

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

Current Report

Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): October 29, 2010

Commission File Number	Exact Name of Registrant as Specified in its Charter, State of Incorporation, Address of Principal Executive Offices and Telephone Number	I.R.S. Employer Identification No.
001-32206	GREAT PLAINS ENERGY INCORPORATED (A Missouri Corporation) 1200 Main Street Kansas City, Missouri 64105 (816) 556-2200 NOT APPLICABLE (Former name or former address, if changed since last report)	43-1916803
000-51873	KANSAS CITY POWER & LIGHT COMPANY (A Missouri Corporation) 1200 Main Street Kansas City, Missouri 64105 (816) 556-2200 NOT APPLICABLE (Former name or former address, if changed since last report)	44-0308720

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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This combined Current Report on Form 8-K is being furnished by Great Plains Energy Incorporated (Great Plains Energy) and Kansas City Power & Light Company (KCP&L). KCP&L is a wholly-owned subsidiary of Great Plains Energy and represents a significant portion of its assets, liabilities, revenues, expenses and operations. Thus, all information contained in this report relates to, and is furnished by, Great Plains Energy. Information that is specifically identified in this report as relating solely to Great Plains Energy, such as its financial statements and all information relating to Great Plains Energy's other operations, businesses and subsidiaries, including KCP&L Greater Missouri Operations Company (GMO), does not relate to, and is not furnished by, KCP&L. KCP&L makes no representation as to that information. Neither Great Plains Energy nor GMO has any obligation in respect of KCP&L's debt securities and holders of such securities should not consider Great Plains Energy's or GMO's financial resources or results of operations in making a decision with respect to KCP&L's debt securities. Similarly, KCP&L has no obligation in respect of securities of Great Plains Energy or GMO.

Item 7.01 Regulation FD Disclosure

From October 31, 2010 through November 2, 2010, Great Plains Energy will participate in meetings with investors at the 2010 Edison Electric Institute Financial Conference, and will make a presentation scheduled for 2:15 p.m. Eastern Time on November 2, 2010. An audio-only webcast link and the presentation slides will be made available in the Investor Relations section of Great Plains Energy's website at www.greatplainsenergy.com. In the webcast and presentation, Great Plains Energy will reaffirm its 2010 earnings guidance range of \$1.52 to \$1.62 per share which was previously provided on October 28, 2010. A copy of the presentation slides to be used in the investor meetings and presentation is attached hereto as Exhibit 99.1.

The presentation slides contain information regarding KCP&L. Accordingly, information in the presentation slides relating to KCP&L is also being furnished on behalf of KCP&L.

The information under this Item 7.01 and in Exhibit 99.1 hereto is being furnished and shall not be deemed "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended or otherwise subject to the liabilities of that section. The information under this Item 7.01 and Exhibit 99.1 hereto shall not be deemed incorporated by reference into any registration statement or other document pursuant to the Securities Act of 1933, as amended, unless otherwise expressly indicated in such registration statement or other document.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No. Description

99.1 2010 EEI Financial Conference presentation slides

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrants have duly caused this report to be signed on their behalf by the undersigned hereunto duly authorized.

GREAT PLAINS ENERGY INCORPORATED

/s/ Michael W. Cline
Michael W. Cline
Vice President-Investor Relations and Treasurer

KANSAS CITY POWER & LIGHT COMPANY

/s/ Michael W. Cline
Michael W. Cline
Vice President-Investor Relations and Treasurer

Date: October 29, 2010

Exhibit Index

Exhibit No. Description

99.1 2010 EEI Financial Conference presentation slides

Great Plains Energy

**Edison Electric Institute Financial Conference
November 2, 2010**

**Michael J. Chesser
Chairman and CEO**



2010 EEI Presentation

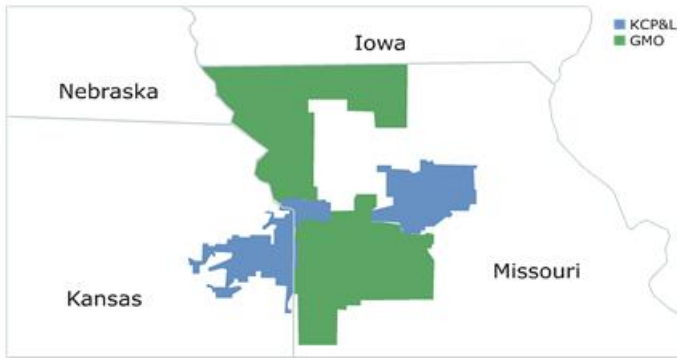
Forward Looking Statement

Statements made in this presentation that are not based on historical facts are forward-looking, may involve risks and uncertainties, and are intended to be as of the date when made. Forward-looking statements include, but are not limited to, the outcome of regulatory proceedings, cost estimates of the Comprehensive Energy Plan and other matters affecting future operations. In connection with the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, Great Plains Energy and KCP&L are providing a number of important factors that could cause actual results to differ materially from the provided forward-looking information. These important factors include: future economic conditions in regional, national and international markets and their effects on sales, prices and costs, including but not limited to possible further deterioration in economic conditions and the timing and extent of any economic recovery; prices and availability of electricity in regional and national wholesale markets; market perception of the energy industry, Great Plains Energy and KCP&L; changes in business strategy, operations or development plans; effects of current or proposed state and federal legislative and regulatory actions or developments, including, but not limited to, deregulation, re-regulation and restructuring of the electric utility industry; decisions of regulators regarding rates the companies can charge for electricity; adverse changes in applicable laws, regulations, rules, principles or practices governing tax, accounting and environmental matters including, but not limited to, air and water quality; financial market conditions and performance including, but not limited to, changes in interest rates and credit spreads and in availability and cost of capital and the effects on nuclear decommissioning trust and pension plan assets and costs; impairments of long-lived assets or goodwill; credit ratings; inflation rates; effectiveness of risk management policies and procedures and the ability of counterparties to satisfy their contractual commitments; impact of terrorist acts; increased competition including, but not limited to, retail choice in the electric utility industry and the entry of new competitors; ability to carry out marketing and sales plans; weather conditions including, but not limited to, weather-related damage and their effects on sales, prices and costs; cost, availability, quality and deliverability of fuel; ability to achieve generation goals and the occurrence and duration of planned and unplanned generation outages; delays in the anticipated in-service dates and cost increases of additional generating capacity and environmental projects; nuclear operations; workforce risks, including, but not limited to, increased costs of retirement, health care and other benefits; the timing and amount of resulting synergy savings from the GMO acquisition; and other risks and uncertainties.

This list of factors is not all-inclusive because it is not possible to predict all factors. Other risk factors are detailed from time to time in Great Plains Energy's and KCP&L's quarterly reports on Form 10-Q and annual report on Form 10-K filed with the Securities and Exchange Commission. Each forward-looking statement speaks only as of the date of the particular statement. Great Plains Energy and KCP&L undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Solid Vertically-Integrated Midwest Utility

Service Territories: KCP&L and GMO

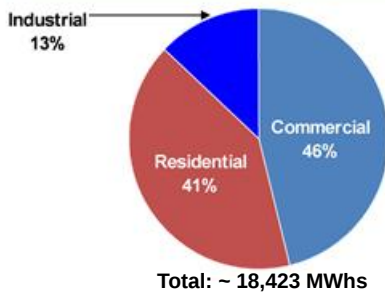


Note: Charts below reflect YTD 2010

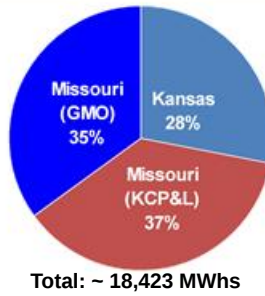
Business Highlights

- Solid Midwest electric utility operating under the KCP&L brand
- Transformational events in 2008 to focus business model on fully regulated utility operations
 - Sale of Strategic Energy
 - Acquisition of Aquila (now KCP&L Greater Missouri Operations,
- Company attributes or “GMO”)
 - ~822,000 customers / 3,200+ employees
 - ~6,600 MW of primarily low-cost coal baseload generation
 - 5-year projected synergies post-GMO acquisition of ~\$760M
 - ~\$8.5bn in assets and \$4.4bn in rate base at 2009YE

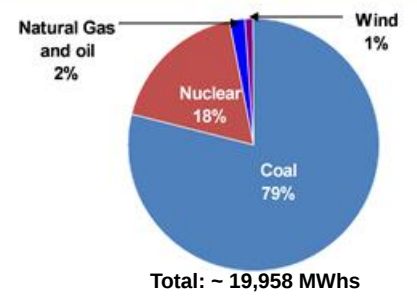
YTD MWh Sold by Customer Type



YTD MWh Sales by Jurisdiction



YTD MWh Generated by Fuel Type



Strength at the Core



Impressive Reliability



Stewards of the Environment



Tier 1 Customer Service



Strong Plant Performance



Solid Safety Record



Reliable, Economical, and Safe Nuclear Generation

Executing the Plan


COMPREHENSIVE ENERGY PLAN HIGHLIGHTS



Strategic Overview

Terry Bassham
Executive Vice President, Utility
Operations

Steps to Completion of Iatan 2

-  Hydrostatic Tests (completed 10/07/09)
-  Air Flow Draft Tests (completed 2/25/10)
-  First Fire on Oil (completed 3/29/10)
-  Steam Blows (completed 6/03/10)
-  First Fire on Coal (completed 7/20/10)
-  Synchronization (completed 7/20/10)
-  In-Service (declared by Company 8/26/10; confirmed by KCC in October; MPSC view to be communicated through pending rate cases)

Pending Rate Case Summary

(in \$ millions)

Jurisdiction	Requested Increase	Requested ROE	Rate Base	Rates Effective	Decision
KCP&L - KS	\$55.2 ¹	11.25% ²	1,794.8	12/1/2010	Fall 2010
KCP&L - MO	\$92.1	11.00%	2,122.8	5/4/2011	Spring 2011
GMO - MPS	\$75.8	11.00%	1,468.7	6/4/2011	Spring 2011
GMO - L&P	\$22.1	11.00%	422.0	6/4/2011	Spring 2011

¹KCP&L's initial request was subsequently adjusted to \$50.9 million as the net result of updates to the case, most notably a reduction in the requested ROE (see below footnote)

²The requested ROE was adjusted by KCP&L to 10.75% with the potential for a 0.25% adder (to 11.00% ROE) if the KCC adopts a particular rate design proposal by KCC Staff and other interveners

Drivers of Change



Sustainable Resource Strategy Change Creates Opportunity



Financial Overview

James C. Shay
Senior Vice President Finance &
Strategic Planning and CFO

GREAT PLAINS ENERGY INCORPORATED
Consolidated Earnings and Earnings Per Share
Three Months Ended September 30
(Unaudited)

	Earnings		Earnings per Great Plains Energy Share	
	2010	2009	2010	2009
	(millions)			
Electric Utility	\$ 136.2	\$ 83.9	\$ 0.99	\$ 0.62
Other	(4.2)	(5.5)	(0.03)	(0.04)
Income from continuing operations	132.0	78.4	0.96	0.58
Strategic Energy discontinued operations	-	0.8	-	0.01
Net income	132.0	79.2	0.96	0.59
Less: Net income attributable to noncontrolling interest	-	(0.1)	-	-
Net income attributable to Great Plains Energy	132.0	79.1	0.96	0.59
Preferred dividends	(0.4)	(0.4)	-	(0.01)
Earnings available for common shareholders	\$ 131.6	\$ 78.7	\$ 0.96	\$ 0.58

Electric Utility's net income increased \$52.3 million primarily driven by a \$109.8 million increase in gross margin* due to favorable impacts from weather and new retail rates

Increased number of shares outstanding primarily from the May 2009 equity offering resulted in dilution of \$0.02 per share

*Gross margin is defined and reconciled to GAAP operating revenues in the Appendix

GREAT PLAINS ENERGY INCORPORATED
Consolidated Earnings and Earnings Per Share
Year to Date September 30
(Unaudited)

	Earnings		Earnings per Great Plains Energy Share	
	2010	2009	2010	2009
	(millions)			
Electric Utility	\$ 232.8	\$ 134.1	\$ 1.70	\$ 1.05
Other	(16.1)	2.9	(0.12)	0.02
Income from continuing operations	216.7	137.0	1.58	1.07
Strategic Energy discontinued operations	-	(2.3)	-	(0.02)
Net income	216.7	134.7	1.58	1.05
Less: Net income attributable to noncontrolling interest	(0.1)	(0.2)	-	-
Net income attributable to Great Plains Energy	216.6	134.5	1.58	1.05
Preferred dividends	(1.2)	(1.2)	(0.01)	(0.01)
Earnings available for common shareholders	\$ 215.4	\$ 133.3	\$ 1.57	\$ 1.04

Electric Utility's net income increased \$98.7 million primarily driven by a \$239.4 million increase in gross margin* due to new retail rates and favorable impacts from weather

Other category earnings decreased \$18.9 million primarily as a result of increased interest from the Equity Units issued in 2009 and a \$16 million benefit in 2009 related to the settlement of GMO's 2003 - 2004 federal tax audit

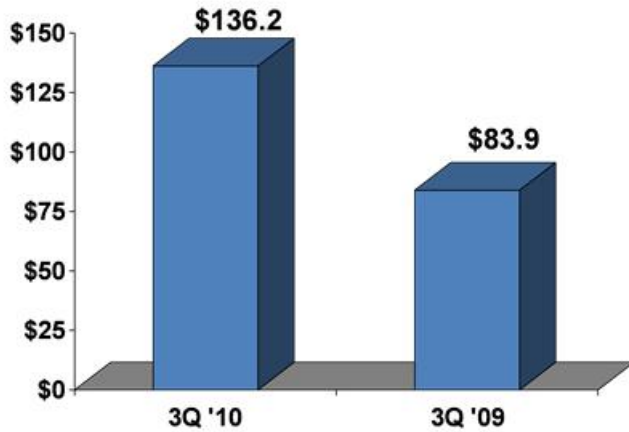
Increased number of shares outstanding primarily from the May 2009 equity offering resulted in dilution of \$0.12 per share

*Gross margin is defined and reconciled to GAAP operating revenues in the Appendix

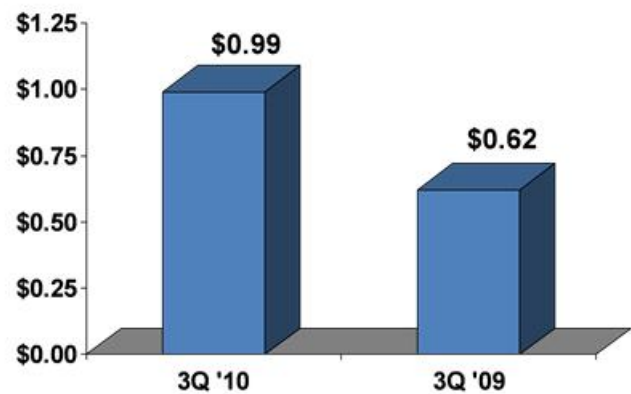
Electric Utility Third Quarter

(millions except where indicated)

Earnings



Earnings Per Share



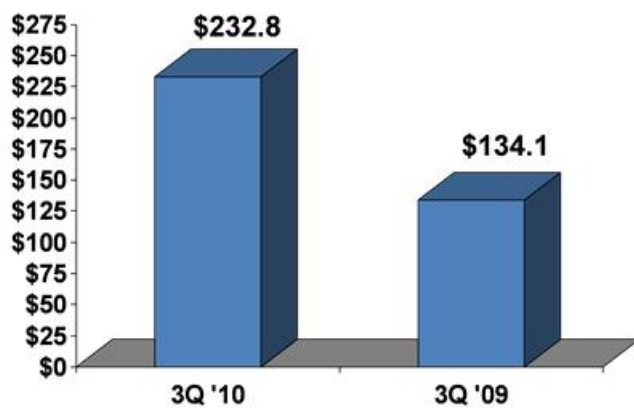
Key Earnings Drivers:

- + Increased gross margin of \$109.8 million primarily due to significantly warmer weather and full-quarter impact of new retail rates which took effect in August and September 2009
- Increased operating expense of \$12.1 million primarily driven by \$5.2 million increase in general taxes and \$4.0 million Iatan 2 loss;
- Increased depreciation and amortization of \$7.4 million, including \$3.2 million of additional amortization pursuant to KCP&L's 2009 rate cases; and
- Decrease in non-operating income and expenses of \$7.0 million, including \$4.2 million less AFUDC equity due to lower CWIP balances

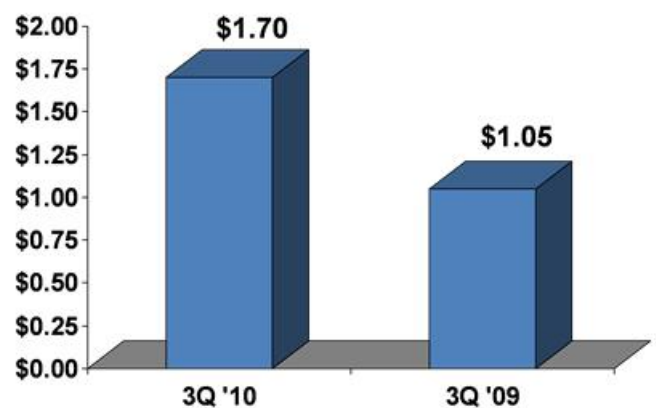
Electric Utility Year-to-Date

(millions except where indicated)

Earnings



Earnings Per Share



Key Earnings Drivers:

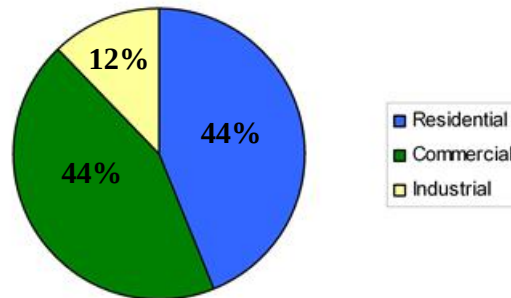
- + Increased gross margin of \$239.4 million primarily due to new retail rates and favorable weather
- Increased operating expense of \$40.7 million primarily due to planned plant outages, higher general taxes and the Iatan 2 loss; and
- Increased depreciation and amortization of \$28.2 million; including \$17.2 million of additional amortization pursuant to KCP&L's 2009 rate cases

Electric Utility Segment

Weather Normalized Retail MWh Sales and Customer Growth Rates

	3Q 2010 Compared to 3Q 2009			YTD 2010 Compared to YTD 2009		
	Customers	Use/Customer	Change MWh Sales	Customers	Use/Customer	Change MWh Sales
Residential	0.3%	0.8%	1.0%	0.2%	1.3%	1.5%
Commercial	0.5%	-1.7%	-1.1%	0.2%	-1.1%	-0.9%
Industrial	-1.2%	0.1%	-1.1%	-1.3%	4.8%	3.4%
Weighted Average	0.3%	-0.4%	-0.1%	0.2%	0.4%	0.6%

Retail MWh Sales by Customer Class - Third Quarter 2010



Debt and Capital Structure

as of September 30, 2010

Great Plains Energy Debt (\$ in millions)

	KCP&L		GMO ⁽¹⁾		GPE		Consolidated	
	Amount	Rate ⁽²⁾	Amount	Rate ⁽²⁾	Amount	Rate ⁽²⁾	Amount	Rate ⁽²⁾
Short-term Debt	\$304.5 ⁽³⁾	0.80%	\$0.0	0.00%	\$22.0	3.06%	\$326.5	0.95%
Long-term Debt ⁽⁴⁾	\$1,780.0	6.13%	\$1,020.1	9.88%	\$636.9	7.57%	\$3,437.0	7.47%
Total	\$2,084.5	5.35%	\$1,020.1	9.88%	\$658.9	7.42%	\$3,763.5	6.89%

Secured debt = \$862.3 (23%), Unsecured debt = \$2,901.2 (77%)

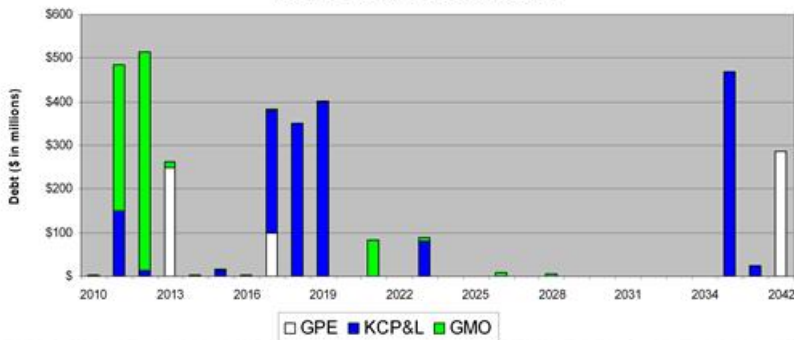
⁽¹⁾ GPE guarantees substantially all of GMO's debt

⁽²⁾ Weighted Average Rates - excludes premium/discounts and fair market value adjustments; includes full Equity Units coupon (12%) for GPE

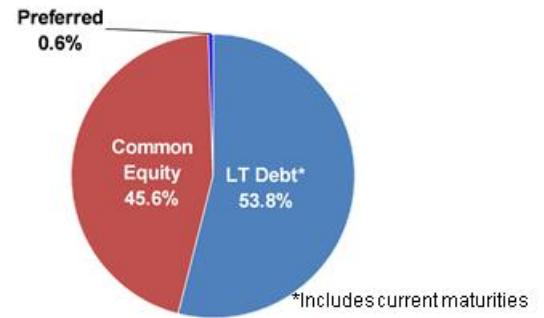
⁽³⁾ Includes fully-drawn KCP&L A/R Securitization facility of \$95 million

⁽⁴⁾ Includes current maturities of long-term debt

Long-term Debt Maturities



Capital Structure



2010 EPS Guidance

- Increased to \$1.52 - \$1.62 from \$1.30 - \$1.50
- Key YTD drivers of new guidance include estimated weather impact vs. normal, lower fuel cost at KCP&L - Missouri, and lower transmission costs at GMO
- Guidance assumes no regulatory disallowance for Iatan beyond that already recognized

Positioned for Long-term Earnings Growth

- Diligently pursue constructive outcomes in current rate cases
- Continue to deliver on GMO synergies and move toward Tier 1 costs across the organization
- Evaluate future opportunities through Sustainable Resource Strategy and continue to advocate on behalf of our shareholders, customers, and communities

Great Plains Energy

**Edison Electric Institute Financial Conference
November 2, 2010**



2010 EEI Presentation

Appendix 3Q 2010 Gross Margin Reconciliation

Great Plains Energy Incorporated
Reconciliation of Gross Margin to Operating Revenues
(Unaudited)

	Three Months Ended		Year to Date	
	September 30		September 30	
	2010	2009	2010	2009
	(millions)			
Operating revenues	\$ 728.8	\$ 587.7	\$ 1,787.7	\$ 1,487.4
Fuel	(127.3)	(118.1)	(333.2)	(302.5)
Purchased power	(68.0)	(46.1)	(171.4)	(140.9)
Transmission of electricity by others	(8.1)	(7.9)	(20.9)	(21.2)
Gross margin	\$ 525.4	\$ 415.6	\$ 1,262.2	\$ 1,022.8

Gross margin is a financial measure that is not calculated in accordance with generally accepted accounting principles (GAAP). Gross margin, as used by Great Plains Energy, is defined as operating revenues less fuel, purchased power and transmission of electricity by others. The Company's expense for fuel, purchased power and transmission of electricity by others, offset by wholesale sales margin, is subject to recovery through cost adjustment mechanisms, except for KCP&L's Missouri retail operations. As a result, operating revenues increase or decrease in relation to a significant portion of these expenses. Management believes that gross margin provides a more meaningful basis for evaluating the Electric Utility segment's operations across periods than operating revenues because gross margin excludes the revenue effect of fluctuations in these expenses. Gross margin is used internally to measure performance against budget and in reports for management and the Board of Directors. The Company's definition of gross margin may differ from similar terms used by other companies. A reconciliation to GAAP operating revenues is provided in the table above.