

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 9, 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 1.01 Entry into a Material Definitive Agreement

Great Plains Energy and GMO Credit Agreements

On August 9, 2010, Great Plains Energy and GMO each entered into a separate Credit Agreement with Bank of America, N.A., as Administrative Agent, Union Bank, N.A. and Wells Fargo Bank, National Association, as Syndication Agents, and Bank of America, N.A., Union Bank, N.A., Wells Fargo Bank, National Association, The Bank of Tokyo-Mitsubishi UFJ, Ltd., JPMorgan Chase Bank, N.A., BNP Paribas, The Bank of Nova Scotia, The Royal Bank of Scotland PLC, Barclays Bank PLC, U.S. Bank National Association, The Bank of New York Mellon, KeyBank National Association, SunTrust Bank, Deutsche Bank AG New York Branch, UMB Bank, n.a. and Commerce Bank, N.A., as Lenders. Great Plains Energy is also a party to the GMO Credit Agreement for the purpose of guaranteeing GMO's obligations under GMO's Credit Agreement.

The Great Plains Energy and GMO Credit Agreements are revolving credit facilities, with a term ending August 9, 2013, subject to extension twice by mutual agreement for an additional term of one year on each such extension, providing for revolving loans and standby letters of credit not exceeding an aggregate of \$200 million, in the case of Great Plains Energy, and \$450 million, in the case of GMO, at any one time. Each Credit Agreement provides for standby letters of credit and swingline loan sublimits of \$50 million and \$25 million, respectively. So long as there is no default or unmatured default, Great Plains Energy and GMO may transfer and re-transfer up to \$200 million of unused lender commitments between the two Credit Agreements, so long as the aggregate lender commitments under the Great Plains Energy and GMO Credit Agreements do not exceed \$400 million (including any transfers from the KCP&L Credit Agreement, described below) and \$650 million, respectively. So long as there is no default or unmatured default, Great Plains Energy and KCP&L (as described below) may also transfer and re-transfer up to \$200 million of unused lender commitments between the two Credit Agreements, so long as the aggregate lender commitments under the Great Plains Energy and KCP&L Credit Agreements do not exceed \$400 million (including any transfers from the GMO Credit Agreement) and \$800 million, respectively. The ability to borrow is not affected by the existence of a material adverse effect, except with respect to the validity or enforceability of the Credit Agreements or related documents or the rights or remedies of the agents, lenders or issuers of letters of credit under the Credit Agreements.

The Credit Agreements provide for floating rate and Eurodollar advances. The interest rate of floating rate advances is calculated each day and is the highest of (i) the federal funds rate plus 0.5%, (ii) the administrative agent's prime rate, and (iii) the published LIBOR rate plus 1.0%, plus, in each case, an amount based on then-current credit ratings of Great Plains Energy. The interest rate of Eurodollar advances is based on the published LIBOR rate for the applicable period, adjusted for reserve requirements, plus an amount based on the then-current credit ratings of Great Plains Energy. Eurodollar

advances may be made for one, two, three or six months. Advances may be repaid at any time. All outstanding advances are due and payable at the expiration of the term of the Credit Agreements.

The Credit Agreements contain representations and affirmative, negative and financial covenants customary for such facilities, including without limitation restrictions on the incurrence of liens, dispositions of assets, consolidations and mergers. Among other things, Great Plains Energy and GMO are each required to maintain a consolidated indebtedness to consolidated capitalization ratio not greater than 0.65 to 1.0 at all times (as such terms are defined in the respective Credit Agreements). The Credit Agreements also contain customary events of default including, without limitation, payment defaults, material inaccuracy of representations and warranties, covenant defaults, material indebtedness cross-defaults, certain bankruptcy and insolvency events, certain ERISA events, certain judgment defaults, and certain change of control and ownership defaults. Upon a default caused by certain events of bankruptcy and insolvency, the obligations of the lenders to make advances or issue letters of credit automatically cease, and all outstanding advances and letters of credit obligations are immediately payable. Upon other defaults, lenders in the aggregate having more than 50% of the aggregate commitment may cause the termination or suspension of the obligations of the lenders to make advances or issue letters of credit, or declare all outstanding advances and letter of credit obligations to be due and payable, or both.

KCP&L

On August 9, 2010, KCP&L entered into a separate Credit Agreement with Bank of America, N.A., as Administrative Agent, Union Bank, N.A. and Wells Fargo Bank, National Association, as Syndication Agents, and Bank of America, N.A., Union Bank, N.A., Wells Fargo Bank, National Association, The Bank of Tokyo-Mitsubishi UFJ, Ltd., JPMorgan Chase Bank, N.A., BNP Paribas, The Bank of Nova Scotia, The Royal Bank of Scotland PLC, Barclays Bank PLC, U.S. Bank National Association, The Bank of New York Mellon, KeyBank National Association, SunTrust Bank, Deutsche Bank AG New York Branch, UMB Bank, n.a. and Commerce Bank, N.A., as Lenders.

The KCP&L Credit Agreement is a revolving credit facility, with a term ending August 9, 2013, subject to extension twice by mutual agreement for an additional term of one year on each such extension, providing for revolving loans and standby letters of credit not exceeding an aggregate of \$600 million at any one time. The KCP&L Credit Agreement provides for standby letters of credit and swingline loan sublimits of \$75 million and \$25 million, respectively. So long as there is no default or unmatured default, Great Plains Energy and KCP&L may transfer and re-transfer up to \$200 million of unused lender commitments between the two Credit Agreements, so long as the aggregate lender commitments under the Great Plains Energy and KCP&L Credit Agreements do not exceed \$400 million (including any transfers from the GMO Credit Agreement, described above) and \$800 million, respectively.

The ability to borrow is not affected by the existence of a material adverse effect, except with respect to the validity or enforceability of the Credit Agreement or related documents or the rights or remedies of the agents, lenders or issuers of letters of credit under the Credit Agreement.

The KCP&L Credit Agreement provides for floating rate and Eurodollar advances. The interest rate of floating rate advances is calculated each day and is the highest of (i) the federal funds rate plus 0.5%, (ii) the administrative agent's prime rate, and (iii) the published LIBOR rate plus 1.0%, plus, in each case, an amount based on the then-current credit ratings of KCP&L. The interest rate of Eurodollar advances is based on the published LIBOR rate for the applicable period, adjusted for reserve requirements, plus an amount based on the then-current credit ratings of KCP&L. Eurodollar advances may be made for one, two, three or six months. Advances may be repaid at any time. All outstanding advances are due and payable at the expiration of the term of the Credit Agreement.

The other material terms and conditions of the KCP&L Credit Agreement are substantially the same as the Great Plains Energy and GMO Credit Agreements described above, except that Great Plains Energy does not guarantee the obligations of KCP&L under the KCP&L Credit Agreement.

The lenders in the three Credit Agreements are also lenders to one or more of the credit facilities described in Item 1.02, below. The Bank of New York Mellon, or an affiliate, is the trustee under indentures associated with all of Great Plains Energy's long-term debt and all of KCP&L's unsecured long-term debt, and an affiliate of The Bank of New York Mellon acts as purchase contract agent, collateral agent, custodial agent and securities intermediary related to Great Plains Energy's outstanding Equity Units. UMB Bank, N.A., is the trustee under KCP&L's mortgage indenture. Union Bank, N.A. is the trustee under indentures associated with all of GMO's long-term debt. Affiliates of JPMorgan Chase Bank, N.A., provide trustee, recordkeeping and other administrative services to the Great Plains Energy 401(k) plan. Affiliates of Bank of America, N.A., JPMorgan Chase Bank, N.A. and SunTrust Bank participate in the KCP&L commercial paper program and may from time to time hold KCP&L's commercial paper. Forward starting swaps hedging against interest rate fluctuations on debt anticipated to be issued by Great Plains Energy with an aggregate notional amount of \$475 million have been entered into with BNP Paribas, The Royal Bank of Scotland and SunTrust Bank. In addition, the lenders and their affiliates have provided and in the future may continue to provide investment banking, commercial banking and/or other financial services, to one or more of Great Plains Energy, KCP&L and GMO in the ordinary course of business for which they have received and will receive customary compensation.

Item 1.02 Termination of a Material Definitive Agreement

Great Plains Energy and GMO

In connection with the entry into the Great Plains Energy Credit Agreement described in Item 1.01, the credit agreement dated as of May 11, 2006, as amended, among Great Plains Energy, Bank of America, N.A., as Administrative Agent, JPMorgan Chase Bank, N.A., as Syndication Agent, and Bank of America, N.A., JPMorgan Chase Bank, N.A., BNP Paribas, The Bank of Tokyo-Mitsubishi UFJ, Limited, Chicago Branch, Wachovia Bank N.A., The Bank of New York, KeyBank National Association, The Bank of Nova Scotia, UMB Bank, N.A. and Commerce Bank, N.A., as Lenders, was terminated as of August 9, 2010. This terminated credit agreement was a revolving credit facility with a term ending May 11, 2011, providing for loans and letters of credit not exceeding an aggregate of \$400 million at any one time. Outstanding borrowings of approximately \$19 million were repaid with borrowings under, and the outstanding letters of credit of approximately \$16 million were transferred to, the Great Plains Energy Credit Agreement.

In connection with the entry into the GMO Agreement described in Item 1.01, the credit agreement dated as of September 23, 2008, among GMO as borrower, Great Plains Energy, as guarantor, Bank of America, N.A., as Administrative Agent and Swing Line Lender, Union Bank of California, N.A., as Syndication Agent, and Bank of America, N.A., Union Bank of California, N.A., BNP Paribas, JPMorgan Chase Bank, N.A., JPMorgan Chase Bank, N.A., The Royal Bank of Scotland plc, SunTrust Bank, Wachovia Bank, N.A., UMB Bank, N.A., The Bank of Nova Scotia, The Bank of New York Mellon, and The Northern Trust Company, as Lenders, was terminated as of August 9, 2010. This terminated credit agreement was a revolving credit facility with a term ending September 23, 2011, providing for loans and letters of credit not exceeding an aggregate of \$400 million at any one time. Outstanding borrowings of approximately \$279 million were repaid with borrowings under, and the outstanding letters of credit of approximately \$13 million were transferred to, the GMO Credit Agreement.

KCP&L

In connection with the entry into the KCP&L Credit Agreement described in Item 1.01, the credit agreement dated as of May 11, 2006, as amended, among KCP&L, Bank of America, N.A., as Administrative Agent, JPMorgan Chase Bank, N.A., as Syndication Agent, and Bank of America, N.A., JPMorgan Chase Bank, N.A., BNP Paribas, The Bank of Tokyo-Mitsubishi UFJ, Limited, Chicago Branch, Wachovia Bank N.A., Bank of New York, KeyBank National Association, The Bank of Nova Scotia, UMB Bank, N.A. and Commerce Bank, N.A., as Lenders, was terminated as of August 9, 2010. This terminated credit agreement was a revolving credit facility with a term ending May 11, 2011, providing for loans and letters of credit not exceeding an aggregate of \$600 million at any one time. Outstanding letters of credit of approximately \$24 million were transferred to the KCP&L Credit Agreement.

The material relationships described in Item 1.01 are incorporated herein by reference.

Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant

The information set forth in Item 1.01 above is incorporated herein by reference.

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 and Corporate Secretary

KANSAS CITY POWER & LIGHT COMPANY

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

Date: August 9, 2010.