

WORK SESSION
WEDNESDAY, NOVEMBER 19, 2014
5:00 P.M.

1. Call to order
2. Presentation by Utility Financial Solutions on Cost of Service Study
3. Adjourn

Coffeyville Electric Department Electric Rate Study Preliminary Results

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Objectives

- Review Electric Department
 - Financial Projections & Targets
 - Debt Coverage Ratios
 - Minimum Cash Reserves
 - Target Operating Income
- Review Cost of service results
 - Cost to service each class of customers
 - Monthly Customer Charges
- Obtain Guidance prior to design of rates
 - Rate Adjustment
 - Movement toward cost of service



Two Methods Exist to Determine Revenue Requirements

- Cash Basis
 - O&M Expense
 - Debt Service
 - Normalized Capital Improvements
- Utility Basis
 - O&M Expense
 - Depreciation Expense
 - Rate of Return – Breakeven
 - Interest Expense
 - Inflationary increase in asset replacement costs



Cash Basis

Advantage

- Understood by City Councils & Public
- Typically matches budgets

Disadvantage

- Conceals major rate problems and revenue deficiencies
- Tends to result in unexpected and large rate adjustments
- Not generally accepted by courts if rates are challenged



Utility Basis

Advantage

- Leads to more stable and consistent rate adjustments
- Typically leads to a more financially stable and healthy Utility

Disadvantage

- Cash reserves can rise and fall depending on capital improvement programs
- Explain importance of rate of return and funding depreciation expense

How to Balance the Advantages and Disadvantages

- Develop financial plan on the Utility Basis
- If Large Adjustments are Needed:
 - Define minimum rate adjustment to meet debt service obligations
 - Develop a plan to phase-in rates from a cash basis to a utility basis

Three Main Factors to Assessing the Health of the Utility

- Debt Coverage Ratio
- Level of Cash Reserves
- Target Operating Income

Bond Covenant Specifies Minimum

- When setting rate policies a safety factor must be built into the coverage ratio for planning and projection purposes
 - Electric sales are dependent on weather
 - Power supply prices can fluctuate
 - Unexpected expense can occur
 - Unexpected Transfers to City
- Any of these can potentially cause the utility to fall below coverage requirements
- Safety factor of 0.2 is typically added to Bond Coverage requirement

Why is a Cash Reserve Policy Important

- Helps to ensure timely payment of bills
 - Operating Expenses
 - Debt Service Payments
 - Capital Improvements
- Creates a reserve fund if catastrophic events
 - Hurricanes/Ice Storms/Wind Storms
- Helps ensure funds exist for system improvements and reliability
- Rating agencies consider this a significant factor when considering bond ratings

Cash Reserve Policy

- Policy should contain a **minimum** amount of cash **not** a targeted amount
 - Cash reserves will fluctuate over time and depends on the age of the system and capital improvement program
- Some utilities have lowered rates because cash reserves were above targeted amounts only to incur substantial replacement costs a few years later resulting in rate increases

Factors that Influence amount of Cash the Utility should maintain

- Timing differences between when expenses are incurred and revenues received from customers
- Age of Assets and future capital improvement program
- Annual debt service payments
- Utilities exposure to risk
 - Utilities with stable power supply costs have less risk exposure than utilities that rely on market
 - Utilities ability to mitigate some or all of the risk
 - Power Cost Adjustment



Electric Department Minimum Cash Reserve

Description	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
Minimum Cash Reserve Allocation					
Operation & Maintenance Less Depreciation Expense	12.3%	12.3%	12.3%	12.3%	12.3%
Purchase Power Expense	10.3%	10.3%	10.3%	10.3%	10.3%
Historical Rate Base	1%	1%	1%	1%	1%
Current Portion of Debt Service Payment	80%	81%	81%	82%	82%
Five Year Capital Improvements - Net of bond proceeds	20%	20%	20%	20%	20%
Calculated Minimum Cash Level					
Operation & Maintenance Less Depreciation Expense	\$ 733,447	\$ 722,778	\$ 750,420	\$ 778,774	\$ 807,857
Purchase Power Expense	851,495	803,664	591,739	628,565	666,485
Historical Rate Base	1,122,320	1,313,030	1,353,030	1,393,030	1,433,030
Current Portion of Debt Service Reserve	3,902,742	3,954,821	3,993,658	4,006,626	3,982,675
Five Year Capital Improvements - Net of bond proceeds	2,753,063	2,753,063	4,000,000	4,000,000	4,000,000
Minimum Cash Reserve Levels	\$ 9,363,066	\$ 9,547,356	\$ 10,688,848	\$ 10,806,995	\$ 10,890,048
Projected Cash Reserves	\$ 32,609,056	\$ 15,469,139	\$ 15,929,149	\$ 16,610,977	\$ 17,534,470

Rate of Return

(Target Operating Income)

- Rate of Return is used to identify the level of operating income
- Operating Income has to be set high enough to cover the following:
 - interest expense on debt
 - Inflationary increase in asset replacement costs

Electric Department Target Operating Income

Description	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019
Target Operating Income Allocation					
Interest on Debt	3.50%	3.50%	3.60%	3.71%	3.81%
System Equity	4.19%	4.16%	3.74%	3.88%	4.04%
Target Operating Income					
Interest on Debt	\$ 2,345,777	\$ 2,252,909	\$ 2,221,943	\$ 2,186,000	\$ 2,142,641
System Equity	\$ 672,009	\$ 1,394,472	\$ 1,892,012	\$ 2,030,604	\$ 2,172,720
Target Operating Income	\$ 3,017,786	\$ 3,647,381	\$ 4,113,956	\$ 4,216,605	\$ 4,315,361
Rate of Return in %	3.6%	3.7%	3.7%	3.8%	3.9%

Scenarios

- Scenario 1: \$60m debt, \$6.28m capacity payment
- Scenario 2: \$0m debt, \$3.09m capacity payment
- Scenario 3: \$0m debt, \$0m capacity payment

Electric Cost of Service Results

Scenario 1: \$60m debt, \$6.28m capacity payment

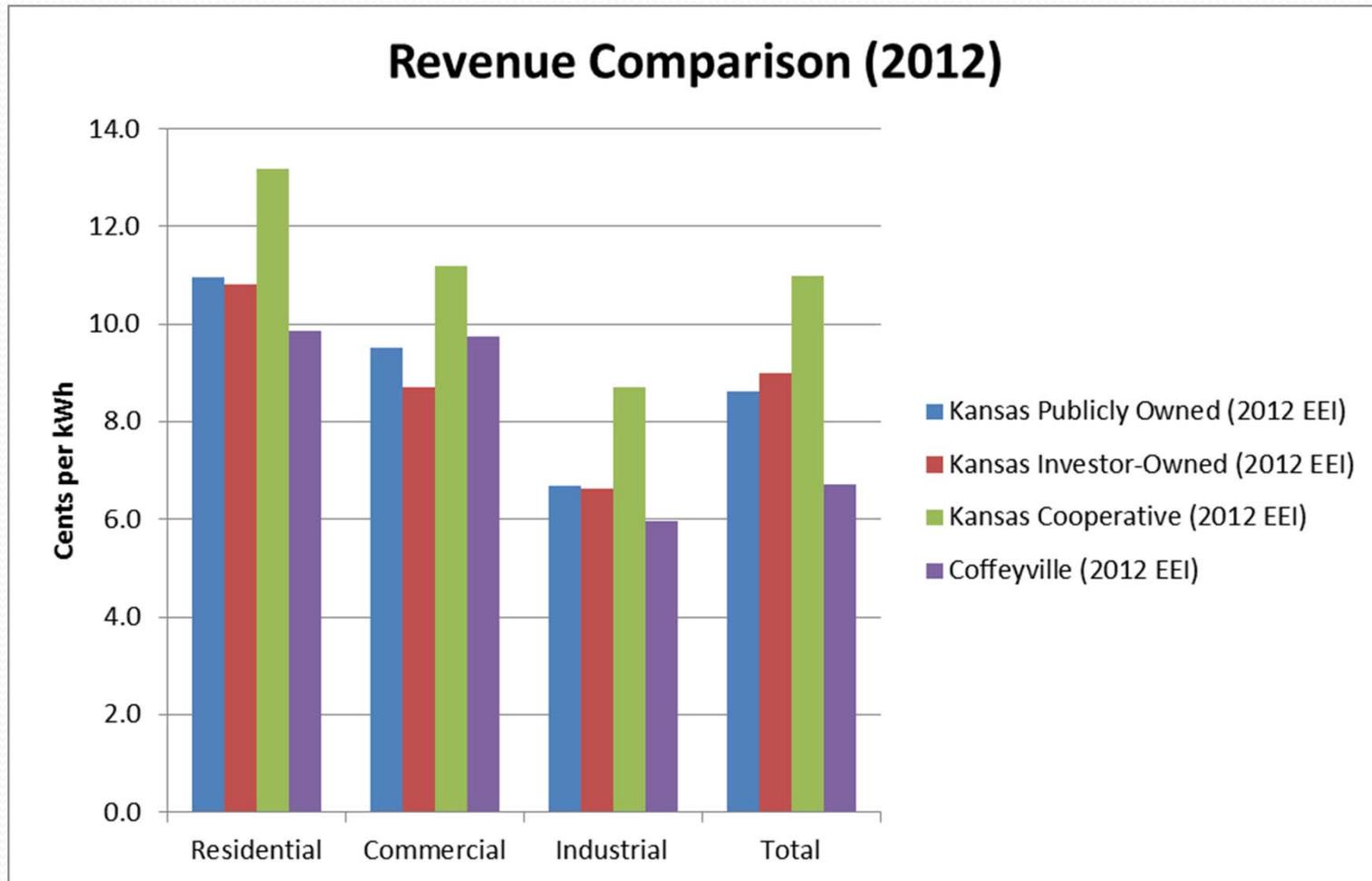
Customer Class	Cost of Service	Projected Revenues (with PCA)	% Change
Res Urban	5,212,977	4,774,222	9%
Res Rural	1,234,880	1,158,458	7%
Municipal (Free)	622,039	-	
Area Lighting	155,313	87,936	77%
KCC Res Rural	80,128	66,102	21%
KCC Area Lighting	3,403	1,539	121%
Municipal (Paid)	152,761	167,083	-9%
General Service (No Demand)	756,489	698,640	8%
Gen Service (Demand)	6,630,049	5,899,669	12%
Gen Service (All Elec)	416,997	369,217	13%
Large Power I	3,848,538	3,974,808	-3%
Gen/Large Off Peak	2,315,842	1,972,561	17%
KCC Gen Service	8,185	6,704	22%
Total	21,437,601	19,176,940	11.8%

Energy Charges

Scenario 1: \$60m debt, \$6.28m capacity payment

Customer Class	Cost of Service	Projected Revenues
Res Urban	0.1207	0.1105
Res Rural	0.1188	0.1114
Municipal (Free)	0.1088	-
Area Lighting	0.2193	0.1241
KCC Res Rural	0.1223	0.1009
KCC Area Lighting	0.2128	0.0962
Municipal (Paid)	0.1004	0.1098
General Service (No Demand)	0.1405	0.1297
Gen Service (Demand)	0.1244	0.1107
Gen Service (All Elec)	0.1219	0.1079
Large Power I	0.0893	0.0923
Gen/Large Off Peak	0.1047	0.0892
KCC Gen Service	0.1379	0.1129

Energy Revenue Historic Comparison



Monthly Customer Charge

- Designed to recover a portion of the fixed distribution costs of the utility such as:
 - Meter Costs
 - Meter Reading Costs
 - Billing Costs
 - Customer Service
 - Service Drop
 - Portion of Distribution System

Customer (Facilities) Charges

- Movement toward cost based customer charges to help stabilize revenues
- Helps to reduce subsidy between year-round customers and seasonal customers
- Will impact low use customers
- Low income compared with low use
 - *For most utilities, low income customers tend to be higher than average users*

Monthly Charge

Scenario 1: \$60m debt, \$6.28m capacity payment

Customer Class	Current Customer Charge	COS Customer Charge
Res Urban	\$ 4.59	\$ 18.05
Res Rural	5.14	26.51
Municipal (Free)	-	36.67
Area Lighting	-	1.60
KCC Res Rural	3.95	26.40
KCC Area Lighting	-	0.06
Municipal (Paid)	4.70	202.40
General Service (No Demand)	-	26.23
Gen Service (Demand)	-	177.41
Gen Service (All Elec)	-	178.19
Large Power I	-	732.56
Gen/Large Off Peak	-	507.42
KCC Gen Service	-	17.71

Projection without Rate Change

Scenario 1: \$60m debt, \$6.28m capacity payment

Fiscal Year	Projected Rate Adjustments	Capital Improvements Plan	Projected Expenses	Projected Revenues	Adjusted Operating Income	Target Operating Income	Debt Coverage Ratio	Projected Cash Balances	Recommended Minimum Cash
2015	0.00%	\$ 42,694,245	\$ 18,419,815	\$ 19,176,940	\$ 757,125	\$ 3,017,786	2.59	\$ 32,269,716	\$ 9,363,066
2016	0.00%	19,071,071	18,193,631	19,594,961	1,401,331	3,647,381	1.27	14,498,483	9,540,145
2017	0.00%	4,000,000	16,799,265	20,024,438	3,225,172	4,113,956	1.71	13,996,065	10,677,881
2018	0.00%	4,000,000	17,514,083	20,465,700	2,951,617	4,216,605	1.69	13,373,660	10,792,168
2019	0.00%	4,000,000	18,244,544	20,919,089	2,674,545	4,315,361	1.67	12,640,150	10,871,256



Recommended Rate Track

Scenario 1: \$60m debt, \$6.28m capacity payment

Fiscal Year	Projected Rate Adjustments	Capital Improvements Plan	Projected Expenses	Projected Revenues	Adjusted Operating Income	Target Operating Income	Debt Coverage Ratio	Projected Cash Balances	Recommended Minimum Cash
2015	1.77%	\$ 42,694,245	\$ 18,419,815	\$ 19,516,280	\$ 1,096,465	\$ 3,017,786	2.76	\$ 32,609,056	\$ 9,363,066
2016	1.77%	19,071,071	18,252,120	20,283,070	2,030,950	3,647,381	1.39	15,469,139	9,547,356
2017	1.77%	4,000,000	16,888,220	21,070,967	4,182,746	4,113,956	1.91	15,929,149	10,688,848
2018	1.77%	4,000,000	17,634,344	21,880,528	4,246,185	4,216,605	1.95	16,610,977	10,806,995
2019	1.77%	4,000,000	18,396,969	22,712,330	4,315,361	4,315,361	2.01	17,534,470	10,890,048

Projection without Rate Change

Scenario 2: \$0m debt, \$3.09m capacity payment

Fiscal Year	Projected Rate Adjustments	Capital Improvements Plan	Projected Expenses	Projected Revenues	Adjusted Operating Income	Target Operating Income	Debt Coverage Ratio	Projected Cash Balances	Recommended Minimum Cash
2015	0.00%	\$ 1,424,245	\$ 16,769,015	\$ 19,176,940	\$ 2,407,925	\$ 2,057,536	4.60	\$ 14,397,040	\$ 6,081,926
2016	0.00%	1,049,241	16,980,859	19,594,961	2,614,102	2,091,897	4.74	17,542,386	6,119,936
2017	0.00%	4,000,000	17,621,452	20,024,438	2,402,986	2,219,175	4.66	17,644,418	7,335,309
2018	0.00%	4,000,000	18,336,270	20,465,700	2,129,430	2,375,646	4.55	17,630,604	8,219,450
2019	0.00%	4,000,000	19,066,730	20,919,089	1,852,358	2,532,837	4.56	17,507,729	8,330,787

Recommended Rate Track

Scenario 2: \$0m debt, \$3.09m capacity payment

Fiscal Year	Projected Rate Adjustments	Capital Improvements Plan	Projected Expenses	Projected Revenues	Adjusted Operating Income	Target Operating Income	Debt Coverage Ratio	Projected Cash Balances	Recommended Minimum Cash
2015	0.75%	\$ 1,424,245	\$ 16,769,015	\$ 19,320,573	\$ 2,551,558	\$ 2,057,536	4.73	\$ 14,540,673	\$ 6,081,926
2016	0.75%	1,049,241	17,005,491	19,884,745	2,879,254	2,091,897	4.98	17,951,888	6,122,973
2017	0.75%	4,000,000	17,658,724	20,462,924	2,804,200	2,219,175	5.02	18,457,183	7,339,904
2018	0.75%	4,000,000	18,386,401	21,055,477	2,669,076	2,375,646	5.03	18,987,079	8,225,630
2019	0.75%	4,000,000	19,129,944	21,662,781	2,532,837	2,532,837	5.19	19,551,466	8,338,581

Projection without Rate Change

Scenario 3: \$0m debt, \$0m capacity payment

Fiscal Year	Projected Rate Adjustments	Capital Improvements Plan	Projected Expenses	Projected Revenues	Adjusted Operating Income	Target Operating Income	Debt Coverage Ratio	Projected Cash Balances	Recommended Minimum Cash
2015	0.00%	\$ 1,424,245	\$ 19,859,155	\$ 19,176,940	\$ (682,215)	\$ 2,058,065	1.80	\$ 11,306,900	\$ 6,401,451
2016	0.00%	1,049,241	20,070,999	19,594,961	(476,038)	2,092,398	1.97	11,346,655	6,439,461
2017	0.00%	4,000,000	20,711,592	20,024,438	(687,154)	2,219,658	1.88	8,327,568	7,654,834
2018	0.00%	4,000,000	21,426,410	20,465,700	(960,710)	2,376,032	1.76	5,177,031	8,538,975
2019	0.00%	4,000,000	22,156,870	20,919,089	(1,237,782)	2,533,130	1.66	1,901,748	8,650,313



Recommended Rate Track

Scenario 3: \$0m debt, \$0m capacity payment

Fiscal Year	Projected Rate Adjustments	Capital Improvements Plan	Projected Expenses	Projected Revenues	Adjusted Operating Income	Target Operating Income	Debt Coverage Ratio	Projected Cash Balances	Recommended Minimum Cash
2015	3.90%	\$ 1,424,245	\$ 19,859,155	\$ 19,924,330	\$ 65,175	\$ 2,058,065	2.48	\$ 12,054,290	\$ 6,401,451
2016	3.90%	1,049,241	20,201,179	21,126,490	925,311	2,092,398	3.22	13,499,131	6,455,511
2017	3.90%	4,000,000	20,911,687	22,378,495	1,466,808	2,219,658	3.81	12,644,769	7,679,504
2018	3.90%	4,000,000	21,699,828	23,682,389	1,982,560	2,376,032	4.40	12,459,087	8,572,684
2019	3.90%	4,000,000	22,507,174	25,040,304	2,533,130	2,533,130	5.16	12,991,127	8,693,501

Summary

- Scenario 1: \$60m debt, \$6.28m capacity payment
- Scenario 2: \$0m debt, \$3.09m capacity payment
- Scenario 3: \$0m debt, \$0m capacity payment

Scenario	Annual Change	2015-2019 Change	Cash % of Minimum 2019
Scenario 1	1.77%	9.2%	161%
Scenario 2	0.75%	3.8%	234%
Scenario 3	3.90%	21.0%	149%