

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): March 3, 2010

<b>Commission File Number</b>	<b>Registrant, State of Incorporation, Address and Telephone Number</b>	<b>I.R.S. Employer Identification Number</b>
001-32206	<b>GREAT PLAINS ENERGY INCORPORATED</b> (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	<b>KANSAS CITY POWER &amp; LIGHT COMPANY</b> (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))

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**

On March 3, 2010, Great Plains Energy will participate in meetings with investors. A copy of the investor handout to be used in such meetings is attached as Exhibit 99.1 hereto. The investor handout contains information regarding KCP&L. Accordingly, information in the investor handout relating to KCP&L is also being furnished on behalf of KCP&L.

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

**Item 9.01 Financial Statements and Exhibits**

(d) Exhibits

99.1 Investor handout (furnished and not deemed filed for the purpose of Section 18 of the Securities Exchange Act of 1934, as amended).

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**SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its 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: March 3, 2010.

**Exhibit Index**

Exhibit No.	Title
99.1	Investor handout (furnished and not deemed filed for the purpose of Section 18 of the Securities Exchange Act of 1934, as amended).

# Great Plains Energy

## Year-end and Fourth Quarter 2009 Earnings Presentation

February 26, 2010



# 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, the registrants 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 Kansas City Power & Light Company (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 planning 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, retirement compensation and benefits costs; the timing and amount of resulting synergy savings from the acquisition of KCP&L Greater Missouri Operations Company; 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 most recent quarterly report 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.



# Great Plains Energy

## Year-end and Fourth Quarter 2009 Earnings Presentation

February 26, 2010



**Mike Chesser,  
Chairman and CEO**

# 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*



# 2010 and Beyond

- Improved earnings outlook
- Completion of Iatan 2
- Continued focus on regulatory process
- Continued delivery of GMO synergies and movement toward Tier 1 costs across the organization
- Sound planning to effectively position the Company financially and strategically to meet future generation and network requirements and as an industry leader in energy efficiency





**William H. Downey,  
President and COO**



# 2009 Operational and Regulatory Highlights

- Successful completion of Iatan 1 and Sibley 3 Air Quality Control Systems (AQCS) and Iatan 1 overhaul
- Constructive settlements in five rate cases
- Filed rate case for KCP&L Kansas with flexible procedural schedule
- Major progress on Iatan 2 construction
- “Strength at the Core” in utility operations
- Improved generation fleet performance compared to 2008
- Successful Wolf Creek refueling outage
- Continued to capture synergies from GMO acquisition and identified additional opportunities



## Steps to In-Service Date for Iatan 2

Hydrostatic Tests (completed 10/07/09)

Air Flow Draft Tests (completed 2/25/10)

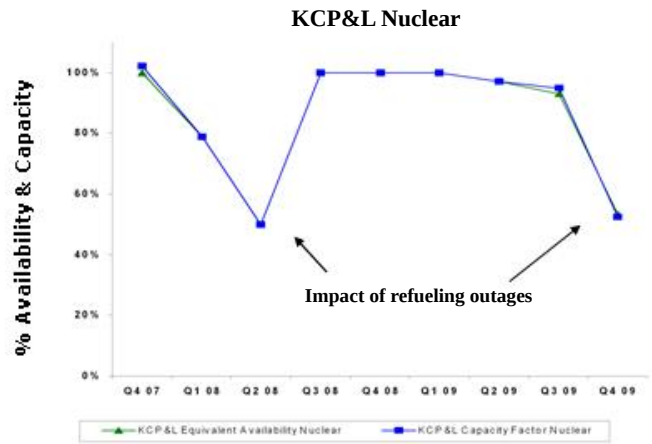
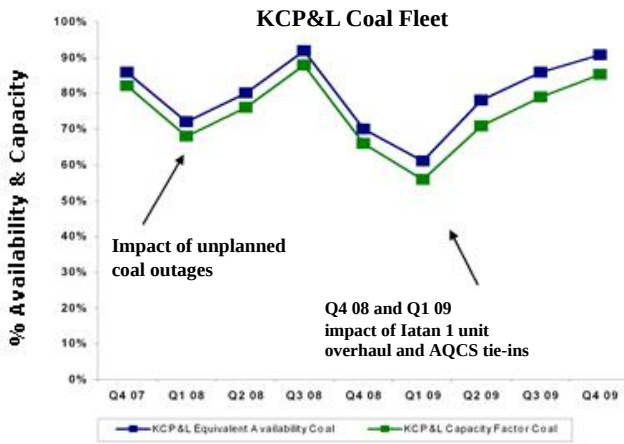
q First Fire on Oil

q First Fire on Coal

q Synchronization

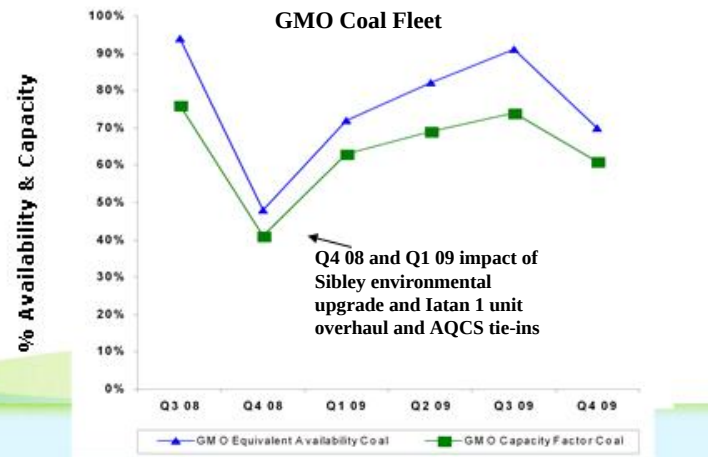
q Provisional Acceptance

# Plant Performance



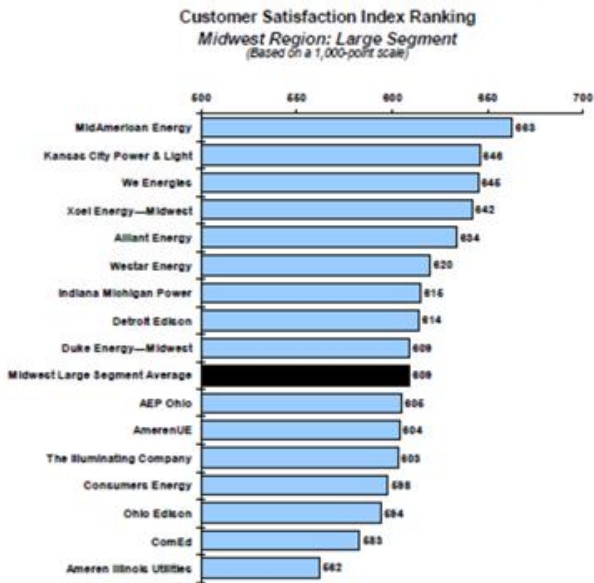
	Year Ended December 31	
	2009	2008
Equivalent Availability - Total GPE (KCP&L and GMO Coal and Nuclear)	80%	78% *1
Capacity Factor - Total GPE (KCP&L and GMO Coal and Nuclear)	73%	74% *1

\*1 2008 reflects GMO results for the period July 14 through December 31, 2008



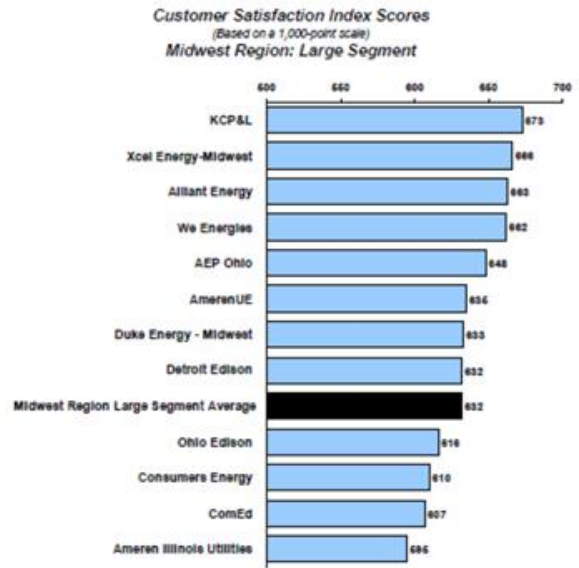
# “Strength at the Core” Performance Metrics

J.D. Power and Associates  
2009 Electric Utility Residential Customer Satisfaction Study<sup>SM</sup>



Source: J.D. Power and Associates 2009 Electric Utility Residential Customer Satisfaction Study<sup>SM</sup>

J.D. Power and Associates  
2010 Electric Utility Business Customer Satisfaction Study<sup>SM</sup>



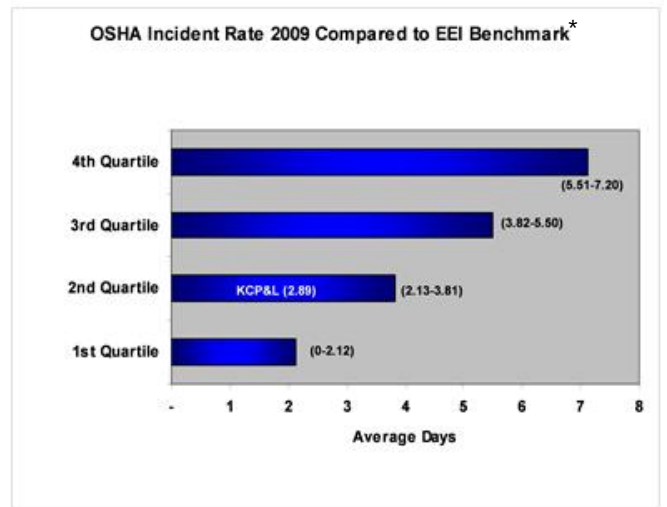
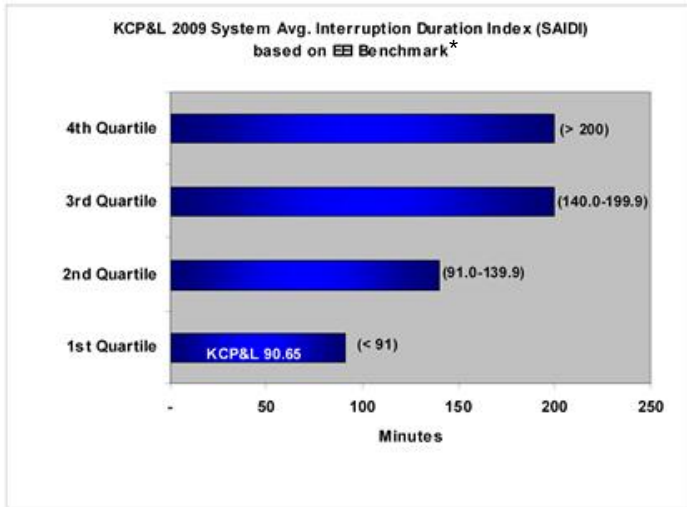
Source: J.D. Power and Associates 2010 Electric Utility Business Customer Satisfaction Study<sup>SM</sup>



# “Strength at the Core” Performance Metrics

## Reliability

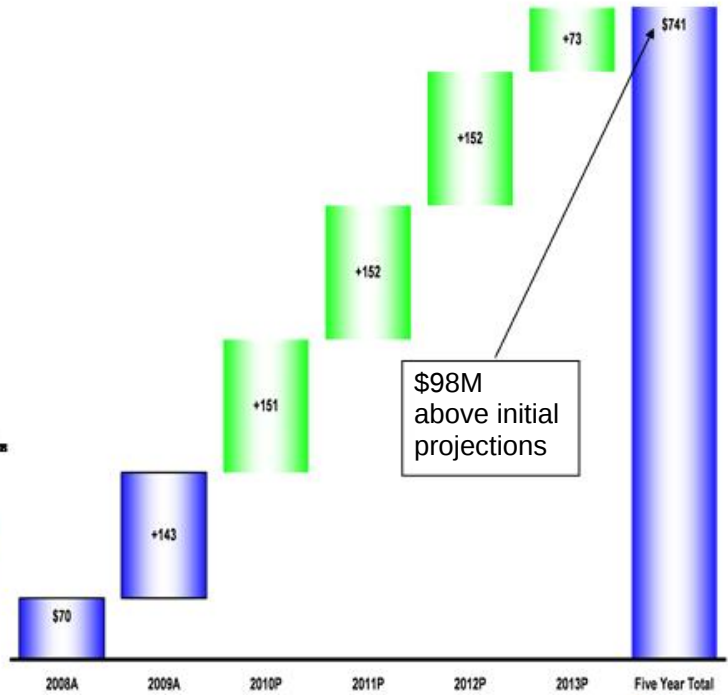
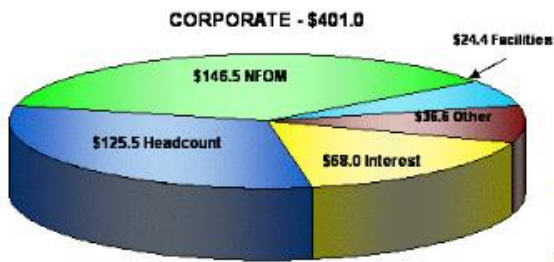
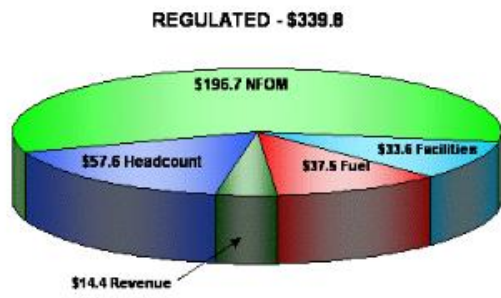
## Safety



\* Latest available data



# GMO Acquisition Synergies



# Financial Overview



**Terry Bassham, CFO**  
**Executive Vice President Finance & Strategic Development**

**GREAT PLAINS ENERGY**  
**Consolidated Earnings and Earnings Per Share**  
**Year Ended December 31**  
**(unaudited)**

	Earnings		Earnings per Great Plains Energy Share	
	2009	2008	2009	2008
	(millions)			
Electric Utility	\$ 157.8	\$ 143.1	\$ 1.22	\$ 1.41
Other	(5.9)	(23.4)	(0.05)	(0.23)
Income from continuing operations	151.9	119.7	1.17	1.18
Strategic Energy discontinued operations	(1.5)	35.0	(0.01)	0.35
Net income	150.4	154.7	1.16	1.53
Less: Net income attributable to noncontrolling interest	(0.3)	(0.2)	-	-
Net income attributable to Great Plains Energy	150.1	154.5	1.16	1.53
Preferred dividends	(1.6)	(1.6)	(0.02)	(0.02)
Earnings available for common shareholders	\$ 148.5	\$ 152.9	\$ 1.14	\$ 1.51

Note: 2008 reflects GMO results for the period July 14, 2008 through December 31, 2008

- Increased Electric Utility segment earnings of \$14.7 million mainly attributable to the inclusion of GMO's regulated utility operations for the full period in 2009, new retail rates and lower purchased power expense. Increase was partially offset by unfavorable weather, decline in weather-normalized customer usage, decreased wholesale revenues and increased interest expense.
- Reduced Other segment losses of \$17.4 million including a \$16.0 million tax benefit from an audit settlement in GMO's non-utility operations.
- Loss of \$1.5 million in 2009 related to the discontinued operations of Strategic Energy compared to income of \$35.0 million for the full period in 2008.
- Increase of 28.6 million average dilutive shares outstanding resulted in dilution of \$0.33 per share.





**GREAT PLAINS ENERGY**  
**Consolidated Earnings and Earnings Per Share**  
**Three Months Ended December 31**  
(Unaudited)

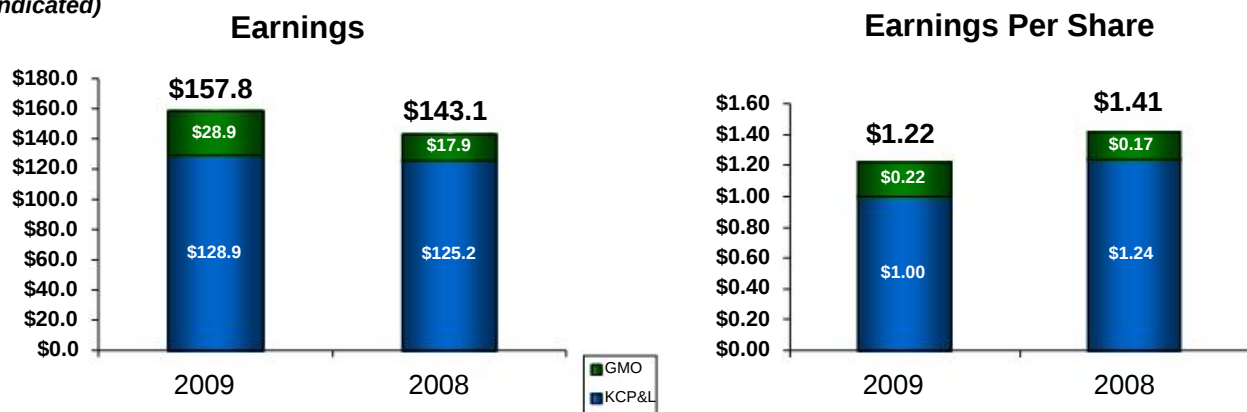
	Earnings		Earnings per Great Plains Energy Share	
	2009	2008	2009	2008
	(millions)			
Electric Utility	\$ 23.7	\$ 15.7	\$ 0.17	\$ 0.13
Other	(8.8)	(8.5)	(0.06)	(0.07)
Income from continuing operations	14.9	7.2	0.11	0.06
Strategic Energy discontinued operations	0.8	-	0.01	-
Net income	15.7	7.2	0.12	0.06
Less: Net income attributable to noncontrolling interest	(0.1)	(0.2)	-	-
Net income attributable to Great Plains Energy	15.6	7.0	0.12	0.06
Preferred dividends	(0.4)	(0.4)	(0.01)	-
Earnings available for common shareholders	\$ 15.2	\$ 6.6	\$ 0.11	\$ 0.06

- Electric Utility segment earnings increased \$8.0 million primarily as a result of new retail rates and decreased purchased power expense. Increase partially offset by unfavorable weather, lower weather-normalized customer usage and increased depreciation and amortization expense and higher interest expense.
- A 17.8 million increase in the average number of shares outstanding since the fourth quarter of 2008 resulted in \$0.02 per share dilution.



# Electric Utility Full-Year Results

(millions except where indicated)



## Key Earnings Drivers:

- + GMO utility earnings increased \$11.0 million primarily from inclusion for full year in 2009
- + Decreased purchased power expense of \$48.2 million at KCP&L
- + Decreased income taxes of \$12.9 million at KCP&L
- + Increase in KCP&L's AFUDC equity of \$8.2 million
  
- Reduced KCP&L revenues of \$24.8 million, including \$55.3 million drop in wholesale
- Increased non-fuel O&M of \$6.0 million
- Increased depreciation and amortization of \$25.3 million, including \$10.8 million of additional amortization at KCP&L
- Increased interest expense, net of AFUDC, of \$12.6 million at KCP&L
- Dilution of \$0.34 per share caused by additional shares outstanding



# Electric Utility Fourth Quarter Results

(millions except where indicated)



## Key Earnings Drivers:

- + Increased retail revenue of \$36.5 million driven by new retail rates partially offset by mild weather and lower weather-normalized energy consumption
- + Decline in purchased power expense of \$27.8 million
- Increased fuel expense of \$14.3 million
- Increased depreciation & amortization of \$13.3 million; including \$7.0 million of additional amortization
- Increased interest expense, net of AFUDC, of \$4.2 million
- Higher shares outstanding caused electric utility segment dilution of \$0.03 per share

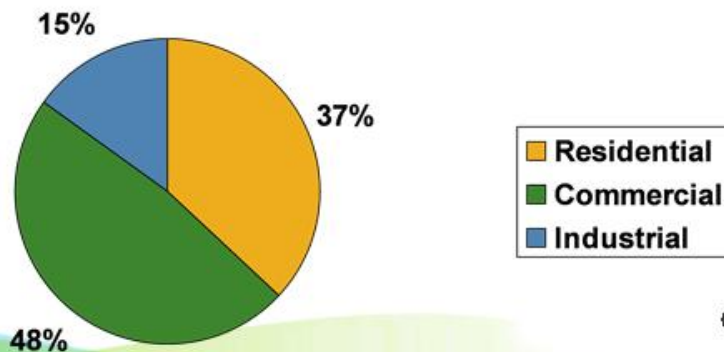


# Electric Utility Segment

## Weather-Normalized Retail MWh Sales and Customer Growth Rates

<u>GPE</u>	<u>4Q 2009 Compared to 4Q 2008</u>			<u>YTD 2009 Compared to YTD 2008</u>		
	Customers	Use/Customer	Change MWh Sales	Customers	Use/Customer	Change MWh Sales
Residential	0.3%	2.5%	2.8%	0.4%	0.2%	0.6%
Commercial	-0.3%	-1.2%	-1.5%	0.0%	-0.7%	-0.7%
Industrial	-1.5%	-3.2%	-4.6%	-1.5%	-6.6%	-8.0%
Weighted Avg.	0.2%	-0.6%	-0.4%	0.3%	-1.5%	-1.2%

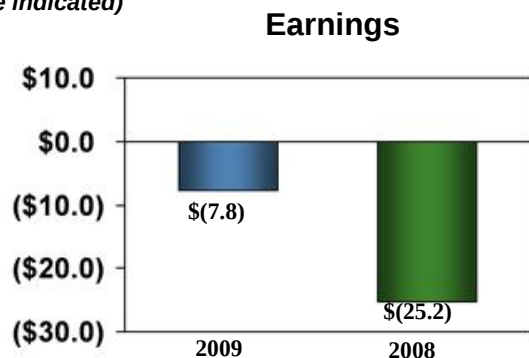
## Retail MWh Sales by Customer Class - Fourth Quarter 2009



Note: Includes GMO for full periods presented

# Other Segment Full-Year Results

(millions except where indicated)



## Key Drivers:

- + \$16.0 million first quarter GMO non-utility tax benefit
- \$11.4 million in after-tax interest expense

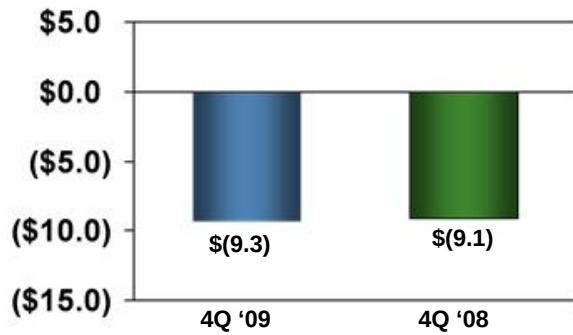
2008 included after-tax loss of \$5.7 million from a mark-to-market change on interest rate hedges, \$3.6 million after-tax income from the reversal of interest expense and \$3.4 million after-tax income related to the release of a legal liability



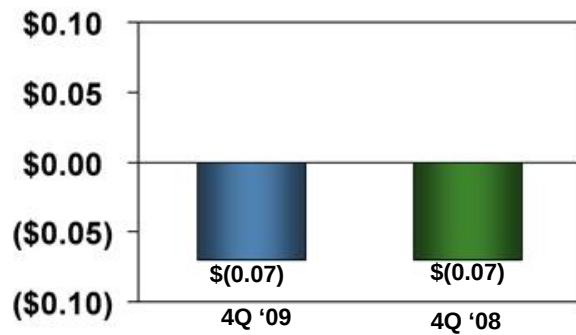
# Other Segment Fourth Quarter Results

(millions except where indicated)

### Earnings



### Earnings Per Share



### Key Earnings Drivers:

- + \$2.5 million reduction in losses from GMO non-utility activities
- Increased after-tax interest of \$4.6 million from Equity Units



# Credit Ratings, Debt, Capital Structure

## Credit Ratings

	Moody's	Standard & Poor's
<b>Great Plains Energy</b>		
Outlook	Negative	Negative
Corporate Credit Rating	-	BBB
Preferred Stock	Ba1	BB+
Senior Unsecured Debt	Baa3	BBB-
<b>KCP&amp;L</b>		
Outlook	Negative	Negative
Senior secured Debt	A3	BBB+
Senior Unsecured Debt	Baa1	BBB
Commercial Paper	P-2	A-3
<b>GMO</b>		
Outlook	Negative	Negative
Senior Unsecured Debt	Baa3	BBB

## Great Plains Energy Debt (\$ in millions as of 12/31/09)

	KCP&L		GMO <sup>(1)</sup>		GPE		Consolidated	
	Amount	Rate <sup>(2)</sup>	Amount	Rate <sup>(2)</sup>	Amount	Rate <sup>(2)</sup>	Amount	Rate <sup>(2)</sup>
Short-term Debt	\$186.6	0.58%	\$232.0	1.50%	\$20.0	0.68%	\$438.6	1.07%
Long-term Debt <sup>(3)</sup>	\$1,780.1	6.15%	\$1,047.1	9.88%	\$387.1	10.67%	\$3,214.3	7.86%
<b>Total</b>	<b>\$1,966.7</b>	<b>5.62%</b>	<b>\$1,279.1</b>	<b>8.25%</b>	<b>\$407.1</b>	<b>10.18%</b>	<b>\$3,652.9</b>	<b>7.02%</b>

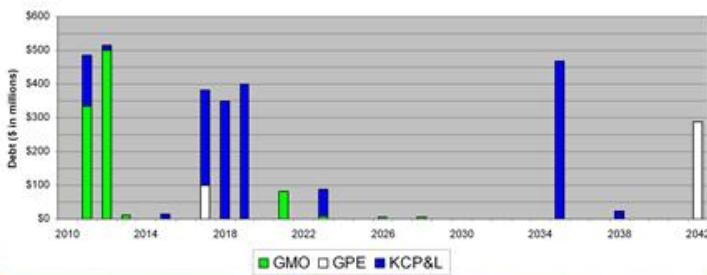
Secured debt = \$768.8 (21%), Unsecured debt = \$2,884.1 (79%)

<sup>(1)</sup> GPE guarantees substantially all of GMO's debt

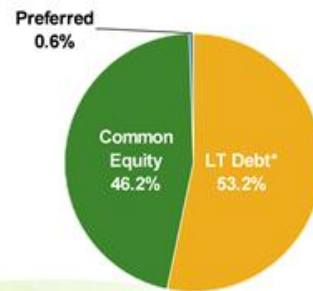
<sup>(2)</sup> Weighted Average Rates – excludes premium/discounts and fair market value adjustments

<sup>(3)</sup> Includes current maturities of long-term debt

## Long-term Debt Maturities



## Capital Structure at 12/31/09

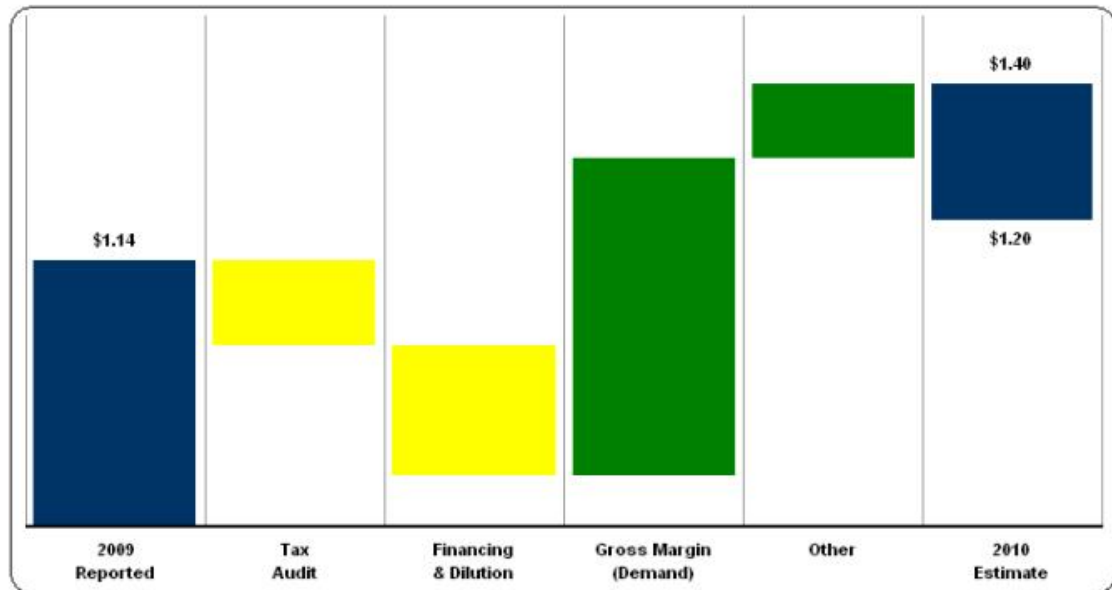


\*Includes current maturities



# 2010 Earnings Guidance Range

Guidance Range \$1.20 - \$1.40



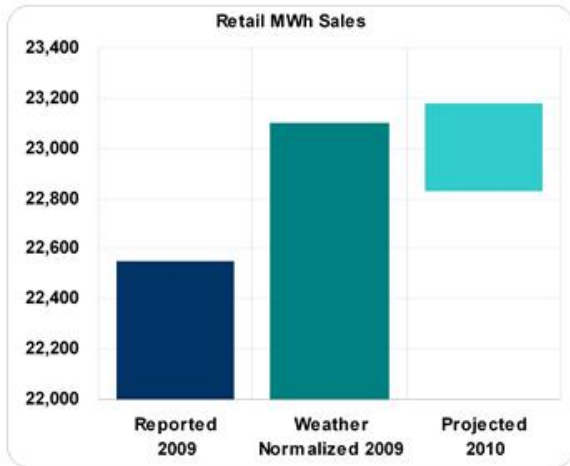


# Key 2010 Guidance Assumptions

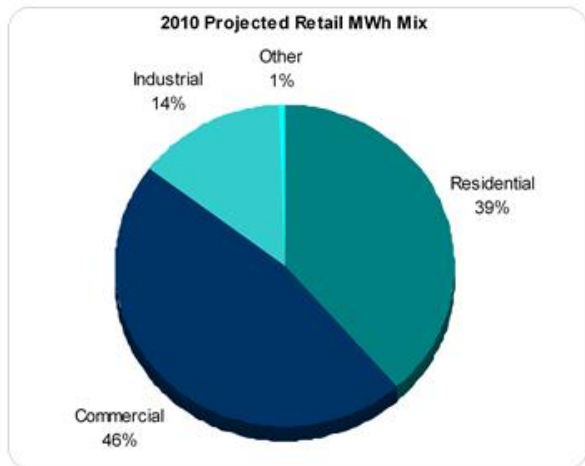
- Revenues of approximately \$2.1 - \$2.2 billion
  - Normal weather
    - Reported retail MWh sales growth of approximately 1.3% to 2.8%
  - Weather-normalized retail MWh sales decline of approximately 0.2%
  - Projected fourth quarter 2010 approval of KCP&L KS rate request that was filed in Dec. 2009
- Average Equivalent Availability Factor and Average Capacity Factor for generation fleet of approximately 85% and 79%, respectively
- Consolidated capital expenditures of approximately \$610 to \$680 million
- AFUDC of approximately \$65 to \$70 million based on average Construction Work in Progress (CWIP) balance of \$1.0 - \$1.2 billion
- Issuance of approximately \$200 to \$400 million in long-term debt; no common stock issuances
- Effective tax rate for continuing operations of approximately 30%



# Projected Retail MWh Sales Assumptions



million MWh



Reported retail MWh sales increase by approximately 1.3 to 2.8 percent

- Return to normal weather
- Decrease weather-normalized retail MWh sales of 0.2% compared to 2009



# Regulatory Assumptions

## Requests for Annual Retail Rate Increases

In Millions Rate Jurisdiction	Effective Date	Amount Requested	Amount Approved
KCP&L- Kansas	8/1/2009	\$ 71.6	\$ 59.0
KCP&L-Missouri	9/1/2009	101.5	95.0
GMO-Missouri Public Service	9/1/2009	66.0	48.0
GMO-St. Joseph Light & Power (Electric)	9/1/2009	17.1	15.0
GMO-St. Joseph Light & Power (Steam)	7/1/2009	1.3	1.0
2009 Approved Rate Increases		\$ 257.5	\$ 218.0
Pending Rate Increase: KCP&L - Kansas	4Q 2010	\$ 55.2	na

### Kansas

- Approval of rate request filed in December 2009 with new rates effective in 4Q 2010

### Missouri

- Expect to file rate cases in 2Q10 with new rates effective in 2Q11
- New fuel transportation contract will impact KCP&L MO earnings in 2011 until new rates are effective

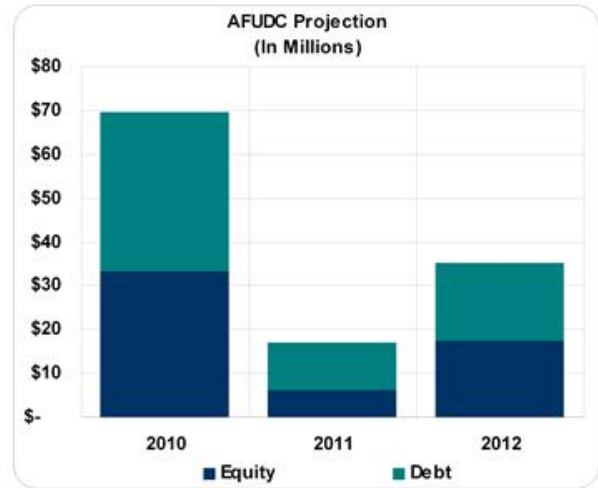
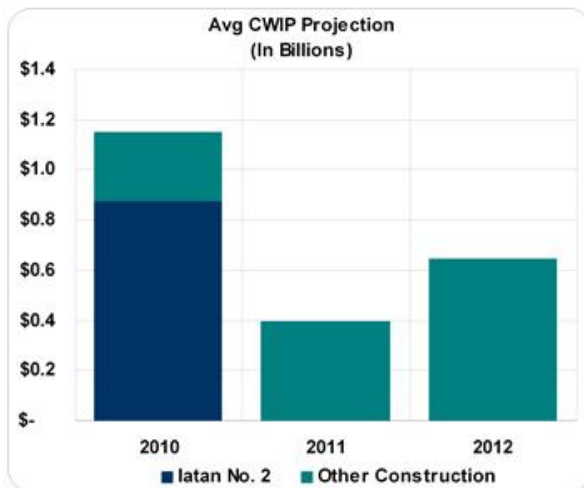


# 2010 - - 2012 Capital Expenditures

	2010	2011	2012
		(millions)	
Generating facilities (excluding Iatan No. 2)	\$ 152.0	\$ 152.8	\$ 138.3
Distribution and transmission facilities	192.8	238.0	275.7
General facilities	15.6	23.7	48.9
Nuclear fuel	30.9	21.5	19.8
Environmental	16.4	189.1	189.9
Iatan No. 2 <sup>(a)</sup>	243.9	54.1	-
<b>Total utility capital expenditures</b>	<b>\$ 651.6</b>	<b>\$ 679.2</b>	<b>\$ 672.6</b>

<sup>(a)</sup> Includes \$183.5 million and \$40.7 million of expenditures pursuant to KCP&L's Comprehensive Energy Plan in 2010 and 2011, respectively. Includes \$60.4 million and \$13.4 million of expenditures at GMO in 2010 and 2011, respectively.

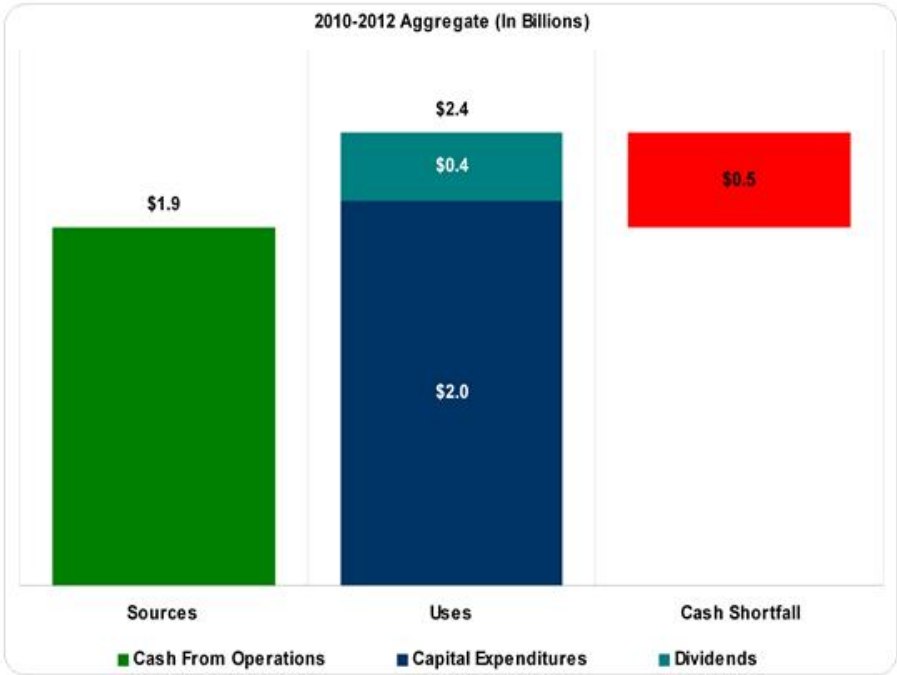
# 2010-2012 CWIP and AFUDC Assumptions



- AFUDC anticipated to represent approximately 30% of consolidated 2010 Earnings Before Taxes
- KCP&L MO and KS Iatan 2 AFUDC equity rate of 8.25%



# Financing Requirements - Sources & Uses of Cash 2010-2012



# Financing and Tax Assumptions

## Financing:

### 2010

- \$200 - \$400 million of new long-term debt

### 2011

- Refinancing of approximately \$500 million of maturing long-term debt
- \$200 - \$400 million of new long-term debt

### 2012

- GXP shares issued upon conversion of Equity Units
  - Proceeds from Equity Units conversion used to repay portion of maturing \$500 million GMO 11.875% issue; balance refinanced with long-term debt
  - Debt component of equity units remarketed
- Amortization of GMO debt write-up lowers interest expense by \$34 million annually in 2010-11

## Taxes:

- 39% marginal tax rate before credits; approximate 33% average effective tax rate across 2010 - 2012, after AFUDC equity and tax credits
- Utilization of NOLs reduces cash tax rate to approximately 2% for state and AMT payments



# Positioned for Long-Term Earnings Growth

- Increased rate base post-Iran 2;
- Benefit from economic recovery and increased energy consumption in our service territory;
- Continued focus on strengthening the core; and
- Continued sound strategic planning to position the Company to meet future generation and network requirements and as an industry leader in energy efficiency





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# Great Plains Energy

**Year-end and Fourth Quarter 2009  
Earnings Presentation**

**February 26, 2010**



