

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): June 4, 2010

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 June 4, 2010, Great Plains Energy and KCP&L issued a press release announcing that KCP&L and GMO filed separate requests to increase their respective retail electric rates with the Missouri Public Service 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 June 4, 2010.

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/ Lori A. Wright
Lori A. Wright
Vice President and Controller

KANSAS CITY POWER & LIGHT COMPANY

/s/ Lori A. Wright
Lori A. Wright
Vice President and Controller

Date: June 4, 2010.

Exhibit Index

Exhibit No.	Title
99.1	Press release issued by Great Plains Energy Incorporated and Kansas City Power & Light Company on June 4, 2010.



KCP&L FILES RATE INCREASE REQUESTS WITH MISSOURI PUBLIC SERVICE COMMISSION

Company files final Missouri rate increase request associated with the completion of its Comprehensive Energy Plan

Kansas City, Mo. (June 4, 2010) – Kansas City Power & Light Company and KCP&L Greater Missouri Operations (formerly Aquila), subsidiaries of Great Plains Energy Incorporated (NYSE: GXP), today filed rate increase requests with the Missouri Public Service Commission (MPSC) to increase base rates for electric service in its three Missouri service areas. The requests, which are subject to regulatory approval, would take effect in May 2011. If approved, a typical Missouri residential customer's rates would increase by an average of 14% or less than \$15.00 per month.

The following table lists the rate increase request information, broken out by jurisdiction:

Rate Jurisdiction*	Rate Increase	Rate Increase Percentage	Monthly Increase For Typical Residential Customer**
GMO (MPS)	\$75.8 million	14.4%	\$14.86
GMO (L&P)	\$22.1 million	13.9%	\$12.82
KCP&L (MO)	\$92.1 million	13.8%	\$12.69

*** Rate Jurisdiction Areas:**

- GMO (MPS): Represents the area served by the former Aquila Missouri Public Service division.
- GMO (L&P): Represents the area served by the former Aquila St. Joseph Light & Power division.
- KCP&L (MO): KCP&L Missouri customers (not in former Aquila service territory)

**A typical residential customer uses a monthly average of 1130 kWh in the summer and 780 kWh in the winter.

The rate increase requests filed today represent the final of four rate cases filed as part of the Comprehensive Energy Plan. Prior to the Comprehensive Energy Plan, Kansas City Power and Light had not asked for a rate increase in approximately 20 years. Under the five-year plan, KCP&L will have spent more than \$2.1 billion to complete capital projects. Key accomplishments include new clean coal and renewable generating capacity,

environmental upgrades to existing facilities, transmission and distribution improvements, and energy efficiency customer programs.

"Five years ago we engaged the community to develop a balanced plan to improve the environment and ensure our region had a reliable supply of electricity," said Mike Chesser, Chairman and Chief Executive Officer of KCP&L. "This rate case represents the final chapter in our Comprehensive Energy Plan and will allow us to provide the electricity needed to support our region's economy and quality of life by maintaining competitive electric rates for years to come."

KCP&L's retail rates in Missouri are currently between 16% and 36% below the national average¹. Even after the completion of this rate case, KCP&L's rates will remain well below the national average.

Reasons for Rate Increase

The primary reason for the rate increase requests is **Iatan 2**, a state-of-the-art 850 megawatt (MW), highly-efficient coal-fired power plant that is expected to be fully operational in late 2010. Iatan 2 was built to provide a cost-effective, reliable source of electricity for the region for many years to come.

Another component of the rate increase requests includes costs related to the mandated **environmental upgrades at KCP&L's Iatan 1** power plant. The installation of pollution control equipment, which was completed in February 2009, reduced emissions and improve the region's air quality. Although the majority of costs were included in the company's last rate case, a portion is included as part of this case.

The rate increase requests also include costs related to **infrastructure projects** that are necessary to maintain system reliability. Ongoing upgrades to KCP&L's transmission and distribution facilities help continue the high level of reliability of KCP&L's electric system and decrease the number and duration of power 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.

¹ Based on the EEI Typical Bill Study for the twelve months ending on December 31, 2009.

The rate increase requests also include costs unrelated to the Comprehensive Energy Plan. The cases include **increased freight costs** for the transportation of coal to several of the company's power plants. The current long-term transportation contract expires at the end of this year. The costs to produce and deliver electricity have increased dramatically in recent years, and freight costs are no exception.

Finally, costs related to **renewable energy projects**, including solar and wind projects, are included in the rate increase requests. Missouri's Renewable Energy Standard requires at least 2% of the electricity provided by investor-owned utilities to their Missouri customers to come from renewable resources by 2011, increasing to 5% by 2014 and 10% by 2018. The projects included in the company's rate increase requests will allow KCP&L to meet the state's requirement.

Commitment to Controlling Costs

KCP&L is committed to delivering safe, reliable electricity to its customers as efficiently as possible. During the challenging economic recession affecting KCP&L and its customers, the company has increased its efforts to control costs and reduce capital spending when possible. Great Plains Energy reduced its dividend by 50% in 2009. KCP&L also suspended external hiring for most positions and has left a significant number of open positions unfilled. In order to manage costs, the company reduced its operations and maintenance budgets and capital expenditures.

The acquisition of Aquila by Great Plains Energy in 2008 is providing additional financial benefits to customers. KCP&L's rate increase requests would have been significantly higher for all customers without the savings generated by the acquisition. Synergies are currently estimated at approximately \$740 million total over the first five years from the acquisition, nearly \$100 million higher than the initial estimate. Utility savings resulting from the acquisition are passed through to customers, reducing the total amount of the rate increase requests. In 2009, the companies achieved more than \$65 million in acquisition related savings which will benefit customers in future rate cases.

"The economic conditions have impacted both our company and our customers, and we have challenged our employees to tightly manage costs," explained Chesser. "The budget reductions and operational efficiencies our employees have achieved and additional cost

controls we have put in place have reduced the amount of our rate increase requests, and I thank our employees for their commitment to cost management."

Customer Programs and Services

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 Comprehensive Energy Plan. These initiatives allow customers to better manage electricity usage and control their utility costs, therefore reducing the impact of higher rates.

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 the rate increase requests 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, Great Plains Energy and Kansas City Power & Light Company (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 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, 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 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.

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