APPA Selected Financial and Operating Ratios of Public Power Systems, 2013 Data

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American Public Power Association

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ABOUT THIS REPORT

This is the latest in the annual report series prepared by the American Public Power Association (APPA) on financial and operating ratios. Many of the ratios in this report were suggested by the APPA Performance Management Committee and its predecessor, the APPA Task Force on Performance Indicators.

The report was prepared by the APPA Statistical Analysis Department. See page 6 for information on where to direct comments or questions about this report.

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SELECTED FINANCIAL AND OPERATING RATIOS

OF PUBLIC POWER SYSTEMS, 2013

I. Introduction

This report presents data for 21 categories of financial and operating ratios for 162 of the largest publicly owned electric utilities in the United States. The ratios can be a useful tool in assessing electric utility performance. However, they do not provide definitive information, nor should the level of any indicator be taken as the "correct" level of performance.

It is important that users be familiar with definitions of ratios and the variables that may affect them. Although the groupings of the ratios by customer size class, region and net power generation adjust for major variables, other factors may also influence the ratios. The financial and operating ratios provide a useful starting point for analyses and may be used to pinpoint areas in need of further investigation. The ratios should be analyzed in conjunction with other information and should not be the sole basis for broad conclusions.

A. The Report Format

Summary tables listing median values of the ratios are presented in Section II by customer size class, region and net power generation. Section III presents detailed breakdowns for each ratio with the number of utilities, means, medians and first and third quartile values. The information is provided by customer size, region and generation groupings. Definitions and descriptive information precede each set of tables. A copy of the APPA Performance Indicator Survey, 2013, as well as formulas, data sources, definitions of regions, and the utilities included in the report can be found in Appendices A, B, C and D.

Medians and number of responses for each ratio are presented in the following table for all customer size classes, regions and generation classes.

Financial Ratios	No. of Utilities	Median
1. Revenue per KWH		
a. All Retail Customers	162	$0.090
b. Residential Customers	162	$0.100
c. Commercial Customers	162	$0.096
d. Industrial Customers	147	$0.072
2. Debt to Total Assets	160	0.279
3. Operating Ratio	162	0.869
4. Current Ratio	160	2.56
5a. Times Interest Earned	132	3.24
5b. Debt Service Coverage	122	2.81
6. Net Income per Revenue Dollar	160	$0.035
7. Uncollectible Accounts per Revenue Dollar	160	$0.0018
Operating Ratios		
8. Retail Customer per Non-Power Generation Employee	161	328
9. Total O&M Expense per KWH Sold	162	$0.076
10. Total O&M Expense (Excluding Power Supply Exp.) per Retail Customer	162	$434
11. Total Power Supply Expense per KWH Sold	162	$0.062
12. Purchased Power Cost per KWH	161	$0.058
13. Retail Customers per Meter Reader	140	6,520*
14. Distribution O&M Expense per Retail Customer	148	$145
15. Distribution O&M Expense per Circuit Mile	148	$5,750
16. Customer Accounting, Service, and Sales Expense per Retail Customer	148	$59
17. Administrative and General Expense per Retail Customer	148	$157
Other Ratios		
18. Labor Expense per Worker-Hour	160	$36.30
19. OSHA Incidence Rate (per 100 employees)	152	1.7
20. Energy Loss Percentage	159	3.60%
21. System Load Factor	159	57.3%

**: Only includes utilities with at least one meter reader. For changes to the methodology of this ratio, see the detailed breakdown in Section III.*

Utilities in the Report

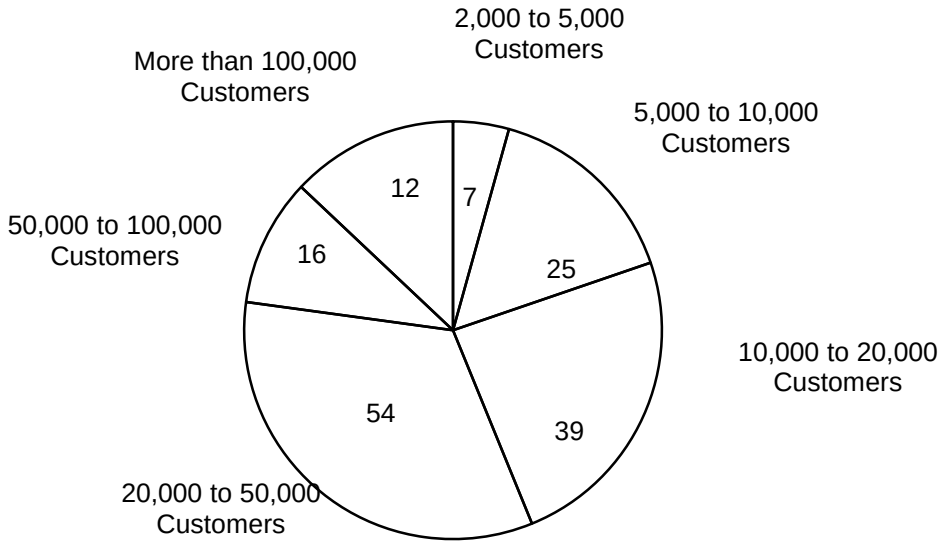
The utilities included in this report are those that responded to APPA's Performance Indicator Survey, 2013. The survey was sent to all public power utilities whose sales to consumers account for approximately 50 percent or more of their total sales, and who also have retail sales or sales for resale of 150,000 megawatt-hours or more.

Joint action agencies are not included in the report, nor are utilities that are primarily wholesalers of electric power. For purposes of this report, wholesalers are defined as those utilities whose retail sales account for approximately 50 percent or less of their total sales.

Direct comparisons with the 2012 ratio report should not be made because the composition of utilities included for each ratio may have changed. Although 162 utilities are included in this report, not all of the utilities were incorporated into each of the ratios. Many utilities did not have, or did not provide information necessary for particular ratios. Also, data are excluded from calculations if there is reason to believe the information is incorrect, e.g., extreme values, etc.

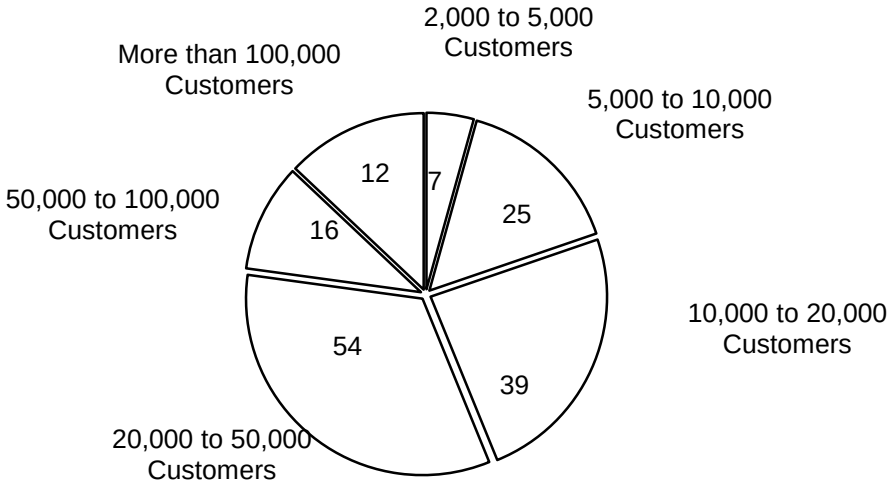
The respondents are grouped into six customer size classes. Mean, median, and first and third quartile values are calculated for each of these classes. Means are weighted means - calculated by summing the values for all utilities, and then computing the ratio from these totals. Since large utilities heavily influence the mean value (particularly when there are only a small number of utilities in the sample), median values provide a better measure of the typical utility. The class size and number of responses in each class are shown in the chart below.

Number of Responses, by Customer Size Class



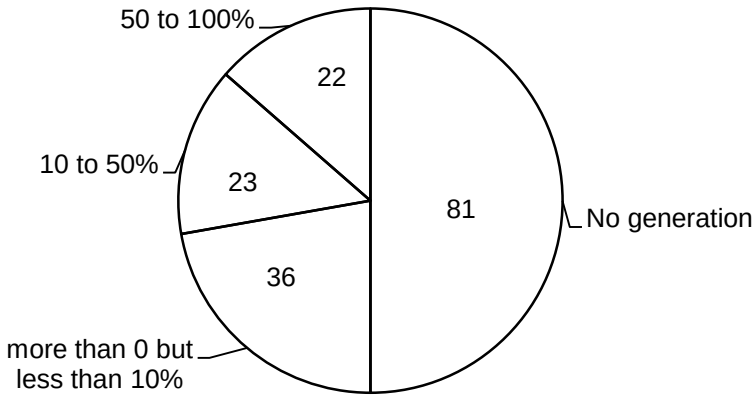
Utilities are grouped and ratios calculated based on geographic location. The five regions are based on combined NERC regions (see Appendix C). The regions and number of utilities in each are shown in the following chart.

Number of Responses, by Customer Size Class



Finally, respondents are grouped into categories based upon the percent of total power requirements generated by the utility. The classes range from "none" (or zero generation) to "50 to 100 percent" generation. The number of utilities in each category is shown in the chart below.

Number of Responses, by Generation



C. Definitions, Data Sources and Computations

Definitions of each ratio are found in Section III, "Detailed Tables," and information on data sources and computations are provided in Appendix B. The data in this report come from two sources: the Department of Energy, Energy Information Administration (EIA) report Form EIA-861; and the **APPA Performance Indicators Survey, 2013.**

D. Factors Influencing Ratios

Each of the ratios in this report may be influenced by a variety of economic, environmental and technical factors. Aggregating the data may mask significant differences. When making comparisons, users of the data should attempt to understand the various factors that might affect a particular ratio. A high or low value for a given ratio for an individual utility, relative to the median for a group, may be due to particular policies or situations faced by a utility, and may not be indicative of a performance problem.

The groupings in this report adjust for differences in utility size based on the number of customers served, regional variations, and differences in operations related to the proportion of power requirements generated by the utility. Factors that may influence the ratios include:

*****Number and composition of customers served;

*****Geographic location;

*****Population density;

*****Source of power supply (and physical, economic, or institutional barriers to acquiring alternative power supply);

*****Amount of taxes, payments in lieu of taxes, contributions and free electricity or services that a utility makes to or receives from a local government;

*****Number of contract employees used by a utility (e.g., consultants, contract labor for maintenance, tree trimming, etc.);

*****Financial policies (e.g., proportion of major capital expenditures financed by long-term debt versus current revenue);

*****Management policies (e.g., the extent to which a utility focuses on customer service or other programs);

*****Regulatory policies that may affect public power systems in some states;

*****Relatively small number of utilities reporting data on a particular ratio (e.g., small numbers of utilities frequently appear in the detailed breakdowns);

*****Degree of precision of the data component, or

*****Differences in utility reporting periods.

Ratios are calculated from fiscal year and calendar year data.

E. Comments or Questions about the Report

APPA members are encouraged to comment on the content and format of this report. Comments or questions should be directed to: **Paul Zummo, Manager of Policy Research and Analyis (PZummo@publicpower.org),** or at:

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II. Summary Tables

The following tables present summary data on the 21 financial and operating ratios by customer size class (Table A), by region (Table B) and by generation class (Table C). These tables present median values for each of the ratios. Definitions and detailed data including means, medians and quartile values appear in Section III. Data sources and calculation procedures are found in Appendix B.

The average number of retail customers reported by each utility on the APPA Performance Indicators Survey determines customer size class. Responding utilities are grouped into five geographic regions: Northeast, Southeast, North Central/Plains, Southwest, and West. The regions correspond to combined regions of the North American Electric Reliability Council (NERC). See Appendix C for a detailed description of the regions.

Generation refers to the power a utility produces and is based upon the utility's net generation as a percent of total sources of energy as reported on the APPA Performance Indicators Survey.

Table A: 2013 Financial & Operating Ratios : Median Values by Customer Size Class

Ratio	2,000 to 5,000 Customers	5,000 to 10,000 Customers	10,000 to 20,000 Customers	20,000 to 50,000 Customers	50,000 to 100,000 Customers	More than 100,000 Customers
1. Revenue per KWH						
a. All Retail Customers	$0.082	$0.084	$0.092	$0.089	$0.109	$0.090
b. Residential Customers	$0.099	$0.098	$0.104	$0.097	$0.117	$0.106
c. Commercial Customers	$0.097	$0.095	$0.095	$0.096	$0.107	$0.090
d. Industrial Customers	$0.071	$0.074	$0.071	$0.074	$0.079	$0.067
2. Debt to Total Assets	0.148	0.185	0.234	0.270	0.432	0.579
3. Operating Ratio	0.934	0.922	0.863	0.879	0.820	0.719
4. Current Ratio	4.67	2.41	2.65	2.68	2.89	1.80
5a. Times Interest Earned	a	7.94	6.47	3.41	1.98	1.60
5b. Debt Service Coverage	a	3.37	4.08	3.23	3.64	2.25
6. Net Income per Revenue Dollar	$0.015	$0.034	$0.073	$0.021	$0.025	$0.048
7. Uncollectible Accounts per Revenue Dollar	$0.0018	$0.0009	$0.0017	$0.0018	$0.0028	$0.0037
8. Retail Customer per Non-Power Generation Employee	229	295	399	338	327	307
9. Total O&M Expense per KWH Sold	$0.075	$0.075	$0.079	$0.075	$0.085	$0.058
10. Total O&M Expense (Excluding Power Supply Exp.) per Retail Customer	$660	$422	$400	$405	$463	$503
11. Total Power Supply Expense per KWH Sold	$0.061	$0.067	$0.065	$0.060	$0.069	$0.045
12. Purchased Power Cost per KWH	$0.057	$0.064	$0.061	$0.054	$0.068	$0.045
13. Retail Customers per Meter Reader	2,928	6,162	5,769	7,891	6,317	10,050
14. Distribution O&M Expense per Retail Customer	$161	$142	$155	$159	$134	$128
15. Distribution O&M Expense per Circuit Mile	$4,197	$5,065	$4,840	$5,637	$9,241	$7,624
16. Customer Accounting, Service, and Sales Expense per Retail Customer	$81	$52	$48	$59	$63	$85
17. Administrative and General Expense per Retail Customer	$389	$163	$143	$143	$213	$159
18. Labor Expense per Worker-Hour	$33.50	$32.78	$37.14	$35.69	$39.02	$41.57
19. OSHA Incidence Rate (per 100 employees)	6.0	0.0	1.9	2.0	1.6	1.3
20. Energy Loss Percentage	3.10%	3.47%	3.66%	3.65%	3.45%	4.07%
21. System Load Factor	57.0%	59.0%	56.1%	55.0%	57.0%	60.9%

a Medians are not calculated for fewer than 5 responses

Table B : 2013 Financial & Operating Ratios : Median Values by Region

Ratio	Northeast	Southeast	North Central/Plains	Southwest	West
1. Revenue per KWH					
a. All Retail Customers	$0.129	$0.095	$0.085	$0.086	$0.082
b. Residential Customers	$0.133	$0.101	$0.103	$0.096	$0.092
c. Commercial Customers	$0.137	$0.099	$0.095	$0.084	$0.083
d. Industrial Customers	$0.111	$0.074	$0.073	$0.070	$0.061
2. Debt to Total Assets	0.226	0.312	0.243	0.335	0.385
3. Operating Ratio	0.899	0.923	0.896	0.846	0.827
4. Current Ratio	2.15	1.93	2.75	3.00	2.76
5a. Times Interest Earned	2.03	5.21	5.80	3.26	2.31
5b. Debt Service Coverage	2.24	3.50	3.54	2.33	2.48
6. Net Income per Revenue Dollar	$0.050	$0.025	$0.043	$0.063	$0.051
7. Uncollectible Accounts per Revenue Dollar	$0.0028	$0.0020	$0.0008	$0.0022	$0.0020
8. Retail Customer per Non-Power Generation Employee	374	321	370	306	323
9. Total O&M Expense per KWH Sold	$0.100	$0.088	$0.075	$0.068	$0.063
10. Total O&M Expense (Excluding Power Supply Exp.) per Retail Customer	$689	$354	$498	$470	$469
11. Total Power Supply Expense per KWH Sold	$0.071	$0.074	$0.061	$0.051	$0.046
12. Purchased Power Cost per KWH	$0.049	$0.072	$0.059	$0.048	$0.044
13. Retail Customers per Meter Reader	8,862	5,627	6,292	6,567	7,419
14. Distribution O&M Expense per Retail Customer	$185	$141	$140	$127	$162
15. Distribution O&M Expense per Circuit Mile	$11,693	$5,048	$6,047	$5,053	$7,171
16. Customer Accounting, Service, and Sales Expense per Retail Customer	$95	$54	$52	$50	$85
17. Administrative and General Expense per Retail Customer	$180	$138	$164	$187	$159
18. Labor Expense per Worker-Hour	$43.00	$30.80	$34.36	$32.28	$44.84
19. OSHA Incidence Rate (per 100 employees)	2.1	1.6	2.5	0.9	1.8
20. Energy Loss Percentage	3.09%	3.56%	3.57%	4.43%	3.47%
21. System Load Factor	52.0%	57.1%	59.1%	57.6%	57.7%

Table C : 2013 Financial & Operating Ratios : Median Values by Power Generation Class*

Ratio	No Generation	more than 0 but less than 10%	10 to 50%	50 to 100%
1. Revenue per KWH				
a. All Retail Customers	$0.090	$0.091	$0.086	$0.095
b. Residential Customers	$0.098	$0.103	$0.110	$0.109
c. Commercial Customers	$0.097	$0.094	$0.096	$0.093
d. Industrial Customers	$0.071	$0.073	$0.077	$0.069
2. Debt to Total Assets	0.243	0.239	0.492	0.511
3. Operating Ratio	0.917	0.854	0.812	0.740
9. Total O&M Expense per KWH Sold	$0.084	$0.074	$0.071	$0.062
11. Total Power Supply Expense per KWH Sold	$0.071	$0.060	$0.056	$0.047
12. Purchased Power Cost per KWH	$0.068	$0.054	$0.051	$0.045
17. Administrative and General Expense per Retail Customer	$140	$161	$163	$246
18. Labor Expense per Worker-Hour	$33.57	$36.00	$40.97	$38.08
19. OSHA Incidence Rate (per 100 employees)	1.8	1.6	2.5	1.5
20. Energy Loss Percentage	3.67%	3.66%	3.24%	3.60%

* Only those ratios affected by power generation are included in this table

III. Detailed Tables

The following tables present a detailed breakdown of each of the 21 ratios. Each table includes a breakdown of the ratio by customer size class, and by customer size class and region. Some tables also include a breakdown by customer size and generation class. The numbers of responses are presented along with the mean, median and first and third quartile values of the ratio for each class.

Revenue per Kilowatt-hour

a. All retail customers – The ratio of total electric operating revenues from sales to ultimate customers to total kilowatt-hour sales. This ratio measures the amount of revenue received for each kilowatt-hour of electricity sold to all classes of customers, including residential, commercial, industrial, public street and highway lighting and other customers.

b. Residential customers – The ratio of residential revenues to residential sales. This ratio measures the amount of revenue received for each kilowatt-hour of electricity sold to residential customers.

c. Commercial customers – The ratio of commercial revenues to commercial sales. This ratio measures the amount of revenue received for each kilowatt-hour of electricity sold to commercial customers.

d. Industrial customers – The ratio of industrial revenues to industrial sales. This ratio measures the amount of revenues received for each kilowatt-hour of electricity sold to industrial customers.

The definitions of commercial and industrial customers may vary between utilities, with the resulting classification based on specific load characteristics or demand rather than on a popular definition of “commercial” or “industrial.” Revenue and sales data include only full-service (bundled sales), thus data for customers who purchase power from an alternative supplier are excluded.

Table 1A. Revenue per KWH: All Retail Customers

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	162	$0.098	$0.078	$0.090	$0.102
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.081	a	$0.082	a
5,000 to 10,000 Customers	25	0.080	0.078	0.084	0.093
10,000 to 20,000 Customers	39	0.087	0.079	0.092	0.098
20,000 to 50,000 Customers	54	0.085	0.076	0.089	0.106
50,000 to 100,000 Customers	16	0.107	0.094	0.109	0.124
More than 100,000 Customers	21	0.102	0.081	0.090	0.108
2. Region					
Northeast	11	0.175	0.112	0.129	0.141
Southeast	49	0.093	0.090	0.095	0.104
North Central/Plains	42	0.086	0.079	0.085	0.094
Southwest	19	0.089	0.070	0.086	0.094
West	41	0.092	0.072	0.082	0.103
3. Generation					
No generation	81	0.090	0.078	0.090	0.099
more than 0 but less than 10%	36	0.122	0.080	0.091	0.102
10 to 50%	23	0.089	0.079	0.086	0.131
50 to 100%	22	0.095	0.079	0.095	0.115

a Quartiles are not calculated for fewer than 9 responses

Table 1B. Revenue per KWH: Residential Customers

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	162	$0.113	$0.091	$0.100	$0.115
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.098	a	$0.099	a
5,000 to 10,000 Customers	25	0.093	0.089	0.098	0.104
10,000 to 20,000 Customers	39	0.100	0.093	0.104	0.114
20,000 to 50,000 Customers	54	0.096	0.085	0.097	0.113
50,000 to 100,000 Customers	16	0.117	0.104	0.117	0.132
More than 100,000 Customers	21	0.118	0.092	0.106	0.122
2. Region					
Northeast	11	0.195	0.123	0.133	0.149
Southeast	49	0.106	0.096	0.101	0.113
North Central/Plains	42	0.105	0.093	0.103	0.113
Southwest	19	0.100	0.079	0.096	0.107
West	41	0.083	0.082	0.092	0.118
3. Generation					
No generation	81	0.098	0.088	0.098	0.108
more than 0 but less than 10%	36	0.147	0.092	0.103	0.122
10 to 50%	23	0.099	0.089	0.110	0.135
50 to 100%	22	0.111	0.099	0.109	0.121

a Quartiles are not calculated for fewer than 9 responses

Table 1C. Revenue per KWH: Commercial Customers

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	162	$0.101	$0.083	$0.096	$0.107
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.087	a	$0.097	a
5,000 to 10,000 Customers	25	0.091	0.086	0.095	0.099
10,000 to 20,000 Customers	39	0.096	0.085	0.095	0.103
20,000 to 50,000 Customers	54	0.095	0.076	0.096	0.109
50,000 to 100,000 Customers	16	0.109	0.095	0.107	0.124
More than 100,000 Customers	21	0.102	0.078	0.090	0.126
2. Region					
Northeast	11	0.165	0.105	0.137	0.145
Southeast	49	0.103	0.096	0.099	0.108
North Central/Plains	42	0.090	0.087	0.095	0.102
Southwest	19	0.087	0.075	0.084	0.097
West	41	0.075	0.073	0.083	0.117
3. Generation					
No generation	81	0.096	0.085	0.097	0.104
more than 0 but less than 10%	36	0.131	0.084	0.094	0.102
10 to 50%	23	0.089	0.074	0.096	0.129
50 to 100%	22	0.095	0.086	0.093	0.123

a Quartiles are not calculated for fewer than 9 responses

Table 1D. Revenue per KWH: Industrial Customers

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	147	$0.069	$0.061	$0.072	$0.084
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.071	a	$0.071	a
5,000 to 10,000 Customers	25	0.070	$0.071	0.074	$0.081
10,000 to 20,000 Customers	35	0.068	0.064	0.071	0.080
20,000 to 50,000 Customers	47	0.061	0.058	0.074	0.089
50,000 to 100,000 Customers	14	0.075	0.068	0.079	0.095
More than 100,000 Customers	19	0.072	0.060	0.067	0.071
2. Region					
Northeast	10	0.097	0.090	0.111	0.122
Southeast	43	0.062	0.066	0.074	0.086
North Central/Plains	40	0.068	0.070	0.073	0.078
Southwest	16	0.067	0.062	0.070	0.073
West	38	0.075	0.050	0.061	0.086
3. Generation					
No generation	73	0.068	0.060	0.071	0.081
more than 0 but less than 10%	32	0.064	0.063	0.073	0.084
10 to 50%	23	0.074	0.061	0.077	0.097
50 to 100%	19	0.071	0.055	0.069	0.086

a Quartiles are not calculated for fewer than 9 responses

2. Debt to Total Assets

Definition: The ratio of long-term debt, plus current and accrued liabilities, to total assets and other debits. This ratio measures a utility's ability to meet its current and long-term liabilities based on the availability of assets.

Long-term debt includes bonds, advances from the municipality, other long-term debt, any unamortized premium on long-term debt and any unamortized discount on long-term debt. Current and accrued liabilities include warrants, notes and accounts payable, payables to the municipality, customer deposits, taxes accrued, interest accrued, and miscellaneous current and accrued liabilities. Total assets and other debits include utility plant, investments, current and accrued assets and deferred debits.

This ratio may be influenced by the extent to which its components include information applicable to the non-electric portion of the utility, if any (e.g., gas, water or other). In addition, the ratio may be influenced by a utility's financial policies.

Table 2. Debt to Total Assets

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	160	0.583	0.128	0.279	0.514
1. Customer Size Class					
2,000 to 5,000 Customers	6	0.310	a	0.148	a
5,000 to 10,000 Customers	25	0.293	0.092	0.185	0.325
10,000 to 20,000 Customers	38	0.375	0.148	0.234	0.439
20,000 to 50,000 Customers	54	0.342	0.119	0.270	0.465
50,000 to 100,000 Customers	16	0.569	0.234	0.432	0.590
More than 100,000 Customers	21	0.623	0.457	0.579	0.691
2. Region					
Northeast	11	0.751	0.162	0.226	0.421
Southeast	49	0.623	0.200	0.312	0.454
North Central/Plains	41	0.524	0.091	0.243	0.614
Southwest	18	0.502	0.184	0.335	0.474
West	41	0.560	0.131	0.385	0.530
3. Generation					
No generation	79	0.388	0.127	0.243	0.426
more than 0 but less than 10%	36	0.595	0.086	0.239	0.444
10 to 50%	23	0.601	0.362	0.492	0.640
50 to 100%	22	0.610	0.194	0.511	0.666

a Quartiles are not calculated for fewer than 9 responses

3. Operating Ratio

Definition: The ratio of total electric operation and maintenance expenses to total electric operating revenues. This ratio measures the proportion of revenues received from electricity sales, rate adjustments and other electric activities required to cover the operation and maintenance costs associated with producing and selling electricity.

Operation and maintenance expenses include the costs of power production, purchased power, transmission, distribution, customer accounting, customer service, sales, and administrative and general expenses. This ratio may be influenced by the availability of alternative power options and the costs of purchased power.

Table 3. Operating Ratio

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	162	0.765	0.790	0.869	0.932
1. Customer Size Class					
2,000 to 5,000 Customers	7	0.921	a	0.934	a
5,000 to 10,000 Customers	25	0.929	0.898	0.922	0.936
10,000 to 20,000 Customers	39	0.876	0.803	0.863	0.956
20,000 to 50,000 Customers	54	0.870	0.799	0.879	0.932
50,000 to 100,000 Customers	16	0.803	0.763	0.820	0.845
More than 100,000 Customers	21	0.726	0.664	0.719	0.812
2. Region					
Northeast	11	0.765	0.830	0.899	0.935
Southeast	49	0.804	0.844	0.923	0.942
North Central/Plains	42	0.814	0.819	0.896	0.944
Southwest	19	0.722	0.767	0.846	0.892
West	41	0.736	0.750	0.827	0.865
3. Generation					
No generation	81	0.905	0.858	0.917	0.945
more than 0 but less than 10%	36	0.786	0.794	0.854	0.893
10 to 50%	23	0.761	0.756	0.812	0.880
50 to 100%	22	0.692	0.694	0.740	0.786

a Quartiles are not calculated for fewer than 9 responses

4. Current Ratio

Definition: The ratio of total current and accrued assets to total current and accrued liabilities. This is a measure of the utility's short-term liquidity (the ability to pay bills). The current ratio takes a snapshot of the utility's liquidity at a point in time and thus may vary considerably at other times of the year.

Total current and accrued assets include cash and working funds, temporary cash investments, notes and accounts receivable, receivables from the municipality, materials and supplies, prepayments and miscellaneous current and accrued assets. Total current and accrued liabilities include warrants, notes and accounts payable, payables to the municipality, customer deposits, taxes accrued, interest accrued and miscellaneous current and accrued liabilities.

Table 4. Current Ratio

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	160	1.52	1.68	2.56	4.22
1. Customer Size Class					
2,000 to 5,000 Customers	6	1.93	a	4.67	a
5,000 to 10,000 Customers	25	1.93	1.70	2.41	3.49
10,000 to 20,000 Customers	38	1.63	1.76	2.65	4.42
20,000 to 50,000 Customers	54	2.51	1.86	2.68	4.12
50,000 to 100,000 Customers	16	1.27	1.36	2.89	4.97
More than 100,000 Customers	21	1.43	1.46	1.80	2.66
2. Region					
Northeast	11	1.66	1.60	2.15	3.75
Southeast	49	1.26	1.45	1.93	2.87
North Central/Plains	41	2.20	1.74	2.75	6.55
Southwest	18	2.19	2.26	3.00	4.44
West	41	1.37	1.90	2.76	3.81

a Quartiles are not calculated for fewer than 9 responses

5a. Times Interest Earned

Definition: The ratio of net electric utility income, plus interest paid on long-term debt, to interest on long-term debt. This ratio measures the ability of a utility to cover interest charges and is indicative of the safety margin to lenders. Utilities that do not report any long-term debt are excluded from this ratio.

This ratio may be influenced by a utility's financial policies.

Table 5A. Times Interest Earned

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	132	1.75	1.56	3.24	8.05
1. Customer Size Class					
2,000 to 5,000 Customers	3	b	a	b	a
5,000 to 10,000 Customers	19	5.05	3.72	7.94	19.14
10,000 to 20,000 Customers	31	6.80	3.07	6.47	24.63
20,000 to 50,000 Customers	42	2.77	1.06	3.41	5.95
50,000 to 100,000 Customers	16	1.62	1.11	1.98	4.71
More than 100,000 Customers	21	1.60	1.37	1.60	1.94
2. Region					
Northeast	9	1.18	1.14	2.03	6.60
Southeast	41	1.55	1.61	5.21	9.36
North Central/Plains	31	1.98	1.75	5.80	11.87
Southwest	17	2.29	1.63	3.26	20.84
West	34	1.80	1.50	2.31	3.43

a Quartiles are not calculated for fewer than 9 responses
b Means and Medians are not calculated for fewer than 5 responses

5b. Debt Service Coverage

Definition: The ratio of net revenues available for debt service to total long-term debt service for the year. This ratio measures the utility's ability to meet its annual long-term debt obligation.

Net revenues available for debt service equal net electric utility operating income (operating revenues minus operating expenses) plus net electric utility non-operating income, plus depreciation. Debt service includes principle and interest payments on long-term debt.

This ratio may be influenced by a utility's financial policies.

Table 5b. Debt Service Coverage

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	122	1.72	1.52	2.81	6.52
1. Customer Size Class					
2,000 to 5,000 Customers	3	b	a	b	a
5,000 to 10,000 Customers	18	3.35	1.40	3.37	9.22
10,000 to 20,000 Customers	26	4.14	2.30	4.08	9.04
20,000 to 50,000 Customers	40	3.86	1.37	3.23	7.21
50,000 to 100,000 Customers	16	2.17	1.77	3.64	5.39
More than 100,000 Customers	19	1.52	1.32	2.25	3.19
2. Region					
Northeast	8	1.44	1.03	2.24	6.94
Southeast	38	1.69	1.06	3.50	6.77
North Central/Plains	27	3.29	1.93	3.54	8.71
Southwest	16	0.62	1.39	2.33	11.30
West	33	4.20	1.78	2.48	5.33

a Quartiles are not calculated for fewer than 9 responses

b Means and Medians are not calculated for fewer than 5 responses

6. Net Income per Revenue Dollar

Definition: The ratio of net electric utility income to total electric operating revenues. This ratio measures the amount of income remaining, after accounting for operation and maintenance expenses, depreciation, taxes and tax equivalents, for every dollar received from sales of electricity.

The ratio may be influenced by the type and availability of power supply options and by the amount of taxes and tax equivalents that a utility transfers to the municipality or other governmental body. Financial policies and the amount of debt may also affect this ratio (e.g., how a utility finances capital investments).

Table 6. Net Income Per Revenue Dollar

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	160	$0.049	$0.010	$0.035	$0.074
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.020	a	$0.015	a
5,000 to 10,000 Customers	24	0.047	$0.018	0.034	$0.060
10,000 to 20,000 Customers	38	0.102	0.033	0.073	0.097
20,000 to 50,000 Customers	54	0.039	0.002	0.021	0.060
50,000 to 100,000 Customers	16	0.025	0.002	0.025	0.059
More than 100,000 Customers	21	0.050	0.013	0.048	0.054
2. Region					
Northeast	11	0.015	0.005	0.050	0.076
Southeast	49	0.030	0.011	0.025	0.037
North Central/Plains	41	0.045	0.009	0.043	0.086
Southwest	18	0.098	0.006	0.063	0.099
West	41	0.057	0.017	0.051	0.085

a Quartiles are not calculated for fewer than 9 responses

7. Uncollectible Accounts per Revenue Dollar

Definition: The ratio of total uncollectible accounts to total electric utility operating revenues. This ratio measures the portion of each revenue dollar that will not be collected by the utility.

This ratio will be influenced by the financial and customer service policies of the utility.

Table 7. Uncollectible Accounts per Revenue Dollar

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	160	$0.0036	$0.0009	$0.0018	$0.0033
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.0014	a	$0.0018	a
5,000 to 10,000 Customers	25	0.0024	$0.0002	0.0009	$0.0015
10,000 to 20,000 Customers	37	0.0022	0.0008	0.0017	0.0029
20,000 to 50,000 Customers	54	0.0028	0.0011	0.0018	0.0031
50,000 to 100,000 Customers	16	0.0035	0.0016	0.0028	0.0046
More than 100,000 Customers	21	0.0040	0.0014	0.0037	0.0055
2. Region					
Northeast	11	0.0056	0.0019	0.0028	0.0054
Southeast	48	0.0023	0.0011	0.0020	0.0033
North Central/Plains	41	0.0022	0.0004	0.0008	0.0018
Southwest	19	0.0065	0.0013	0.0022	0.0054
West	41	0.0031	0.0011	0.0020	0.0033

a Quartiles are not calculated for fewer than 9 responses

8. Retail Customers per Non-power-generation Employee

Definition: The ratio of the average number of retail customers from all classes to the total number of full-time, part-time and contract employees not involved in the generation of power. This ratio measures the average number of customers served by each non-generation employee.

The ratio may be influenced by the mix of customers and by population density. It will be influenced by the extent that employees shared with other (non-electric) departments are not properly prorated, or that employees involved in resale transactions are included. Part-time employees are assumed to work half-time (i.e., two part-time employees are counted as one full-time employee). To the extent that this assumption is violated, the ratio will be biased. Contract employees include only those individuals performing regular utility work on an on-going basis.

Table 8. Retail Customers per Non-power-generation Employee

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	161	318	262	328	437
1. Customer Size Class					
2,000 to 5,000 Customers	7	207	a	229	a
5,000 to 10,000 Customers	25	290	246	295	394
10,000 to 20,000 Customers	39	323	273	399	472
20,000 to 50,000 Customers	53	336	282	338	404
50,000 to 100,000 Customers	16	336	265	327	463
More than 100,000 Customers	21	313	262	307	438
2. Region					
Northeast	11	461	302	374	423
Southeast	49	284	246	321	422
North Central/Plains	42	312	256	370	439
Southwest	19	289	282	306	336
West	40	328	272	323	470

a Quartiles are not calculated for fewer than 9 responses

9. Total Operation and Maintenance Expense per Kilowatt-hour Sold

Definition: The ratio of total electric utility operation and maintenance expenses, including the cost of generated and purchased power, to total kilowatt-hour sales to ultimate and resale customers. This ratio measures average total operation and maintenance expenses associated with each kilowatt-hour of electricity sold, either for resale or to ultimate customers.

Included in operation and maintenance costs are the expenses associated with power supply (generation and purchased power), transmission, distribution, customer accounting, customer services, sales, and administrative and general functions of the electric utility. Because power supply expenses typically comprise the largest component of total operation and maintenance expenses, this ratio may be influenced by the proportion of power generated by a utility and the availability of alternative power supplies. Kilowatt-hours of electricity produced but not sold, i.e., energy furnished without charge, energy used internally and energy losses are not included in the denominator.

Table 9. Total O&M Expense per KWH sold

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	162	$0.065	$0.061	$0.076	$0.090
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.074	a	$0.075	a
5,000 to 10,000 Customers	25	0.075	$0.068	0.075	$0.090
10,000 to 20,000 Customers	39	0.075	0.065	0.079	0.093
20,000 to 50,000 Customers	54	0.069	0.061	0.075	0.094
50,000 to 100,000 Customers	16	0.082	0.081	0.085	0.093
More than 100,000 Customers	21	0.061	0.050	0.058	0.076
2. Region					
Northeast	11	0.079	0.066	0.100	0.125
Southeast	49	0.069	0.080	0.088	0.094
North Central/Plains	42	0.064	0.063	0.075	0.084
Southwest	19	0.061	0.054	0.068	0.074
West	41	0.060	0.053	0.063	0.080
3. Generation					
No generation	81	0.075	0.068	0.084	0.094
more than 0 but less than 10%	36	0.073	0.062	0.074	0.089
10 to 50%	23	0.057	0.049	0.071	0.097
50 to 100%	22	0.059	0.054	0.062	0.077

a Quartiles are not calculated for fewer than 9 responses

10. Total Operation and Maintenance Expense (Excluding Power Supply Expense) per Retail Customer

Definition: The ratio of total electric utility operation and maintenance expenses, excluding all costs of power supply, to the total number of ultimate customers.

Operation and maintenance expenses include the costs of transmission, distribution, customer accounting, customer services, sales and administrative and general expenses. The costs of power supply (generation and purchased power) are excluded from the ratio. This ratio may be affected by population density and the mix of customers between various classes (residential, commercial, industrial or other). Also, the extent that a utility services a large number of resale customers will influence the ratio.

Table 10. Total O&M Expense (Excluding Power Supply Expense) per Retail Customer

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	162	$518	$336	$434	$607
1. Customer Size Class					
2,000 to 5,000 Customers	7	$682	a	$660	a
5,000 to 10,000 Customers	25	535	$347	422	$557
10,000 to 20,000 Customers	39	517	323	400	533
20,000 to 50,000 Customers	54	472	327	405	568
50,000 to 100,000 Customers	16	473	317	463	645
More than 100,000 Customers	21	535	414	503	649
2. Region					
Northeast	11	580	579	689	842
Southeast	49	406	275	354	422
North Central/Plains	42	572	332	498	644
Southwest	19	599	386	470	640
West	41	524	372	469	588

a Quartiles are not calculated for fewer than 9 responses

11. Total Power Supply Expense per Kilowatt-hour Sold

Definition: The ratio of the total costs of power supply to total sales to both ultimate and resale customers. This ratio measures all power supply costs, including generation and purchased power, associated with the sale of each kilowatt-hour of electricity.

The ratio includes operation and maintenance costs arising from all generation types, including steam, nuclear, hydraulic and other types of generation. Operation and maintenance expenses include the costs of fuel, labor, supervision, engineering, materials and supplies, and also include the costs of purchased power. The ratio may be influenced by the geographic location of the utility, the availability of alternative power supplies, the degree to which the utility can generate its own power, and access to transmission. The ratio does not include kilowatt-hours produced but not sold, i.e., energy used internally, energy furnished without charge, or energy losses.

Table 11. Total Power Supply Expense per KWH Sold

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	162	$0.050	$0.046	$0.062	$0.074
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.059	a	$0.061	a
5,000 to 10,000 Customers	25	0.063	$0.056	0.067	$0.075
10,000 to 20,000 Customers	39	0.060	0.051	0.065	0.076
20,000 to 50,000 Customers	54	0.054	0.040	0.060	0.074
50,000 to 100,000 Customers	16	0.064	0.059	0.069	0.078
More than 100,000 Customers	21	0.046	0.038	0.045	0.053
2. Region					
Northeast	11	0.061	0.044	0.071	0.087
Southeast	49	0.059	0.069	0.074	0.080
North Central/Plains	42	0.048	0.051	0.061	0.069
Southwest	19	0.043	0.044	0.051	0.060
West	41	0.043	0.037	0.046	0.061
3. Generation					
No generation	81	0.062	0.053	0.071	0.078
more than 0 but less than 10%	36	0.051	0.060	0.071	0.070
10 to 50%	23	0.039	0.033	0.056	0.066
50 to 100%	22	0.044	0.041	0.047	0.052

a Quartiles are not calculated for fewer than 9 responses

12. Purchased Power Cost per Kilowatt-hour

Definition: The ratio of the cost of purchased power to the amount of kilowatt-hours purchased. This ratio measures the purchased power component of power supply costs.

Purchased power includes purchases from investor-owned utilities, municipalities, cooperatives or other public authorities for subsequent distribution and sale to ultimate customers. It does not include power exchanges. Adjustments to the cost data were made in a small number of cases to eliminate power exchanges. The cost reflects the amount billed, including adjustments and other charges.

The ratio may be influenced by the geographic location of the utility, availability of alternative power supplies, access to transmission, and the type of purchase agreement, such as firm power, economy power or surplus sales.

Table 12. Purchased Power Cost per KWH

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	161	$0.049	$0.044	$0.058	$0.072
1. Customer Size Class					
2,000 to 5,000 Customers	7	$0.059	a	$0.057	a
5,000 to 10,000 Customers	25	0.059	$0.053	0.064	$0.072
10,000 to 20,000 Customers	39	0.059	0.049	0.061	0.072
20,000 to 50,000 Customers	53	0.050	0.037	0.054	0.068
50,000 to 100,000 Customers	16	0.068	0.044	0.068	0.079
More than 100,000 Customers	21	0.044	0.036	0.045	0.062
2. Region					
Northeast	10	0.032	0.032	0.049	0.068
Southeast	49	0.063	0.067	0.072	0.076
North Central/Plains	42	0.057	0.049	0.059	0.067
Southwest	19	0.050	0.040	0.048	0.055
West	41	0.043	0.034	0.044	0.054
3. Generation					
No generation	81	0.059	0.049	0.068	0.075
more than 0 but less than 10%	36	0.041	0.045	0.054	0.062
10 to 50%	22	0.043	0.034	0.051	0.060
50 to 100%	22	0.048	0.040	0.045	0.052

a Quartiles are not calculated for fewer than 9 responses

13. Retail Customers per Meter Reader

Definition: The ratio of retail customers to the number of meter readers employed by the utility. This measures the average number of retail customers served by each meter reader.

The number of meter readers includes the total number of full-time meter readers plus half of all part-time meter readers. It is assumed that all part-time employees work half-time (i.e., one full-time employee is equivalent to two part-time employees). Population density, frequency of meter readings, and the technology or methods used to read meters will influence the ratio.

As more utilities implement advanced meters that can read customer meters without having to send a meter reader to the customer's residence or business, these utilities require fewer meter readers to cover their service territories. Some utilities have installed advanced meters in all of their service territory, and as such no longer utilize meter readers at all. These utilities have not been included in this ratio because we cannot develop a ratio with a zero denominator. As such, we have added a new category for this ratio that shows the breakdown of advanced meter percent, which shows what percent of a utility's customers have advanced meters installed.

The first and third quartile and median figures in this category still reflect only those utilities with at least one meter reader. The weighted mean in this category does include all utilities, including those with zero meter readers.

Table 13. Retail Customers per Meter Reader

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	140*	8,032	4,640	6,520	10,448
1. Customer Size Class					
2,000 to 5,000 Customers	6	2,589	a	2,928	a
5,000 to 10,000 Customers	22	5,624	4,746	6,162	8,547
10,000 to 20,000 Customers	33	4,884	3,557	5,769	8,180
20,000 to 50,000 Customers	46	5,980	5,239	7,981	10,513
50,000 to 100,000 Customers	14	6,770	5,896	6,317	9,909
More than 100,000 Customers	19	9,930	9,246	10,050	22,742
2. Region					
Northeast	9	8,844	5,921	8,862	19,348
Southeast	42	6,874	3,399	5,627	9,687
North Central/Plains	37	9,626	5,069	6,292	10,049
Southwest	18	8,792	4,340	6,567	10,369
West	34	7,996	5,592	7,419	10,307
3. Advanced Meter Percent					
No advanced meters	38	5,354**	3,617	5,150	6,940
more than 0 but less than 40%	26	8,201	5,432	6,745	8,732
40 to 80%	14	12,395	4,090	6,758	15,304
80% or more	82	15,049	5,476	8,964	20,148

a Quartiles are not calculated for fewer than 9 responses

* Total figure includes only utilities with at least one meter reader

**: Weighted Mean in this category includes utilities with zero meter readers

14. Distribution Operation and Maintenance Expenses per Retail Customer

Definition: The ratio of total distribution operation and maintenance expenses to the total number of retail customers. This ratio measures the average distribution expense associated with delivering power to each retail customer.

Distribution costs include expenses associated with labor, supervision, engineering, materials and supplies used in the operation and maintenance of the distribution system. Population density and the mix of customer classes served by the utility will influence the ratio.

Those utilities that do not allocate expenses to all three categories of (1) distribution expense (2) customer accounting, customer service, and sales expense and (3) administrative and general expense are excluded from ratios 14 through 17 (Distribution Operation and Maintenance Expenses per Retail Customer; Distribution Operation and Maintenance Expenses per Circuit Mile; Customer Accounting, Customer Service and Sales Expenses per Retail Customer; and Administrative and General Expenses per Retail Customer).

Table 14. Distribution O&M Expenses per Retail Customer

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	148	$140	$113	$145	$191
1. Customer Size Class					
2,000 to 5,000 Customers	7	$168	a	$161	a
5,000 to 10,000 Customers	25	231	$118	142	$204
10,000 to 20,000 Customers	30	159	111	155	196
20,000 to 50,000 Customers	50	177	119	159	196
50,000 to 100,000 Customers	16	142	99	134	170
More than 100,000 Customers	20	126	115	128	145
2. Region					
Northeast	8	172	a	185	a
Southeast	45	128	109	141	167
North Central/Plains	38	135	103	140	196
Southwest	18	129	111	127	187
West	39	153	137	162	200

a Quartiles are not calculated for fewer than 9 responses

15. Distribution Operation and Maintenance Expenses per Circuit Mile

Definition: The ratio of total distribution operation and maintenance expenses to the total number of circuit miles of distribution line. This measures the total distribution costs associated with each circuit mile of distribution line used to deliver power to customers.

Distribution costs include expenses associated with labor, supervision, engineering, materials and supplies used in the operation and maintenance of the distribution system. The ratio will be affected by population density, the mix of customer classes served by the utility, the dispersion of customers within the utility's service territory, and the proportion of underground and overhead distribution lines.

Those utilities that do not allocate expenses to all three categories of (1) distribution expense (2) customer accounting, customer service, and sales expense and (3) administrative and general expense are excluded from ratios 14 through 17 (Distribution Operation and Maintenance Expenses per Retail Customer; Distribution Operation and Maintenance Expenses per Circuit Mile; Customer Accounting, Customer Service and Sales Expenses per Retail Customer; and Administrative and General Expenses per Retail Customer).

Table 15. Distribution O&M Expenses per Circuit Mile

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	148	$5,970	$3,784	$5,750	$10,142
1. Customer Size Class					
2,000 to 5,000 Customers	7	$3,982	a	$4,197	a
5,000 to 10,000 Customers	25	7,593	$3,622	5,065	$10,064
10,000 to 20,000 Customers	30	5,207	3,004	4,840	10,479
20,000 to 50,000 Customers	50	4,707	3,900	5,637	10,009
50,000 to 100,000 Customers	16	7,869	5,009	9,241	13,195
More than 100,000 Customers	20	6,312	4,695	7,624	8,912
2. Region					
Northeast	8	13,556	a	11,693	a
Southeast	45	5,667	3,169	5,048	6,783
North Central/Plains	38	5,380	3,981	6,047	10,180
Southwest	18	5,370	3,822	5,053	8,219
West	39	6,415	4,218	7,171	12,802

a Quartiles are not calculated for fewer than 9 responses

16. Customer Accounting, Customer Service and Sales Expenses per Retail Customer

Definition: The ratio of total customer accounting, service, and sales expenses to the total number of retail customers. This ratio measures the average expenses incurred by the utility in handling each customer's account. This includes the costs of obtaining and servicing all retail customers Uncollectible accounts and meter reading expenses are included in this ratio.

The ratio includes the costs of labor, materials and other expenses associated with advertising, billing, collections, records, handling inquiries and complaints. It also includes the costs of promoting and providing customer service programs such as energy services or conservation programs. The ratio will be influenced by the degree to which the utility provides various energy services and other types of customer programs, and also by the mix of customer classes it serves.

Those utilities that do not allocate expenses to all three categories of (1) distribution expense (2) customer accounting, customer service, and sales expense and (3) administrative and general expense are excluded from ratios 14 through 17 (Distribution Operation and Maintenance Expenses per Retail Customer; Distribution Operation and Maintenance Expenses per Circuit Mile; Customer Accounting, Customer Service and Sales Expenses per Retail Customer; and Administrative and General Expenses per Retail Customer).

Table 16. Customer Accounting, Customer Service and Sales Expense per Retail Customer

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	148	$106	$41	$59	$91
1. Customer Size Class					
2,000 to 5,000 Customers	7	$118	a	$81	a
5,000 to 10,000 Customers	25	65	$30	52	$80
10,000 to 20,000 Customers	30	58	34	48	75
20,000 to 50,000 Customers	50	80	42	59	95
50,000 to 100,000 Customers	16	79	43	63	107
More than 100,000 Customers	20	122	57	85	116
2. Region					
Northeast	8	114	a	95	a
Southeast	45	68	41	54	75
North Central/Plains	38	85	36	52	77
Southwest	18	86	32	50	58
West	39	145	63	85	125

a Quartiles are not calculated for fewer than 9 responses

17. Administrative and General Expenses per Retail Customer

Definition: The ratio of total electric utility administrative and general expenses to the total number of retail customers. This ratio measures the average administrative and general expenses incurred by the utility on behalf of each retail customer.

Administrative and general expenses are those electric operation and maintenance expenses not allocable to the costs of power production (generation and power purchases), transmission, distribution, or customer accounting, service and sales. Items which may be included are compensation of officers and executives, office supplies, professional fees, property insurance and claims, pensions and benefits, and other expenses not provided for elsewhere.

Those utilities that do not allocate expenses to all three categories of (1) distribution expense (2) customer accounting, customer service, and sales expense and (3) administrative and general expense are excluded from ratios 14 through 17 (Distribution Operation and Maintenance Expenses per Retail Customer; Distribution Operation and Maintenance Expenses per Circuit Mile; Customer Accounting, Customer Service and Sales Expenses per Retail Customer; and Administrative and General Expenses per Retail Customer).

The amount and type of the utility's generation may affect the ratio.

Table 17. Administrative and General Expenses per Retail Customer

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	148	$181	$105	$157	$234
1. Customer Size Class					
2,000 to 5,000 Customers	7	$323	a	$389	a
5,000 to 10,000 Customers	25	175	$122	163	$206
10,000 to 20,000 Customers	30	218	105	143	275
20,000 to 50,000 Customers	50	168	92	143	179
50,000 to 100,000 Customers	16	214	122	213	262
More than 100,000 Customers	20	175	103	159	249
2. Region					
Northeast	8	277	a	180	a
Southeast	45	172	81	138	182
North Central/Plains	38	282	108	164	279
Southwest	18	239	133	187	287
West	39	132	121	159	224
3. Generation					
No generation	72	146	82	140	198
more than 0 but less than 10%	32	168	123	161	218
10 to 50%	23	183	128	163	248
50 to 100%	21	202	133	246	373

a Quartiles are not calculated for fewer than 9 responses

18. Labor Expense per Worker-hour

Definition: The ratio of total annual earnings of full-time, part-time and contract labor employees to the total number of hours worked during the year by these employees. This ratio measures the actual cost of labor to the utility.

Total annual earnings include all payroll compensation received by full-time, part-time or contract employees, including straight-time pay, overtime pay, and payment for time not worked such as sick pay, vacation pay, holiday pay, or other payments. Fringe benefits, such as health care premiums paid by the employer, are excluded. Hours worked includes total productive hours spent at work, including both straight time and overtime hours worked. Hours paid but not worked, such as on holidays or other paid leave time, are not included. This is not the same as a wage rate, which is simply the earnings per hour. A wage rate generally includes hours not worked (such as vacation or sick pay), which this ratio does not.

Table 18. Labor Expense per Worker Hour

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	160	$41.03	$30.69	$36.30	$42.50
1. Customer Size Class					
2,000 to 5,000 Customers	6	$33.13	a	$33.50	a
5,000 to 10,000 Customers	24	32.38	$28.99	32.78	$36.81
10,000 to 20,000 Customers	39	35.85	31.26	37.14	41.51
20,000 to 50,000 Customers	54	37.54	30.08	35.69	43.25
50,000 to 100,000 Customers	16	41.07	35.37	39.02	46.83
More than 100,000 Customers	21	43.32	35.73	41.57	50.17
2. Region					
Northeast	11	50.82	38.89	43.00	49.86
Southeast	48	33.61	25.98	30.80	36.48
North Central/Plains	42	40.65	30.85	34.36	38.87
Southwest	18	38.82	30.95	32.28	42.19
West	41	46.16	39.27	44.84	50.11
3. Generation					
No generation	79	35.91	29.58	33.57	41.84
more than 0 but less than 10%	36	45.45	30.47	36.00	41.93
10 to 50%	23	44.74	35.70	40.97	48.72
50 to 100%	22	40.78	32.16	38.08	45.96

a Quartiles are not calculated for fewer than 9 responses

19. OSHA Incidence Rate (per 100 employees)

Definition: The ratio of lost workday cases during the year to the total worker-hours of exposure, per 100 employees. This ratio measures the proportion of employees subject to on-the-job injuries and illnesses over the course of the year.

Worker-hours of exposure are calculated by adding the total full-time and part-time annual hours worked. Contract workers' hours are included in the calculation only if the utility supervises the workers' day-to-day activities.

Lost workday cases are those which involve days away from work or days of restricted work activity because of non-fatal occupational illness or injury. Restricted work activity occurs when 1) an employee is assigned to another job on a temporary basis; 2) an employee works at a permanent job less than full time; or 3) the employee works at a permanent job but cannot perform all normal duties. This ratio will be influenced by management practices and policies, and by the proportion of employees involved in hazardous occupations.

Table 19. OSHA Incidence Rate

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	152	3.8	0.0	1.7	4.2
1. Customer Size Class					
2,000 to 5,000 Customers	6	4.4	a	6.0	a
5,000 to 10,000 Customers	22	3.4	0.0	0.0	5.0
10,000 to 20,000 Customers	38	2.7	0.0	1.9	3.9
20,000 to 50,000 Customers	51	2.5	0.9	2.0	4.1
50,000 to 100,000 Customers	16	16.2	0.3	1.6	6.2
More than 100,000 Customers	19	2.8	0.8	1.9	2.9
2. Region					
Northeast	10	3.0	0.0	2.1	3.4
Southeast	45	3.5	0.0	1.6	4.6
North Central/Plains	41	2.1	0.8	2.5	4.8
Southwest	18	8.8	0.0	0.9	2.7
West	38	1.9	0.4	1.8	4.1
3. Generation					
No generation	75	5.1	0.0	1.8	4.4
more than 0 but less than 10%	33	3.8	0.0	1.6	5.0
10 to 50%	22	2.7	1.0	2.5	3.9
50 to 100%	22	3.7	0.6	1.5	2.4

a Quartiles are not calculated for fewer than 9 responses

20. Energy Loss Percentage

Definition: The ratio of total energy losses to total sources of energy. This ratio measures how much energy is lost in the utility's electrical system, and is an indicator of the efficiency of the electrical system. It represents the percentage of electrical energy that is bought or generated by the utility, but is not available to be sold to customers (or for the utility's own use).

Losses include both physical losses that occur in the distribution system and metering and billing losses. Generation, purchases, net exchanges and net wheeling are all included in total sources of energy.

Table 20. Energy Loss Percentage

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	159	4.71%	2.78%	3.60%	4.78%
1. Customer Size Class					
2,000 to 5,000 Customers	7	3.26%	a	3.10%	a
5,000 to 10,000 Customers	24	3.10	2.34%	3.47	3.91%
10,000 to 20,000 Customers	38	3.19	2.62	3.66	4.63
20,000 to 50,000 Customers	54	3.79	2.85	3.65	5.26
50,000 to 100,000 Customers	16	3.48	2.12	3.45	4.15
More than 100,000 Customers	20	5.22	3.61	4.07	4.59
2. Region					
Northeast	11	6.03	1.67	3.09	3.98
Southeast	48	3.34	3.09	3.56	4.82
North Central/Plains	40	3.39	2.35	3.57	4.17
Southwest	19	8.77	3.73	4.43	6.03
West	41	3.59	2.81	3.47	4.28
3. Generation					
No generation	79	3.98	3.06	3.67	4.97
more than 0 but less than 10%	36	5.02	2.36	3.66	5.43
10 to 50%	22	3.67	2.49	3.24	3.96
50 to 100%	22	5.16	3.15	3.60	4.27

a Quartiles are not calculated for fewer than 9 responses

21. System Load Factor

Definition: The ratio of the system average load, total sales plus losses (MWh) divided by 8760 (hours), to system peak demand (typically a summer or winter peak measured during a particular hour at all delivery points and generator busses on a totalized basis).

System load factor is descriptive of the total system load characteristics. It tells system planners how much the overall system load varies diurnally and seasonally. It is a very broad indicator. It also provides financial planners with information about how to spread fixed costs across energy sales. This will give financial planners and rate designers information to support greater unbundling of fixed and variable costs--a goal of competitive rate design.

Table 21. System Load Factor

	Utilities	Mean (weighted)	1st Quartile	Median	3rd Quartile
Total	159	58.4%	52.2%	57.3%	63.8%
1. Customer Size Class					
2,000 to 5,000 Customers	7	57.1%	a	57.0%	a
5,000 to 10,000 Customers	25	65.6	56.4%	59.0	73.0%
10,000 to 20,000 Customers	37	56.9	52.0	56.1	60.7
20,000 to 50,000 Customers	54	58.6	50.0	55.0	61.6
50,000 to 100,000 Customers	16	59.8	51.8	57.0	63.2
More than 100,000 Customers	20	58.1	57.9	60.9	68.4
2. Region					
Northeast	11	40.9	50.5	52.0	55.1
Southeast	49	57.9	54.0	57.1	60.0
North Central/Plains	40	65.8	53.2	59.1	66.3
Southwest	19	64.2	47.3	57.6	68.0
West	40	63.1	49.7	57.7	66.9

a Quartiles are not calculated for fewer than 9 responses

APPENDIX A: APPA Performance Indicators Survey, 2013

PART I. EMPLOYMENT, HOURS AND EARNINGS -- CALENDAR YEAR ENDING IN 2013

A. Electric Utility Employees — **a. Full-Time** — **b. Part-Time**

1. Total Average No. of Employees _____ _____
2. Total Annual Hours Worked _____ _____
3. Total Annual Earnings _____ _____

B. Contract Labor — **Employees Supervised By the Utility** — **Employees Supervised by the Supervising Company**

1. Total Average No. of Employees _____ _____
2. Total Annual Hours Worked _____ _____
3. Total Annual Earnings _____ _____

C. Number of Employees, Selected Electric Utility Departments — **a. Full-time** — **b. Part-time** — **c. Contract**

1. No. of Power Production Employees _____ _____ _____
   (Include all employees involved in operation and maintenance of power generating facilities.)
2. No. of Meter Readers _____ _____ _____
   (If responsible for meters other than electric, prorate employees allocated to electric only.)

PART II. SELECTED ELECTRIC UTILITY STATISTICS -- CALENDAR YEAR ENDING IN 2013

A. Distribution Lines (up to 69 kV)

Total Distribution Line Circuit Miles _____
(Circuit miles include the total length in miles of separate circuits regardless of the number of conductors used per circuit.)

B. Total Electric Utility Uncollectible Accounts (FERC 904) $_____

C. Total Electric Utility Debt Service Payments on Long-Term Debt $_____

D. Safety (Please note: If you have no data for these categories, please write N/A. Only write 0 if you have no lost workdays or workday cases)

1. Total No. of Lost Workday Cases During 2013 _____
2. Total No. of Lost Workdays During 2013 _____

Part III. Financial Data

Special Instructions: In order to help you more accurately complete this section, we have included these checks to perform to ensure that accurate numbers are given.

- Line 2 must be greater than line 5
- Line 12 must be equal to or greater than line 11
- Lines 12 through 16 must be equal to line 17
- Remember that lines 12-17 include both operations AND maintenance
- Neither line 14, line 15, nor line 16 can be zero
- Report **full** dollar amounts, rounding to the nearest dollars.

Balance Sheet **Report full numbers (NOT in 000's)**

Asset Side

1. Total Current and Accrued Assets _____

2. Total Assets and Other Debits _____

Liability Side

3. Long-Term Debt: Bonds _____

4. Long-Term Debt: Total Long-Term Debt _____

5. Total Current and Accrued Liabilities _____

Selected Income Statement Items

6. Electric Operating Revenue (Must include only revenue from sales to ultimate consumers and sales for resale) _____

7. Depreciation Expenses _____

8. Electric Income (Electric operating income and other Electric income _____

9. Interest payment on Long-Term Debt paid during fiscal year (Include the amount of interest on outstanding long-term debt issued or assumed by the utility) _____

10. Net Income (Electric Income Minus Deductions) _____

Operation and Maintenance Expenses

11. Purchased Power Expenses _____

12. Total Production Expenses (including purchased power) _____

13. Transmission Expenses _____

14. Distribution Expenses _____

15. Customer Accounts Expenses; Customer Service and Information Expenses; and Sales Expenses _____

16. Administrative and General Expenses _____

17. Total Electric Operation and Maintenance Expenses (Sum of lines 12-16) _____

APPENDIX B

DATA SOURCES AND COMPUTATIONAL PROCEDURES

The financial and operating ratios in this report are calculated using data from the **APPA Performance Indicators Survey, 2013.** The **APPA Survey** includes data on employees, hours worked, earnings, distribution lines, reliability, lost workdays, uncollectible accounts. It also includes financial data formerly reported on Form EIA-412, including balance sheet, income statement and operation and maintenance expense information, as well as data on revenues, kilowatt-hour sales and customers as reported on the U.S. Department of Energy, Energy Information Administration (EIA) Form EIA-861

The list below contains data sources and computational procedures for each of the ratios in the report. Definitions are found within the body of the report. All data are for 2013.

1. Revenue per kWh (Dollars)

a. All Retail Customers

$$\frac{\text{EIA Form 861, Schedule 4, Part A, Total Revenue, (column e)}}{\text{EIA Form 861, Schedule 4, Part A, Total Megawatthours (column e)}}$$

b. Residential Customers

$$\frac{\text{EIA Form 861, Schedule 4, Part A, Residential Revenue (column a)}}{\text{EIA Form 861, Schedule 4, Part A, Residential Megawatthours (column a)}}$$

c. Commercial Customers

$$\frac{\text{EIA Form 861, Schedule 4, Part A, Commercial Revenue (column b)}}{\text{EIA Form 861, Schedule 4, Part A, Commercial Megawatthours (column b)}}$$

d. Industrial Customers

$$\frac{\text{EIA Form 861, Schedule 4, Part A, Industrial Revenue (column c)}}{\text{EIA Form 861, Schedule 4, Part A, Industrial Megawatthours (column c)}}$$

2. Debt to Total Assets - (Long Term Debt + Current and Accrued Liabilities to Total Assets)

$$\frac{\text{(APPA Survey, part III, line 4) + (APPA Survey, part III, line 5)}}{\text{APPA Survey, part III, line 2}}$$

3. Operating Ratio - (Total Electric O&M Expense to Total Electric Revenue)

$$\frac{\text{APPA Survey, part III, line 17}}{\text{APPA Survey, part III, line 6}}$$

4. Current Ratio - (Current & Accrued Assets to Current & Accrued Liabilities)

$$\frac{\text{APPA Survey, part III, line 1}}{\text{APPA Survey, part III, line 5}}$$

5a. Times Interest Earned - (Net Electric Utility Income + Interest on Long Term Debt to Interest on Long Term Debt)

$$\frac{\text{(APPA Survey, part III, line 10) + (APPA Survey, part III, line 9)}}{\text{APPA Survey, part III, line 9}}$$

5b. Debt Service Coverage - (Electric Utility Income + Depreciation to Total Electric Utility Debt Service Payments on Long-term Debt)

$$\frac{\text{(APPA Survey, part III, line 8) + (APPA Survey, part III, line 7)}}{\text{APPA Survey, Part II, Section C}}$$

6. Net Income per Revenue Dollar

$$\frac{\text{APPA Survey, part III, line 10}}{\text{APPA Survey, part III, line 6}}$$

7. Uncollectible accounts per Revenue Dollar

$$\frac{\text{APPA Survey, Part II, Section B, Uncollectible Accounts}}{\text{APPA Survey, part III, line 6}}$$

8. Retail Customers per Non-power-generation Employee

$$\frac{\text{EIA Form 861, Schedule 4, Part A Total number of customers (column e)}}{\text{Employees – Power Production Employees (APPA Survey, Part I)}}$$

Employees = Full Time + Part Time/2 + all contract employees (supervised by utility and supervised by contractor)

9. Total O & M Expense per kWh Sold

$$\frac{\text{APPA Survey, part III, line 17}}{\text{(EIA Form 861, Schedule 2, Part B, line 11 + line 12) *1000}}$$

10. Total O & M Expense (Excluding Power Supply Expense) per Retail Customer

$$\frac{\text{(APPA Survey, part III, line 17) - (APPA Survey, part III, line 12)}}{\text{EIA Form 861, Schedule 4, Part A, Total number of customers (column e)}}$$

11. Total Power Supply Expense per kWh Sold

APPA Survey, part III, line 12
(EIA Form 861, Schedule 2, Part B, line 11 + line 12) *1000

12. Purchased Power Cost per kWh

APPA Survey, part III, line 11
(EIA Form 861, Schedule 2, Part B, line 2) * 1000

13. Retail Customers per Meter Reader

EIA Form 861, Schedule 4, part A, Total number of customers (column e)
Meter Readers (from APPA Survey, Part I, Section C

(Number of Meter Readers = Full Time + Part Time/2 + Contract)

14. Distribution O & M Expenses per Retail Customer

APPA Survey, part III, line 14
EIA Form 861, Schedule 4, Part A, Total number of customers (column e)

15. Distribution O & M Expenses per Circuit Mile

APPA Survey, part III, line 14
APPA Survey, Part II, Section A, Total Distribution Line Circuit Miles

16. Customer Accounting, Customer Service and Sales Expense per Retail Customer

APPA Survey, part III, line 15
EIA Form 861, Schedule 4, Part A, Total number of customers (column e)

17. Administrative and General Expenses per Retail Customer

APPA Survey, part III, line 16
EIA Form 861, Schedule 4, Part A, Total number of customers (column e)

18. Labor Expense per Worker-hour

Total Labor Expense (APPA Survey, Part I)
Total Hours Worked (APPA Survey, Part I)

Labor Expense = Full-Time Earnings + Part-time Earnings + Contractor Earnings
Hours Worked = Full-Time Hours + Part-Time Hours + Contractor Hours
(supervised by utility and supervised by contractor)

19. OSHA Incidence Rate (per 100 employees)

$$\frac{\text{(APPA Survey, Part II, Section D, Total Number of Lost Workday Cases)} * 200{,}000}{\text{Number of Hours Worked (APPA Survey, Part I)}}$$

Hours Worked = Full Time Hours + Part Time Hours + Contract Hours (Supervised by utility only).

20. Energy Loss Percentage - Total Energy Losses to Total Sources of Energy

$$\frac{\text{EIA Form 861, Schedule 2, Part B, line 15}}{\text{EIA Form 861, Schedule 2, Part B, line 10}}$$

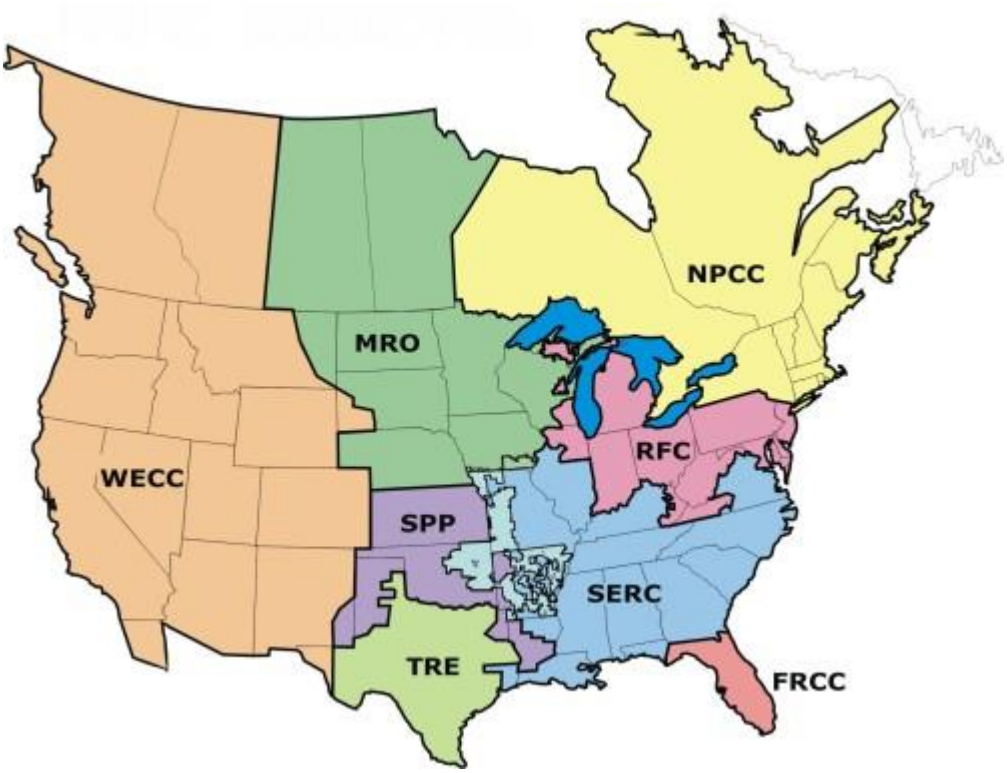
To express as a percent, multiply the result by 100.

21. System Load Factor - ((Total Sales + Total Energy Losses) / 8760 hrs./yr.) / Highest Hourly Peak Demand

$$\frac{\text{EIA Form 861, Schedule 2 Part B (line 11 + line 12 + line 15) / 8760}}{\text{(EIA Form 861, Schedule 2, Part A, line 6)}}$$

To express as a percent, multiply the result by 100.

APPENDIX C – REGIONAL DEFINITIONS



The regions used for this report correspond to regions of the North American Electric Reliability Council (NERC) as specified below.

"Region"	**Corresponding NERC Region(s)**
Northeast	NPCC - Northeast Power Coordinating Council
Southeast	SERC - Southeastern Electric Reliability Council
	FRCC – Florida Reliability Coordinating Council
North Central/ Plains*	MRO – Midwest Reliability Organization
	RFC – Reliability First Corporation
Southwest	SPP – Southwest Power Pool
	TRE – Texas Reliability Entity
West	WECC - Western Electricity Coordinating Council
	ASCC - Alaska Systems Coordinating Council

*: MAIN, ECAR, and MAAC joined to become the "ReliabilityFirst" NERC region, effective January 2006. However, the Energy Information Administration continues to identify utilities by their former NERC regions. APPA uses the former regions in establishing regional breakdowns to be consistent with prior reports.

APPENDIX D

UTILITIES INCLUDED IN THE 2013 REPORT

ALABAMA
Cullman Power Board
Decatur Utilities
Huntsville Utilities
Riviera Utilities

ARIZONA
Electrical District No. 2 Pinal County
Navajo Tribal Utility Authority
Salt River Project

ARKANSAS
Benton Utilities
Clarksville Light & Water Co.
Conway Corporation
Hope Water & Light Commission
Jonesboro City Water & Light
North Little Rock, City of
Paragould Light & Water Commission

CALIFORNIA
Alameda Municipal Power
Anaheim Public Utilities
Lodi Electric Utility
Palo Alto, City of
Pasadena Water and Power Department
Redding, City of
Riverside Public Utilities
Roseville Electric
Sacramento Municipal Utility District
Turlock Irrigation District

COLORADO
Fort Collins Utilities
Longmont Power & Communications
Loveland Water & Power

CONNECTICUT
Norwich Public Utilities

FLORIDA
Gainesville Regional Utilities
JEA
Keys Energy Services
Kissimmee Utility Authority
New Smyrna Beach Utilities Commission
Tallahassee, City of

GEORGIA
Marietta Power & Water

IDAHO
Idaho Falls Power

ILLINOIS
Geneva Electric Department
Springfield City Water, Light & Power
St. Charles, City of

INDIANA
Lawrenceburg Municipal Utilities

IOWA
Algona Municipal Utilities
Ames, City of
Cedar Falls Utilities
Muscatine Power & Water
Spencer, City of
Waverly Municipal Electric Utility

KANSAS
Kansas City Board of Public Utilities
McPherson Board of Public Utilities

KENTUCKY
Franklin Electric Plant Board

LOUISIANA
Alexandria, City of

MARYLAND
Easton Utilities Commission

MASSACHUSETTS
Braintree Electric Light Department
Holyoke Gas & Electric
Hudson, Town of
Reading Municipal Light Department
Taunton Municipal Lighting Plant
Westfield Gas & Electric

MICHIGAN
Bay City, City of
Coldwater Board of Public Utilities
Holland Board of Public Works
Lansing Board of Water & Light
Marquette Board of Light & Power
Zeeland Board of Public Works

MINNESOTA
Austin Utilities
East Grand Forks Water, Light, Power
Grand Rapids Public Utilities Commission
Marshall Municipal Utilities
Moorhead Public Service
Owatonna Public Utilities
Rochester Public Utilities
Worthington Public Utilities

MISSOURI
Hannibal, City of
Independence Power & Light
Rolla Municipal Utilities
Springfield City Utilities

NEBRASKA
Grand Island, City of
Lincoln Electric System
Loup River Public Power District
Omaha Public Power District
Southern Public Power District

NEW MEXICO
Farmington, City of
Los Alamos County

NEW YORK
Long Island Power Authority
Massena Electric Department
Plattsburgh Municipal Lighting Department

NORTH CAROLINA
Albemarle
Fayetteville Public Works Commission
Greenville Utilities Commission
Rocky Mount, City of
Shelby, City of
Smithfield, Town of

OHIO
Cuyahoga Falls, City of
Orrville, City of
Piqua, City of
Westerville, City of

OKLAHOMA
Stillwater Utilities Authority

OREGON
Canby Utility Board
Central Lincoln People's Utility District
Columbia River People's Utility District
Eugene Water & Electric Board
Springfield Utility Board
Tillamook People's Utility District

SOUTH CAROLINA
Greer Commission of Public Works
South Carolina Public Service Authority

SOUTH DAKOTA
Brookings, City of
Watertown Municipal Utilities

TENNESSEE
Alcoa Electric Department
Athens Utility Board
Bristol Tennessee Essential Services
CDE Lightband
Chattanooga Electric Power Board
Cleveland Utilities
Columbia Power System
Cookeville, City of
Covington Electric System
Dickson Electric System
Erwin Utilities
Ewotah Utility Board
Greenville Light & Power System
Jackson Energy Authority
McMinnville Electric System
Memphis Light, Gas, and Water Division
Murfreesboro Electric Department
PES-Energize
Ripley Power & Light
Sevier County Electric System
Weakley County Municipal Electric System

TEXAS
Austin Energy
Bryan Texas Utilities
College Station, City of
CPS Energy (San Antonio)
Denton Municipal Electric
Georgetown Utility Systems
Kerrville Public Utility Board
New Braunfels Utilities

UTAH
Lehi City Corporation
Logan City, Light & Water
Murray City Power
Springville, City of
St. George, City of

VERMONT
Burlington Electric Department

VIRGINIA

Bristol Virginia Utilities
Manassas, City of
Martinsville Electric Department

WASHINGTON

PUD No 1 of Benton County
PUD No 1 of Clallam County
PUD No 1 of Clark County
PUD No 1 of Cowlitz County
PUD No 1 of Grays Harbor County
PUD No 1 of Lewis County
PUD No 1 of Snohomish County
PUD No 2 of Pacific County
PUD No 3 of Mason County
Seattle City Light
Tacoma Public Utilities

WISCONSIN

Kaukauna Utilities
Manitowoc Public Utilities
Marshfield Utilities
Menasha Utilities
Rice Lake Utilities
Shawano Municipal Utilities
Wisconsin Rapids W W & L Comm