

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): December 17, 2009

| Commission File Number | Registrant, State of Incorporation, Address and Telephone Number | I.R.S. Employer Identification Number |
|-----------------------------------|---|--|
| 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))

This combined Current Report on Form 8-K is being filed 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 filed 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 filed 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 8.01 Other Events

On December 17, 2009, Great Plains Energy and KCP&L issued a press release announcing that KCP&L filed a request to increase its retail electric rates with the Kansas Corporation Commission. A copy of the press release is attached to this Report as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits

(d) Exhibit No.

99.1 Press release issued by Great Plains Energy Incorporated and Kansas City Power & Light Company on December 17, 2009.

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

Date: December 17, 2009.

Exhibit Index

| Exhibit No. | Title |
|-------------|--|
| 99.1 | Press release issued by Great Plains Energy Incorporated and Kansas City Power & Light Company on December 17, 2009. |



Exhibit 99.1

KCP&L FILES RATE INCREASE REQUEST WITH KANSAS CORPORATION COMMISSION

*Company asks for recovery of costs associated with its
Comprehensive Energy Plan*

Kansas City, Mo. (December 17, 2009) – Kansas City Power & Light Company (KCP&L), a subsidiary of Great Plains Energy Incorporated (NYSE: GXP) today filed a rate increase request with the Kansas Corporation Commission (KCC) to increase base rates for electric service in its Kansas service area. The total amount of the request is approximately \$55.2 million. This would raise the typical residential customer monthly base bill 11.5%, or approximately \$11.08 each month. If approved, the base rate increase is expected to be effective on October 17, 2010.

“Five years ago we engaged the community to develop a plan to improve the environment and provide reliable electricity to fuel our regional economy,” said Michael Chesser, KCP&L Chairman and CEO. “Today we are one step closer to meeting future demand at the lowest reasonable cost and maintaining competitive electric rates for generations to come.”

KCP&L retail electric rates in Kansas are currently more than 22% below the national average¹.

Rate Increase Drivers

This rate increase request reflects the forthcoming completion of KCP&L's Comprehensive Energy Plan (CEP), which was developed through a highly collaborative process that included community partners, customers, environmental groups, local elected officials and regulatory staff.

KCP&L's efforts in developing the CEP were recognized by the Edison Electric Institute, which awarded the company in 2007 its highest honor for community involvement and collaboration. The Plan also was endorsed by local labor unions, neighborhood groups,

¹ Based on the EEI Typical Bill Study for the twelve months ended June 30, 2009.

elected officials, community leaders and local economic development agencies and chambers of commerce.

KCP&L's rate request includes costs related to investments in new, cleaner and high-efficient coal-fired generation, upgrades to the transmission and distribution system to improve reliability and increases in operations and maintenance costs. The cost of fuel and KCP&L's various customer energy efficiency and affordability programs, which help customers manage their electricity usage, are not part of this rate request and are recovered through a separate cost adjustment mechanism with no profit to the company.

Iatan 2, an 850 Megawatt (MW) coal-fired generation unit located near Weston, Mo., is scheduled to be completed in late summer of 2010. KCP&L owns 54.7 percent (465 MW) of the unit. The Kansas rate increase request includes the portion of the projected total investment in Iatan 2 allocated to Kansas customers. Rates are expected to be further adjusted, up or down, in 2011 to reflect the actual total investment.

KCP&L intends to file a rate request with the Missouri Public Service Commission for its Missouri service area in early 2010, reflecting its Iatan 2 investment and other costs.

Comprehensive Energy Plan

The CEP was created with a number of short and long-term goals. The plan was designed to allow KCP&L to provide the electricity needed to support the region's economy in the future; maintain competitive electric rates; continue to deliver reliable service; balance the benefits of renewable energy with the stability of cleaner coal generation; and respond to rapidly evolving environmental laws and regulations with flexible and sustainable solutions.

By the end of the five-year plan, KCP&L will have invested more than \$1.6 billion in CEP projects. Key accomplishments include new generating capacity, environmental upgrades to existing facilities, transmission and distribution improvements, and energy efficiency and affordability programs. In addition to Iatan 2, KCP&L completed a 100MW wind generation project in 2006 in Spearville, Kan. The wind project was completed on time and under budget and provides KCP&L customers with a source of clean, renewable energy. The company recently issued requests for proposals to develop up to another 300MW of wind generation.

KCP&L has demonstrated its commitment to providing environmentally responsible energy by making significant environmental investments at the company's LaCygne 1 and Iatan 1 generation facilities. These environmental upgrades, which were completed in 2007 and 2009, respectively, allowed KCP&L to meet new federal emissions standards before being required to do so and have had a positive impact on the Kansas City region's air quality.

Ongoing reliability upgrades to KCP&L's transmission and distribution facilities are aimed at ensuring a continued high level of reliability of major systems and decreasing the number and duration of outages. KCP&L recently received the PA Consulting Group ReliabilityOne™ award for the third consecutive year, recognizing the company as one of the Midwest's leading utilities in terms of delivering reliable service to its customers.

KCP&L encourages customers to take advantage of the residential and business energy efficiency, affordability and demand response programs that were introduced as part of the CEP. These initiatives allow customers to better manage electricity usage and control their utility costs, therefore reducing the impact of higher rates.

| Project | Completion Date | Investment (millions) (1) | In Current Rate Request | Customer Benefits |
|--|------------------|------------------------------------|-------------------------|--|
| Environmental Improvements | 2009 | \$282.5 – \$302.5 (2)(5) | No | <ul style="list-style-type: none"> Improved air quality in our service territory Reduced regional ground-level ozone Reduced coal-plant emissions |
| New Wind Generation | 2006 | \$164 | No | <ul style="list-style-type: none"> Emission-free electricity Enough renewable electricity to service 33,000 homes |
| Electrical System Improvements | 2009 | \$42.5 (3) | Yes | <ul style="list-style-type: none"> Tier-one reliability Best in region reliability 2007, 2008, 2009 National reliability award 2007 |
| Energy Efficiency & Affordability Programs | 2009 | \$26.6 (4) | No | <ul style="list-style-type: none"> 12 customer energy efficiency and affordability programs 93,000 megawatt hours of electricity saved 39,000 free programmable thermostats |
| New Baseload Generation (Iatan 2) | Late Summer 2010 | \$868 - \$904 (5) | Yes | <ul style="list-style-type: none"> 850 megawatts of competitively priced electricity to power our region for decades to come Most efficient coal plant in KCP&L fleet |
| Total Investment | | \$1.62 - \$1.67 Billion (6) | | <ul style="list-style-type: none"> Sustainable, reliable and competitively priced electricity for years to come |

(1) Reflects KCP&L's share of the projects. KCP&L's investments are allocated between its Kansas and Missouri customers. The current methodology allocates approximately 46% of such investments to Kansas customers.

(2) Environmental improvements include investments at Iatan 1 and LaCygne 1. Iatan 1 was addressed in KCP&L's last rate case; however, some costs that were not included in the last rate case will be addressed as part of the current case. Range reflects the most recent publicly released estimate for Iatan 1.

(3) \$10.4 million is included in the rate increase request.

(4) Reflects the cost of the programs implemented in Kansas. These costs are not reflected in the current rate case; rather, they are collected through a separate cost adjustment mechanism with no profit to the company.

(5) Range reflects most recent publicly released estimate. These amounts do not include Allowance for Funds Used During Construction (AFUDC) and capitalized property taxes.

(6) Total investment includes most recent publicly released estimate for facilities common to both the Iatan 1 and Iatan 2 units of \$235 million.

Customer Programs and Services

In addition to its suite of energy-efficiency programs, KCP&L also introduced its Connections program earlier this year to help customers take greater control of their energy costs during these difficult economic times. The Connections program helps customers by providing information on payment flexibility and assistance programs, energy-efficiency tools and connections to community resources. The campaign also connects customers with local weatherization resources that enable low-income families to reduce energy bills by making their homes more energy efficient.

"These are challenging economic times for everyone and we understand a rate increase can add to the financial pressures our customers are experiencing," said Bill Downey, KCP&L President and COO. "We have been proud to support the Kansas City region for more than 125 years, and our success as a company depends on the strength and the vitality of the communities we serve. We believe we have a responsibility to work with our customers and offer assistance to those who need it most."

Further information about the Comprehensive Energy Plan and this rate increase request is available at www.kcplenergyplan.com.

About The Companies:

Headquartered in Kansas City, Mo., Great Plains Energy Incorporated (NYSE: GXP) is the holding company of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company, two of the leading regulated providers of electricity in the Midwest. Kansas City Power & Light and KCP&L Greater Missouri Operations use KCP&L as a brand name. More information about the companies is available at: <http://www.greatplainsenergy.com> or www.kcpl.com.

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Forward-Looking Statements:

Statements made in this release 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, KCP&L and GMO; 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 KCP&L and GMO 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 ability to successfully integrate KCP&L and GMO operations and the timing and amount of resulting synergy savings; and other risks and uncertainties.

Great Plains Energy Contacts:

Investors: Ellen Fairchild, Director of Investor Relations, 816-556-2083, ellen.fairchild@kcpl.com

Media: Katie McDonald, Director of Corporate Communications, 816-556-2365, katie.mcdonald@kcpl.com