

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): August 12, 2006

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) 1201 Walnut Street Kansas City, Missouri 64106 (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) 1201 Walnut Street Kansas City, Missouri 64106 (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))

Great Plains Energy Incorporated (Great Plains Energy) and Kansas City Power & Light Company (KCP&L) (the Registrants) are separately filing this combined Current Report on Form 8-K (Report).

Item 1.01 Entry into a Material Definitive Agreement

On August 12, 2006, KCP&L, a wholly-owned subsidiary of Great Plains Energy, entered into a contract with ALSTOM Power Inc. for the engineering, procurement and construction of air quality control and selective catalytic reduction systems at Iatan Units 1 and 2, and of the Iatan Unit 2 boiler. The air quality control systems will be comprised of flue gas desulphurization, mercury control and baghouse systems. The contract contemplates that the Iatan Unit 1 systems will be completed in November 2008, and that the Iatan Unit 2 boiler and systems will be installed by November 2009.

The total contract price is approximately \$713 million, subject to certain adjustments and a potential early completion bonus respecting the Iatan Unit 2 work. KCP&L's portion of the stated contract price is approximately \$426 million after reimbursement from the other owners of Iatan Units 1 and 2 of their proportionate shares of the contract price.

The contract contains terms, conditions, representations, covenants, warranties and financial assurances customary and appropriate to agreements of this type including, without limitation, performance, completion and other certain guarantees, warranties that the work will conform to contract specifications, and letters of credit requirements. The contract also contains termination provisions and contractor events of default including, without limitation, failure to perform any material duty or obligation, failure to maintain required letters of credit, and certain bankruptcy and insolvency events. The contract further provides for a limitation of liability (with certain exceptions) to the contract price, and liquidated damages as the exclusive remedy for contractor failure to meet certain schedule dates or performance guarantees.

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/Terry Bassham

Terry Bassham
Executive Vice President- Finance & Strategic Development and Chief Financial Officer

KANSAS CITY POWER & LIGHT COMPANY

/s/Terry Bassham

Terry Bassham
Chief Financial Officer

Date: August 17, 2006