witness Kirk Baker. OEDC and Oncor AssetCo would be L.L.C.'s and be treated as one entity for ratemaking purposes before the Commission.

The proposed transaction also includes the spin-off of Texas Competitive Electric Holdings Company L.L.C. ("TCEH") that would effectively separate the competitive generation company and retail electric operations from the regulated transmission and distribution businesses of EFH.

Q. PLEASE DESCRIBE HOW THE ACQUISITION OF ONCOR WOULD BE FINANCED.

A. According to Mr. Baker's Direct Testimony, an Investor Group will either raise or contribute approximately $12.6 billion in new debt and equity to fund the acquisition of Oncor. The Investor Group has pledged approximately $7.1 billion of new equity and certain other creditors of TCEH are entitled to contribute up to an additional $0.7 billion. Thus, the new debt contemplated by the proposed transaction would be in the range of $4.8 to $5.5 billion. According to Mr. Baker's Direct Testimony, the

Purchasers intend to reduce this new debt to approximately $3.5 billion within twelve months after closing by using additional equity.

Q. WHAT IS RING FENCING AND WHAT IS THE PURPOSE OF RING FENCING?

A. In this case, ring fencing refers to protections provided to a regulated utility company that shield that company from risks from its affiliates and/or parent company. These risks may take the form of operational risks and credit risks. I agree with Purchasers' witness Steven Schwarcz that a primary goal of ring fencing is to protect the regulated utility company from harm due to the bankruptcy of its affiliates and/or parent company. Ring fencing also protects the regulated utility from having its assets depleted or compromised by an affiliate. Ring fencing also ensures customers are not harmed from the results of corporate restructurings, such as the costs that are or may be incurred due to the transaction proposed in this proceeding.

Q. DID THE COMMISSION ESTABLISH RING FENCING CONDITIONS IN DOCKET NO. 34077?

A. Yes. The Commission approved a Stipulation entered into by the parties in that docket that contained numerous ring-fence provisions. Texas Energy Future Holdings Limited Partnership ("TEF") and Oncor made 22 commitments designed to protect Oncor and its ratepayers from adverse affects from the proposed merger between TEF and Oncor's parent company, TXU Corp. One of the commitments was to set the regulatory debt-to-equity ratio at 60% debt and 40% equity.

Q. DID THE PURCHASERS PROPOSE RING FENCING CONDITIONS WITH RESPECT TO THE COST OF CAPITAL?

A. The Purchasers and Oncor committed to "maintain a capital structure consistent with the capital structure that has been approved by the Commission in the most recent rate proceeding for OEDC and Oncor AssetCo."[3] As I mentioned previously, this capital structure currently consists of 40% common equity and 60% long-term debt.

Q. ARE THE RING FENCING CONDITIONS INCLUDED IN THE STIPULATION IN DOCKET NO. 34077 SUFFICIENT FOR COMMISSION APPROVAL OF THE PROPOSED TRANSACTION?

A. No. The capitalization commitment should be continued, but the Commission should include other protections with respect to the cost of debt and equity. I will explain why these additional conditions are necessary later in my testimony.

Q. DID THE MAJOR RATING AGENCIES OFFER ANY OPINIONS AND/OR EVALUATIONS OF THE PROPOSED TRANSACTION?

A. Yes. Based on my review of the Purchasers' responses to discovery, Moody's and S&P provided what I refer to as two sets of evaluations. This first set consists of publicly available news releases that offered initial comments on the proposed transaction. Oncor provided these comments in response to the Office of Public Counsel's ("OPUC") RFI No. 1-04.[4] Oncor provided the following four attachments in its response:

Attachment 1 - *Energy Future Holdings Bankruptcy Disclosure Statement is Credit Negative for Oncor*, Moody's, July 30, 2015.

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[3] Direct Testimony of Ralph G. Goodlet, Jr., Exhibit RGG-2 at 6.

[4] *See* Attachment 2.

Attachment 2 - *Plan to Sell Oncor and Convert it into a REIT is Credit Negative*, Moody's, August 13, 2015.

Attachment 3 - *Energy Future Holdings Bankruptcy Emergence Plans Cast Shadows Over Oncor Credit Profile*, Moody's, August 18, 2015.

Attachment 4 - *Oncor Electric Delivery Co. LLC Ratings Are Not Immediately Affected by Filing to Acquire Ultimate Parent EFH*, Standard and Poor's, September 30, 2015.

I have included these attachments as Attachment 2 to my direct testimony.

The second set consists of ratings assessments by Moody's and S&P and were provided in response to the Texas Industrial Energy Consumers ("TIEC") RFI No. 2-10 and were designated as Highly Sensitive Protected Materials ("HSPM").

Q. PLEASE SUMMARIZE THE FIRST SET OF INITIAL COMMENTS FROM THE RATING AGENCIES WITH RESPECT TO THE EFFECT OF THE PROPOSED TRANSACTION ON ONCOR.

A. Generally speaking, Moody's comments expressed concerns regarding the effect of the proposed transaction on Oncor's credit quality. Moody's comments expressed these concerns as follows:

- Oncor's conversion to a REIT.
- The dismantling of ring-fence provisions.
- Higher leverage across the corporate family.

Moody's August 13, 2015 Issuer Comment noted the following concern with respect to the proposed REIT structure:

> EFH's plan to convert Oncor into a REIT would allow Oncor's new owner to reduce its tax obligations by as much as $255 million, which was Oncor's 2014 federal taxes. This disconnect between the reduced tax obligation at the corporate level as a REIT

> and the rate collected from the ratepayers to cover the higher tax obligation as an electric utility corporation increases a risk that customers become intolerant of future rate increase requests, creating pressure at both the political and regulatory levels. As a result, we believe the PUCT, which regulates Texas electric rates, would likely address the disconnect through regulatory measures to factor in the tax savings associated with the REIT structure. Options include restricting upstream dividend payments, increasing the authorized layer of equity in the capital structure or lowering Oncor's 10.25% authorized return on equity or return on rate base.

Moody's comment also expressed concern regarding the "significant dismantling of the strong suite of ring-fence provisions that helped insulate Oncor from its financially distressed parent and affiliate." Moody's noted that removing Oncor's minority investors and the "extraordinary corporate governance rights that had been provided to them, is a material credit negative."

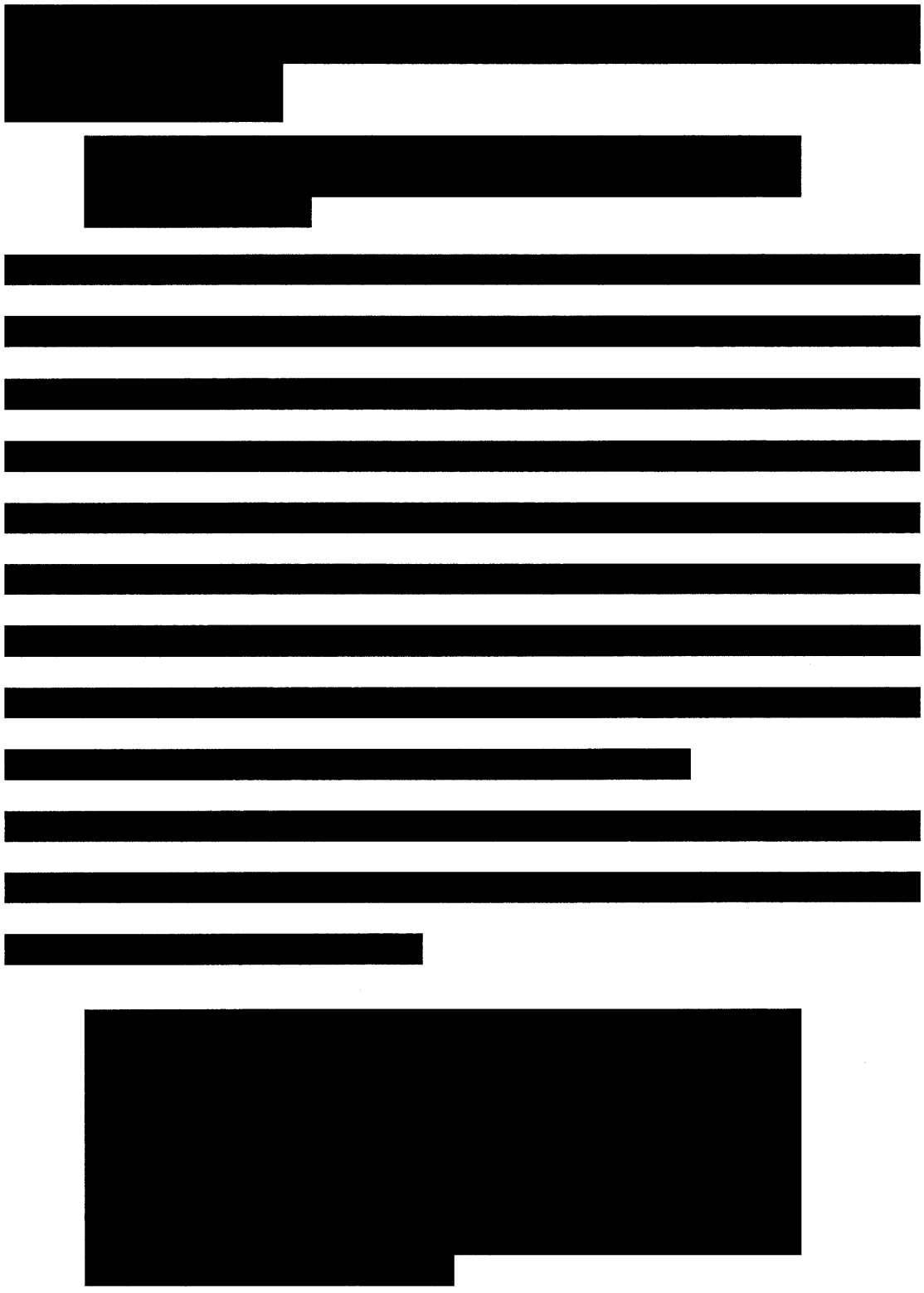
Finally, Moody's noted that it estimated that $12 billion of capital would sit above Oncor at the parent holding company level, including approximately $7.5 billion of debt. According to Moody's comments, Oncor would need to service the financing costs "since it is the only entity within the corporate family that generates any earnings or cash flow."

I also note that in its August 18, 2015 comment, Moody's noted that the proposed separation from TCEH would be a credit positive development for Oncor.

Overall, Moody's noted one credit positive and three credit negatives for Oncor from the proposed transaction. Neither Moody's nor S&P changed their ratings outlook for Oncor based on their initial comments on the proposed transaction.

Q. PLEASE SUMMARIZE THE SECOND SET THAT CONSISTS OF RATINGS ASSESSMENTS THAT WERE REQUESTED BY THE PURCHASERS.

A. My summary is based on HPSM documents provided by the Purchasers in response to TIEC RFI No. 2-10.



Q. WHAT DO YOU CONCLUDE WITH RESPECT TO THE RATINGS ASSESSMENTS AND COMMENTS FROM THE RATINGS AGENCIES?

A. I conclude the proposed transaction introduces significant new risks from which Oncor's ratepayers must be protected.

First, it is clear the proposed formation of a REIT poses additional risks, particularly with respect to the treatment of income taxes and how they should be reflected for ratemaking purposes. The actual federal income taxes paid by the proposed REIT will be substantially lower than Oncor's current federal tax liability and raises questions about how this should be reflected in rates. S&P also noted the

Q. DID THE PURCHASERS EVALUATE WHETHER A REIT OFFERS ANY ADVANTAGES OR DISADVANTAGES WITH RESPECT TO COST OF CAPITAL FOR ONCOR?

A. Apparently not. The Purchasers' response to TIEC RFI No. 2-3 stated that the Purchasers have no documents relating to whether or not a REIT provides a cost of capital advantage or disadvantage relative to a traditional utility structure.[5]

Q. WHAT ARE THE COST OF CAPITAL RING-FENCE PROVISIONS THAT SHOULD BE ADOPTED IN THIS PROCEEDING IF THE COMMISSION DECIDES TO APPROVE THE PROPOSED TRANSACTION.

A. I recommend the Commission adopt the following ring fence provisions with respect to the cost of capital if it approves the proposed transaction:

1. The Commission should continue the requirement that the utilities limit their debt so that the debt-to-equity ratio is at or below the assumed debt-to-equity established from time to time by the Commission for ratemaking purposes, which is currently set at 60% debt to 40% equity. For ratemaking purposes, Oncor shall support a cost of debt that does not exceed its actual cost of debt immediately prior to the announcement of the proposed transaction. The Commission should also continue the provisions contained in paragraph 36 of the Stipulation in Docket No. 34077, which was adopted by the Commission in that proceeding.
2. For new long-term debt, the Commission should use the lower of (1) an imputed A-rated debt cost, or (2) the actual debt cost, whichever is lower.
3. For all short-term debt, including the debt incurred through the two separate revolving credit facilities, the Commission should use the lower of (1) an imputed A-rated debt cost, or (2) the actual debt cost, whichever is lower.

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[5] Purchasers' Response to TIEC RFI No. 2-3 (Attachment 3).

4. Oncor's return on equity should be based on a comparison group of A-rated electric utilities.

Q. WHY SHOULD THE COMMISSION MAINTAIN THE CURRENT PROVISION WITH RESPECT TO THE CAPITALIZATION RATIO?

A. The current provision for a 60%/40% debt/equity ratio provides a reasonable balance between debt and equity. This has minimized the cost of capital for ratemaking purposes on the one hand and assisted in maintaining Oncor's investment grade rating on the other hand. Currently, Oncor's senior secured debt rating is Baa1 from Moody's and A from S&P. Since we do not know what the combined Oncor AssetCo and OEDC capitalization ratio will be, I recommend the Commission continue the current debt/equity ratio requirement from Docket No. 34077.

In connection with the debt-to-equity requirement, Oncor's ratepayers have also been protected from any increases in the Company's existing cost of debt by paragraphs 5 and 36 of the Stipulation in Docket No. 34077. The Commission should continue the protection with respect to the existing cost of debt in the current case as well.

For this proceeding, I recommend the Commission adopt the following language, which I have taken from paragraphs 5 and 36 of the Stipulation in Docket No. 34077 and modified to fit the proposed transaction in this case. Note that "Oncor" as I use it in this language refers to Oncor AssetCo and OEDC.

> The Commission should continue the requirement that Oncor limit its debt so that its debt-to-equity ratio is at or below the assumed debt-to-equity ratio established from time to time by the Commission for ratemaking purposes, which is currently set at 60% debt to 40% equity. For ratemaking purposes, Oncor shall support a cost of debt that does not exceed its actual cost of debt immediately prior to the announcement of the proposed transaction.

The Commission has authority to determine what types of debt and equity are included in a utility's debt-to-equity ratio. The purposes to be conducted or promoted by Oncor are those of an electric transmission and distribution company, including owning and operating equipment or facilities to transmit and distribute electricity, and to engage in any other activities related or incidental thereto or in anticipation thereof. Oncor will agree to cap its cost of debt for its next rate case at pre-Transaction levels. In addition, Oncor will agree that its cost of debt in future rate proceedings will be based on the lower of the then-current cost of debt for electric utilities that have an A/A rating from Moody's and Standard and Poor's or Oncor's actual cost of debt.

Q. WHY SHOULD THE COMMISSION USE THE COST OF A-RATED DEBT IN DETERMINING ONCOR'S COST OF DEBT?

A. Currently, Oncor's senior secured debt is rated Baa1 by Moody's and A by S&P. Moody's rating is at the high end of the Baa range. The proposed transaction contemplates that Oncor AssetCo will have debt that will be rated and that OEDC will not be rated. Thus, basing restructured Oncor's cost of debt on an A/A rating ensures a reasonable cost of debt to be supported by Oncor's customers and will protect them against any possible bond rating deterioration that could occur as a result of the proposed transaction.

Q. YOUR SECOND RING-FENCE CONDITION APPLIED THE A-RATING COST OF DEBT STANDARD TO ANY NEW DEBT ISSUANCES FOR ONCOR. PLEASE EXPLAIN WHY THE COMMISSION SHOULD ADOPT THIS CONDITION.

A. My reasoning behind this second distinct ring-fence condition is the same as the first condition. If Oncor issues new debt that reflects a lower rating due to adverse consequences from the proposed transaction, then Oncor's customers must be protected from any resulting higher cost of debt. Tying the cost of any new debt to

the lower of actual debt cost or A-rated debt cost ensures adequate and reasonable protection for ratepayers.

Q. ON PAGE 12, LINES 22 THROUGH 24 OF HIS DIRECT TESTIMONY, MR. GOODLET TESTIFIED THAT REQUIRING A SPECIFIC MINIMUM INVESTMENT GRADE RATING "IS UNNECESSARY IN VIEW OF PURCHASERS' REGULATORY COMMITMENTS." IS MR. GOODLET'S POSITION CORRECT?

A. No, it is not correct. I have demonstrated previously that Moody's and S&P cited several significant new risks associated with the Purchasers' proposed transaction. A minimum investment grade rating of A must be assigned to the cost of debt of the restructured Oncor in order to protect ratepayers from these new risks that are being imposed upon them by the Purchasers. If the Purchasers believe their regulatory commitments are sufficient to protect ratepayers from the additional risks from the proposed transaction, then there certainly can be no harm from adding the minimum A rating criterion to the cost of Oncor's debt.

Q. BRIEFLY DESCRIBE THE EXISTING AND PROPOSED STRUCTURE OF ONCOR'S REVOLVING CREDIT FACILITIES.

A. Currently, Oncor has a revolving line of credit it uses as its primary source of liquidity, aside from operating cash flows. According to Oncor's 2014 Form 10-K, page 32, as of December 31, 2014 the Company had a $2.4 billion revolving credit facility. The proposed transaction contemplates that Oncor AssetCo would essentially step into Oncor's existing revolving credit facility. OEDC will also have its own revolving credit facility and can also borrow from Oncor AssetCo under certain emergency conditions.

Q. IS THE COST OF BORROWING UNDER ONCOR'S CURRENT LINE OF CREDIT AFFECTED BY ITS BOND RATINGS?

A. Yes. Page 34 of Oncor's 2014 10-K noted that the interest rates charged under the revolving credit facility agreement may be adjusted depending on credit ratings. Please refer to Attachment 4, which contains page 34 of Oncor's 2014 10-K and explains how the interest rates are calculated and how they are affected by Oncor's senior secured non-credit enhanced long-term debt.

Q. SHOULD THE COMMISSION ALSO REQUIRE THAT SHORT-TERM DEBT COSTS AS REPRESENTED BY ONCOR ASSETCO'S REVOLVING CREDIT FACILITY BE PEGGED AT THE SHORT-TERM DEBT COST FOR A-RATED ELECTRIC UTILITIES OR AT ONCOR ASSETCO'S ACTUAL COST, WHICHEVER IS LOWER?

A. Yes. If the proposed transaction results in a downgrading of Oncor's current debt rating, then Oncor AssetCo's short-term debt cost should not be allowed to increase the cost of debt supported by Oncor's customers. For this reason, the Commission should require that the restructured cost of Oncor's short-term debt be set at the lower of its actual short-term debt cost or the short-term debt interest rate of A-rated electric utilities. This condition would apply if Oncor were to request, or the Commission was to allow short-term debt in Oncor's capital structure for ratemaking purposes. It is also necessary to prevent any increase in the rate on Allowance for Funds Used During Construction ("AFUDC").

Q. WHY SHOULD THE COMMISSION SET THE RETURN ON EQUITY USING A-RATED ELECTRIC UTILITIES AS A BENCHMARK GROUP?

A. The Commission, its Staff and other parties to future rate cases will not be able to estimate the cost of equity for Oncor on a stand-alone basis since it will not have its own common equity. Therefore, Oncor's cost of equity must be estimated using a comparison, or proxy group of companies with similar risk structures. Other things being equal, A-rated electric utilities will have a lower cost of equity than Baa/BBB-rated companies. Given Oncor's split rating of Baa1/A, I believe it is reasonable for the Commission to determine Oncor's cost of equity using A-rated electric utilities. This condition will protect Oncor's ratepayers from any credit deterioration that may ensue from the proposed transaction. This condition will also provide an incentive for Oncor's upstream owners to act prudently and not undertake actions that may result in a loss of credit quality for Oncor.

Q. ON PAGE 9, LINES 15 THROUGH 16 OF HIS SUPPLEMENTAL DIRECT TESTIMONY, MR. GOODLET TESTIFIED THAT THE REIT STRUCTURE "COULD POTENTIALLY RESULT IN A REDUCTION IN THE COST OF EQUITY." PLEASE ADDRESS MR. GOODLET'S TESTIMONY ON THIS POINT.

A. I do not agree with Mr. Goodlet's assertion. The fact is that we really don't know how the proposed REIT structure will affect the cost of equity. Mr. Goodlet went on to testify at lines 16 through 19: "Given all the factors that might affect the cost of equity, it would be difficult to determine the impact that any single factor, such as utilization of different financing structures, has on the cost of equity."

Given the uncertainty associated with the REIT structure, the cost of equity protection I propose is certainly reasonable.

Q. ON PAGE 20, LINES 21 THROUGH PAGE 21, LINE 2 OF HIS SUPPLEMENTAL DIRECT TESTIMONY, MR. GOODLET TESTIFIED THAT HE DID NOT BELIEVE ANY GUARANTEES OR COMMITMENTS WERE NECESSARY TO PROTECT RATEPAYERS FROM NEGATIVE IMPACTS FROM ONCOR ASSETCO'S AND ONCOR OPCO'S BOND RATINGS AND COST OF DEBT BEYOND THE REGULATORY COMMITMENTS SET FORTH IN HIS EXHIBIT RGG-2. PLEASE RESPOND TO MR. GOODLET'S TESTIMONY ON THIS POINT.

A. I disagree with Mr. Goodlet. The transaction proposed by Oncor and the Purchasers in this proceeding is complex and introduces significant new risks that must be addressed by the Commission, its Staff and the other parties. Both Moody's and S&P clearly stated the new risks from the restructuring of Oncor as a REIT and from a weaker set of ring-fence provisions compared to the ring-fence currently in place for Oncor. These new risks require stronger ring-fence conditions with respect to the protection of customers from any deterioration in Oncor's credit quality and the resulting increase in its cost of capital.

If the Purchasers and Oncor believe the proposed transaction has no material effect on Oncor's cost of debt and equity, then there should be no objection on their part to including protections to ratepayers in case Oncor's credit quality weakens as a result of the proposed transaction.

Q. MR. BAUDINO, HAS ONCOR BEEN ABLE TO ACCESS CAPITAL MARKETS ON REASONABLE TERMS AND CONDITIONS UNDER ITS CURRENT CORPORATE STRUCTURE?

A. Yes. As I mentioned earlier, Oncor's senior secured debt ratings are Baa1 from Moody's and A from S&P. These ratings are solidly investment grade. Oncor's 2014 10-K noted that the Company had issued $250 million in long-term debt during the year that carried a coupon rate of 2.150%. The Company's 10-K did not report any problem with accessing capital markets.

Q. ON PAGE 16, LINES 3 THROUGH 10 OF HIS DIRECT TESTIMONY MR. GOODLET TESTIFIED THAT THE PROPOSED REIT STRUCTURE OFFERED BENEFITS THOUGH "THE OPPORTUNITY FOR ADDITIONAL INVESTORS ... TO INVEST IN ERCOT T&D ASSETS." DO YOU AGREE THAT A REIT STRUCTURE OFFERS RATEPAYERS ANY BENEFITS THROUGH ADDITIONAL POTENTIAL FUNDING SOURCES?

A. No. The Purchasers failed to show how the proposed REIT structure would provide any additional benefits from expanded access to capital markets compared to Oncor's current corporate structure. The Purchasers did not include any analysis or testimony in this proceeding that Oncor in its current form had any difficulty accessing capital on reasonable terms. The fact is that Oncor has had no difficulty accessing capital markets currently on reasonable terms, even with the current bankruptcy of its majority owners. If anything, the proposed REIT and its less flexible dividend payout requirements may result in increased risk in the minds of potential investors.

Q. DOES THAT CONCLUDE YOUR TESTIMONY?

A. Yes.

RESUME AND TESTIMONY EXPERIENCE OF RICHARD A. BAUDINO

EDUCATION

New Mexico State University, M.A.
Major in Economics
Minor in Statistics

New Mexico State University, B.A.
Economics
English

Thirty-two years of experience in utility ratemaking and the application of principles of economics to the regulation of electric, gas, and water utilities. Broad based experience in revenue requirement analysis, cost of capital, rate of return, cost and revenue allocation, and rate design.

REGULATORY TESTIMONY

Preparation and presentation of expert testimony in the areas of:

Cost of Capital for Electric, Gas and Water Companies
Electric, Gas, and Water Utility Cost Allocation and Rate Design
Revenue Requirements
Gas and Electric industry restructuring and competition
Fuel cost auditing
Ratemaking Treatment of Generating Plant Sale/Leasebacks

RESUME AND TESTIMONY EXPERIENCE OF RICHARD A. BAUDINO

EXPERIENCE

1989 to Present: **Kennedy and Associates: Consultant** - Responsible for consulting assignments in the area of revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, electric and gas industry restructuring/competition and water utility issues.

1982 to 1989: **New Mexico Public Service Commission Staff: Utility Economist** - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

CLIENTS SERVED

Regulatory Commissions

Louisiana Public Service Commission
Georgia Public Service Commission
New Mexico Public Service Commission

Other Clients and Client Groups

Ad Hoc Committee for a Competitive Electric Supply System
Air Products and Chemicals, Inc.
Arkansas Electric Energy Consumers
Arkansas Gas Consumers
AK Steel
Armco Steel Company, L.P.
Assn. of Business Advocating Tariff Equity
CF&I Steel, L.P.
Climax Molybdenum Company
Cripple Creek & Victor Gold Mining Co.
General Electric Company
Holcim (U.S.) Inc.
IBM Corporation
Industrial Energy Consumers
Kentucky Industrial Utility Consumers
Lexington-Fayette Urban County Government
Large Electric Consumers Organization
Newport Steel
Northwest Arkansas Gas Consumers
Maryland Energy Group
Occidental Chemical
PSI Industrial Group
Large Power Intervenors (Minnesota)
Tyson Foods
West Virginia Energy Users Group
The Commercial Group
Wisconsin Industrial Energy Group
South Florida Hospital and Health Care Assn.
PP&L Industrial Customer Alliance
Philadelphia Area Industrial Energy Users Gp.
West Penn Power Intervenors
Duquesne Industrial Intervenors
Met-Ed Industrial Users Gp.
Penelec Industrial Customer Alliance
Penn Power Users Group
Columbia Industrial Intervenors
U.S. Steel & Univ. of Pittsburg Medical Ctr.
Multiple Intervenors
Maine Office of Public Advocate
Missouri Office of Public Counsel
University of Massachusetts - Amherst
WCF Hospital Utility Alliance
West Travis County Public Utility Agency
Steering Committee of Cities Served by Oncor

Expert Testimony Appearances
of
Richard A. Baudino
As of December 2015

Date	Case	Jurisdict.	Party	Utility	Subject
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop.	Rate design.
11/84	1833	NM	New Mexico Public Service Commission Palo Verde	El Paso Electric Co.	Service contract approval, rate design, performance standards for nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/85	1907	NM	New Mexico Public Service Commission	Jornada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.
10/87	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.

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Date	Case	Jurisdict.	Party	Utility	Subject
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.

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09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464-EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transportation rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania charge proposals.	Evaluation of cost allocation, rate design, rate plan, and carrying
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035-E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.

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Date	Case	Jurisdict.	Party	Utility	Subject
8/94	8652	MD	Westvaco Corp. Co.	Potomac Edison	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343-000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.,Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.

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1/97	RP96-199-000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions.
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania-American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.
7/98	R-00984280	PA	PG Energy, Inc. Intervenors	PGE Industrial	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States,Inc.	Cost of debt.

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10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity Assignment.
01/00	8829	MD & United States	Maryland Industrial Gr.	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Commission	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.

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Date	Case	Jurisdict.	Party	Utility	Subject
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity
06/05	050045-EI	FL	South Florida Hospital and HeallthCare Assoc.	Florida Power & Light Co.	Return on equity
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.

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Date	Case	Jurisdict.	Party	Utility	Subject
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116 Commission	LA	Louisiana Public Service	Entergy Louisiana, LLC	Transmission Issues
07/06	U-23327 Commission	LA	Louisiana Public Service	Southwestern Electric Power Company	Return on equity, Service quality
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T	WV	West Virginia Energy Users Group	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112	AK	AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric	Return on equity, weighted cost of capital.
09/07	07-07-01	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power	Return on equity, weighted cost of capital
10/07	05-UR-103	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Return on equity
11/07	29797	LA	Louisiana Public Service Commission	Cleco Power :LLC & Southwestern Electric Power	Lignite Pricing, support of settlement
01/08	07-551-EL-AIR	OH	Ohio Energy Group	Ohio Edison, Cleveland Electric, Toledo Edison	Return on equity
03/08	07-0585, 07-0585, 07-0587, 07-0588, 07-0589, 07-0590, (consol.)	IL	The Commercial Group	Ameren	Cost allocation, rate design
04/08	07-0566	IL	The Commercial Group	Commonwealth Edison	Cost allocation, rate design
06/08	R-2008-2011621	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Cost and revenue allocation, Tariff issues
07/08	R-2008-2028394	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy	Cost and revenue allocation, Tariff issues

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Date	Case	Jurisdict.	Party	Utility	Subject
07/08	R-2008-2039634	PA	PPL Gas Large Users Group	PPL Gas	Retainage, LUFG Pct.
08/08	6680-UR-116	WI	Wisconsin Industrial Energy Group	Wisconsin P&L	Cost of Equity
08/08	6690-UR-119	WI	Wisconsin Industrial Energy Group	Wisconsin PS	Cost of Equity
09/08	ER-2008-0318	MO	The Commercial Group	AmerenUE	Cost and revenue allocation
10/08	R-2008-2029325	PA	U.S. Steel & Univ. of Pittsburgh Med. Ctr.	Equitable Gas Co.	Cost and revenue allocation
10/08	08-G-0609	NY	Multiple Intervenors	Niagara Mohawk Power	Cost and Revenue allocation
12/08	27800-U	GA	Georgia Public Service Commission	Georgia Power Company	CWIP/AFUDC issues, Review financial projections
03/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Capital Structure
04/09	E002/GR-08-1065	MN	The Commercial Group	Northern States Power	Cost and revenue allocation and rate design
05/09	08-0532	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation
07/09	080677-EI	FL	South Florida Hospital and Health Care Association	Florida Power & Light	Cost of equity, capital structure, Cost of short-term debt
07/09	U-30975	LA	Louisiana Public Service Commission	Cleco LLC, Southwestern Public Service Co.	Lignite mine purchase
10/09	4220-UR-116	WI	Wisconsin Industrial Energy Group	Northern States Power	Class cost of service, rate design
10/09	M-2009-2123945	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Smart Meter Plan cost allocation
10/09	M-2009-2123944	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Smart Meter Plan cost allocation
10/09	M-2009-2123951	PA	West Penn Power Industrial Intervenors	West Penn Power	Smart Meter Plan cost allocation
11/09	M-2009-2123948	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Smart Meter Plan cost allocation
11/09	M-2009-2123950	PA	Met-Ed Industrial Users Group Penelec Industrial Customer Alliance, Penn Power Users	Metropolitan Edison, Pennsylvania Electric Co., Pennsylvania Power Co.	Smart Meter Plan cost allocation

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Date	Case	Jurisdict.	Party	Utility	Subject
			Group		
03/10	09-1352-	WV E-42T	West Virginia Energy Users Group	Monongahela Power	Return on equity, rate of return Potomac Edison
03/10	E015/GR-09-1151	MN	Large Power Intervenors	Minnesota Power	Return on equity, rate of return
04/10	2009-00459	KY	Kentucky Industrial Utility Consumers	Kentucky Power	Return on equity
04/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
05/10	10-0261-E-GI	WV	West Virginia Energy Users Group	Appalachian Power Co./ Wheeling Power Co.	EE/DR Cost Recovery, Allocation, & Rate Design
05/10	R-2009-2149262	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Class cost of service & cost allocation
06/10	2010-00036	KY	Lexington-Fayette Urban County Government	Kentucky American Water Company	Return on equity, rate of return, revenue requirements
06/10	R-2010-2161694	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Rate design, cost allocation
07/10	R-2010-2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Return on equity
07/10	R-2010-2161592	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Cost and revenue allocation
07/10	9230	MD	Maryland Energy Group	Baltimore Gas and Electric	Electric and gas cost and revenue allocation; return on equity
09/10	10-70	MA	University of Massachusetts-Amherst	Western Massachusetts Electric Co.	Cost allocation and rate design
10/10	R-2010-2179522	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Cost and revenue allocation, rate design
11/10	P-2010-2158084	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Transmission rate design
11/10	10-0699-E-42T	WV	West Virginia Energy Users Group	Appalachian Power Co. & Wheeling Power Co.	Return on equity, rate of Return
11/10	10-0467	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation and rate design
04/11	R-2010-2214415	PA	Central Pen Gas Large Users Group	UGI Central Penn Gas, Inc.	Tariff issues, revenue allocation
07/11	R-2011-	PA	Philadelphia Area	PECO Energy	Retainage rate

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Date	Case	Jurisdict.	Party	Utility	Subject
	2239263		Energy Users Group		
08/11	R-2011-2232243	PA	AK Steel	Pennsylvania-American Water Company	Rate Design
08/11	11AL-151G	CO	Climax Molybdenum	PS of Colorado	Cost allocation
09/11	11-G-0280	NY	Multiple Intervenors	Corning Natural Gas Co.	Cost and revenue allocation
10/11	4220-UR-117	WI	Wisconsin Industrial Energy Group	Northern States Power	Cost and revenue allocation, rate design
02/12	11AL-947E	CO	Climax Molybdenum, CF&I Steel	Public Service Company of Colorado	Return on equity, weighted cost of capital
07/12	120015-EI	FL	South Florida Hospitals and Health Care Association	Florida Power and Light Co,	Return on equity, weighted cost of capital
07/12	12-0613-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal for Century Aluminum
07/12	R-2012-2290597	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities Corp.	Cost allocation
09/12	05-UR-106	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Class cost of service, cost and revenue allocation, rate design
09/12	2012-00221 2012-00222	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
10/12	9299	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design Cost of equity, weighted cost of capital
10/12	4220-UR-118	WI	Wisconsin Industrial Energy Group	Northern States Power Company	Class cost of service, cost and revenue allocation, rate design
10/12	473-13-0199	TX	Steering Committee of Cities Served by Oncor	Cross Texas Transmission, LLC	Return on equity, capital structure
01/13	R-2012-2321748 et al.	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation
02/13	12AL-1052E	CO	Cripple Creek & Victor Gold Mining, Holcim (US) Inc.	Black Hills/Colorado Electric Utility Company	Cost and revenue allocations
06/13	8009	VT	IBM Corporation	Vermont Gas Systems	Cost and revenue allocation, rate design
07/13	130040-EI	FL	WCF Hospital Utility Alliance	Tampa Electric Co.	Return on equity, rate of return
08/13	9326	MD	Maryland Energy Group	Baltimore Gas and Electric	Cost and revenue allocation, rate design, special rider

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08/13	P-2012-2325034	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities, Corp.	Distribution System Improvement Charge
09/13	4220-UR-119	WI	Wisconsin Industrial Energy Group	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
11/13	13-1325-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal, Felman Production
06/14	R-2014-2406274	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation, rate design
08/14	05-UR-107	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Cost and revenue allocation, rate design
10/14	ER13-1508 et al.	FERC	Louisiana Public Service Comm.	Entergy Services, Inc.	Return on equity
11/14	14AL-0660E	CO	Climax Molybdenum Co. and CFI Steel, LP	Public Service Co. of Colorado	Return on equity, weighted cost of capital
11/14	R-2014-2428742	PA	AK Steel	West Penn Power Company	Cost and revenue allocation
12/14	42866	TX	West Travis Co. Public Utility Agency	Travis County Municipal Utility District No. 12	Response to complain of monopoly power
3/15	2014-00371 2014-00372	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric, Kentucky Utilities	Return on equity, cost of debt, weighted cost of capital
3/15	2014-00396	KY	Kentucky Industrial Utility Customers	Kentucky Power Co.	Return on equity, weighted cost of capital
6/15	15-0003-G-42T	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Cost and revenue allocation, Infrastructure Replacement Program
8/15	44746	TX	Steering Committee of Cities Served by Oncor	Wind Energy Transmission Texas, LLC	Return on equity, capital structure, weighted cost of capital
9/15	15-0676-W-42T	WV	West Virginia Energy Users Gp.	West Virginia-American Water Company	Appropriate test year, Historical vs. Future
9/15	15-1256-G-390P	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Rate design for Infrastructure Replacement and Expansion Program
10/15	4220-UR-121	WI	Wisconsin Industrial Energy Gp.	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
12/15	15-1600-G-390P	WV	West Virginia Energy Users Gp.	Dominion Hope	Rate design and allocation for Pipeline Replacement & Expansion Prog.
12/15	45188	TX	Steering Committee of Cities Served by Oncor	Oncor Electric Delivery Co.	Ring-fence protections for cost of capital

Request

Provide all Moody's, Standard and Poor's and Fitch Credit Reports that discuss the acquisition of Oncor by Ovation and Shary Holdings.

Response

The following response was prepared by or under the direct supervision of David M. Davis, the sponsoring witness for this response.

Please see the attached documents.

ATTACHMENTS:

ATTACHMENT 1 – *Energy Future Holdings Bankruptcy Disclosure Statement is Credit Negative for Oncor*, Moody's Investors Service, Issuer Comment, dated July 30, 2015, 3 pages

ATTACHMENT 2 – *Plan to Sell Oncor and Convert It into a REIT Is Credit Negative*, Moody's Investors Service, Issuer Comment, dated August 13, 2015, 3 pages

ATTACHMENT 3 – *Energy Future Holdings bankruptcy emergence plans cast shadows over Oncor credit profile,* , Moody's Investors Service, Issuer Comment, dated August 18, 2015, 6 pages

ATTACHMENT 4 – *Oncor Electric Delivery Co. LLC Ratings Are Not Immediately Affected By Filing To Acquire Ultimate Parent EFH*, Standards & Poor's Ratings Services Bulletin, dated September 30, 2015, 2 pages

JULY 30, 2015

DOCKET 45188 ATTACHMENT 1
TO OPC RFI Set No. 1
QUESTION NO. 1-04 (Oncor)

MOODY'S
INVESTORS SERVICE

ISSUER COMMENT

Energy Future Holdings Bankruptcy Disclosure Statement Is Credit Negative for Oncor

From Credit Outlook

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Last Thursday, Energy Future Holdings Corp. (EFH, unrated) filed an amended disclosure statement with the US Bankruptcy Court that spells out EFH's preferred path for emerging from bankruptcy. The preferred path is credit negative for EFH's 80%-owned regulated transmission and distribution utility, Oncor Electric Delivery Company LLC (Baa1 positive). We see three credit-negative risks in the disclosure statement: Oncor's conversion to a real estate investment trust (REIT), dismantling of ring-fence provisions and higher leverage across the corporate family.

EFH plans to convert Oncor into a REIT, which will increase the risk of regulatory contentiousness during the Public Utility Commission of Texas (PUCT) approval process for the change-in-control and for future rate cases. A REIT structure would allow the new owner of the utility assets to reduce its tax obligations, potentially creating a disconnect between the reduced tax obligation at the corporate level as a REIT and the rate collected from the ratepayers to cover the higher tax obligation as an electric utility corporation.

Unless authorized rates are modified to reflect the tax efficiencies associated with REITs, we expect customers to become intolerant of rate increase requests, which would build pressure at both the political and regulatory levels to reduce rates. As a result, we believe that the PUCT, which regulates Texas electric rates, would likely address the disconnect through regulatory measures. For example, the PUCT might restrict upstream dividend payments or lower Oncor's 10.25% authorized return on equity, which is already higher than its Texas electric transmission and distribution peers, to factor in the tax savings of the REIT structure.

We also see a material dismantling of the strong suite of ring-fence provisions that helped insulate Oncor from its financially distressed parent and affiliate. The disclosure plan contemplates removing Oncor's minority investors, including the Canadian pension manager Borelias Infrastructure. Borelias' presence at Oncor, combined with the special corporate governance rights provided to it, was a principal element in our analysis of how well Oncor would be insulated from its parent's bankruptcy. The disclosure statement reminds us that minority investors can help reduce the probability of a default, but have very little influence with respect to expected losses. However, we see Borealis as a formidable minority investor that will vigorously defend its rights, which will help to keep Oncor's existing ring-fence provisions in place.

What is Moody's Credit Outlook?

Published every Monday and Thursday morning, Moody's Credit Outlook informs our research clients of the credit implications of current events

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The third principal risk is the leverage across the family. We estimate that $12 billion of capital will sit above Oncor at its parent holding company, in addition to its roughly $7.5 billion of debt. Regardless of whether it is legally liable or not, Oncor will need to service the financing costs associated with that capital since it is the only entity within the corporate family that generates any earnings or cash flow. EFH expects that the capital will be a mix of debt and equity, but it is difficult to see at this time what the split would be. We also see an added regulatory risk in the sense that the preferred path for bankruptcy, coupled with the $12 billion of capital, is designed to help facilitate recovery at Oncor's affiliate, Texas Competitive Energy Holdings Company LLC, the unregulated generation segment of EFH.

The plot will thicken over the next few weeks as additional information comes to light with respect to the terms and conditions being sought by the debtors and creditors. We expect the bankruptcy court to review the disclosure statement on 18 August.

Report Number: 183446

Authors
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Production Associate
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AUGUST 13, 2015

DOCKET 45188 ATTACHMENT 2
TO OPC RFI SET NO. 1
QUESTION NO. 1-04 (ONCOR)

MOODY'S
INVESTORS SERVICE

ISSUER COMMENT

Plan to Sell Oncor and Convert It into a REIT Is Credit Negative

From Credit Outlook

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On Monday, Energy Future Holdings Corp. (EFH, unrated) filed an 8-K announcing a plan to emerge from bankruptcy. The plan proposes spinning off Texas Competitive Energy Holdings Company LLC (unrated), EFH's unregulated merchant power operations, to its creditors, and selling a reorganized EFH to Hunt Consolidated (unrated). Hunt plans to restructure EFH's regulated transmission and distribution utility, Oncor Electric Delivery Company LLC (Baa1 positive), into a real estate investment trust (REIT) and will file the appropriate applications with the Public Utility Commission of Texas (PUCT) in September. The PUCT has about six months to review this change-of-control application.

We see three credit-negative risks associated with the plan of reorganization: Oncor will face heightened regulatory contentiousness in its PUCT proceedings owing to its planned conversion into a REIT; a dismantling of ring-fence provisions around Oncor; and the potential for higher leverage across the family. Monday's plan is EFH's third and has been accepted by numerous creditor groups, which we think increases the likelihood of bankruptcy court approval. The third amended plan eliminated one of two paths the company considered using to emerge from bankruptcy when it filed its second plan on 23 July. This third plan is not final, and requires bankruptcy court approval before the PUCT considers it.

EFH's plan to convert Oncor into a REIT would allow Oncor's new owner to reduce its tax obligations by as much as $255 million, which was Oncor's 2014 federal taxes. This disconnect between the reduced tax obligation at the corporate level as a REIT and the rate collected from the ratepayers to cover the higher tax obligation as an electric utility corporation increases a risk that customers become intolerant of future rate increase requests, creating pressure at both the political and regulatory levels. As a result, we believe the PUCT, which regulates Texas electric rates, would likely address the disconnect through regulatory measures to factor in the tax savings associated with the REIT structure. Options include restricting upstream dividend payments, increasing the authorized layer of equity in the capital structure or lowering Oncor's 10.25% authorized return on equity or return on rate base. The PUCT authorized a 9.7% return on equity in two electric rate cases it concluded in 2014.

The third amended plan calls for a significant dismantling of the strong suite of ring-fence provisions that helped insulate Oncor from its financially distressed parent and affiliate. Specifically, removing Oncor's minority investors, along with the extraordinary corporate governance rights that had been provided to them, is a material credit negative. Having Canadian pension manager Borealis Infrastructure, one of the minority investors, on Oncor's board was a principal element in our analysis of Oncor's independence and insulation from its parent.

What is Moody's Credit Outlook?

Published every Monday and Thursday morning, Moody's Credit Outlook informs our research clients of the credit implications of current events

The third risk is the leverage across the family. We estimate that $12 billion of capital will sit above Oncor at its parent holding company, in addition to its roughly $7.5 billion debt. Regardless of whether it is legally liable or not, Oncor will need to service the financing costs associated with that capital since it is the only entity within the corporate family that generates any earnings or cash flow. EFH expects the capital to be a mix of debt and equity, but has not yet determined the exact split.

Report Number: 183718

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DOCKET 45188 ATTACHMENT 3
TO OPC RFI Set No. 1
QUESTION NO. 1-04 (Oncor)

MOODY'S
INVESTORS SERVICE

ISSUER COMMENT
18 AUGUST 2015

RATINGS

Oncor Electric Delivery Company LLC

Issuer Rating	Baa1
Outlook	Positive

Moody's

KEY METRICS:

Oncor Electric Delivery Company LLC

	2014	2013	2012
CFO pre-w/c+Interest/ Interest	4.5x	4.6x	4.3x
CFO pre-w/c/ Debt	18%	21.2%	18.7
Debt/Book Capitalization	42%	41.2%	42.6%

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Oncor Electric Delivery Company, LLC

Energy Future Holdings bankruptcy emergence plans cast shadows over Oncor credit profile

Energy Future Holdings Corp.'s (EFH, unrated) most recent amended plan of reorganization and disclosure statement is credit negative for Oncor Electric Delivery Company LLC (Oncor, Baa1 positive), EFH's 80%-owned regulated transmission and distribution utility. The plan proposes spinning off Texas Competitive Energy Holdings Company LLC (TCEH, unrated), EFH's unregulated merchant power operations to its creditors, and selling a reorganized EFH to Hunt Consolidated (Hunt, unrated). Hunt plans to restructure Oncor into a real estate investment trust (REIT) and will file the appropriate applications with the Public Utility Commission of Texas (PUCT) in September. The PUCT has about six months to review this change-of-control application.

While the plan is not yet final and requires bankruptcy court approval before the PUCT considers it, we view the separation from TCEH to be credit positive for Oncor, in general. Separation from the riskier and financially distressed affiliate would eliminate any contagion risk across family. On the other hand, we also see three credit-negative risks associated with EFH's bankruptcy emergence plans: heightened regulatory contentiousness during the approval process for Oncor's conversion to a REIT structure; dismantling of existing ring-fence provisions; and the potential for higher leverage on top of Oncor as EFH emerges out of bankruptcy.

Currently, Oncor is strongly positioned within the Baa-rating category based on the constructive regulatory environment in Texas which is regulated by the PUCT with a stable stand-alone business and financial profile. The PUCT provides a broad suite of timely recovery mechanisms for prudently incurred costs and investments and Oncor's stand-alone key credit metrics are positioned strongly within the Baa-rating range.

Oncor's positive rating outlook reflects our expectation that:

- The constructive and credit supportive regulatory environment will remain unchanged
- The continued presence of a strong suite of ring fence type provisions, including the special governance rights and independent board composition remain intact
- Adequate sources of liquidity are maintained
- Oncor will continue to produce a ratio of cash flow to debt in the high-teens to low-20% range on a sustained basis

Exhibit 1

Oncor's selected historical financials show steady growth
($ in millions)

Date	Revenue	EBITDA	Interest Expense	Debt	Dividends	Assets	Equity	CAPEX	CFO Pre-W/C	(CFO Pre-W/C) / Debt	(CFO Pre W/C - Dividends) / Debt	Debt / Capitali-zation
March LTM	$3,851	$2,020	$373	$7,590	$329	$19,148	$7,517	-$1,093	$1,239	16.3%	12.0%	43.0%
2014	$3,822	$2,019	$380	$7,308	$282	$19,098	$7,518	-$1,115	$1,315	18.0%	14.1%	42.0%
2013	$3,552	$1,977	$406	$6,883	$310	$18,274	$7,409	-$1,087	$1,460	21.2%	16.7%	41.2%
2012	$3,328	$1,936	$402	$7,031	$225	$18,050	$7,304	-$1,402	$1,312	18.7%	15.5%	42.6%
2011	$3,118	$1,757	$391	$6,763	$145	$17,431	$7,181	-$1,375	$1,457	21.5%	19.4%	42.4%
2010	$2,914	$1,637	$363	$6,594	$211	$16,904	$6,987	-$1,029	$1,153	17.5%	14.3%	42.8%
2009	$2,690	$1,425	$379	$6,243	$272	$16,276	$6,847	-$1,007	$1,060	17.0%	12.6%	42.5%
2008	$2,580	$1,344	$339	$6,032	$1,583	$15,746	$6,799	-$926	$873	14.5%	-11.8%	42.3%
2007	$2,500	$1,280	$330	$5,293	$326	$15,474	$7,618	-$749	$818	15.4%	9.3%	37.1%

Source: Moody's Investors Service

Exhibit 2

Oncor's qualitative rating methodology factors scores compare favorably to its peers

Company	Actual Rating	Grid Indicated Rating	Legislative and Judicial Underpinnings of the Regulatory Framework	Consistency and Predictability of Regulation	Timeliness of Recovery of Operating and Capital Costs	Sufficiency of Rates of Returns	Market Position
NSTAR Electric Company	A2	A2	A	A	A	A	A
CenterPoint Energy Houston Electric, LLC	A3	Baa1	A	A	A	A	Baa
Texas-New Mexico Power Company	A3	A3	A	A	A	A	Ba
AEP Texas North Company	Baa1	A3	A	A	A	Baa	Baa
AEP Texas Central Company	Baa1	Baa1	A	A	A	Baa	Baa
Commonwealth Edison Company	Baa1	A3	A	A	Aa	Baa	A
Connecticut Light & Power Company	Baa1	Baa1	A	A	A	Baa	Baa
El Paso Electric Company	Baa1	Baa1	A	Baa	Baa	A	Ba
Southwestern Public Service Company	Baa1	Baa1	A	Baa	A	Baa	Ba
Southwestern Electric Power Company	Baa2	Baa1	A	Baa	Baa	Baa	Ba
Jersey Central Power & Light Company	Baa2	Baa2	A	Baa	Baa	Ba	Baa
Oncor Electric Delivery Company	Baa3*	A3	A	A	A	Baa	A
Entergy Texas, Inc.	Baa3	Baa2	A	Baa	Baa	Baa	Baa

* Implied senior unsecured rating

Source: Moody's Investors Service

EFH's third restructuring plan has been accepted by the numerous creditor groups, which we believe increases the likelihood of bankruptcy court approval. The third amended plan also eliminated one of two paths the company considered to emerge from bankruptcy when it filed its second plan on 23 July. We view EFH's preferred path for bankruptcy emergence potentially impacting several aspects of Oncor's credit profile, but the disclosure statement by itself is insufficient to impact our ratings or rating outlook.

For example, EFH's plan to convert Oncor into a real estate investment trust (REIT), will increase the risk of regulatory contentiousness during the PUCT approval process for the change in control as well as in future rate cases. A REIT structure would allow the new owner of the utility assets to reduce its tax obligations, potentially creating a disconnect between the reduced tax obligation at the corporate level as a REIT and the rate collected from the ratepayers to cover the higher tax obligations as an electric utility corporation. Unless authorized rates are modified to reflect the tax efficiencies associated with REITs, we expect customers will become more intolerant of rate increase requests, and pressure to reduce rates will build at both political and regulatory levels. As a result, we believe the PUCT, which regulates Texas electric rates, would likely address the disconnect through regulatory measures. For example, the PUCT might restrict upstream dividend payments or lower Oncor's 10.25% authorized return on equity, which is already higher than its Texas peers whose rates are also regulated by the PUCT, to factor in the tax savings with the REIT structure.

We also see a material dismantling of the strong suite of ring-fence provisions that helped insulate Oncor from its financially distressed parent and affiliate. The disclosure plan contemplates the removal of Oncor's minority investors, including the Canadian pension manager Borealis Infrastructure. The presence of Borealis at Oncor, combined with the special corporate governance rights provided to it, was a principal element in our analysis of how well Oncor would be insulated from its parent's bankruptcy. The disclosure statement reminds us that minority investors can help reduce the probability of a default, but they have very little say with respect to expected losses. That said, we see Borealis as a formidable minority investor who will vigorously defend their rights, which may help keep Oncor's existing ring fence provisions in place.

The third risk is that leverage across the family. We estimate $12 billion of capital will sit above Oncor at its parent holding company, in addition to its roughly $7.5 billion debt. Regardless of whether its legally liable or not, Oncor will need to service the financing costs associated with that capital since it is the only entity within the corporate family that generates any earnings or cash flow. EFH expects the capital to be in a mix of debt and equity, but it is unclear to determine how much of additional debt will be added to the structure at this time.

Exhibit 3
Selected utility holding company notching with operating utility
Illustrative

Holding Company	Unsecured / Issuer Rating	Primary Utility Subsidiaries	Unsecured / Issuer Rating	Notching HoldCo Debt (% Unregulated Business Difference of Consolidated In Ratings	Debt)	(% of Consolidated Earnings/Cash Flow)
DPL Inc. *	Ba3	Dayton Power & Light Company	Baa3	3	60%	<10%
ITC Holdings Corp.	Baa2	All four transcos (e.g. ITC Midwest LLC)	A3	2	55%	0%
Duquesne Light Holdings, Inc.	Baa3	Duquesne Light Company	A3	3	48%	< 10%
Dominion Resources Inc.	Baa2	Virginia Electric and Power Company / Dominion Gas Holdings, LLC	A2	3	47%	20%
NextEra Energy, Inc.	Baa1	Florida Power & Light Company	A1	3	40%	50%
Sempra Energy	Baa1	Southern California Gas Company / San Diego Electric & Gas Company	A1	3	37%	16%
The Laclede Group	Baa2	Alabama Gas Corporation / Laclede Gas Company	A2 / (P) A3	2 / 3	37%	5%
IPALCO Enterprises, Inc.	Baa3	Indianapolis Power & Light Company	Baa1	2	35%	0%
CMS Energy Corp	Baa2	Consumers Energy Company	A3**	2	34%	5%
Integrys Energy Group,, Inc.	A3	Wisconsin Public Service Corporation	A1	2	31%	<5%
Puget Energy Inc.	Baa3	Puget Sound Energy, Inc.	Baa1	2	31%	0%
Duke Energy Corporation	A3	Duke Energy Carolinas, LLC / Duke Energy Progress, Inc.	A1	2	30%	15%
TECO Energy Inc.	Baa1	Tampa Electric Power Company	A2	2	29%	<5%
FirstEnergy Corp.	Baa3	Jersey Central Power & Light Company	Baa2	1	25%	30-40%
Entergy Corporation	Baa3	Entergy Louisiana, LLC / Entergy Arkansas, Inc.	Baa1 / Baa2	1 / 2	20%	24%
Otter Tail Corp	Baa2	Otter Tail Power Company	A3	2	11%	24%
OGE Energy Corp.	A3	Oklahoma Gas & Electric Company	A1	2	7%	25%
Public Service Enterprise Group Incorporated	Baa2	Public Service Electric and Gas Company	A2	3	0%	40%

* The ultimate parent of DPL Inc. and Dayton Power & Light Company is The AES Corporation, Ba3 stable
** Consumers Energy Company only has a first mortgage bond senior secured rating of A3. Therefore, its implied senior unsecured rating would be A3

Source: Moody's

What Could Change the Rating - Up

Oncor's ratings could be upgraded with better clarity over its ultimate ownership profile and parent consolidated capital structure, including upstream requirements for cash, in the form of both dividends and tax payments or other administrative fees. On a stand-alone basis, Oncor's rating should be higher today, but is constrained by the complexities of its parent's (and affiliate) bankruptcy proceeding. As a result, ratings could be upgraded, potentially by more than 1-notch, if Oncor's parent holding company debt was eliminated, or sustantially reduced, and assuming the utility continues to produce a ratio of cash flow to debt in the high-teens and low 20% range. If high levels of parent company debt remain, but the ring fence remains intact, Oncor could be upgraded with new ownership.

What Could Change the Rating - Down

With the ring fence, on a stand-alone basis, Oncor's rating could be downgraded if Oncor's financial profile were to deteriorate, where the ratio of cash flow from operations pre-working capital (CFO pre-WC) to debt were to fall into the low to mid-teens on a sustained basis or if a contentious regulatory environment develops, impacting Oncor's timely recovery of costs and investments negatively. Given the developments we have seen out of the bankruptcy court to date, we place a very low probability of the existing ring-fencing provisions failing to insulate Oncor Still, a downgrade would be a possibility if there are any developments in the bankruptcy proceedings that would change the separateness of Oncor from its bankrupt parent. Oncor's ratings could also be pressured if there was an attempt to move Oncor into a new corporate structure, such as a REIT, where higher leverage is utilized. In the case of a REIT scenario developing, Oncor's rating could face pressure if a more contentious regulatory environment emerged, as its municipalities or other customer groups looked to reduce their rates to more accurately reflect the transfer of tax payments to the REIT shareholders.

Exhibit 4
Oncor's 3 year average financial ratios compared to selected peers

		Financial Strength		
Company	Actual Rating	CFO pre-WC / Debt (3 yr avg)	CFO pre-WC - Dividends / Debt (3 yr avg)	Debt / Capitalization (3 yr avg)
NSTAR Electric Company	A2	28.4%	20.5%	37.0%
CenterPoint Energy Houston Electric, LLC	A3	16.4%	2.6%	65.2%
Texas-New Mexico Power Company	A3	27.3%	23.2%	35.8%
AEP Texas North Company	Baa1	19.1%	14.8%	47.2%
AEP Texas Central Company	Baa1	14.0%	6.1%	59.1%
Commonwealth Edison Company	Baa1	18.1%	15.0%	37.2%
Connecticut Light & Power Company	Baa1	18.4%	14.0%	43.3%
El Paso Electric Company	Baa1	21.3%	17.7%	46.9%
Southwestern Public Service Company	Baa1	21.8%	16.5%	39.4%
Southwestern Electric Power Company	Baa2	21.9%	18.6%	42.0%
Jersey Central Power & Light Company	Baa2	14.5%	11.2%	43.2%
Oncor Electric Delivery Company	Baa3*	19.3%	15.4%	41.9%
Entergy Texas, Inc.	Baa3	19.3%	15.7%	46.8%

* Implied senior unsecured rating

Source: Moody's

STANDARD & POOR'S RATINGS SERVICES
McGRAW HILL FINANCIAL

DOCKET 45188 ATTACHMENT 4
TO OPC RFI Set No. 1
QUESTION NO. 1-04 (ONCOR)

Research

Bulletin:

Oncor Electric Delivery Co. LLC Ratings Are Not Immediately Affected By Filing To Acquire Ultimate Parent EFH

Primary Credit Analyst:
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BOSTON (Standard & Poor's) Sept. 30, 2015--Standard & Poor's Ratings Services said today that its ratings on Oncor Electric Delivery Co. LLC (Oncor) are not immediately affected by the joint filing by a group of private equity investors and Oncor with the Public Utilities Commission of Texas (PUCT) seeking approval of the acquisition of Oncor's ultimate parent, Energy Future Holdings Corp. (EFH).

The parties are proposing to retain some measure of separation between Oncor and the rest of EFH, and seek approval to convert Oncor into a real estate investment trust (REIT). Given the extensive insulation currently in place, the uncertainty surrounding the PUCT's response to the filing, and the effect on Oncor of a REIT conversion, it is premature to determine the effect of the proposed transaction on Oncor's credit quality or the developing outlook on its ratings.

We have determined, based solely on the developments described herein, that no rating actions are currently warranted. Only a rating committee may determine a rating action and, as these developments were not viewed as material to the ratings, neither they nor this report were reviewed by a rating committee.

Docket No. 45188
TIEC's RFI Set No. 2

TIEC 2-3:

Provide all documents or studies relating to whether a REIT provides a cost of capital advantage or disadvantages relative to a traditional utility structure provided to or in the possession Purchasers during the last three years.

RESPONSE

Purchasers have not identified any responsive documents.

Preparer: Counsel
Sponsor: N/A

Morningstar® Document Research℠

FORM 10-K

ONCOR ELECTRIC DELIVERY CO LLC - N/A

Filed: February 27, 2015 (period: December 31, 2014)

Annual report with a comprehensive overview of the company

(principally, the sum of long-term debt, any capital leases, short-term debt and debt due currently in accordance with US GAAP). The debt calculation excludes transition bonds issued by Bondco, but includes the unamortized fair value discount related to Bondco. Capitalization is calculated as membership interests determined in accordance with US GAAP plus indebtedness described above. At December 31, 2014, we were in compliance with this covenant with a debt-to-capitalization ratio of 0.45 to 1.00.

Impact on Liquidity of Credit Ratings — The rating agencies assign credit ratings to certain of our debt securities. Our access to capital markets and cost of debt could be directly affected by our credit ratings. Any adverse action with respect to our credit ratings could generally cause borrowing costs to increase and the potential pool of investors and funding sources to decrease. In particular, a decline in credit ratings would increase the cost of our revolving credit facility (as discussed below). In the event any adverse action with respect to our credit ratings takes place and causes borrowing costs to increase, we may not be able to recover such increased costs if they exceed our PUCT-approved cost of debt determined in our most recent rate review or subsequent rate reviews.

Most of our large suppliers and counterparties require an expected level of creditworthiness in order for them to enter into transactions with us. If our credit ratings decline, the costs to operate our business could increase because counterparties could require the posting of collateral in the form of cash-related instruments, or counterparties could decline to do business with us.

In July 2014, Moody's changed our senior secured rating to Baa1 from Baa3, which was primarily driven by its view of the stability and predictability of our regulated business and the credit protection provided by the uncontested ring-fencing provisions (see discussion in "Business" above and Note 1 to Financial Statements for information regarding our various ring-fencing measures). In April 2014, Moody's changed our rating outlook to "positive" from "stable" and S&P changed our rating outlook to "developing" from "stable" and affirmed our senior secured rating. The changes in outlook by Moody's and S&P reflect the developments related to the EFH Bankruptcy Proceedings. Oncor remains on "stable" outlook with Fitch. Presented below are the credit ratings assigned for our debt securities at February 26, 2015.

	Senior Secured
S&P	A
Moody's	Baa1
Fitch	BBB+

As described in Note 7 to Financial Statements, our long-term debt, excluding Bondco's non-recourse debt, is currently secured pursuant to the Deed of Trust by a first priority lien on certain of our transmission and distribution assets and is considered senior secured debt.

A rating reflects only the view of a rating agency, and is not a recommendation to buy, sell or hold securities. Ratings can be revised upward or downward at any time by a rating agency if such rating agency decides that circumstances warrant such a change.

Material Credit Rating Covenants — Our revolving credit facility contains terms pursuant to which the interest rates charged under the agreement may be adjusted depending on credit ratings. Borrowings under the revolving credit facility bear interest at per annum rates equal to, at our option, (i) LIBOR plus a spread ranging from 1.00% to 1.75% depending on credit ratings assigned to our senior secured non-credit enhanced long-term debt or (ii) an alternate base rate (the highest of (1) the prime rate of JPMorgan Chase, (2) the federal funds effective rate plus 0.50%, and (3) daily one-month LIBOR plus 1.00%) plus a spread ranging from 0.00% to 0.75% depending on credit ratings assigned to our senior secured non-credit enhanced long-term debt. Based on the current ratings assigned to our debt securities at February 26, 2015, our borrowings are generally LIBOR-based and will bear interest at LIBOR plus 1.125%. A decline in credit ratings would increase the cost of our revolving credit facility and likely increase the cost of any debt issuances and additional credit facilities.

Material Cross Default Provisions — Certain financing arrangements contain provisions that may result in an event of default if there was a failure under other financing arrangements to meet payment terms or to observe other covenants that could result in an acceleration of payments due. Such provisions are referred to as "cross default" provisions.

Request

State Oncor's current credit rating as measured by Moody's, Standard & Poor's, or Fitch Ratings.

Response

The following response was prepared by or under the direct supervision of David M. Davis, the sponsoring witness for this response.

At present, Oncor's senior secured debt credit ratings are:

Moody's	Baa1
Standard & Poor's	A
Fitch	BBB+

BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

Application of Northern States Power Company, a Wisconsin corporation, for Authority to Adjust Electric and Natural Gas Rates	Docket No. 4220-UR-121

SURREBUTTAL TESTIMONY OF RICHARD A. BAUDINO

Q. Please state your name and business address.

A. My name is Richard A. Baudino. My business address is J. Kennedy and Associates, Inc. ("Kennedy and Associates"), 570 Colonial Park Drive, Suite 305, Roswell, Georgia 30075.

Q. What is your occupation and by whom are you employed?

A. I am a consultant with Kennedy and Associates.

Q. Did you submit Direct and Rebuttal Testimony in this proceeding?

A. Yes. I submitted Direct and Rebuttal Testimony on behalf of the Wisconsin Industrial Energy Group, Inc. ("WIEG").

Q. What is the purpose of your Surrebuttal Testimony?

A. The purpose of my Surrebuttal Testimony is to respond to certain portions of the Rebuttal Testimony submitted by Mr. Jonathan Wallach of the Citizens Utility Board ("CUB") and by Mr. Donald Dahl of Northern States Power Company - Wisconsin ("NSPW" or "Company".

Response to CUB witness Wallach

Q. Table 2 of Mr. Wallach's Rebuttal Testimony presents his proposed allocation of the Commission Staff's revenue increase of $10.4 million, or 1.48%. What is your recommendation with respect to the revenue allocation presented in Mr. Wallach's Table 2?

A. I recommend that the Commission reject Mr. Wallach's proposed revenue allocation shown in Table 2 of his Rebuttal Testimony. According to Rebuttal-CUB-Wallach-3, Mr. Wallach developed this recommendation "based on the directional results from the five audit studies" and his modification to the Method 5 class cost of service study ("CCOSS"). Mr. Wallach's stated goal was "narrowing the difference for all classes between the allocated revenue increase and the system average increase in order to avoid rate shock for any one class."

For the reasons I stated in my Direct and Rebuttal Testimonies in this case, CCOSS Method 3 based on the 4CP is the most accurate representation of class cost responsibility in this proceeding. Staff's Methods 4 and 5 remain unsupported and should be rejected by the Commission. Mr. Wallach's recommended increase to the Large classes of 2.67% moves these classes in the wrong direction and saddles them with an unreasonable revenue increase.

Q. On Rebuttal-CUB-Wallach-6, lines 6 through 10, Mr. Wallach testified that "the fixed costs incurred for baseload or intermediate capacity over and above those incurred for peaking capacity, i.e., capitalized energy costs, are appropriately classified as energy-related…" Please respond to Mr. Wallach's position.

A. Mr. Wallach's position on this point is fundamentally flawed and should be rejected by the Commission.

Mr. Wallach has merely restated his arguments in favor of the Equivalent Peaker method from his Direct Testimony and offers nothing new in terms of support for his

position. Indeed, Mr. Wallach has presented absolutely no system planning studies that suggest that NSP invested in the additional capital costs of its intermediate and base load generating capacity for the sole purpose of achieving fuel savings. This also means that he has no support for his statement that system planners "would likely invest solely in peaking capacity if plant investment were driven solely by reliability requirements …" (Rebuttal-CUB-Wallach-5, lines 20 - 21). Lacking such support, Mr. Wallach miscast the additional capital costs of NSPW's intermediate and base load units as "capitalized energy costs." This is an incorrect characterization of NSPW's fixed production costs, which are related to peak demand requirements for the reasons I presented in my Direct and Rebuttal Testimonies.

Q. On Rebuttal-CUB-Wallach-6, line 15, Mr. Wallach testified that your concern regarding economically inefficient price signals is one of rate design, not cost allocation. Is he correct on this point?

A. No, he is quite incorrect. High load factor customers in the Large classes are harmed by the inequitable and inefficient allocation of costs inherent in the Equivalent Peaker ("EP") method endorsed by Mr. Wallach. Inefficient price signals inevitably follow from the application of the EP methodology, or any CCOSS that employs an energy-based allocation of fixed production costs. Contrary to Mr. Wallach's assertion, rate design cannot compensate for a faulty CCOSS method that assigns a disproportionate share of cost responsibility to large, higher load factor customers based on energy consumption.

Q. On Rebuttal-CUB-7, lines 20 - 23 Mr. Wallach contended that peak demands during non-summer months also contribute to annual loss of load expectation ("LOLE") and thus system requirements. Please address Mr. Wallach's point here.

A. Obviously, NSPW must have sufficient capacity available to meet the peak demands during non-summer months. Nevertheless, the Company's peak demands in the non-summer months are significantly lower than the peak demands in the four summer months. Both Mr. Marx and myself showed in our Direct Testimonies that NSPW is a strongly summer peaking utility company. The Company must have *all* of its generating capacity online during the summer in order to meet the higher summer peak demands. Lower customer demands in the non-summer months allow NSPW to take generation off-line for scheduled maintenance. This maintenance cannot be done during the summer peak period. Therefore, customer class responsibility for generation costs must be determined based on class contribution to the summer peak period and not during the off-peak period.

On Rebuttal-CUB-Wallach-8 Mr. Wallach described NSPW's diversity agreements with Manitoba Hydro. Contrary to the conclusion Mr. Wallach reached, these diversity agreements underscore the importance of NSPW having available capacity online during the summer months. Manitoba Hydro makes its capacity available to NSPW during the summer months when customer demands are at their highest. NSPW's excess capacity during the non-summer months is then available for Manitoba Hydro during the winter. Mr. Wallach's testimony about these diversity agreements actually supports a 4CP allocation of production costs to customers.

Q. Have you reviewed the Rebuttal Testimony of Mr. Dahl?

A. Yes.

Q. Please respond to Mr. Dahl's Rebuttal Testimony.

A. First, WIEG appreciates Mr. Dahl's adoption of my rate design recommendation for the Large customer classes. This recommendation was implemented on Mr. Dahl's Ex.-NSPW-Dahl-5.

Second, my understanding of Mr. Dahl's revenue allocation is that he based it on the results of CCOSS Methods 2 and 3 using the Staff's recommended revenue increase of 1.48%. Since the revenue requirement in this proceeding is not final, I recommend that the Commission scale back the class revenue increases recommended by Mr. Dahl in his Direct Testimony. I showed how this approach would work for the Large classes in my Rebuttal Testimony. Surrebuttal Table 1 presents the scale back approach for all classes based on the Company's requested increase and the increase recommended by the Staff audit (1.48%).

Surrebuttal Table 1

NSPW Revenue Allocation
Proportionate Scale Back

	Initial NSPW Class Increase	Scale Back
Residential	4.8%	1.8%
Small C&I	2.5%	0.9%
Large C&I	4.0%	1.5%
Lighting	-3.6%	-1.4%
Other	-1.0%	-0.4%
Total	3.9%	1.5%

Note that the scale back for the Large C&I classes includes no increase for RTP, as I recommended in my Direct and Rebuttal Testimonies. How the scale back affects the classes within the Large class was presented in my Rebuttal Table 2.

Q. Does this complete your Surrebuttal Testimony?

A. Yes.

RESUME OF RICHARD A. BAUDINO

EDUCATION

New Mexico State University, M.A.
Major in Economics
Minor in Statistics

New Mexico State University, B.A.
Economics
English

Thirty-two years of experience in utility ratemaking and the application of principles of economics to the regulation of electric, gas, and water utilities. Broad based experience in revenue requirement analysis, cost of capital, rate of return, cost and revenue allocation, and rate design.

REGULATORY TESTIMONY

Preparation and presentation of expert testimony in the areas of:

Cost of Capital for Electric, Gas and Water Companies
Electric, Gas, and Water Utility Cost Allocation and Rate Design
Revenue Requirements
Gas and Electric industry restructuring and competition
Fuel cost auditing
Ratemaking Treatment of Generating Plant Sale/Leasebacks

RESUME OF RICHARD A. BAUDINO

EXPERIENCE

1989 to Present: **Kennedy and Associates: Consultant** - Responsible for consulting assignments in the area of revenue requirements, rate design, cost of capital, economic analysis of generation alternatives, electric and gas industry restructuring/competition and water utility issues.

1982 to 1989: **New Mexico Public Service Commission Staff: Utility Economist** - Responsible for preparation of analysis and expert testimony in the areas of rate of return, cost allocation, rate design, finance, phase-in of electric generating plants, and sale/leaseback transactions.

CLIENTS SERVED

Regulatory Commissions

Louisiana Public Service Commission
Georgia Public Service Commission
New Mexico Public Service Commission

Other Clients and Client Groups

Ad Hoc Committee for a Competitive Electric Supply System
Air Products and Chemicals, Inc.
Arkansas Electric Energy Consumers
Arkansas Gas Consumers
AK Steel
Armco Steel Company, L.P.
Assn. of Business Advocating Tariff Equity
CF&I Steel, L.P.
Climax Molybdenum Company
Cripple Creek & Victor Gold Mining Co.
General Electric Company
Holcim (U.S.) Inc.
IBM Corporation
Industrial Energy Consumers
Kentucky Industrial Utility Consumers
Lexington-Fayette Urban County Government
Large Electric Consumers Organization
Newport Steel
Northwest Arkansas Gas Consumers
Maryland Energy Group
Occidental Chemical
PSI Industrial Group
Large Power Intervenors (Minnesota)
Tyson Foods
West Virginia Energy Users Group
The Commercial Group
Wisconsin Industrial Energy Group
South Florida Hospital and Health Care Assn.
PP&L Industrial Customer Alliance
Philadelphia Area Industrial Energy Users Gp.
West Penn Power Intervenors
Duquesne Industrial Intervenors
Met-Ed Industrial Users Gp.
Penelec Industrial Customer Alliance
Penn Power Users Group
Columbia Industrial Intervenors
U.S. Steel & Univ. of Pittsburg Medical Ctr.
Multiple Intervenors
Maine Office of Public Advocate
Missouri Office of Public Counsel
University of Massachusetts - Amherst
WCF Hospital Utility Alliance
West Travis County Public Utility Agency
Steering Committee of Cities Served by Oncor

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
10/83	1803, 1817	NM	New Mexico Public Service Commission	Southwestern Electric Coop.	Rate design.
11/84	1833	NM	New Mexico Public Service Commission Palo Verde	El Paso Electric Co.	Service contract approval, rate design, performance standards for nuclear generating system
1983	1835	NM	New Mexico Public Service Commission	Public Service Co. of NM	Rate design.
1984	1848	NM	New Mexico Public Service Commission	Sangre de Cristo Water Co.	Rate design.
02/85	1906	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
09/85	1907	NM	New Mexico Public Service Commission	Jornada Water Co.	Rate of return.
11/85	1957	NM	New Mexico Public Service Commission	Southwestern Public Service Co.	Rate of return.
04/86	2009	NM	New Mexico Public Service Commission	El Paso Electric Co.	Phase-in plan, treatment of sale/leaseback expense.
06/86	2032	NM	New Mexico Public Service Commission	El Paso Electric Co.	Sale/leaseback approval.
09/86	2033	NM	New Mexico Public Service Commission	El Paso Electric Co.	Order to show cause, PVNGS audit.
02/87	2074	NM	New Mexico Public Service Commission	El Paso Electric Co.	Diversification.
05/87	2089	NM	New Mexico Public Service Commission	El Paso Electric Co.	Fuel factor adjustment.
08/87	2092	NM	New Mexico Public Service Commission	El Paso Electric Co.	Rate design.
10/87	2146	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Financial effects of restructuring, reorganization.
07/88	2162	NM	New Mexico Public Service Commission	El Paso Electric Co.	Revenue requirements, rate design, rate of return.

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As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
01/89	2194	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Economic development.
1/89	2253	NM	New Mexico Public Service Commission	Plains Electric G&T Cooperative	Financing.
08/89	2259	NM	New Mexico Public Service Commission	Homestead Water Co.	Rate of return, rate design.
10/89	2262	NM	New Mexico Public Service Commission	Public Service Co. of New Mexico	Rate of return.
09/89	2269	NM	New Mexico Public Service Commission	Ruidoso Natural Gas Co.	Rate of return, expense from affiliated interest.
12/89	89-208-TF	AR	Arkansas Electric Energy Consumers	Arkansas Power & Light Co.	Rider M-33.
01/90	U-17282	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
09/90	90-158	KY	Kentucky Industrial Utility Consumers	Louisville Gas & Electric Co.	Cost of equity.
09/90	90-004-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Cost of equity, transportation rate.
12/90	U-17282 Phase IV	LA	Louisiana Public Service Commission	Gulf States Utilities	Cost of equity.
04/91	91-037-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Transportation rates.
12/91	91-410-EL-AIR	OH	Air Products & Chemicals, Inc., Armco Steel Co., General Electric Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Cost of equity.
05/92	910890-EI	FL	Occidental Chemical Corp.	Florida Power Corp.	Cost of equity, rate of return.
09/92	92-032-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost of equity, rate of return, cost-of-service.
09/92	39314	ID	Industrial Consumers for Fair Utility Rates	Indiana Michigan Power Co.	Cost of equity, rate of return.

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Date	Case	Jurisdict.	Party	Utility	Subject
09/92	92-009-U	AR	Tyson Foods	General Waterworks	Cost allocation, rate design.
01/93	92-346	KY	Newport Steel Co.	Union Light, Heat & Power Co.	Cost allocation.
01/93	39498	IN	PSI Industrial Group	PSI Energy	Refund allocation.
01/93	U-10105	MI	Association of Businesses Advocating Tariff Equality (ABATE)	Michigan Consolidated Gas Co.	Return on equity.
04/93	92-1464-EL-AIR	OH	Air Products and Chemicals, Inc., Armco Steel Co., Industrial Energy Consumers	Cincinnati Gas & Electric Co.	Return on equity.
09/93	93-189-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Transportation service terms and conditions.
09/93	93-081-U	AR	Arkansas Gas Consumers	Arkansas Louisiana Gas Co.	Cost-of-service, transportation rates, rate supplements; return on equity; revenue requirements.
12/93	U-17735	LA	Louisiana Public Service Commission Staff	Cajun Electric Power Cooperative	Historical reviews; evaluation of economic studies.
03/94	10320	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric Co.	Trimble County CWIP revenue refund.
4/94	E-015/ GR-94-001	MN	Large Power Intervenors	Minnesota Power Co.	Evaluation of the cost of equity, capital structure, and rate of return.
5/94	R-00942993	PA	PG&W Industrial Intervenors	Pennsylvania Gas & Water Co.	Analysis of recovery of transition costs.
5/94	R-00943001	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania charge proposals.	Evaluation of cost allocation, rate design, rate plan, and carrying
7/94	R-00942986	PA	Armco, Inc., West Penn Power Industrial Intervenors	West Penn Power Co.	Return on equity and rate of return.
7/94	94-0035-E-42T	WV	West Virginia Energy Users' Group	Monongahela Power Co.	Return on equity and rate of return.

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Date	Case	Jurisdict.	Party	Utility	Subject
8/94	8652	MD	Westvaco Corp. Co.	Potomac Edison	Return on equity and rate of return.
9/94	930357-C	AR	West Central Arkansas Gas Consumers	Arkansas Oklahoma Gas Corp.	Evaluation of transportation service.
9/94	U-19904	LA	Louisiana Public Service Commission	Gulf States Utilities	Return on equity.
9/94	8629	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Transition costs.
11/94	94-175-U	AR	Arkansas Gas Consumers	Arkla, Inc.	Cost-of-service, rate design, rate of return.
3/95	RP94-343-000	FERC	Arkansas Gas Consumers	NorAm Gas Transmission	Rate of return.
4/95	R-00943271	PA	PP&L Industrial Customer Alliance	Pennsylvania Power & Light Co.	Return on equity.
6/95	U-10755	MI	Association of Businesses Advocating Tariff Equity	Consumers Power Co.	Revenue requirements.
7/95	8697	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Cost allocation and rate design.
8/95	95-254-TF U-2811	AR	Tyson Foods, Inc.	Southwest Arkansas Electric Cooperative	Refund allocation.
10/95	ER95-1042 -000	FERC	Louisiana Public Service Commission	Systems Energy Resources, Inc.	Return on Equity.
11/95	I-940032	PA	Industrial Energy Consumers of Pennsylvania	State-wide - all utilities	Investigation into Electric Power Competition.
5/96	96-030-U	AR	Northwest Arkansas Gas Consumers	Arkansas Western Gas Co.	Revenue requirements, rate of return and cost of service.
7/96	8725	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.,Potomac Electric Power Co. and Constellation Energy Corp.	Return on Equity.
7/96	U-21496	LA	Louisiana Public Service Commission	Central Louisiana Electric Co.	Return on equity, rate of return.
9/96	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.

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Date	Case	Jurisdict.	Party	Utility	Subject
1/97	RP96-199-000	FERC	The Industrial Gas Users Conference	Mississippi River Transmission Corp.	Revenue requirements, rate of return and cost of service.
3/97	96-420-U	AR	West Central Arkansas Gas Corp.	Arkansas Oklahoma Gas Corp.	Revenue requirements, rate of return, cost of service and rate design.
7/97	U-11220	MI	Association of Business Advocating Tariff Equity	Michigan Gas Co. and Southeastern Michigan Gas Co.	Transportation Balancing Provisions.
7/97	R-00973944	PA	Pennsylvania American Water Large Users Group	Pennsylvania-American Water Co.	Rate of return, cost of service, revenue requirements.
3/98	8390-U	GA	Georgia Natural Gas Group and the Georgia Textile Manufacturers Assoc.	Atlanta Gas Light	Rate of return, restructuring issues, unbundling, rate design issues.
7/98	R-00984280	PA	PG Energy, Inc. Intervenors	PGE Industrial	Cost allocation.
8/98	U-17735	LA	Louisiana Public Service Commission	Cajun Electric Power Cooperative	Revenue requirements.
10/98	97-596	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric Co.	Return on equity, rate of return.
10/98	U-23327	LA	Louisiana Public Service Commission	SWEPCO, CSW and AEP	Analysis of proposed merger.
12/98	98-577	ME	Maine Office of the Public Advocate	Maine Public Service Co.	Return on equity, rate of return.
12/98	U-23358	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity, rate of return.
3/99	98-426	KY	Kentucky Industrial Utility Customers, Inc.	Louisville Gas and Electric Co	Return on equity.
3/99	99-082	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Utilities Co.	Return on equity.
4/99	R-984554	PA	T. W. Phillips Users Group	T. W. Phillips Gas and Oil Co.	Allocation of purchased gas costs.
6/99	R-0099462	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Balancing charges.
10/99	U-24182	LA	Louisiana Public Service Commission	Entergy Gulf States,Inc.	Cost of debt.

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Date	Case	Jurisdict.	Party	Utility	Subject
10/99	R-00994782	PA	Peoples Industrial Intervenors	Peoples Natural Gas Co.	Restructuring issues.
10/99	R-00994781	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Restructuring, balancing charges, rate flexing, alternate fuel.
01/00	R-00994786	PA	UGI Industrial Intervenors	UGI Utilities, Inc.	Universal service costs, balancing, penalty charges, capacity Assignment.
01/00	8829	MD & United States	Maryland Industrial Gr.	Baltimore Gas & Electric Co.	Revenue requirements, cost allocation, rate design.
02/00	R-00994788	PA	Penn Fuel Transportation	PFG Gas, Inc., and	Tariff charges, balancing provisions.
05/00	U-17735	LA	Louisiana Public Service Comm.	Louisiana Electric Cooperative	Rate restructuring.
07/00	2000-080	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric Co.	Cost allocation.
07/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket E)	LA	Louisiana Public Service Commission	Southwestern Electric Power Co.	Stranded cost analysis.
09/00	R-00005654	PA	Philadelphia Industrial And Commercial Gas Users Group.	Philadelphia Gas Works	Interim relief analysis.
10/00	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring, Business Separation Plan.
11/00	R-00005277 (Rebuttal)	PA	Penn Fuel Transportation Customers	PFG Gas, Inc. and North Penn Gas Co.	Cost allocation issues.
12/00	U-24993	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/01	U-22092	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Stranded cost analysis.
04/01	U-21453 U-20925 (SC), U-22092 (SC) (Subdocket B) (Addressing Contested Issues)	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Restructuring issues.
04/01	R-00006042	PA	Philadelphia Industrial and Commercial Gas Users Group	Philadelphia Gas Works	Revenue requirements, cost allocation and tariff issues.

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Richard A. Baudino
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Date	Case	Jurisdict.	Party	Utility	Subject
11/01	U-25687	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
03/02	14311-U	GA	Georgia Public Service Commission	Atlanta Gas Light	Capital structure.
08/02	2002-00145	KY	Kentucky Industrial Utility Customers	Columbia Gas of Kentucky	Revenue requirements.
09/02	M-00021612	PA	Philadelphia Industrial And Commercial Gas Users Group	Philadelphia Gas Works	Transportation rates, terms, and conditions.
01/03	2002-00169	KY	Kentucky Industrial Utility Customers	Kentucky Power	Return on equity.
02/03	02S-594E	CO	Cripple Creek & Victor Gold Mining Company	Aquila Networks – WPC	Return on equity.
04/03	U-26527	LA	Louisiana Public Service Commission	Entergy Gulf States, Inc.	Return on equity.
10/03	CV020495AB	GA	The Landings Assn., Inc.	Utilities Inc. of GA	Revenue requirement & overcharge refund
03/04	2003-00433	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric	Return on equity, Cost allocation & rate design
03/04	2003-00434	KY	Kentucky Industrial Utility Customers	Kentucky Utilities	Return on equity
4/04	04S-035E	CO	Cripple Creek & Victor Gold Mining Company, Goodrich Corp., Holcim (U.S.) Inc., and The Trane Co.	Aquila Networks – WPC	Return on equity.
9/04	U-23327, Subdocket B	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Fuel cost review
10/04	U-23327 Subdocket A	LA	Louisiana Public Service Commission	Southwestern Electric Power Company	Return on Equity
06/05	050045-EI	FL	South Florida Hospital and HeallthCare Assoc.	Florida Power & Light Co.	Return on equity
08/05	9036	MD	Maryland Industrial Group	Baltimore Gas & Electric Co.	Revenue requirement, cost allocation, rate design, Tariff issues.
01/06	2005-0034	KY	Kentucky Industrial Utility Customers, Inc.	Kentucky Power Co.	Return on equity.

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Richard A. Baudino
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Date	Case	Jurisdict.	Party	Utility	Subject
03/06	05-1278-E-PC-PW-42T	WV	West Virginia Energy Users Group	Appalachian Power Company	Return on equity.
04/06	U-25116 Commission	LA	Louisiana Public Service	Entergy Louisiana, LLC	Transmission Issues
07/06	U-23327 Commission	LA	Louisiana Public Service	Southwestern Electric Power Company	Return on equity, Service quality
08/06	ER-2006-0314	MO	Missouri Office of the Public Counsel	Kansas City Power & Light Co.	Return on equity, Weighted cost of capital
08/06	06S-234EG	CO	CF&I Steel, L.P. & Climax Molybdenum	Public Service Company of Colorado	Return on equity, Weighted cost of capital
01/07	06-0960-E-42T Users Group	WV	West Virginia Energy	Monongahela Power & Potomac Edison	Return on Equity
01/07	43112	AK	AK Steel, Inc.	Vectren South, Inc.	Cost allocation, rate design
05/07	2006-661	ME	Maine Office of the Public Advocate	Bangor Hydro-Electric	Return on equity, weighted cost of capital.
09/07	07-07-01	CT	Connecticut Industrial Energy Consumers	Connecticut Light & Power	Return on equity, weighted cost of capital
10/07	05-UR-103	WI	Wisconsin Industrial Energy Group, Inc.	Wisconsin Electric Power Co.	Return on equity
11/07	29797	LA	Louisiana Public Service Commission	Cleco Power :LLC & Southwestern Electric Power	Lignite Pricing, support of settlement
01/08	07-551-EL-AIR	OH	Ohio Energy Group	Ohio Edison, Cleveland Electric, Toledo Edison	Return on equity
03/08	07-0585, 07-0585, 07-0587, 07-0588, 07-0589, 07-0590, (consol.)	IL	The Commercial Group	Ameren	Cost allocation, rate design
04/08	07-0566	IL	The Commercial Group	Commonwealth Edison	Cost allocation, rate design
06/08	R-2008-2011621	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Cost and revenue allocation, Tariff issues
07/08	R-2008-2028394	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy	Cost and revenue allocation, Tariff issues

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Date	Case	Jurisdict.	Party	Utility	Subject
07/08	R-2008-2039634	PA	PPL Gas Large Users Group	PPL Gas	Retainage, LUFG Pct.
08/08	6680-UR-116	WI	Wisconsin Industrial Energy Group	Wisconsin P&L	Cost of Equity
08/08	6690-UR-119	WI	Wisconsin Industrial Energy Group	Wisconsin PS	Cost of Equity
09/08	ER-2008-0318	MO	The Commercial Group	AmerenUE	Cost and revenue allocation
10/08	R-2008-2029325	PA	U.S. Steel & Univ. of Pittsburgh Med. Ctr.	Equitable Gas Co.	Cost and revenue allocation
10/08	08-G-0609	NY	Multiple Intervenors	Niagara Mohawk Power	Cost and Revenue allocation
12/08	27800-U	GA	Georgia Public Service Commission	Georgia Power Company	CWIP/AFUDC issues, Review financial projections
03/09	ER08-1056	FERC	Louisiana Public Service Commission	Entergy Services, Inc.	Capital Structure
04/09	E002/GR-08-1065	MN	The Commercial Group	Northern States Power	Cost and revenue allocation and rate design
05/09	08-0532	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation
07/09	080677-EI	FL	South Florida Hospital and Health Care Association	Florida Power & Light	Cost of equity, capital structure, Cost of short-term debt
07/09	U-30975	LA	Louisiana Public Service Commission	Cleco LLC, Southwestern Public Service Co.	Lignite mine purchase
10/09	4220-UR-116	WI	Wisconsin Industrial Energy Group	Northern States Power	Class cost of service, rate design
10/09	M-2009-2123945	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Smart Meter Plan cost allocation
10/09	M-2009-2123944	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Company	Smart Meter Plan cost allocation
10/09	M-2009-2123951	PA	West Penn Power Industrial Intervenors	West Penn Power	Smart Meter Plan cost allocation
11/09	M-2009-2123948	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Smart Meter Plan cost allocation
11/09	M-2009-2123950	PA	Met-Ed Industrial Users Group Penelec Industrial Customer Alliance, Penn Power Users Group	Metropolitan Edison, Pennsylvania Electric Co., Pennsylvania Power Co.	Smart Meter Plan cost allocation

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Date	Case	Jurisdict.	Party	Utility	Subject
03/10	09-1352-	WV E-42T	West Virginia Energy Users Group	Monongahela Power	Return on equity, rate of return Potomac Edison
03/10	E015/GR-09-1151	MN	Large Power Intervenors	Minnesota Power	Return on equity, rate of return
04/10	2009-00459	KY	Kentucky Industrial Utility Consumers	Kentucky Power	Return on equity
04/10	2009-00548 2009-00549	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
05/10	10-0261-E-GI	WV	West Virginia Energy Users Group	Appalachian Power Co./ Wheeling Power Co.	EE/DR Cost Recovery, Allocation, & Rate Design
05/10	R-2009-2149262	PA	Columbia Industrial Intervenors	Columbia Gas of PA	Class cost of service & cost allocation
06/10	2010-00036	KY	Lexington-Fayette Urban County Government	Kentucky American Water Company	Return on equity, rate of return, revenue requirements
06/10	R-2010-2161694	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities	Rate design, cost allocation
07/10	R-2010-2161575	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Return on equity
07/10	R-2010-2161592	PA	Philadelphia Area Industrial Energy Users Group	PECO Energy Co.	Cost and revenue allocation
07/10	9230	MD	Maryland Energy Group	Baltimore Gas and Electric	Electric and gas cost and revenue allocation; return on equity
09/10	10-70	MA	University of Massachusetts-Amherst	Western Massachusetts Electric Co.	Cost allocation and rate design
10/10	R-2010-2179522	PA	Duquesne Industrial Intervenors	Duquesne Light Company	Cost and revenue allocation, rate design
11/10	P-2010-2158084	PA	West Penn Power Industrial Intervenors	West Penn Power Co.	Transmission rate design
11/10	10-0699-E-42T	WV	West Virginia Energy Users Group	Appalachian Power Co. & Wheeling Power Co.	Return on equity, rate of Return
11/10	10-0467	IL	The Commercial Group	Commonwealth Edison	Cost and revenue allocation and rate design
04/11	R-2010-2214415	PA	Central Pen Gas Large Users Group	UGI Central Penn Gas, Inc.	Tariff issues, revenue allocation
07/11	R-2011-2239263	PA	Philadelphia Area Energy Users Group	PECO Energy	Retainage rate

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Date	Case	Jurisdict.	Party	Utility	Subject
08/11	R-2011-2232243	PA	AK Steel	Pennsylvania-American Water Company	Rate Design
08/11	11AL-151G	CO	Climax Molybdenum	PS of Colorado	Cost allocation
09/11	11-G-0280	NY	Multiple Intervenors	Corning Natural Gas Co.	Cost and revenue allocation
10/11	4220-UR-117	WI	Wisconsin Industrial Energy Group	Northern States Power	Cost and revenue allocation, rate design
02/12	11AL-947E	CO	Climax Molybdenum, CF&I Steel	Public Service Company of Colorado	Return on equity, weighted cost of capital
07/12	120015-EI	FL	South Florida Hospitals and Health Care Association	Florida Power and Light Co,	Return on equity, weighted cost of capital
07/12	12-0613-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal for Century Aluminum
07/12	R-2012-2290597	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities Corp.	Cost allocation
09/12	05-UR-106	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Class cost of service, cost and revenue allocation, rate design
09/12	2012-00221 2012-00222	KY	Kentucky Industrial Utility Consumers	Louisville Gas and Electric, Kentucky Utilities	Return on equity.
10/12	9299	MD	Maryland Energy Group	Baltimore Gas & Electric	Cost and revenue allocation, rate design Cost of equity, weighted cost of capital
10/12	4220-UR-118	WI	Wisconsin Industrial Energy Group	Northern States Power Company	Class cost of service, cost and revenue allocation, rate design
10/12	473-13-0199	TX	Steering Committee of Cities Served by Oncor	Cross Texas Transmission, LLC	Return on equity, capital structure
01/13	R-2012-2321748 et al.	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation
02/13	12AL-1052E	CO	Cripple Creek & Victor Gold Mining, Holcim (US) Inc.	Black Hills/Colorado Electric Utility Company	Cost and revenue allocations
06/13	8009	VT	IBM Corporation	Vermont Gas Systems	Cost and revenue allocation, rate design
07/13	130040-EI	FL	WCF Hospital Utility Alliance	Tampa Electric Co.	Return on equity, rate of return
08/13	9326	MD	Maryland Energy Group	Baltimore Gas and Electric	Cost and revenue allocation, rate design, special rider

Expert Testimony Appearances
of
Richard A. Baudino
As of October 2015

Date	Case	Jurisdict.	Party	Utility	Subject
08/13	P-2012-2325034	PA	PP&L Industrial Customer Alliance	PPL Electric Utilities, Corp.	Distribution System Improvement Charge
09/13	4220-UR-119	WI	Wisconsin Industrial Energy Group	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design
11/13	13-1325-E-PC	WV	West Virginia Energy Users Group	American Electric Power/APCo	Special rate proposal, Felman Production
06/14	R-2014-2406274	PA	Columbia Industrial Intervenors	Columbia Gas of Pennsylvania	Cost and revenue allocation, rate design
08/14	05-UR-107	WI	Wisconsin Industrial Energy Group	Wisconsin Electric Power Co.	Cost and revenue allocation, rate design
10/14	ER13-1508 et al.	FERC	Louisiana Public Service Comm.	Entergy Services, Inc.	Return on equity
11/14	14AL-0660E	CO	Climax Molybdenum Co. and CFI Steel, LP	Public Service Co. of Colorado	Return on equity, weighted cost of capital
11/14	R-2014-2428742	PA	AK Steel	West Penn Power Company	Cost and revenue allocation
12/14	42866	TX	West Travis Co. Public Utility Agency	Travis County Municipal Utility District No. 12	Response to complain of monopoly power
3/15	2014-00371 2014-00372	KY	Kentucky Industrial Utility Customers	Louisville Gas & Electric, Kentucky Utilities	Return on equity, cost of debt, weighted cost of capital
3/15	2014-00396	KY	Kentucky Industrial Utility Customers	Kentucky Power Co.	Return on equity, weighted cost of capital
6/15	15-0003-G-42T	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Cost and revenue allocation, Infrastructure Replacement Program
8/15	44746	TX	Steering Committee of Cities Served by Oncor	Wind Energy Transmission Texas, LLC	Return on equity, capital structure, weighted cost of capital
9/15	15-0676-W-42T	WV	West Virginia Energy Users Gp.	West Virginia-American Water Company	Appropriate test year, Historical vs. Future
9/15	15-1256-G-390P	WV	West Virginia Energy Users Gp.	Mountaineer Gas Co.	Rate design for Infrastructure Replacement and Expansion Program
10/15	4220-UR-121	WI	Wisconsin Industrial Energy Gp.	Northern States Power Co.	Class cost of service, cost and revenue allocation, rate design

Docket No. 4220-UR-121

ELECTRIC UTILITY COST ALLOCATION MANUAL

NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

January, 1992

PREFACE

This project was jointly assigned to the NARUC Staff Subcommittees on Electricity and Economics in February, 1985. Jack Doran, at the California PUC had led a task force in 1969 that wrote the original **Cost Allocation Manual**; the famous "Green Book". I was asked to put together a task force to revise it and include a Marginal Cost section.

I knew little about the subject and was not sure what I was getting into so I asked Jack how he had gone about drafting the first book. "Oh" he said, "There wasn't much to it. We each wrote a chapter and then exchanged them and rewrote them." What Jack did not tell me was that like most NARUC projects, the work was done after five o'clock and on weekends because the regular work always takes precedence. It is a good thing we did not realize how big a task we were tackling or we might never have started.

There was great interest in the project so when I asked for volunteers, I got plenty. We split into two working groups; embedded cost and marginal cost. Joe Jenkins from the Florida PSC headed up the Embedded Cost Working Group and Sarah Voll from the New Hampshire PUC took the Marginal Cost Working Group. We followed Jack's suggestions but, right from the beginning, we realized that once the chapters were technically correct, we would need a single editor to cast them all "into one hand" as Joe Jenkins put it. Steven Mintz from the Department of Energy volunteered for this task and has devoted tremendous effort to polishing the book into the final product you hold in your hands. Victoria Jow at the California PUC took Steven's final draft and desktop published the entire document using Ventura Publisher.

We set the following objectives for the manual:

- It should be simple enough to be used as a primer on the subject for new employees yet offer enough substance for experienced witnesses.
- It must be comprehensive yet fit in one volume.
- The writing style should be non-judgmental; not advocating any one particular method but trying to include all currently used methods with pros and cons.

It is with extreme gratitude that I acknowledge the energy and dedication contributed by the following task force members over the last five years.

Steven Mintz, Department of Energy, Editor; Joe Jenkins, Florida PSC, Leader, Embedded Cost Working Group; Sarah Voll, New Hampshire PUC, Leader, Marginal Cost Working Group; Victoria Jow, California PUC; John A. Anderson, ELCON; Jess Galura, Sacramento MUD; Chris Danforth, California PUC; Alfred Escamilla, Southern California Edison; Byron Harris, West Virginia CAD; Steve Houle, Texas Utility Electric Co.; Kevin Kelly, formally NRRI; Larry Klapow California PUC; Jim Ketter P.E., Missouri PSC; Ed Lucero, Price Waterhouse; J. Robert Malko, Utah State University; George McCluskey, New Hampshire PUC; Marge Meeter, Florida PSC; Gordon Murdock, The FERC; Dennis Nightingale, North Carolina UC; John Orecchio, The FERC; Carl Silsbee, Southern California Edison; Ben Turner, North Carolina UC; Dr. George Parkins, Colorado PUC; Warren Wendling, Colorado PUC; Schef Wright, formally Florida PSC; **IN MEMORIAL** Bob Kennedy Jr., Arkansas PSC.

Julian Ajello
California PUC

CHAPTER 6

CLASSIFICATION AND ALLOCATION OF DISTRIBUTION PLANT

Distribution plant equipment reduces high-voltage energy from the transmission system to lower voltages, delivers it to the customer and monitors the amounts of energy used by the customer.

Distribution facilities provide service at two voltage levels: primary and secondary. Primary voltages exist between the substation power transformer and smaller line transformers at the customer's points of service. These voltages vary from system to system and usually range between 480 volts to 35 KV. In the last few years, advances in equipment and cable technology have permitted the use of higher primary distribution voltages. Primary voltages are reduced to more usable secondary voltages by smaller line transformers installed at customer locations along the primary distribution circuit. However, some large industrial customers may choose to install their own line transformers and take service at primary voltages because of their large electrical requirements.

In some cases, the utility may choose to install a transformer for the exclusive use of a single commercial or industrial customer. On the other hand, in service areas with high customer density, such as housing tracts, a line transformer will be installed to serve many customers. In this case, secondary voltage lines run from pole-to-pole or from handhole-to-handhole, and each customer is served by a drop tapped off the secondary line leading directly to the customer's premise.

I. COST ACCOUNTING FOR DISTRIBUTION PLANT AND EXPENSES

The Federal Energy Regulatory Commission (FERC) Uniform System of Accounts requires separate accounts for distribution investment and expenses. Distribution plant accounts are summarized and classified in Table 6-1. Distribution expense accounts are summarized and classified in Table 6-2. Some utilities may choose to establish subaccounts for more detailed cost reporting.

TABLE 6-1

CLASSIFICATION OF DISTRIBUTION PLANT[1]

FERC Uniform System of Accounts No.	Description	Demand Related	Customer Related
	Distribution Plant [2]		
360	Land & Land Rights	X	X
361	Structures & Improvements	X	X
362	Station Equipment	X	-
363	Storage Battery Equipment	X	-
364	Poles, Towers, & Fixtures	X	X
365	Overhead Conductors & Devices	X	X
366	Underground Conduit	X	X
367	Underground Conductors & Devices	X	X
368	Line Transformers	X	X
369	Services	-	X
370	Meters	-	X
371	Installations on Customer Premises	-	X
372	Leased Property on Customer Premises	-	X
373	Street Lighting & Signal Systems [1]	-	-

[1]Assignment or "exclusive use" costs are assigned directly to the customer class or group which exclusively uses such facilities. The remaining costs are then classified to the respective cost components.

[2]The amounts between classification may vary considerably. A study of the minimum intercept method or other appropriate methods should be made to determine the relationships between the demand and customer components.

TABLE 6-2

CLASSIFICATION OF DISTRIBUTION EXPENSES[1]

FERC Uniform System of Accounts No.	Description	Demand Related	Customer Related
	Operation [2]		
580	Operation Supervision & Engineering	X	X
581	Load Dispatching	X	-
582	Station Expenses	X	-
583	Overhead Line Expenses	X	X
584	Underground Line Expenses	X	X
585	Street Lighting & Signal System Expenses [1]	-	-
586	Meter Expenses	-	X
587	Customer Installation Expenses	-	X
588	Miscellaneous Distribution Expenses	X	X
589	Rents	X	X
	Maintenance [2]		
590	Maintenance Supervision & Engineering	X	X
591	Maintenance of Structures	X	X
592	Maintenance of Station Equipment	X	-
593	Maintenance of Overhead Lines	X	X
594	Maintenance of Underground Lines	X	X
595	Maintenance of Line Transformers	X	X
596	Maint. of Street Lighting & Signal Systems [1]	-	-
597	Maintenance of Meters	-	X
598	Maint. of Miscellaneous Distribution Plants	X	X

[1]Direct assignment or "exclusive use" costs are assigned directly to the customer class or group which exclusively uses such facilities. The remaining costs are then classified to the respective cost components.

[2]The amounts between classifications may vary considerably. A study of the minimum intercept method or other appropriate methods should be made to determine the relationships between the demand and customer components.

To ensure that costs are properly allocated, the analyst must first classify each account as demand-related, customer-related, or a combination of both. The classification depends upon the analyst's evaluation of how the costs in these accounts were incurred. In making this determination, supporting data may be more important than theoretical considerations.

Allocating costs to the appropriate groups in a cost study requires a special analysis of the nature of distribution plant and expenses. This will ensure that costs are assigned to the correct functional groups for classification and allocation. As indicated in Chapter 4, all costs of service can be identified as energy-related, demand-related, or customer-related. Because there is no energy component of distribution-related costs, we need consider only the demand and customer components.

To recognize voltage level and use of facilities in the functionalization of distribution costs, distribution line costs must be separated into overhead and underground, and primary and secondary voltage classifications. A typical functionalization and classification of distribution plant would appear as follows:

Substations:		Demand
Distribution:	Overhead Primary	
		Demand
		Customer
	Overhead Secondary	
		Demand
		Customer
	Underground Primary	
		Demand
		Customer
	Underground Secondary	
		Demand
		Customer
	Line Transformers	
		Demand
		Customer
Services:	Overhead	
		Demand
		Customer
	Underground	
		Demand
		Customer
Meters:		Customer
Street Lighting:		Customer
Customer Accounting:		Customer
Sales:		Customer

From this breakdown it can be seen that each distribution account must be analyzed before it can be assigned to the appropriate functional category. Also, these accounts must be classified as demand-related, customer-related, or both. Some utilities assign distribution to customer-related expenses. Variations in the demands of various customer groups are used to develop the weighting factors for allocating costs to the appropriate group.

II. DEMAND AND CUSTOMER CLASSIFICATIONS 0F DISTRIBUTION PLANT ACCOUNTS

When the utility installs distribution plant to provide service to a customer and to meet the individual customer's peak demand requirements, the utility must classify distribution plant data separately into demand- and customer-related costs.

Classifying distribution plant as a demand cost assigns investment of that plant to a customer or group of customers based upon its contribution to some total peak load. The reason is that costs are incurred to serve area load, rather than a specific number of customers.

Distribution substations costs (which include Accounts 360 -Land and Land Rights, 361 - Structures and Improvements, and 362 -Station Equipment), are normally classified as demand-related. This classification is adopted because substations are normally built to serve a particular load and their size is not affected by the number of customers to be served.

Distribution plant Accounts 364 through 370 involve demand and customer costs. The customer component of distribution facilities is that portion of costs which varies with the number of customers. Thus, the number of poles, conductors, transformers, services, and meters are directly related to the number of customers on the utility's system. As shown in Table 6-1, each primary plant account can be separately classified into a demand and customer component. Two methods are used to determine the demand and customer components of distribution facilities. They are, the minimum-size-of-facilities method, and the minimum-intercept cost (zero-intercept or positive-intercept cost, as applicable) of facilities.

A. The Minimum-Size Method

Classifying distribution plant with the minimum-size method assumes that a minimum size distribution system can be built to serve the minimum loading requirements of the customer. The minimum-size method involves determining the minimum size pole, conductor, cable, transformer, and service that is currently installed by the utility. Normally, the average book cost for each piece of equipment determines

the price of all installed units. Once determined for each primary plant account, the minimum size distribution system is classified as customer-related costs. The demand-related costs for each account are the difference between the total investment in the account and customer-related costs. Comparative studies between the minimum-size and other methods show that it generally produces a larger customer component than the zero-intercept method (to be discussed). The following describes the methodologies for determining the minimum size for distribution plant Accounts 364, 365, 366, 367, 368, and 369.

1. **Account 364 - Poles, Towers, and Fixtures**

   - Determine the average installed book cost of the minimum height pole currently being installed.
   - Multiply the average book cost by the number of poles to find the customer component. Balance of plant account is the demand component.

2. **Account 365 - Overhead Conductors and Devices**

   - Determine minimum size conductor currently being installed.
   - Multiply average installed book cost per mile of minimum size conductor by the number of circuit miles to determine the customer component. Balance of plant account is demand component. (Note: two conductors in minimum system.)

3. **Accounts 366 and 367 - Underground Conduits, Conductors, and Devices**

   - Determine minimum size cable currently being installed.
   - Multiply average installed book cost per mile of minimum size cable by the circuit miles to determine the customer component. Balance of plant Account 367 is demand component. (Note: one cable with ground sheath is minimum system.) Account 366 conduit is assigned, basedon ratio of cable account.
   - Multiply average installed book cost of minimum size transformer by number of transformers in plant account to determine the customer component. Balance of plant account is demand component.

4. **Account 368 - Line Transformers**

   - Determine minimum size transformer currently being installed.

- Multiply average installed book cost of minimum size transformer by number of transformers in plant account to determine the customer component.

5. **Account 369 - Services**

   - Determine minimum size and average length of services currently being installed.
   - Estimate cost of minimum size service and multiply by number of services to get customer component.
   - If overhead and underground services are booked separately, they should be handled separately. Most companies do not book service by size. This requires an engineering estimate of the cost of the minimum size, average length service. The resultant estimate is usually higher than the average book cost. In addition, the estimate should be adjusted for the average age of service, using a trend factor.

B. The Minimum-Intercept Method

The minimum-intercept method seeks to identify that portion of plant related to a hypothetical no-load or zero-intercept situation. This requires considerably more data and calculation than the minimum-size method. In most instances, it is more accurate, although the differences may be relatively small. The technique is to relate installed cost to current carrying capacity or demand rating, create a curve for various sizes of the equipment involved, using regression techniques, and extend the curve to a no-load intercept. The cost related to the zero-intercept is the customer component. The following describes the methodologies for determining the minimum intercept for distribution-plant Accounts 364, 365, 366, 367, and 368.

1. **Account 364 - Poles, Towers, and Fixtures**

   - Determine the number, investment, and average installed book cost of distribution poles by height and class of pole. (Exclude stubs for guying.)
   - Determine minimum intercept of pole cost by creating a regression equation, relating classes and heights of poles, and using the Class 7 cost intercept for each pole of equal height weighted by the number of poles in each height category.
   - Multiply minimum intercept cost by total number of distribution poles to get customer component.

- Balance of pole investment is assigned to demand component.

- Total account dollars are assigned based on ratio of pole investment. (Transformer platforms in Account 364 are all demand-related. They should be removed before determining the account ratio of customer- and demand-related costs, and then they should be added to the demand portion of Account 364.)

2. Account 365 - Overhead Conductors and Devices

- If accounts are divided between primary and secondary voltages, develop a customer component separately for each. The total investment is assigned to primary and secondary; then the customer component is developed for each. Since conductors generally are of many types and sizes, select those sizes and types which represent the bulk of the investment in this account, if appropriate.

- When developing the customer component, consider only the investment in conductors, and not such devices as circuit breakers, insulators, switches, etc. The investment in these devices will be assigned later between the customer and demand component, based on the conductor assignment.

  - Determine the feet, investment, and average installed book cost per foot for distribution conductors by size and type.

  - Determine minimum intercept of conductor cost per foot using cost per foot by size and type of conductor weighted by feet or investment in each category, and developing a cost for the utility's minimum size conductor.

  - Multiply minimum intercept cost by the total number of circuit feet times 2. (Note that circuit feet, not conductor feet, are used to get customer component.)

  - Balance of conductor investment is assigned to demand.

  - Total primary or secondary dollars in the account, including devices, are assigned to customer and demand components based on conductor investment ratio.

3. Accounts 366 and 367 - Underground Conduits, Conductors, and Devices

- The customer demand component ratio is developed for conductors and applied to conduits. Underground conductors are generally booked by type and size of conductor for both one-conductor (1/c) cable and three-conductor (3/c) cables. If conductors are booked by voltage, as between primary and secondary, a customer component is

developed for each. If network and URD investments are segregated, a customer component must be developed for each.

- The conductor sizes and types for the customer component derivation are restricted to I/c cable. Since there are generally many types and sizes of I/c cable, select those sizes and types which represent the bulk of the investment, when appropriate.
  - Determine the feet, investment, and average installed book cost per foot for I/c cables by size and type of cable.
  - Determine minimum intercept of cable cost per foot using cost per foot by size and type of cable weighted by feet of investment in each category.
  - Multiply minimum intercept cost by the total number of circuit feet (I/c cable with sheath is considered a circuit) to get customer component.
  - Balance of cable investment is assigned to demand.
  - Total dollars in Accounts 366 and 367 are assigned to customer and demand components based on conductor investment ratio.

4. Account 368 - Line Transformers

- The line transformer account covers all sizes and voltages for single- and three-phase transformers. Only single-phase sizes up to and including 50 KVA should be used in developing the customer components. Where more than one primary distribution voltage is used, it may be appropriate to use the transformer price from one or two predominant, selected voltages.
  - Determine the number, investment, and average installed book cost per transformer by size and type (voltage).
  - Determine zero intercept of transformer cost using cost per transformer by type, weighted by number for each category.
  - Multiply zero intercept cost by total number of line transformers to get customer component.
  - Balance of transformer investment is assigned to demand component.
  - Total dollars in the account are assigned to customer and demand components based on transformer investment ratio from customer and demand components.

C. The Minimum-System vs. Minimum-Intercept Approach

When selecting a method to classify distribution costs into demand and customer costs, the analyst must consider several factors. The minimum-intercept method can sometimes produce statistically unreliable results. The extension of the regression equation beyond the boundaries of the data normally will intercept the Y axis at a positive value. In some cases, because of incorrect accounting data or some other abnormality in the data, the regression equation will intercept the Y axis at a negative value. When this happens, a review of the accounting data must be made, and suspect data deleted.

The results of the minimum-size method can be influenced by several factors. The analyst must determine the minimum size for each piece of equipment: "Should the minimum size be based upon the minimum size equipment currently installed, historically installed, or the minimum size necessary to meet safety requirements?" The manner in which the minimum size equipment is selected will directly affect the percentage of costs that are classified as demand and customer costs.

Cost analysts disagree on how much of the demand costs should be allocated to customers when the minimum-size distribution method is used to classify distribution plant. When using this distribution method, the analyst must be aware that the minimum-size distribution equipment has a certain load-carrying capability, which can be viewed as a demand-related cost.

When allocating distribution costs determined by the minimum-size method, some cost analysts will argue that some customer classes can receive a disproportionate share of demand costs. Their rationale is that customers are allocated a share of distribution costs classified as demand-related. Then those customers receive a second layer of demand costs that have been mislabeled customer costs because the minimum-size method was used to classify those costs.

Advocates of the minimum-intercept method contend that this problem does not exist when using their method. The reason is that the customer cost derived from the minimum-intercept method is based upon the zero-load intercept of the cost curve. Thus, the customer cost of a particular piece of equipment has no demand cost in it whatsoever.

D. Other Accounts

The preceding discussion of the merits of minimum-system versus the zero-intercept classification schemes will affect the major distribution-plant accounts for FERC Accounts 364 through 368. Several other plant accounts remain to be classified. While the classification of the following distribution-plant accounts is an important step,

it is not as controversial as the classification of substations, poles, transformers, and conductors.

1. Account 369 - Services

This account is generally classified as customer-related. Classification of services may also include a demand component to reflect the fact that larger customers will require more costly service drops.

2. Account 370 - Meters

Meters are generally classified on a customer basis. However, they may also be classified using a demand component to show that larger-usage customers require more expensive metering equipment.

3. Account 371 - Installations on Customer Premises

This account is generally classified as customer-related and is often directly assigned. The kind of equipment in this account often influences how this account is treated. The equipment in this account is owned by the utility, but is located on the customer's side of the meter. A utility will often include area lighting equipment in this account and assign the investment directly to the lighting customer class.

4. Account 373 - Street Lighting and Signal Systems

This account is generally customer-related and is directly assigned to the street customer class.

III. ALLOCATION OF THE DEMAND AND CUSTOMER COMPONENTS OF DISTRIBUTION PLANT

After completing the classification of distribution plant accounts, the next major step in the cost of service process is to allocate the classified costs. Generally, determining the distribution-demand allocator will require more data and analysis than determining the customer allocators. Following are procedures used to calculate the demand and customer allocation factors.

A. Development of the Distribution Demand Allocators

There are several factors to consider when allocating the demand components of distribution plant. Distribution facilities, from a design and operational perspective, are installed primarily to meet localized area loads. Distribution substations are designed to meet the maximum load from the distribution feeders emanating from the substation.

Similarly, when designing primary and secondary distribution feeders, the distribution engineer ensures that sufficient conductor and transformer capacity is available to meet the customer's loads at the primary- and secondary-distribution service levels. Local area loads are the major factors in sizing distribution equipment. Consequently, customer-class noncoincident demands (NCPs) and individual customer maximum demands are the load characteristics that are normally used to allocate the demand component of distribution facilities. The customer-class load characteristic used to allocate the demand component of distribution plant (whether customer class NCPs or the summation of individual customer maximum demands) depends on the load diversity that is present at the equipment to be allocated. The load diversity at distribution substations and primary feeders is usually high. For this reason, customer-class peaks are normally used for the allocation of these facilities. The facilities nearer the customer, such as secondary feeders and line transformers, have much lower load diversity. They are normally allocated according to the individual customer's maximum demands. Although these are the methods normally used for the allocation of distribution demand costs, some exceptions exist.

The load diversity differences for some utilities at the transmission and distribution substation levels may not be large. Consequently, some large distribution substations may be allocated using the same method as the transmission system. Before the cost analyst selects a method to allocate the different levels of distribution facilities, he must know the design and operational characteristics of the distribution system, as well as the demand losses at each level of the distribution system.

As previously indicated, the distribution system consists of several levels. The first level starts at the distribution substation, and the last level ends at the customer's meters. Power losses occur at each level and should be included in the demand allocators. Power losses are incorporated into the demand allocators by showing different demand loss factors at each predominant voltage level. The demand loss factor used to develop the primary-distribution demand allocator will be slightly larger than the demand loss factor used to develop the secondary demand allocator. When developing the distribution demand allocator, be aware that some customers take service at different voltage levels.

Cost analysts developing the allocator for distribution of substations or primary demand facilities must ensure that only the loads of those customers who benefit from these facilities are included in the allocator. For example, the loads of customers who take service at transmission level should not be reflected in the distribution substation or primary demand allocator. Similarly, when analysts develop the allocator for secondary demand facilities, the loads for customers served by the primary distribution system should not be included.

Utilities can gather load data to develop demand allocators, either through their load research program or their transformer load management program. In most cases, the load research program gathers data from meters on the customers' premises. A more complex procedure is to use the transformer load management program.

This procedure involves simulating load profiles for the various classes of equipment on the distribution system. This provides information on the nature of the load diversity between the customer and the substation, and its effect on equipment cost. Determining demand allocators through simulation provides a first-order load approximation, which represents the peak load for each type of distribution equipment.

The concept of peak load or "equipment peak" for each piece of distribution equipment can be understood by considering line transformers. If a given transformer's loading for each hour of a month can be calculated, a transformer load curve can be developed. By knowing the types of customers connected to each load management transformer, a simulated transformer load profile curve can be developed for the system. This can provide each customer's class demand at the time of the transformer's peak load. Similarly, an equipment peak can be defined for equipment at each level of the distribution system. Although the equipment peak obtained by this method may not be ideal, it will closely approximate the actual peak. Thus, this method should reflect the different load diversities among customers at each level of the distribution system. An illustration of the simulation procedure is provided in Appendix 6-A.

B. Allocation of Customer-Related Costs

When the demand-customer classification has been completed, most of the assumptions will have been made that affect the results of the completed cost of service study.

The allocation of the customer-related portion of the various plant accounts is based on the number of customers by classes of service, with appropriate weightings and adjustments. Weighting factors reflect differences in characteristics of customers within a given class, or between classes. Within a class, for instance, we may want to give more weighting of a certain plant account to rural customers, as compared to urban customers. The metering account is a clear example of an account requiring weighting for differences between classes. A metering arrangement for a single industrial customer may be 20 to 80 times as costly as the metering for one residential customer.

While customer allocation factors should be weighted to offset differences among various types of customers, highly refined weighting factors or detailed and time consuming studies may not seem worthwhile. Such factors applied in this final step of the cost study may affect the final results much less than such basic assumptions as the demand-allocation method or the technique for determining demand-customer classifications.

Expense allocations generally are based on the comparable plant allocator of the various classes. For instance, maintenance of overhead lines is generally assumed to be directly related to plant in overhead conductors and devices. Exceptions to this rule will occur in some accounts. Meter expenses, for example, are often a function of

maintenance and testing schedules related more to revenue per customer than to the cost of the meters themselves.