

CALCULATION OF REGISTRATION FEE

Title of each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, no par value	\$ 192,567,375	\$ 20,604.71 (1)

- (1) The filing fee for the securities offered hereby has been satisfied by applying, pursuant to Rule 457(p) under the Securities Act, \$21,665.70 that has already been paid with respect to \$171,000,000 aggregate initial offering price of securities that were previously registered pursuant to Registration Statement No. 333-114486 and were not sold thereunder, and \$1,060.99 remains available for future registration fees. No additional fee has been paid with respect to this offering.

PROSPECTUS SUPPLEMENT
(To prospectus dated May 8, 2006)

6,318,000 Shares



Great Plains Energy Incorporated
Common Stock

We are offering 4,563,000 shares of our common stock. In addition, we have entered into a forward sale agreement with Merrill Lynch Financial Markets, Inc., which we refer to as the forward purchaser, and which is an affiliate of Merrill Lynch & Co., which we refer to as the forward seller. The forward purchaser (or an affiliate thereof) is borrowing and selling 1,755,000 shares of our common stock to hedge its obligations under the forward sale agreement. We will not initially receive any proceeds from the sale of shares of our common stock by the forward purchaser (or an affiliate thereof).

Our common stock is listed on the New York Stock Exchange, or NYSE, under the symbol "GXP". The last reported sale price on the NYSE of our common stock on May 17, 2006 was \$27.61 per share.

Investing in our common stock involves risks that are described or referred to under "Risk Factors" on page S-6 of this prospectus supplement and page 6 of the accompanying prospectus, including the "Risk Factors" sections in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006 and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2005.

	<u>Per Share</u>	<u>Total</u>
Public offering price	\$ 27.50	\$ 173,745,000
Underwriting discount	\$ 0.8938	\$ 5,647,028
Proceeds, before expenses, to Great Plains Energy Incorporated (1)	\$ 26.6062	\$ 168,097,972

- (1) We will receive estimated net proceeds, before expenses, of \$121,404,091 upon settlement of our offering of common stock. Depending on the price of our common stock at the time we settle the forward sale agreement and the relevant settlement method, we may receive proceeds from the sale of our common stock when we settle the forward sale agreement, which will occur within one year of the date of this prospectus supplement. For purposes of calculating the proceeds to us, we have assumed that the forward sale agreement is fully physically settled based upon the initial forward sale price of \$26.6062. The forward sale price is subject to adjustment pursuant to the forward sale agreement, and the actual proceeds are subject to settlement of the forward sale agreement. Although we expect to settle the forward sale agreement entirely by the full physical delivery of shares of our common stock in exchange for cash proceeds, we may elect cash or net physical settlement for all or a portion of our obligations under the forward sale agreement. See "Underwriting—Forward Sale Agreement" for a description of the forward sale agreement.

We have granted the underwriters a 30 day option from the date of this prospectus supplement to purchase up to 684,450 additional shares at the public offering price less the underwriting discount to cover overallocments.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the related prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares of common stock will be ready for delivery on or about May 23, 2006.

Joint Book-Running Managers

Credit Suisse

Merrill Lynch & Co.

Banc of America Securities LLC

Senior Co-Managers

Morgan Stanley

Wachovia Securities

Co-Managers

BNY Capital Markets, Inc.

KeyBanc Capital Markets

Lazard Capital Markets

Scotia Capital

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ABOUT THIS PROSPECTUS SUPPLEMENT

You should rely only on the information contained or incorporated by reference in this prospectus supplement or in the accompanying prospectus. We have not, and the underwriters and the forward seller have not, authorized anyone else to provide you with any different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters and the forward seller are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information in this prospectus supplement or in the accompanying prospectus is accurate as of any date other than the date on the front of those documents.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering. The second part, the accompanying prospectus, gives more general information, some of which may not apply to this offering. You should read the entire prospectus supplement, including the accompanying prospectus and the documents incorporated by reference which are described under “Where You Can Find More Information” below and in the accompanying prospectus. In the event that the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information contained in this prospectus supplement.

This prospectus supplement and the accompanying prospectus contain, or incorporate by reference, forward-looking statements. Such forward-looking statements should be considered together with the cautionary statements and important factors included or referred to in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference. Please see “Cautionary Statements Regarding Certain Forward-Looking Information” in the accompanying prospectus.

WHERE YOU CAN FIND MORE INFORMATION

The Securities and Exchange Commission (the “SEC”) allows us to “incorporate by reference” into this prospectus supplement and the accompanying prospectus the information we file with them. This means that we can disclose important information to you by referring you to the documents containing the information. The information we incorporate by reference is considered to be included in and an important part of this prospectus supplement and the accompanying prospectus and should be read with the same care. Information that we file later with the SEC that is incorporated by reference into this prospectus supplement and the accompanying prospectus will automatically update and supersede this information. We are incorporating by reference into this prospectus supplement and the accompanying prospectus the following documents that we have filed with the SEC and any subsequent filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until the offering of the securities described in this prospectus supplement is completed:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2005
- Our Report on Form 8-K dated February 1, 2006
- Our Report on Form 8-K dated February 10, 2006
- Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006
- Our Report on Form 8-K dated May 11, 2006

PROSPECTUS SUPPLEMENT SUMMARY

You should read the following summary in conjunction with the more detailed information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference. Unless the context requires otherwise, “we,” “our,” “us” and “Great Plains Energy” refers to Great Plains Energy Incorporated and its consolidated subsidiaries.

GREAT PLAINS ENERGY INCORPORATED

Great Plains Energy Incorporated, a Missouri corporation incorporated in 2001 and headquartered in Kansas City, Missouri, is a public utility holding company and does not own or operate any significant assets other than the stock of its subsidiaries.

We have four direct subsidiaries with operations or active subsidiaries:

- Kansas City Power & Light Company (“KCP&L”) is described below.
- KLT Inc. is an intermediate holding company that primarily holds, directly or indirectly, interests in Strategic Energy, L.L.C. (“Strategic Energy”), which provides competitive retail electricity supply services in several electricity markets offering retail choice, and affordable housing limited partnerships. KLT Inc. also wholly owns KLT Gas Inc. (“KLT Gas”). During 2004, KLT Gas sold its gas properties and discontinued its gas business.
- Innovative Energy Consultants Inc. (“IEC”) is an intermediate holding company that holds an indirect interest in Strategic Energy. IEC does not own or operate any assets other than its indirect interest in Strategic Energy. When combined with KLT Inc.’s indirect interest in Strategic Energy, Great Plains Energy indirectly owns 100% of Strategic Energy.
- Great Plains Energy Services Incorporated provides services at cost to us and our subsidiaries, including KCP&L.

KCP&L

KCP&L is an integrated, regulated electric utility, headquartered in Kansas City, Missouri, that engages in the generation, transmission, distribution and sale of electricity. KCP&L serves slightly over 500,000 customers located in all or portions of 24 counties in western Missouri and eastern Kansas. Customers include approximately 440,000 residences, over 55,000 commercial firms, and over 2,200 industrials, municipalities and other electric utilities. KCP&L’s retail revenues averaged approximately 82% of its total operating revenues over the last three years. Wholesale firm power, bulk power sales and miscellaneous electric revenues accounted for the remainder of utility revenues. KCP&L is significantly impacted by seasonality with approximately one-third of its retail revenues recorded in the third quarter. KCP&L’s total electric revenues averaged approximately 45% of our consolidated revenues over the last three years. KCP&L’s income from continuing operations accounted for approximately 88%, 86% and 67% of our consolidated income from continuing operations in 2005, 2004 and 2003, respectively.

Strategic Energy

Strategic Energy provides competitive retail electricity supply services by entering into power supply contracts to supply electricity to its end-use customers. Of the states that offer retail choice, Strategic Energy operates in California, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania and Texas. In addition to competitive retail electricity supply services, Strategic Energy records insignificant wholesale revenues and purchased power expense incidental to the retail services provided. Strategic Energy also provides strategic planning, consulting and billing and scheduling services in the natural gas and electricity markets.

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Strategic Energy provides services to approximately 49,200 commercial, institutional and small manufacturing accounts for approximately 12,700 customers including numerous Fortune 500 companies, smaller companies and governmental entities. Strategic Energy’s revenues averaged approximately 55% of our consolidated revenues over the last three years. Strategic Energy’s net income accounted for approximately 17%, 24% and 21% of our consolidated income from continuing operations in 2005, 2004 and 2003, respectively.

Additional Information

Our principal executive office is located at 1201 Walnut Street, Kansas City, Missouri 64106. Our telephone number is (816) 556-2200.

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THE OFFERING

Issuer	Great Plains Energy Incorporated
Common stock offered	6,318,000 shares
Number of shares of common stock outstanding after the offering, but excluding any shares of common stock that may be issued upon physical settlement of the forward sale agreement (1)	79,472,798 shares
Number of shares of common stock to be outstanding after full physical settlement of the forward sale agreement (1)(2)	81,227,798 shares
NYSE symbol	GXP

Common stock closing price range (January 1, 2006 - May 17, 2006)

\$27.61 - \$29.32

Recent dividend

Our Board of Directors has declared a dividend of \$0.415 per share payable on June 20, 2006 to shareholders of record on May 30, 2006.

Use of proceeds (2)

We estimate that the net proceeds from the sale of the common stock we are offering, after deducting the underwriting discount and estimated expenses payable by us, will be approximately \$120.9 million (or \$139.1 million if the overallotment option is exercised in full). We will not initially receive any proceeds from the sale of shares of common stock by the forward purchaser (or an affiliate thereof). We expect to receive net proceeds of \$46.7 million, subject to the price adjustment and other provisions of the forward sale agreement, only upon full physical settlement of the forward sale agreement, which will occur within one year following the date of this prospectus supplement.

We intend to use at least \$100 million of the net proceeds from this offering to make a contribution of capital to KCP&L for general corporate purposes, including the funding of construction by KCP&L of generating facilities, including a coal-fired generating plant (Iatan No. 2) and wind generation assets. We intend to use any remaining net proceeds from this offering, including any net proceeds received upon settlement of the forward sale agreement, for general corporate purposes, including repayment of debt, or to make additional contributions of capital to KCP&L for KCP&L's general corporate purposes (including funds for construction) or both. See "Use of Proceeds."

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Accounting treatment

Before any issuance of our common stock upon settlement of the forward sale agreement, the forward sale agreement will be reflected in our diluted earnings per share calculations using the treasury stock method. Under this method, the number of shares of our common stock used in calculating diluted earnings per share is deemed to be increased by the excess, if any, of the number of shares that would be issued upon physical settlement of the forward sale agreement over the number of shares that could be purchased by us in the market (based on the average market price during the period) using the proceeds receivable upon settlement (based on the adjusted forward sale price at the end of the reporting period). Consequently, we anticipate there will be no dilutive effect on our earnings per share except during periods when the average market price of our common stock is above the per share adjusted forward sale price, which is initially \$26.6062 (which is the public offering price less the underwriting discount shown on the cover page of this prospectus supplement), subject to adjustment based on the federal funds rate less a spread and subject to decrease by \$0.415 on each of May 25, 2006, August 25, 2006, November 27, 2006 and February 23, 2007.

Risk factors

See "Risk Factors" and other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, including the "Risk Factors" sections in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006 and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2005, for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.

- (1) Calculated as of May 17, 2006 (excluding shares issuable pursuant to the underwriters' overallotment option). If the underwriters exercise their overallotment option in full, we will issue and sell an additional 684,450 shares of our common stock.
- (2) Calculated as of May 17, 2006 (assuming that the forward sale agreement is fully physically settled by the delivery of 1,755,000 shares of our common stock). The forward sale price is subject to adjustment pursuant to the forward sale agreement, and the actual proceeds are subject to settlement of the forward sale agreement. The forward purchaser has advised us that it or its affiliates have acquired or intend to acquire shares of common stock to be sold by the forward purchaser (or an affiliate thereof) to the underwriters under this prospectus supplement through borrowings from stock lenders. Subject to the occurrence of certain events, we will not be obligated to deliver shares of common stock, if any, under the forward sale agreement until settlement of the forward sale agreement, at which time we will have the right to elect, except in certain circumstances, full physical, cash or net physical settlement. We may not issue all 1,755,000 shares subject to the forward sale agreement upon settlement thereof if we elect to cash or net physically settle all or a portion of the forward sale agreement. See "Underwriting—Forward Sale Agreement" for a description of the forward sale agreement.

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SUMMARY CONSOLIDATED FINANCIAL DATA

The following summary financial data for the years ended December 31, 2003 through December 31, 2005 have been derived from our audited consolidated financial statements and related notes, incorporated by reference herein. The following summary consolidated financial data for the three months ended March 31, 2006 and March 31, 2005 have been derived from our unaudited financial statements and related notes, incorporated by reference herein. The information set forth below is qualified in its entirety by reference to and, therefore, should be read together with management's discussion and analysis of results of operations and financial condition, the financial statements and related notes and other financial information incorporated by reference herein.

	Three Months Ended		Year Ended		
	March 31,		December 31,		
	2006	2005	2005	2004	2003
(Thousands, except for per share data)					
INCOME STATEMENT DATA					
Operating Revenues	\$ 559,185	\$ 545,114	\$ 2,604,882	\$ 2,464,018	\$ 2,148,045
Operating Expenses	553,182	503,298	2,321,716	2,145,217	1,780,777
Operating Income	\$ 6,003	\$ 41,816	\$ 283,166	\$ 318,801	\$ 367,268
Income (loss) from continuing operations	\$ (2,136)	\$ 20,190	\$ 164,209	\$ 173,535	\$ 189,702
Income (loss) from Discontinued	—	—	(1,899)	7,276	(44,779)

Operations, net of income taxes					
Net Income (loss)	\$ (2,136)	\$ 20,190	\$ 162,310	\$ 180,811	\$ 144,923
Preferred stock dividend requirement	411	411	1,646	1,646	1,646
Earnings (loss) available for common shareholders	\$ (2,547)	\$ 19,779	\$ 160,664	\$ 179,165	\$ 143,277
PER SHARE DATA					
Average number of common shares outstanding	74,659	74,436	74,597	72,028	69,206
Basic and diluted earnings (loss) per common share					
Continuing operations	\$ (0.03)	\$ 0.27	\$ 2.18	\$ 2.39	2.72
Discontinued operations	—	—	(0.03)	0.10	(0.65)
Basic and diluted earnings (loss) per common share	\$ (0.03)	\$ 0.27	\$ 2.15	\$ 2.49	\$ 2.07
Cash dividends per common share	\$ 0.415	\$ 0.415	\$ 1.66	\$ 1.66	\$ 1.66
CASH FLOW INFORMATION					
Net cash from operating activities	\$ 57,424	\$ 6,803	\$ 416,891	\$ 354,070	\$ 387,095
Depreciation and amortization	38,946	37,862	153,080	150,090	143,712
Amortization of:					
Nuclear fuel	3,890	3,277	13,374	14,159	12,334
Other	2,334	2,659	10,580	11,827	11,626
Utility capital expenditures	(73,899)	(32,295)	(327,283)	(190,548)	(148,675)

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RISK FACTORS

In addition to the other information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the following risk factor, as well as the “Risk Factors” sections in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006 and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2005, before you decide to invest in our common stock.

Settlement provisions contained in the forward sale agreement subject us to certain risks.

The forward purchaser will have the right to require us to physically settle the forward sale agreement on a date specified by the forward purchaser upon the occurrence of certain events, including if (a) the forward purchaser is unable during certain periods to hedge its exposure to the transactions contemplated by the forward sale agreement because of the lack of sufficient shares of our common stock being made available for borrowing by share lenders at a rate that is equal to or less than a specified threshold, (b) on any day following the date of this prospectus supplement, we declare (i) any cash dividend above a specified threshold or (ii) certain non-cash distributions, issuances or dividends to existing holders of shares of our common stock, (c) either the forward purchaser or we have the right to designate an early termination date pursuant to Section 6 of the deemed ISDA Master Agreement (relating to bankruptcy or insolvency) that governs the forward sale agreement or (d) certain merger events, certain tender offers, any nationalization, any delisting or any change in law (as each such term is defined in the forward sale agreement) occurs. The forward purchaser’s decision to exercise its right to require us to settle the forward sale agreement will be made irrespective of our need for capital. In the event that we elect, or are required, to settle the forward sale agreement with shares of our common stock, delivery of such shares would likely result in dilution to our earnings per share and return on equity.

In addition, upon certain events of bankruptcy, insolvency or reorganization relating to us, the forward sale agreement will terminate without further liability to either party. Following any such termination, we would not issue any shares, and we would not receive any proceeds pursuant to the forward sale agreement.

Except under the circumstances described above, we have the right, in lieu of physical settlement of the forward sale agreement, to elect cash or net physical settlement of the forward sale agreement. If we elect cash or net physical settlement of the forward sale agreement, the forward purchaser or one of its affiliates will purchase shares of our common stock in secondary market transactions over a period of time for delivery to stock lenders in order to unwind its hedge. If the price of our common stock at which the forward purchaser or its affiliate unwinds the forward purchaser’s hedge is below the applicable forward sale price, the forward purchaser will pay us such difference in cash (if we cash settle) or deliver to us shares of our common stock having a market value equal to such difference (if we net physically settle). If the price of our common stock at which the forward purchaser or its affiliate unwinds the forward purchaser’s hedge exceeds the applicable forward sale price, we will pay the forward purchaser an amount in cash equal to such difference (if we elect to cash settle) or we will deliver to the forward purchaser a number of shares of our common stock having a market value equal to such difference (if we elect to net physically settle). Any such difference could be significant. In addition, the purchases of our common stock by the forward purchaser or an affiliate thereof to unwind the forward purchaser’s hedge could cause the price of our common stock to increase over time, thereby increasing the number of shares or amount of cash we owe to the forward purchaser.

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USE OF PROCEEDS

We estimate that the net proceeds from the sale of the common stock we are offering, after deducting the underwriting discount and estimated expenses payable by us, will be approximately \$120.9 million (or \$139.1 million if the overallotment option is exercised in full). We will not initially receive any proceeds from the sale of shares of common stock offered by the forward purchaser (or an affiliate thereof). We expect to receive net proceeds of approximately \$46.7 million, subject to the price adjustment and other provisions of the forward sale agreement, only upon full physical settlement of the forward sale agreement. We intend to use at least \$100 million of the net proceeds from this offering to make a contribution of capital to KCP&L for general

corporate purposes, including the funding of construction by KCP&L of generating facilities, including a coal-fired generating plant (Iatan No. 2) and wind generation assets, and for general corporate purposes. We intend to use any remaining net proceeds from this offering, including any net proceeds received upon settlement of the forward sale agreement, for general corporate purposes, including repayment of debt, or to make additional contributions of capital to KCP&L for KCP&L's general corporate purposes (including funds for construction) or both. Pending any specific application, we may invest the net proceeds from the offering in short-term marketable securities.

For purposes of calculating the proceeds to us, we have assumed that the forward sale agreement is fully physically settled based upon the initial forward sale price of \$26.6062. The forward sale price is subject to adjustment pursuant to the forward sale agreement, and the actual proceeds are subject to settlement of the forward sale agreement, which will occur within one year following the date of this prospectus supplement. Except under the circumstances described in the succeeding paragraph, in lieu of physical settlement, we have the right to elect cash or net physical settlement of the forward sale agreement, which will impact any net proceeds received by us upon settlement of the forward sale agreement and may, instead, require us to deliver cash or common stock to the forward purchaser. See "Underwriting—Forward Sale Agreement."

The forward purchaser will have the right to require us to physically settle the forward sale agreement on a date specified by the forward purchaser upon the occurrence of certain events, including if (a) the forward purchaser is unable during certain periods to hedge its exposure to the transactions contemplated by the forward sale agreement because of the lack of sufficient shares of our common stock being made available for borrowing by share lenders at a rate that is equal to or less than a specified threshold, (b) on any day following the date of this prospectus supplement, we declare (i) any cash dividend above a specified threshold or (ii) certain non-cash distributions, issuances or dividends to existing holders of shares of our common stock, (c) either the forward purchaser or we have the right to designate an early termination date pursuant to Section 6 of the deemed ISDA Master Agreement (relating to bankruptcy or insolvency) that governs the forward sale agreement or (d) certain merger events, certain tender offers, any nationalization, any delisting or any change in law (as each such term is defined in the forward sale agreement) occurs. The forward purchaser's decision to exercise its right to require us to settle the forward sale agreement will be made irrespective of our need for capital. In the event that we elect, or are required, to settle the forward sale agreement with shares of our common stock, delivery of such shares would likely result in dilution to our earnings per share and return on equity.

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PRICE RANGE OF COMMON STOCK AND DIVIDEND POLICY

Our common stock is listed on the NYSE under the symbol "GXP." Information relating to market prices and cash dividends on Great Plains Energy's common stock is set forth below.

On May 17, 2006, the last reported sale price of our common stock as reported on the NYSE was \$27.61 per share. As of May 1, 2006, there were approximately 13,976 holders of record of our common stock.

We are a holding company with no significant operations of our own. The primary source of funds for payment of dividends to our shareholders and our financial obligations is dividends paid to us by our subsidiaries, particularly KCP&L. The ability of our subsidiaries to pay dividends or make other distributions, and, accordingly, our ability to pay dividends on our common stock and meet our financial obligations, depends on the actual and projected earnings and cash flow, capital requirements and general financial position of our subsidiaries, as well as on regulatory factors, financial covenants, general business conditions and other matters.

Subject to the restrictions described below, dividends on our shares of common stock are payable at the discretion of our Board of Directors out of legally available funds. Future payment of dividends, and the amount of these dividends, will depend on our financial condition, results of operations, capital requirements and other factors.

Regulatory Restrictions

Under stipulations with the Public Service Commission of the State of Missouri and the State Corporation Commission of the State of Kansas, Great Plains Energy has committed to maintain consolidated common equity of not less than 30%, calculated as set forth in the stipulations.

Dividend Restrictions

Our Articles of Incorporation contain certain restrictions on the payment of dividends on our common stock in the event common equity falls below 25% of total capitalization. If preferred stock dividends are not declared and paid when scheduled, we could not declare or pay common stock dividends or purchase any common shares. If the unpaid preferred stock dividends equal four or more full quarterly dividends, the preferred shareholders, voting as a single class, could elect a majority of the members to the Board of Directors. As of March 31, 2006, we had four series of outstanding cumulative preferred stock, \$100 par value, aggregating 390,000 shares. We have declared and paid dividends on each series when scheduled.

Quarter	Common Stock Closing Price Range						Common Stock Dividends Declared		
	2006		2005		2004		2006	2005	2004
	High	Low	High	Low	High	Low			
First	\$ 29.32	\$ 27.89	\$ 31.61	\$ 29.56	\$ 35.29	\$ 31.66	\$ 0.415	\$ 0.415	\$ 0.415
Second	28.99(a)	27.61(a)	32.25	29.77	34.36	29.23	0.415	0.415	0.415
Third			32.63	29.82	31.71	28.62		0.415	0.415
Fourth			30.23	27.27	30.71	28.17		0.415	0.415

(a) Through May 17, 2006.

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CAPITALIZATION AND SHORT TERM DEBT

The table below shows our cash and cash equivalents and capitalization as of March 31, 2006 and such capitalization:

- as adjusted to reflect the sale of shares of common stock by us (assuming that the underwriters' overallotment option is not exercised in connection with the offering) and the application of the proceeds from such sale, after underwriting commissions and estimated expenses of the offering, as

described under “Use of Proceeds”; and

as further adjusted to reflect the sale of shares of common stock by us as described in the bullet point above and also to reflect the sale of shares of common stock by us upon settlement of the forward sale agreement and the application of the proceeds from such sale, as described under “Use of Proceeds.”

	March 31, 2006		
	Actual	As Adjusted for the Common Stock Offering (In thousands)	As Further Adjusted for Settlement of Forward Sale Agreement and the Common Stock Offering (1)
Cash and cash equivalents	\$ 87,553	\$ 208,457 (2)	\$ 255,151 (2)
Debt:			
Short-term debt (includes current maturities)	\$ 464,075	\$ 464,075	\$ 464,075
Long-term debt (excludes current maturities)	751,759	751,759	751,759
Total debt	<u>\$ 1,215,834</u>	<u>\$ 1,215,834</u>	<u>\$ 1,215,834</u>
Shareholders' equity:			
Cumulative preferred stock	\$ 39,000	\$ 39,000	\$ 39,000
Common stock	1,174,940	1,295,844	1,342,538
Total capitalization and short-term debt	<u>\$ 2,429,774</u>	<u>\$ 2,550,678</u>	<u>\$ 2,597,372</u>

- (1) Settlement of the forward sale agreement will occur within one year of the date of this prospectus supplement. In the table above, we have assumed that the forward sale agreement is fully physically settled based upon the initial forward sale price of \$26.6062 and by delivery of 1,755,000 shares of our common stock. However, we may elect cash or net physical settlement for all or a portion of our obligations under the forward sale agreement. In addition, the forward sale price is subject to adjustment pursuant to the forward sale agreement as described in this prospectus supplement. See “Underwriting—Forward Sale Agreement.”
- (2) Net proceeds are included in cash and cash equivalents pending application as described under “Use of Proceeds.”

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UNDERWRITING

Subject to the terms and conditions contained in the underwriting agreement among us, the forward seller and the underwriters, we have agreed to sell 4,563,000 shares of our common stock and the forward purchaser (or an affiliate thereof), at our request, is borrowing an aggregate of 1,755,000 shares of our common stock and delivering such shares for sale to the underwriters, and each underwriter named below has severally agreed to purchase from us and the forward seller (as the case may be), in the proportion specified in the underwriting agreement, the number of shares set forth opposite such underwriter's name.

Underwriter	Number of Shares
Merrill Lynch, Pierce, Fenner & Smith Incorporated	2,053,350
Credit Suisse Securities (USA) LLC	2,053,350
Banc of America Securities LLC	505,440
Morgan Stanley & Co. Incorporated	505,440
Wachovia Capital Markets, LLC	505,440
BNY Capital Markets, Inc.	173,745
KeyBanc Capital Markets, a division of McDonald Investments Inc.	173,745
Lazard Capital Markets LLC	173,745
Scotia Capital (USA) Inc.	173,745
Total	<u>6,318,000</u>

The underwriters have agreed to purchase all of the shares sold under the underwriting agreement if any of the shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitment of the non-defaulting underwriter may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters, the forward seller and the forward purchaser against, or contribute to payments the underwriters, the forward seller and the forward purchaser may be required to make in respect of, certain liabilities, including liabilities under the Securities Act of 1933, as amended.

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and the forward seller and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus supplement are subject to the approval of specified legal matters by their counsel and to other conditions. The obligations of the underwriters to purchase, and of the forward seller to sell, the shares to be delivered by the forward seller are subject to the satisfaction of certain additional conditions set forth in the forward sale agreement described below. The underwriters are obligated to take and pay for all of the shares of common stock offered by us and the forward seller, respectively, if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' overallocation option described below. In the event of a default by an underwriter, the underwriting agreement provides that, in certain circumstances, the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Forward Sale Agreement

We have entered into a forward sale agreement on the date of this prospectus supplement with Merrill Lynch Financial Markets, Inc., as forward purchaser, related to 1,755,000 shares of our common stock. The forward purchaser (or an affiliate thereof) is borrowing and selling 1,755,000 shares of our

The forward sale agreement provides for settlement on a settlement date or dates to be specified at our discretion, subject to certain exceptions, no later than one year following the date of this prospectus supplement at an initial forward sale price of \$26.6062 per share, which is the public offering price of our shares of common stock less the underwriting discount. The forward sale agreement provides that the initial forward sale price will be adjusted based on the federal funds rate less a spread, and the forward sale price will be subject to decrease by \$0.415 on each of May 25, 2006, August 25, 2006, November 27, 2006 and February 23, 2007.

Subject to the provisions of the forward sale agreement, we will receive an amount equal to the net proceeds from the sale of the borrowed shares of our common stock sold in this offering, plus interest based on the federal funds rate less a spread, less scheduled decreases of \$0.415 on each of May 25, 2006, August 25, 2006, November 27, 2006 and February 23, 2007, from the forward purchaser upon settlement of the forward sale agreement if we elect to physically settle the forward sale agreement by delivering solely shares of our common stock.

The forward purchaser will have the right to require us to physically settle the forward sale agreement on a date specified by the forward purchaser upon the occurrence of certain events, including if (a) the forward purchaser is unable during certain periods to hedge its exposure to the transactions contemplated by the forward sale agreement because of the lack of sufficient shares of our common stock being made available for borrowing by share lenders at a rate that is equal to or less than a specified threshold, (b) on any day following the date of this prospectus supplement, we declare (i) any cash dividend above a specified threshold or (ii) certain non-cash distributions, issuances or dividends to existing holders of shares of our common stock, (c) either the forward purchaser or we have the right to designate an early termination date pursuant to Section 6 of the deemed ISDA Master Agreement (relating to bankruptcy or insolvency) that governs the forward sale agreement or (d) certain merger events, certain tender offers, any nationalization, any delisting or any change in law (as each such term is defined in the forward sale agreement) occurs. The forward purchaser's decision to exercise its right to require us to settle the forward sale agreement will be made irrespective of our need for capital. In the event that we elect, or are required, to settle the forward sale agreement with shares of our common stock, delivery of such shares would likely result in dilution to our earnings per share and return on equity.

In addition, upon certain events of bankruptcy, insolvency or reorganization relating to us, the forward sale agreement will terminate without further liability to either party. Following any such termination, we would not issue any shares, and we would not receive any proceeds pursuant to the forward sale agreement.

Except under the circumstances described above, we have the right, in lieu of physical settlement of the forward sale agreement, to elect cash or net physical settlement of the forward sale agreement. If we elect cash or net physical settlement of the forward sale agreement, the forward purchaser or one of its affiliates will purchase shares of our common stock in secondary market transactions over a period of time for delivery to stock lenders in order to unwind its hedge. If the price of our common stock at which the forward purchaser or its affiliate unwinds the forward purchaser's hedge is below the applicable forward sale price, the forward purchaser will pay us such difference in cash (if we cash settle) or deliver to us shares of our common stock having a market value equal to such difference (if we net physically settle). If the price of our common stock at which the forward purchaser or its affiliate unwinds the forward purchaser's hedge exceeds the applicable forward sale price, we will pay the forward purchaser an amount in cash equal to such difference (if we elect to cash settle) or we will deliver to the forward purchaser a number of shares of our common stock having a market value equal to such difference (if we elect to net physically settle). Any such difference could be significant. In addition, the purchases of our common stock by the forward purchaser or an affiliate thereof to unwind the forward purchaser's hedge could cause the price of our common stock to increase over time, thereby increasing the number of shares or amount of cash we owe to the forward purchaser.

Before the issuance of our common stock upon settlement of the forward sale agreement, the forward sale agreement will be reflected in our diluted earnings per share calculations using the treasury stock method. Under this method, the number of shares of our common stock used in calculating diluted earnings per share is deemed to be increased by the excess, if any, of the number of shares that would be issued upon physical settlement of the forward sale agreement over the number of shares that could be purchased by us in the market (based on the average market price during the period) using the proceeds receivable upon settlement (based on the adjusted forward sale price at the end of the reporting period). Consequently, we anticipate there will be no dilutive effect on our earnings per share except during periods when the average market price of our common stock is above the per share adjusted forward sale price, which is initially \$26.6062 (which is the public offering price less the underwriting discount shown on the cover page of this prospectus supplement), subject to adjustment based on the federal funds rate less a spread and subject to decrease by \$0.415 on each of May 25, 2006, August 25, 2006, November 27, 2006 and February 23, 2007.

Commissions and Discounts

The underwriters have advised us and the forward seller that they propose initially to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement. Any shares of common stock sold by the underwriters to securities dealers may be sold at the public offering price less a concession of up to \$0.53 per share. Any such securities dealers may resell any shares of common stock purchased from the underwriters to certain other brokers or dealers at a discount from the public offering price of up to \$0.10 per share. If all of the shares of common stock are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of the overallotment option. We expect to receive proceeds of approximately \$46.7 million, net of the underwriting discount and offering expenses, subject to certain adjustments as described above, only upon physical settlement of the forward sale agreement. The actual proceeds are subject to settlement of the forward sale agreement, which will occur within one year following the date of this prospectus supplement. If the forward sale agreement is net physically settled or cash settled, we will not receive the full proceeds shown below.

	Per Share	Without Option	With Option
Public offering price	\$ 27.50	\$ 173,745,000	\$ 192,567,375
Underwriting discount	\$ 0.8938	\$ 5,647,028	\$ 6,258,790
Proceeds, before expenses, to Great Plains Energy Incorporated	\$26.6062	\$ 168,097,972	\$ 186,308,585

The expenses of the offering, not including the underwriting discount, are estimated at \$500,000 and are payable by us.

Overallocation Option

We have granted an option to the underwriters to purchase up to 684,450 additional shares of common stock at the public offering price less the underwriting discount. The underwriters may exercise this option at any time within 30 days of the date of this prospectus supplement, with certain limitations, solely to cover any overallocations. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase approximately the same percentage of additional shares as the number set forth next to the underwriter's name in the preceding table bears to the total number of shares set forth next to the names of all underwriters in the preceding table.

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No Sale of Similar Securities

We and the directors and executive officers of Great Plains Energy Incorporated are expected to agree, except as set forth below, not to sell or transfer any of our common stock for 90 days after the date of this prospectus supplement, without first obtaining the written consent of the representatives of the underwriters. Specifically, we, our directors and our executive officers are expected to agree not to directly or indirectly:

- offer, pledge, sell or contract to sell any common stock;
- sell any option or contract to purchase any common stock;
- purchase any option or contract to sell any common stock;
- grant any option, right or warrant to sell any common stock;
- lend or otherwise dispose of or transfer any common stock;
- file a registration statement related to the common stock;
- enter into swap or other agreement or transaction that transfers, in whole or in part, the economic consequence of ownership of common stock whether any such swap or transaction is to be settled by delivery of common stock, in cash or otherwise.

The aforementioned restrictions apply to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock.

However, the restrictions on us do not apply to shares of our common stock or options for shares of our common stock issued pursuant to or sold in connection with any of our and our subsidiaries' existing employee benefit, dividend reinvestment and direct stock purchase, employee savings and executive compensation plans, or the issuance of and sale of the shares by us pursuant to the underwriting agreement or the forward sale agreement. In addition, between the 31st and the 90th day after the date of this prospectus supplement, our directors and executive officers may each sell up to an aggregate of 5,000 shares of our common stock.

Price Stabilization and Short Positions

Until the distribution of the shares of common stock offered hereby is completed, SEC rules may limit the underwriters and selling group members from bidding for or purchasing the shares of our common stock. However, the underwriters may engage in transactions that stabilize the price of our common stock, such as bids or purchases that peg, fix or maintain the price of our common stock.

In connection with this offering, the underwriters may make short sales of our common stock. Short sales involve the sale by the underwriters, at the time of the offering, of a greater number of shares of common stock than they are required to purchase in this offering. Covered short sales are sales made in an amount not greater than the overallocation option. The underwriters may close out any covered short position by either exercising the overallocation option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the overallocation option. Naked short sales are sales in excess of the overallocation option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Similar to other purchase transactions, purchases by the underwriters to cover syndicate short positions may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market

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price of our common stock. As a result, the prices of shares of our common stock may be higher than they would otherwise be in the absence of these transactions.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the underwriters will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Selling Restrictions

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each a "Relevant Member State") an offer to the public of any shares of common stock which are the subject of the offering contemplated by this prospectus (the "Shares") may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any Shares may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average or at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

(c) by the underwriters to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of Shares shall result in a requirement for the publication by Great Plains Energy Incorporated or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer to the public” in relation to any Shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any Shares to be offered so as to enable an investor to decide to purchase any Shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression “Prospectus Directive” means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Each of the underwriters represents and warrants that:

(a) it has not made or will not make an offer of shares to the public in the United Kingdom within the meaning of section 102B of the Financial Services and Markets Act 2000 (as amended) (the “FSMA”) except to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities or otherwise in circumstances which do not require the publication by the company of a prospectus pursuant to the Prospectus Rules of the Financial Services Authority (the “FSA”);

(b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of section 21 of FSMA) to persons who have professional experience

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in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or in circumstances in which section 21 of FSMA does not apply to the company; and

(c) it has complied with, and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

Electronic Distribution

This prospectus supplement and the accompanying prospectus may be made available in electronic format on the websites maintained by one or more of the underwriters participating in this offering and one or more of the underwriters participating in this offering may distribute such prospectus supplement and accompanying prospectus electronically. The representatives may agree to allocate a number of shares to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters that will make internet distributions on the same basis as other allocations. Other than the prospectus supplement and accompanying prospectus in electronic format, the information on the websites maintained by the underwriters is not intended to be part of this prospectus supplement.

Other Relationships

Certain of the underwriters and their affiliates engage in transactions with, and perform services for, us, our subsidiaries and our affiliates in the ordinary course of business and have engaged, and may in the future engage, in commercial banking and investment banking transactions with us, our subsidiaries and our affiliates. Certain affiliates of the underwriters are lenders under the revolving credit facilities of Great Plains Energy Incorporated and KCP&L. Because more than 10% of the net proceeds of this offering may be paid to affiliates of NASD members participating in the distribution of this offering, this offering is being made pursuant to Rule 2710(h) of the NASD Conduct Rules.

LEGAL MATTERS

Certain legal matters in connection with the offering of the common stock will be passed upon for Great Plains Energy Incorporated by Mark English, General Counsel and Assistant Secretary of Great Plains Energy Incorporated, and by Sidley Austin LLP, Chicago, Illinois. Certain legal matters will be passed on for the underwriters by Davis Polk & Wardwell, Menlo Park, California.

At May 1, 2006, Mr. English owned beneficially 1,312 shares of Great Plains Energy Incorporated common stock, including restricted stock and 4,355 performance shares, which may be paid in shares of common stock at a later date based on our performance.

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Prospectus

GREAT PLAINS ENERGY INCORPORATED

Senior Debt Securities Subordinated Debt Securities Common Stock Warrants

Stock Purchase Contracts

Stock Purchase Units

Great Plains Energy Incorporated (“Great Plains Energy”) may offer and sell from time to time these securities in one or more offerings. This prospectus provides you with a general description of these securities. We will provide specific information about the offering and the terms of these securities in supplements to this prospectus. The supplements may also add, update, or change information contained in this prospectus. This prospectus may not be used to offer and sell these securities unless accompanied by a prospectus supplement. You should read this prospectus and the related prospectus supplements before you invest in these securities.

The common stock of Great Plains Energy Incorporated is listed on the New York Stock Exchange under the symbol “GXP.”

Our principal executive offices are located at 1201 Walnut Street, Kansas City, Missouri 64106-2124 and our telephone number is (816) 556-2200.

Investing in these securities involves risks. You should carefully consider the information referred to under the heading “Risk Factors” beginning on page 6.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

We may offer and sell these securities through one or more underwriters or agents. We will set forth in the related prospectus supplement the name of the underwriters or agents, the discount or commission received by them from us as compensation, our other expenses for the offering and sale of these securities, and the net proceeds we receive from the sale. See “Plan of Distribution.”

The date of this Prospectus is May 8, 2006

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement filed with the Securities and Exchange Commission (“SEC”) using a “shelf” registration process. By using this process, we may offer the securities described in this prospectus in one or more offerings. We may offer any of the following securities: senior debt securities or subordinated debt securities, each of which may be convertible into our common stock, common stock, stock purchase contracts and stock purchase units. We may also offer warrants to purchase shares of our common stock.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide you with a prospectus supplement that will describe the specific terms of that offering. The prospectus supplement may also add, update or change the information contained in this prospectus. If there is any inconsistency between the information in this prospectus and the prospectus supplement, you should rely on the information in the prospectus supplement. The registration statement we filed with the SEC includes exhibits that provide more detail on descriptions of the matters discussed in this prospectus. Before you invest in our securities, you should carefully read the registration statement and exhibits thereto, this prospectus, the applicable prospectus supplement and the information contained in the documents we refer to in this prospectus under “Where You Can Find More Information.”

References in this prospectus to “Great Plains Energy” or “the Company” or to the terms “we”, “us” or other similar terms mean Great Plains Energy Incorporated and its subsidiaries, unless the context clearly indicates otherwise.

You should rely only on the information contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or in any free writing prospectus we file with the SEC in connection with an offering of securities under this prospectus. We have not authorized anyone else to provide you with any different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus is current only as of the date of this prospectus.

CAUTIONARY STATEMENTS REGARDING CERTAIN FORWARD-LOOKING INFORMATION

This prospectus and the documents incorporated or deemed incorporated by reference as described under the heading “Where You Can Find More Information” contain forward-looking statements that are not based on historical facts. Forward looking statements include, but are not limited to, statements regarding projected delivery volumes and margins, the outcome of regulatory proceedings, cost estimates for our comprehensive energy plan and other matters affecting future operations. These forward-looking statements are based on assumptions, expectations, and assessments made by our management in light of their experience and their perception of historical trends, current conditions, expected future developments and other factors they believe to be appropriate. Any forward-looking statements are not guarantees of our future performance and are subject to risks and uncertainties, including those described or referred to under the heading “Risk Factors” in this prospectus, in any prospectus supplement, and in our other SEC filings. These risks and uncertainties could cause actual results, developments and business decisions to differ materially from those contemplated or implied by forward-looking statements. Consequently, you should recognize these statements for what they are and we caution you not to rely upon them as facts. We disclaim any duty to update the forward-looking statements, which apply only as of the date of this prospectus. Some of the factors that may cause actual results, developments and business decisions to differ materially from those contemplated by these forward-looking statements include the following:

- future economic conditions in the regional, national and international markets, including, but not limited to, regional and national wholesale electricity markets
- market perception of the energy industry and Great Plains Energy
- 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 our subsidiary, Kansas City Power & Light Company, 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 in availability and cost of capital and the effects on pension plan assets and costs
- 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 weather-related damage
- cost, availability, quality and deliverability of fuel

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- ability to achieve generation planning goals and the occurrence and duration of unplanned generation outages
 - delays in the anticipated in-service dates and cost increases of additional generating capacity
 - nuclear operations
 - ability to enter new markets successfully and capitalize on growth opportunities in non-regulated businesses and the effects of competition
 - application of critical accounting policies, including but not limited to, those relating to derivatives and pension liabilities
 - workforce risks, including compensation and benefits costs
 - performance of projects undertaken by non-regulated businesses and the success of efforts to invest in and develop new opportunities and
 - other risks and uncertainties.

This list of factors is not all-inclusive because it is not possible to predict all factors. You should also carefully consider the information referred to under the heading “Risk Factors” in this prospectus, any prospectus supplement, and in our other SEC filings.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, and proxy statements and other information with the SEC through the SEC’s Electronic Data Gathering, Analysis and Retrieval system and these filings are publicly available through the SEC’s website (<http://www.sec.gov>). You may read and copy such material at the SEC’s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. You may also obtain copies of such material at prescribed rates from the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549.

The SEC allows us to “incorporate by reference” into this prospectus the information we file with them. This means that we can disclose important information to you by referring you to the documents containing the information. The information we incorporate by reference is considered to be included in

and an important part of this prospectus and should be read with the same care. Information that we file later with the SEC that is incorporated by reference into this prospectus will automatically update and supersede this information. We are incorporating by reference into this prospectus the following documents that we have filed with the SEC and any subsequent filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until the offering of the securities described in this prospectus is completed:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2005
- Our Report on Form 8-K dated February 1, 2006
- Our Report on Form 8-K dated February 10, 2006
- Our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006

Our website is www.greatplainsenergy.com. Information contained on our website is not incorporated herein except to the extent specifically so indicated. We make available, free of charge, on or through our website, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. In addition, we make available on or through our website all other reports, notifications and certifications filed electronically with the SEC. You may obtain a free copy of our filings with the SEC by writing or telephoning us at the following address: Great Plains Energy Incorporated, 1201 Walnut Street, Kansas City, Missouri 64106-2124 (Telephone No.: 816-556-2200) Attention: Senior Vice President - Corporate Services and Corporate Secretary, or by contacting us on our website.

GREAT PLAINS ENERGY INCORPORATED

Great Plains Energy Incorporated

Great Plains Energy Incorporated, a Missouri corporation incorporated in 2001 and headquartered in Kansas City, Missouri, is a public utility holding company and does not own or operate any significant assets other than the stock of its subsidiaries.

We have four direct subsidiaries with operations or active subsidiaries:

- Kansas City Power & Light Company (“KCP&L”) is described below.
- KLT Inc. is an intermediate holding company that primarily holds, directly or indirectly, interests in Strategic Energy, L.L.C. (“Strategic Energy”), which provides competitive retail electricity supply services in several electricity markets offering retail choice, and affordable housing limited partnerships. KLT Inc. also wholly owns KLT Gas Inc. (“KLT Gas”). During 2004, KLT Gas sold its gas properties and discontinued its gas business.
- Innovative Energy Consultants Inc. (“IEC”) is an intermediate holding company that holds an indirect interest in Strategic Energy. IEC does not own or operate any assets other than its indirect interest in Strategic Energy. When combined with KLT Inc.’s indirect interest in Strategic Energy, Great Plains Energy indirectly owns 100% of Strategic Energy.
- Great Plains Energy Services Incorporated (“Services”) provides services at cost to us and our subsidiaries, including KCP&L.

KCP&L

KCP&L is an integrated, regulated electric utility, headquartered in Kansas City, Missouri, that engages in the generation, transmission, distribution and sale of electricity. KCP&L serves slightly over 500,000 customers located in all or portions of 24 counties in western Missouri and eastern Kansas. Customers include approximately 440,000 residences, over 55,000 commercial firms, and over 2,200 industrials, municipalities and other electric utilities. KCP&L’s retail revenues averaged approximately 82% of its total operating revenues over the last three years. Wholesale firm power, bulk power sales and miscellaneous electric revenues accounted for the remainder of utility revenues. KCP&L is significantly impacted by seasonality with approximately one-third of its retail revenues recorded in the third quarter. KCP&L’s total electric revenues averaged approximately 45% of our consolidated revenues over the last three years. KCP&L’s income from continuing operations accounted for approximately 88%, 86% and 67% of our consolidated income from continuing operations in 2005, 2004 and 2003, respectively.

Strategic Energy

Strategic Energy provides competitive retail electricity supply services by entering into power supply contracts to supply electricity to its end-use customers. Of the states that offer retail choice, Strategic Energy operates in California, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania and Texas. In addition to competitive retail electricity supply services, Strategic Energy records insignificant wholesale revenues and purchased power expense incidental to the retail services provided. Strategic Energy also provides strategic planning, consulting and billing and scheduling services in the natural gas and electricity markets.

Strategic Energy provides services to approximately 49,200 commercial, institutional and small manufacturing accounts for approximately 12,700 customers including numerous Fortune 500 companies, smaller companies and governmental entities. Strategic Energy’s revenues averaged approximately 55% of our consolidated revenues over the last three years. Strategic Energy’s net income accounted for approximately 17%, 24% and 21% of our consolidated income from continuing operations in 2005, 2004 and 2003, respectively.

Additional Information

Our principal executive office is located at 1201 Walnut Street, Kansas City, Missouri 64106. Our telephone number is (816) 556-2200.

RISK FACTORS

Investing in our securities involves risks. You should carefully consider the information under the heading “Risk Factors” in:

- any prospectus supplement relating to any securities we are offering;
- our Annual Report on Form 10-K for the fiscal year ended December 31, 2005, which is incorporated by reference into this prospectus;
- our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2006, which is incorporated by reference into this prospectus; and
- documents we file with the SEC after the date of this prospectus and which are deemed incorporated by reference into this prospectus.

USE OF PROCEEDS

Unless we inform you otherwise in a supplement to this prospectus, we anticipate using any net proceeds received by us from the sale of the offered securities for general corporate purposes, including, among others:

- Repayment of short term debt;
- Repurchase, retirement or refinancing of other securities;
- Acquisitions; and
- Investments in subsidiaries.

Pending such uses, we may also invest the proceeds in certificates of deposit, United States government securities or certain other interest-bearing securities. If we decide to use the net proceeds from a particular offering of securities for a specific purpose, we will describe that in the related prospectus supplement.

DESCRIPTION OF DEBT SECURITIES

General. The senior debt securities and the subordinated debt securities, which we refer to collectively as the debt securities, will represent unsecured obligations of Great Plains Energy Incorporated exclusively, and not the obligation of any of our subsidiaries. We may issue one or more series of debt securities directly to the public, to a trust or as part of a stock purchase unit from time to time. We expect that each series of senior debt securities or subordinated debt securities will be issued as a new series of debt securities under one of two separate indentures, as each may be amended or supplemented from time to time. We will issue the senior debt securities in one or more series under the senior indenture that we have entered into with BNY Midwest Trust Company, as trustee. We will issue the subordinated debt securities in one or more series under a subordinated indenture between a trustee and us. The senior indenture, the form of the subordinated indenture and the form of any supplemental indenture or other instrument establishing the debt securities of a particular series are filed as exhibits to, or will be subsequently incorporated by reference in, the registration statement of which this prospectus is a part. Each indenture has been or will be qualified under the Trust Indenture Act of 1939 (Trust Indenture Act). The following summaries of certain provisions of the senior indenture, the subordinated indenture and the applicable debt securities do not purport to be complete and are subject to, and qualified in their entirety by, all of the provisions of the senior indenture or the subordinated indenture, as the case may be, and the applicable debt securities. We may also sell hybrid or novel securities now existing or developed in the future that combine certain features of the debt securities and other securities described in this prospectus.

We may authorize the issuance and provide for the terms of a series of debt securities by or pursuant to a resolution of our Board of Directors or any duly authorized committee thereof or pursuant to a supplemental indenture or to a company order, as described in the indentures. There will be no requirement under either the senior indenture or the subordinated indenture that our future issuances of debt securities be issued exclusively under either indenture. We will be free to employ other indentures or documentation containing provisions different from those included in either indenture or applicable to one or more issuances of senior debt securities or subordinated debt securities, as the case may be, in connection with future issuances of other debt securities. The senior indenture and the subordinated indenture will provide that the applicable debt securities will be issued in one or more series, may be issued at various times, may have differing maturity dates and may bear interest at differing rates. We need not issue all debt securities of one series at the same time and, unless otherwise provided, we may reopen a series, without the consent of the holders of the senior debt securities or the subordinated debt securities of that series, as the case may be, for issuances of additional senior debt securities or subordinated debt securities of that series, as applicable. One or more series of the debt securities may be issued with the same or various maturities at par, above par or at a discount. Debt securities bearing no interest or interest at a rate which, at the time of issuance, is below the market rate (“Original Issue Discount Securities”) will be sold at a discount (which may be substantial) below their stated principal amount. Federal income tax consequences and other special considerations applicable to any such Original Issue Discount Securities will be described in the prospectus supplement relating thereto. Unless otherwise described in the applicable prospectus supplement, neither indenture described above will limit the aggregate amount of debt, including secured debt, we or our subsidiaries may incur. Both indentures will also permit us to merge or consolidate or to transfer our assets, subject to certain conditions (see “Consolidation, Merger and Sale” below).

Ranking. The debt securities will be direct unsecured obligations of Great Plains Energy Incorporated exclusively, and not the obligation of any of our subsidiaries. The senior debt securities will rank equally with all of Great Plains Energy Incorporated’s unsecured and unsubordinated debt and the subordinated debt securities will be junior in right of payment to our Senior Indebtedness (including senior debt securities), as described under the heading “—Subordination.” At March 31, 2006, Great Plains

Energy Incorporated had approximately \$163.6 million of outstanding senior indebtedness (excluding guarantees) and no subordinated indebtedness. In addition, we issue guarantees and cause letters of credit to be issued under our credit agreement for the benefit of our non-utility subsidiaries and expect to have such guarantees and letters of credit outstanding from time to time in various aggregate amounts, which amounts could be significant.

Great Plains Energy Incorporated is a holding company that derives substantially all of its income from its operating subsidiaries. As a result, our cash flows and consequent ability to service our debt, including the debt securities, are dependent upon the earnings of our subsidiaries and distribution of those earnings to us and other payments or distributions of funds by our subsidiaries to us, including payments of principal and interest under intercompany indebtedness. Our operating subsidiaries are separate and distinct legal entities and will have no obligation, contingent or otherwise, to pay any dividends or make any other distributions (except for payments required pursuant to the terms of intercompany indebtedness) to us or to otherwise pay amounts due with respect to the debt securities or to make specific funds available for such payments. Furthermore, except to the extent we have a priority or equal claim against our subsidiaries as a creditor, the debt securities will be effectively subordinated to debt at the subsidiary level because, as the common shareholder of our subsidiaries, we will be subject to the prior claims of creditors of our subsidiaries. At March 31, 2006, our subsidiaries had approximately \$1,057.1 million of aggregate outstanding debt.

Provisions of a Particular Series. The prospectus supplement applicable to each issuance of debt securities will specify, among other things:

- the title and any limitation on aggregate principal amount of the debt securities;
- the original issue date of the debt securities;
- the date or dates on which the principal of any of the debt securities is payable;
- the fixed or variable interest rate or rates, or method of calculation of such rate or rates, for the debt securities, and the date from which interest will accrue;
- the terms, if any, regarding the optional or mandatory redemption of any debt securities, including the redemption date or dates, if any, and the price or prices applicable to such redemption;
- the denominations in which such debt securities will be issuable;
- the period or periods within which, the price or prices at which and the terms and conditions upon which any debt securities may be repaid, in whole or in part, at the option of the holder thereof;
- our obligation, if any, to redeem, purchase, or repay the debt securities pursuant to any sinking fund or analogous provision or at the option of a holder thereof and the period or periods within which, the price or prices at which, and the terms and conditions upon which the debt securities shall be redeemed, purchased, or repaid pursuant to such obligation;
- whether the debt securities are to be issued in whole or in part in the form of one of more global securities and, if so, the identity of the depository for such global security or global securities
- the place or places where the principal of, and premium, if any, and interest, if any, shall be payable;
- any addition to the events of default applicable to that series of debt securities and the covenants for the benefit of the holders of that series;

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- any restrictions on the declaration of dividends or the requirement to maintain certain asset ratios or the creation and maintenance of reserves;
 - any remarketing features of the debt securities;
 - any collateral, security, assurance, or guarantee for the debt security;
 - if other than the principal amount thereof, the portion of the principal amount of the debt securities payable upon declaration of acceleration of the maturity of the debt securities;
 - the securities exchange(s), if any, on which the debt securities will be listed;
 - the terms, if any, pursuant to which debt securities may be converted into or exchanged for shares of our capital stock or other securities;
 - any interest deferral or extension provisions;
 - the applicability of or any change in the subordination provisions for a series of debt securities;
 - the terms of any warrants we may issue to purchase debt securities; and
 - any other terms of the debt securities not inconsistent with the provisions of the applicable indenture.

Subordination. The subordinated debt securities will be subordinate and junior in right of payment to all of our Senior Indebtedness, as defined below.

In the event:

- of any bankruptcy, insolvency, receivership or other proceedings or any dissolution, winding-up, liquidation or reorganization, whether voluntary or involuntary, of Great Plains Energy Incorporated,
- that a default shall have occurred with respect to the payment of principal of or interest on or other monetary amounts due and payable on any Senior Indebtedness, and such default continues beyond any applicable grace period and shall not have been cured, waiver or ceased to exist, or
- that the principal of and accrued interest on any series of subordinated debt securities shall have been declared due and payable and such declaration has not been rescinded and annulled,

then all Senior Indebtedness must be paid in full before the holders of the subordinated debt securities are entitled to receive or retain any payment (including redemption and sinking fund payments).

In addition, upon the maturity of the principal of any Senior Indebtedness by lapse of time, acceleration or otherwise, all matured principal of and interest and premium, if any, on such Senior Indebtedness, must be paid in full before any payment of principal of, premium, if any, or interest on, the subordinated debt securities may be made or before any subordinated debt securities can be acquired by Great Plains Energy Incorporated.

Upon the payment in full of all Senior Indebtedness, the rights of the holders of the subordinated debt securities will be subrogated to the rights of the holders of Senior Indebtedness to receive payments or distributions applicable to Senior Indebtedness until all amounts owing on the subordinated debt securities are paid in full. If provided in the applicable prospectus supplement, limited subordination periods may apply in the event of non-payment defaults relating to Senior Indebtedness in situations where there has not been an acceleration of Senior Indebtedness.

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As defined in the subordinated indenture, the term “Senior Indebtedness” means:

(1) obligations (other than non-recourse obligations, the indebtedness issued under the subordinated indenture and other indebtedness which is either effectively by its terms or expressly made subordinate to or *pari passu* with the subordinated debt securities) of, or guaranteed (except to the extent our payment obligations under any such guarantee are subordinate to or *pari passu* with the subordinated debt securities) or assumed by, us for

- borrowed money (including both senior and subordinated indebtedness for borrowed money (other than the subordinated debt securities and other indebtedness which is expressly made subordinate to or *pari passu* with the subordinated debt securities)); or
- the payment of money relating to any lease which is capitalized on our balance sheet in accordance with generally accepted accounting principles as in effect from time to time; or

(2) indebtedness evidenced by bonds, debentures, notes or other similar instruments, and in each case, amendments, renewals, extensions, modifications and refundings of any such indebtedness or obligations with Senior Indebtedness, whether existing as of the date of the subordinated indenture or subsequently incurred by us.

The subordinated indenture will not limit the aggregate amount of Senior Indebtedness that we may issue. At March 31, 2006, the outstanding Senior Indebtedness of Great Plains Energy Incorporated totaled approximately \$163.6 million.

Registration, Transfer and Exchange. Unless otherwise indicated in the applicable prospectus supplement, each series of debt securities, other than debt securities issued to a trust, will initially be issued in the form of one or more global securities, in registered form, without coupons, as described under “Book-Entry System.” The global securities will be registered in the name of a depository, or its nominee, and deposited with, or on behalf of, the depository. Except in the circumstances described under “Book-Entry System,” owners of beneficial interests in a global security will not be entitled to have debt securities registered in their names, will not receive or be entitled to receive physical delivery of any debt securities and will not be considered the registered holders thereof under the applicable indenture.

Debt securities of any series will be exchangeable for other debt securities of the same series of any authorized denominations and of a like aggregate principal amount and tenor. Subject to the terms of the applicable indenture and the limitations applicable to global securities, debt securities may be presented for exchange or registration of transfer-duly endorsed or accompanied by a duly executed instrument of transfer-at the office of any transfer agent we may designate for such purpose, without service charge but upon payment of any taxes and other governmental charges, and upon satisfaction of such other reasonable requirements as are described in the applicable indenture.

Unless otherwise indicated in the applicable prospectus supplement, the transfer agent will be the trustee under the applicable indenture. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

Payment and Paying Agents. Principal of and interest and premium, if any, on debt securities issued in the form of global securities will be paid in the manner described under “Book-Entry System” or as otherwise set forth in the applicable prospectus supplement.

Unless otherwise indicated in the applicable prospectus supplement, the principal of and any premium and interest on debt securities of a particular series in the form of certificated securities will be payable at the office of the applicable trustee or at the authorized office of any paying agent or paying

agents upon presentation and surrender of such debt securities. We may at any time designate additional paying agents or rescind the designation of any paying agent or approve a change in the office through which any paying agent acts, except that we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series. Unless otherwise indicated in the applicable prospectus supplement, interest on the debt securities of a particular series, other than interest at maturity, that are in the form of certificated securities will be paid by check payable in clearinghouse funds mailed to the person entitled thereto at such person’s address as it appears on the register for such debt securities maintained by the applicable trustee. All monies we pay to a trustee or a paying agent for the payment of the principal of, and premium or interest, if any, on, any debt security which remain unclaimed at the end of two years after such principal, premium or interest shall have become due and payable will be repaid to us, and the holder of such debt security thereafter may look only to us for payment thereof. However, any such payment shall be subject to escheat pursuant to state abandoned property laws.

Redemption. Any terms for the optional or mandatory redemption of the debt securities will be set forth in the applicable prospectus supplement. Unless otherwise indicated in the applicable prospectus supplement, debt securities that are redeemable by us will be redeemable only upon notice by mail not less than 30 nor more than 60 days prior to the date fixed for redemption, and, if less than all the debt securities of a series are to be redeemed, the particular debt securities to be redeemed will be selected by such method as shall be provided for any particular series, or in the absence of any such provision, by the trustee in such manner as it shall deem fair and appropriate.

Any notice of redemption at our option may state that such redemption will be conditional upon receipt by the trustee or the paying agent or agents, on or prior to the date fixed for such redemption, of money sufficient to pay the principal of and premium, if any, and interest on, such debt securities and that if such money has not been so received, such notice will be of no force and effect and we will not be required to redeem such debt securities.

Consolidation, Merger and Sale or Disposition of Assets. We may, without the consent of the holders of any debt securities, consolidate with or merge into any other corporation or sell, transfer or otherwise dispose of our properties as or substantially as an entirety to any person, provided that:

- the successor or transferee corporation or the person which receives such properties pursuant to such sale, transfer or other disposition is a corporation organized and existing under the laws of the United States of America, any state thereof or the District of Columbia;
- the successor or transferee corporation or the person which receives such properties pursuant to such sale, transfer or other disposition assumes by supplemental indenture the due and punctual payment of the principal of and premium and interest, if any, on all the debt securities outstanding under each indenture and the performance of every covenant of each indenture to be performed or observed by us;
- we have delivered to the trustees for such debt securities an officer’s certificate and an opinion of counsel as will be provided in each of the indentures; and
- immediately after giving effect to the transaction, no event of default (see “Events of Default”) or event that, after notice or lapse of time, or both, would become an event of default, shall have occurred and be continuing.

Upon any such consolidation, merger, sale, transfer or other disposition of our properties (except transfers related to a lease of our properties) as or substantially as an entirety, the successor corporation formed by such consolidation or into which we are merged or the person to which such sale, transfer or

other disposition is made shall succeed to, and be substituted for, and may exercise every right and power of, us under the applicable indenture with the same effect as if such successor corporation or person had been named as us therein, and we will be released from all obligations under the applicable indenture.

Certain of the indentures for debt securities issued or to be issued by KCP&L provide that the sale, conveyance or other transfer by KCP&L of its facilities for the generation of electric energy to any affiliate of KCP&L, shall not be subject to other restrictions on sales, conveyances, or other transfers provided that the facilities shall not in the aggregate represent assets with a depreciated value on the books of KCP&L in excess of 65% of the depreciated value of KCP&L's total assets as set forth in its most recent report filed on Form 10-K or 10-Q as of the date of the sale, conveyance, or other transfer.

Modification. Without the consent of any holder of debt securities, the trustee for such debt securities and we may enter into one or more supplemental indentures for any of the following purposes:

- to supply omissions, cure any ambiguity or inconsistency or correct or supplement any defective or inconsistent provision, which actions, in each case, are not inconsistent with the applicable indenture or prejudicial to the interests of the holders of debt securities of any series in any material respect;
- to change or eliminate any provision of the applicable indenture, provided that any such change or elimination will become effective with respect to such series only when there is no debt security of such series outstanding created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision, or such change or elimination is applicable only to debt securities of such series issued after the effective date of such change or elimination;
- to establish the form or terms of debt securities of any series as permitted by the applicable indenture;
- to evidence the assumption of our covenants in the applicable indenture and the debt securities by any permitted successor;
- to grant to or confer upon the trustee for any debt securities for the benefit of the holders of such debt securities, any additional rights, remedies, powers or authority;
- to permit the trustee for any debt securities to comply with any duties imposed upon it by law;
- to specify further the duties and responsibilities of, and to define further the relationship among, the trustee for any debt securities, any authenticating agent and any paying agent, and to evidence the succession of a successor trustee as permitted under the applicable indenture;
- to add to our covenants for the benefit of the holders of all or any series of outstanding debt securities, to add to the security of all debt securities, to surrender any right or power conferred upon us by the applicable indenture or to add any additional events of default with respect to all or any series of outstanding debt securities; and
- to make any other change that is not prejudicial to the holders of any debt securities.

Except as provided above, the consent of the holders of a majority in aggregate principal amount of either the senior debt securities or the subordinated debt securities, as the case may be, of all series then outstanding, considered as one class, is required for the purpose of adding any provisions to, or changing in any manner, or eliminating any of the provisions of, the applicable indenture pursuant to one or more supplemental indentures or of modifying or waiving in any manner the rights of the holders of the applicable debt securities; provided, however, that if less than all of the series of senior debt securities or subordinated debt securities outstanding, as the case may be, are directly affected by a proposed supplemental indenture, then the consent only of the holders of a majority in aggregate principal amount of the outstanding applicable debt securities of all series so directly affected, considered as one class, will be required.

Notwithstanding the foregoing, no such amendment or modification may, without the consent of each holder of outstanding debt securities affected thereby:

- change the maturity date of the principal of any debt security;
- reduce the principal amount of, or premium payable on, any debt security;
- reduce the rate of interest or change the method of calculating such rate, or extend the time of payment of interest, on any debt security;
- change the coin or currency of any payment of principal of, or any premium or interest on any debt security;
- change the date on which any debt security may be redeemed;
- adversely affect the rights of a holder to institute suit for the enforcement of any payment of principal of or any premium or interest on any debt security; or
- modify the foregoing requirements or reduce the percentage of outstanding debt securities necessary to modify or amend the applicable indenture or to waive events of default.

A supplemental indenture which changes or eliminates any covenant or other provision of the applicable indenture or any other supplemental indenture which has expressly been included solely for the benefit of one or more series of debt securities, or which modifies the rights of the holders of debt securities of such series with respect to such covenant or provision, will be deemed not to affect the rights under the applicable indenture of the holders of the debt securities of any other series.

Events of Default. Unless specifically deleted in a supplemental indenture or Board resolution under which a series of debt securities is issued, or modified in any such supplemental indenture, each of the following will constitute an event of default under the senior indenture or the subordinated indenture with respect to senior debt securities or subordinated debt securities, as the case may be, of any series:

- failure to pay principal of or premium, if any, on any debt security of such series, as the case may be, within one day after the same becomes due and payable;

- failure to pay interest on the debt securities of such series within 30 days after the same becomes due and payable;
- failure to observe or perform any of our other covenants or agreements in the applicable indenture (other than a covenant or agreement solely for the benefit of one or more series of debt securities other than such series) for 60 days after written notice to us by the trustee or to us and the trustee by the holders of at least 33% in aggregate principal amount of the outstanding debt securities of such series;
- certain events of bankruptcy, insolvency, reorganization, assignment or receivership; or
- any other event of default specified in the applicable prospectus supplement with respect to debt securities of a particular series.

Additional events of default with respect to a particular series of debt securities may be specified in a supplemental indenture or resolution of the Board of Directors establishing that series.

No event of default with respect to the debt securities of a particular series necessarily constitutes an event of default with respect to the debt securities of any other series issued under the applicable indenture.

If an event of default with respect to any series of debt securities occurs and is continuing, then either the trustee for such series or the holders of a majority in aggregate principal amount of the

outstanding debt securities of such series, by notice in writing, may declare the principal amount of and interest on all of the debt securities of such series to be due and payable immediately; provided, however, that if an event of default occurs and is continuing with respect to more than one series of debt securities under a particular indenture, the trustee for such series or the holders of a majority in aggregate principal amount of the outstanding debt securities of all such series, considered as one class, may make such declaration of acceleration and not the holders of the debt securities of any one of such series.

At any time after an acceleration with respect to the debt securities of any series has been declared, but before a judgment or decree for the payment of the money due has been obtained, the event or events of default giving rise to such acceleration will be waived, and the acceleration will be rescinded and annulled, if:

- we pay or deposit with the trustee for such series a sum sufficient to pay all matured installments of interest on all debt securities of such series, the principal of and premium, if any, on the debt securities of such series which have become due otherwise than by acceleration and interest thereon at the rate or rates specified in such debt securities, interest upon overdue installments of interest at the rate or rates specified in such debt securities, to the extent that payment of such interest is lawful, and all amounts due to the trustee for such series under the applicable indenture; and
- any other event or events of default with respect to the debt securities of such series, other than the nonpayment of the principal of and accrued interest on the debt securities of such series which has become due solely by such acceleration, have been cured or waived as provided in the applicable indenture.

However, no such waiver or rescission and annulment shall extend to or shall affect any subsequent default or impair any related right.

Subject to the provisions of the applicable indenture relating to the duties of the trustee in case an event of default shall occur and be continuing, the trustee generally will be under no obligation to exercise any of its rights or powers under the applicable indenture at the request or direction of any of the holders unless such holders have offered to the trustee reasonable security or indemnity satisfactory to it. Subject to such provisions for the indemnification of the trustee and certain other limitations contained in the applicable indenture, the holders of a majority in aggregate principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or of exercising any trust or power conferred on the trustee, with respect to the debt securities of that series; provided, however, that if an event of default occurs and is continuing with respect to more than one series of debt securities, the holders of a majority in aggregate principal amount of the outstanding debt securities of all those series, considered as one class, will have the right to make such direction, and not the holders of the debt securities of any one series. Any direction provided by the holders shall not be in conflict with any rule of law or with the senior indenture or the subordinated indenture, as the case may be, and will not involve the trustee in personal liability in circumstances where reasonable indemnity would not, in the trustee's sole discretion, be adequate and the trustee may take any other action it deems proper that is not inconsistent with such direction.

The holders of a majority in aggregate principal amount of the outstanding debt securities of any series may waive any past default or event of default under the applicable indenture on behalf of all holders of debt securities of that series with respect to the debt securities of that series, except a default in the payment of principal of or any premium or interest on such debt securities. No holder of debt securities of any series may institute any proceeding with respect to the applicable indenture, or for the appointment of a receiver or a trustee, or for any other remedy, unless such holder has previously given to the trustee for such series written notice of a continuing event of default with respect to the debt securities of such series, the holders of a majority in aggregate principal amount of the outstanding debt securities of all

series in respect of which an event of default has occurred and is continuing, considered as one class, have made written request to the trustee for such series to institute such proceeding and have offered reasonable indemnity, and the trustee for such series has failed to institute such proceeding within 60 days after such notice, request and offer. Furthermore, no holder of debt securities of any series will be entitled to institute any such action if and to the extent that such action would disturb or prejudice the rights of other holders of those debt securities.

Notwithstanding the foregoing, each holder of debt securities of any series has the right, which is absolute and unconditional, to receive payment of the principal of and premium and interest, if any, on such debt securities when due and to institute suit for the enforcement of any such payment, and such rights may not be impaired without the consent of that holder of debt securities.

The trustee, within 90 days after the occurrence of a default actually known to the trustee with respect to the debt securities of any series, is required to give the holders of the debt securities of that series notice of such default, unless cured or waived, but, except in the case of default in the payment of principal of, or premium, if any, or interest on the debt securities of that series, the trustee may withhold such notice if it determines in good faith that it is in the interest of such holders to do so. We will be required to deliver to the trustees for the debt securities each year a certificate as to whether or not, to the

knowledge of the officers signing such certificate, we are in compliance with all conditions and covenants under the applicable indenture, determined without regard to any period of grace or requirement of notice under such indenture.

Conversion Rights. Any resolution of the Board of Directors or supplemental indenture establishing a series of debt securities may provide for conversion rights. We will describe in the applicable prospectus supplement the particular terms and conditions, if any, on which debt securities may be convertible into other securities. These terms will include the conversion rate, the conversion period, provisions as to whether conversion will be at our option or the option of the holder, events requiring an adjustment of the conversion rate and provisions affecting conversion in the event of the redemption of the debt securities. If we issue convertible debt securities, we will need to supplement the indenture to add applicable provisions regarding conversion.

Defeasance and Discharge. Unless the applicable prospectus supplement states otherwise, we may elect either:

- (1) to defease and be discharged from any and all obligations in respect of the debt securities of any series then outstanding under the applicable indenture (except for certain obligations to register the transfer or exchange of the debt securities of such series, replace stolen, lost or mutilated notes, maintain paying agencies and hold monies for payment in trust); or
- (2) to be released from the obligations of the senior indenture with respect to the senior debt securities of any series or the subordinated indenture with respect to the subordinated debt securities of any series under any covenants applicable to the debt securities of such series which are subject to covenant defeasance as described in the supplemental indenture or other instrument establishing such series.

In the case of either (1) or (2), we are required to deposit, in trust, with the applicable trustee money or U.S. government obligations, which through the payment of interest on those obligations and principal of those obligations in accordance with their terms will provide money, in an amount sufficient, without reinvestment, to pay all the principal of, premium, if any, and interest on the debt securities of such series on the dates payments are due (which may include one or more redemption dates designated by us). This trust may only be established if, among other things, (A) no event of default or event which with the giving of notice or lapse of time, or both, would become an event of default under the applicable

indenture has occurred and is continuing on the date of the deposit, and 91 days have passed after the deposit has been made and, during such 91-day period, no bankruptcy-related default has occurred and is continuing, (B) the deposit will not cause the trustee to have any conflicting interest with respect to our other securities and (C) we have delivered an opinion of counsel to the effect that the holders will not recognize income, gain or loss for federal income tax purposes (and, in the case of paragraph (1) above, such opinion of counsel is based on a ruling of the Internal Revenue Service or other change in applicable federal income tax law) as a result of the deposit or defeasance and will be subject to federal income tax in the same amounts, in the same manner and at the same times as if the deposit and defeasance had not occurred.

We may exercise our defeasance option under paragraph (1) with respect to debt securities of any series notwithstanding our prior exercise of our covenant defeasance option under paragraph (2). If we exercise our defeasance option for debt securities of any series, payment of the debt securities of such series may not be accelerated because of a subsequent event of default. If we exercise our covenant defeasance option for debt securities of any series, payment of the debt securities of such series may not be accelerated by reference to a subsequent breach of any of the covenants noted under paragraph (2). In the event we fail to comply with our remaining obligations with respect to the debt securities of any series under the applicable indenture after exercising our covenant defeasance option and the debt securities of such series are declared due and payable because of the subsequent occurrence of any event of default, the amount of money and U.S. government obligations on deposit with the trustee may be insufficient to pay amounts due on the debt securities of such series at the time of the acceleration resulting from that event of default. However, we will remain liable for those payments.

Resignation or Removal of Trustee. The trustee may resign at any time upon written notice to us specifying the day upon which the resignation is to take effect and such resignation will take effect immediately upon the later of the appointment of a successor trustee and such specified day. The trustee may be removed at any time with respect to debt securities of any series by an instrument or concurrent instruments in writing filed with the trustee and signed by the holders, or their attorneys-in-fact, of a majority in aggregate principal amount of that series of debt securities then outstanding. In addition, so long as no event of default or event which, with the giving of notice or lapse of time or both, would become an event of default has occurred and is continuing, we may remove the trustee upon notice to the holder of each debt security outstanding and the trustee, and appointment of a successor trustee.

Concerning the Trustee for Senior Debt Securities. As of March 31, 2006, BNY Midwest Trust Company, which is the trustee under the senior indenture, and its affiliates were the trustees for \$163.6 million of our unsecured debt, and \$937.4 million of KCP&L's secured and unsecured debt, under seven separate indentures. One of BNY Midwest's affiliates, The Bank of New York, is also a lender under Great Plains Energy Incorporated's revolving credit agreement and under a revolving credit agreement with KCP&L. The Bank of New York is also a depository for funds and performs other services for, and transacts other banking business with our affiliates and us in the normal course and may do so in the future. Each indenture will provide that our obligations to compensate the trustee and reimburse the trustee for expenses, disbursements and advances will be secured by a lien prior to that of the applicable debt securities upon the property and funds held or collected by the trustee as such.

Governing Law. The senior indenture is, and any senior debt securities will be, governed by New York law. The subordinated indenture and any subordinated debt securities will be governed by New York law.

DESCRIPTION OF COMMON STOCK

General. The following descriptions of our common stock and the relevant provisions of our Articles of Incorporation and by-laws are summaries and are qualified by references to our Articles of Incorporation and by-laws which have been previously filed with the SEC and are exhibits to this registration statement, of which this prospectus is a part, as well as the applicable Missouri General and Business Corporation Law.

Under our Articles of Incorporation, we are authorized to issue 162,962,000 shares of stock, divided into classes as follows:

- 390,000 shares of Cumulative Preferred Stock with a par value of \$100;
- 1,572,000 shares of Cumulative No Par Preferred Stock with no par value;
- 11,000,000 shares of Preference Stock with no par value; and

- 150,000,000 shares of Common Stock with no par value.

At May 1, 2006, 390,000 shares of Cumulative Preferred Stock and 74,904,567 shares of common stock were outstanding. No shares of Cumulative No Par Preferred Stock or Preference Stock are currently outstanding but such shares may be issued from time to time in accordance with the Articles of Incorporation. The voting powers, designations, preferences, rights and qualifications, limitations, or restrictions of any series of Preference Stock are set by our board of directors when it is issued.

Dividend Rights and Limitations. The holders of our common stock are entitled to receive such dividends as our board of directors may from time to time declare, subject to any rights of the holders of our preferred and preference stock. Our ability to pay dividends depends primarily upon the ability of our subsidiaries to pay dividends or otherwise transfer funds to us.

Except as otherwise authorized by consent of the holders of at least two-thirds of the total number of shares of the total outstanding shares of Cumulative Preferred Stock and Cumulative No Par Preferred Stock, we may not pay or declare any dividends on common stock, other than dividends payable in common stock, or make any distributions on, or purchase or otherwise acquire for value, any shares of common stock if, after giving effect thereto, the aggregate amount expended for such purposes during the 12 months then ended (a) exceeds 50% of net income available for dividends on Preference Stock and common stock for the preceding 12 months, in case the total of Preference Stock and common stock equity would be reduced to less than 20% of total capitalization, or (b) exceeds 75% of such net income in case such equity would be reduced to between 20% and 25% of total capitalization, or (c) except to the extent permitted in subparagraphs (a) and (b), would reduce such equity below 25% of total capitalization.

Subject to certain limited exceptions, no dividends may be declared or paid on common stock and no common stock may be purchased or redeemed or otherwise retired for consideration (a) unless all past and current dividends on Cumulative Preferred Stock and Cumulative No Par Preferred Stock have been paid or set apart for payment and (b) except to the extent of retained earnings (earned surplus).

Voting Rights. Except as otherwise provided by law and subject to the voting rights of the outstanding Cumulative Preferred Stock, Cumulative No Par Preferred Stock, and Preference Stock, the holders of our common stock have the exclusive right to vote for all general purposes and for the election of directors through cumulative voting. This means each shareholder has a total vote equal to the number of shares they own multiplied by the number of directors to be elected. These votes may be divided among all nominees equally or may be voted for one or more of the nominees either in equal or unequal amounts. The nominees with the highest number of votes are elected.

The consent of specified percentages of holders of outstanding shares of Cumulative Preferred Stock and Cumulative No Par Preferred Stock is required to authorize certain actions which may affect

their interests; and if, at any time, dividends on any of the outstanding shares of Cumulative Preferred Stock and Cumulative No Par Preferred Stock shall be in default in an amount equivalent to four or more full quarterly dividends, the holders of outstanding shares of all preferred stock, voting as a single class, shall be entitled (voting cumulatively) to elect the smallest number of directors necessary to constitute a majority of the full Board of Directors, which right shall continue in effect until all dividend arrearages shall have been paid.

Liquidation Rights. In the event of any dissolution or liquidation of Great Plains Energy Incorporated, after there shall have been paid to or set aside for the holders of shares of outstanding Cumulative Preferred Stock, Cumulative No Par Preferred Stock, and Preference Stock the full preferential amounts to which they are respectively entitled, the holders of outstanding shares of common stock shall be entitled to receive pro rata, according to the number of shares held by each, the remaining assets available for distribution.

Miscellaneous. The outstanding shares of common stock are, and the shares of common stock sold hereunder will be, upon payment for them, fully paid and nonassessable. The holders of our common stock are not entitled to any preemptive or preferential rights to subscribe for or purchase any part of any new or additional issue of stock or securities convertible into stock. Our common stock does not contain any redemption provisions or conversion rights.

Transfer Agent and Registrar. UMB Bank, N.A. acts as transfer agent and registrar for our common stock.

Business Combinations. The affirmative vote of the holders of at least 80% of the outstanding shares of common stock is required for the approval or authorization of certain business combinations with interested shareholders; provided, however, that such 80% voting requirement shall not be applicable if:

- the business combination shall have been approved by a majority of the continuing directors; or
- the cash or the fair market value of the property, securities, or other consideration to be received per share by holders of the common stock in such business combination is not less than the highest per-share price paid by or on behalf of the acquiror for any shares of common stock during the five-year period preceding the announcement of the business combination.

Listing. The common stock of Great Plains Energy Incorporated is listed on the New York Stock Exchange under the symbol "GXP."

DESCRIPTION OF STOCK PURCHASE CONTRACTS AND STOCK PURCHASE UNITS OR WARRANTS FOR STOCK

We may issue stock purchase contracts, including contracts obligating holders to purchase from us, and obligating us to sell to the holders shares of our common stock at a future date or dates. We may fix the price and the number of shares of common stock subject to the stock purchase contract at the time we issue the stock purchase contracts or we may provide that the price and number of shares of common stock will be determined by reference to a specific formula set forth in the stock purchase contracts. The stock purchase contracts may be issued separately or as part of units, often known as stock purchase units, consisting of a stock purchase contract and:

- our senior debt securities or subordinated debt securities,
- debt obligations of third parties, including U.S. treasury securities,

securing the holders' obligations to purchase the common stock under the stock purchase contracts. The stock purchase contracts may require us to make periodic payments to the holders of the stock purchase units or vice versa, and these payments may be unsecured or prefunded on some basis. The stock purchase contracts may require holders to secure their obligations under those contracts in a specified manner and, in certain circumstances, we may deliver newly issued prepaid stock purchase contracts, often known as prepaid securities, upon release to a holder of any collateral securing such holder's obligation under the original stock purchase contract.

The applicable prospectus supplement will describe the terms of the stock purchase contracts or stock purchase units, including, if applicable, collateral or depository arrangements. The description in the applicable prospectus supplement will not contain all of the information you may find useful and reference will be made to the stock purchase contracts or stock purchase units and, if applicable, the collateral or depository arrangement relating to the stock purchase contracts or stock purchase units.

We may also issue warrants to purchase our common stock with the terms of such warrants and any related warrant agreement between us and a warrant agent being described in a prospectus supplement.

BOOK-ENTRY SYSTEM

Unless otherwise indicated in the applicable prospectus supplement, each series of debt securities will initially be issued in the form of one or more global securities, in registered form, without coupons. The global security will be deposited with, or on behalf of, the depository, and registered in the name of the depository or a nominee of the depository. Unless otherwise indicated in the applicable prospectus supplement, the depository for any global securities will be The Depository Trust Company ("DTC").

So long as the depository, or its nominee, is the registered owner of a global security, such depository or such nominee, as the case may be, will be considered the owner of such global security for all purposes under the applicable indenture, including for any notices and voting. Except in limited circumstances, the owners of beneficial interests in a global security will not be entitled to have securities registered in their names, will not receive or be entitled to receive physical delivery of any such securities and will not be considered the registered holder thereof under the applicable indenture. Accordingly, each person holding a beneficial interest in a global security must rely on the procedures of the depository and, if such person is not a direct participant, on procedures of the direct participant through which such person holds its interest, to exercise any of the rights of a registered owner of such security.

Global securities may be exchanged in whole for certificated securities only if the depository notifies us that it is unwilling or unable to continue as depository for the global securities or the depository has ceased to be a clearing agency registered under the Exchange Act and, in either case, we thereupon fail to appoint a successor depository within 90 days. We may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository).

In any such case, we have agreed to notify the applicable trustee in writing that, upon surrender by the direct participants and indirect participants of their interest in such global securities, certificated securities representing the applicable securities will be issued to each person that such direct participants and indirect participants and the depository identify as being the beneficial owner of such securities.

The following is based solely on information furnished by DTC:

DTC will act as depository for the global securities. The global securities will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered global security certificate will be issued for each issue of the global securities, each in the aggregate principal amount of such issue and will be deposited with DTC. If, however, the aggregate principal amount of any issue of a series of debt securities exceeds \$500 million, one certificate will be issued with respect to each \$500 million of principal amount and an additional certificate will be issued with respect to any remaining principal amount of such series.

DTC is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds securities that its direct participants deposit with DTC. DTC also facilitates the post-trade settlement among direct participants of sales and other securities transactions, in deposited securities through electronic computerized book-entry transfers and pledges between direct participants' accounts, thereby eliminating the need for physical movement of securities certificates.

Direct participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC, in turn, is owned by a number of direct participants of DTC and Members of the National Securities Clearing Corporation, Fixed Income Clearing Corporation, and Emerging Markets Clearing Corporation (NSCC, FICC, and EMCC, also subsidiaries of

DTCC), as well as by the New York Stock Exchange, Inc., the American Stock Exchange LLC, and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing corporations that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly, which are referred to as indirect participants and, together with the direct participants, the participants. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of global securities under the DTC system must be made by or through direct participants, who will receive a credit for such purchases of global securities on DTC's records. The ownership interest of each actual purchaser of each global security, or beneficial owner, is in turn to be recorded on the direct and indirect participants' records. Beneficial owners will not receive written confirmation from DTC of their purchase. Beneficial owners, however, are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the direct or indirect participant through which the beneficial owner entered into the transaction. Transfers of ownership interests in the global securities are to be accomplished by entries made on the books of direct and indirect participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except in the event that use of the book-entry system for the global securities is discontinued.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of global securities with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual beneficial owners of the global securities; DTC's records reflect only the identity of the direct participants to whose accounts such global securities are credited which may or may not be the beneficial owners. The direct and indirect participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants, and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial owners of global securities may wish to take certain steps to augment transmission to them of notices of significant events with respect to the global securities, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, beneficial owners of global securities may wish to ascertain that the nominee holding the global securities for their benefit has agreed to obtain and transmit notices to beneficial owners, in the alternative, beneficial owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

If the global securities are redeemable, redemption notices shall be sent to DTC. If less than all of the global securities are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the global securities unless authorized by a direct participant in accordance with DTC's procedures. Under its usual procedures, DTC mails an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns Cede & Co.'s consenting or voting rights to those direct participants whose accounts the global securities are credited on the record date, identified in a listing attached to the omnibus proxy.

Principal, distributions, interest and premium payments, if any, on the global securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us or the trustee for such securities, on payable date in accordance with their

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respective holdings shown on DTC's records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such participant and not of DTC, the trustee for such securities, or us, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal, distributions, interest and premium, if any, on any of the aforementioned securities represented by global securities to DTC is the responsibility of the appropriate trustee and us. Disbursement of such payments to direct participants shall be the responsibility of DTC, and disbursement of such payments to the beneficial owners shall be the responsibility of the participants.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources, including DTC, that we believe to be reliable, but we take no responsibility for the accuracy thereof.

The underwriters, dealers or agents of any of the securities may be direct participants of DTC.

None of the trustees, us or any agent for payment on or registration of transfer or exchange of any global security will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial interests in such global security or for maintaining, supervising or reviewing any records relating to such beneficial interests.

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PLAN OF DISTRIBUTION

We may sell the securities:

- through underwriters or dealers;
- directly;
- through agents; or
- through any combination of the above.

The applicable prospectus supplement will set forth the terms under which the securities are offered, including the name or names of any underwriters, dealers or agents, the purchase price of the securities and the proceeds to us from the sale, any underwriting discounts and other items constituting underwriters' compensation, any initial offering price and any discounts, commissions or concessions allowed or reallocated or paid to dealers.

Any initial offering price and any discounts, concessions or commissions allowed or reallocated or paid to dealers may be changed from time to time.

If underwriters are used in an offering, the securities will be acquired by the underwriters or dealers for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The securities may be offered to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more of those firms. The specific managing underwriter or underwriters, if any, will be named in the prospectus supplement relating to the particular securities together with the members of the underwriting syndicate, if any. Unless otherwise set forth in the applicable prospectus supplement, the obligations of the underwriters to purchase the particular securities will be subject to certain conditions precedent and the underwriters will be obligated to purchase all of the securities being offered if any are purchased.

We may sell the securities directly or through agents we designate from time to time. The applicable prospectus supplement will set forth the name of any agent involved in the offer or sale of the securities in respect of which such prospectus supplement is delivered and any commissions payable by us to such agent. Unless otherwise indicated in the applicable prospectus supplement, any agent will be acting on a best efforts basis for the period of its appointment.

We may also enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third parties may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third parties in such sale transactions will be underwriters and, if not identified in this prospectus, will be identified in the applicable prospectus supplement.

In order to facilitate the offering of the securities under this prospectus, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to

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cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

One or more firms, referred to as "remarketing firms," may also offer or sell the securities, if the prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as agents for us. These remarketing firms will offer or sell the securities in accordance with a redemption or repayment pursuant to the terms of the securities. The prospectus supplement will identify any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm's compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act of 1933, as amended, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

Any underwriters, dealers or agents participating in the distribution of the securities may be deemed to be underwriters and any discounts or commissions received by them on the sale or resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act. Agents, dealers and underwriters may be entitled, under agreements entered into with us, to indemnification by us against certain liabilities, including liabilities under the Securities Act, and to contribution with respect to payments which the agents, dealers or underwriters may be required to make in respect of these liabilities. Agents, dealers and underwriters may engage in transactions with or perform services for us and our affiliates in the ordinary course of business.

Unless otherwise specified in a prospectus supplement, except for our common stock, which is listed on the New York Stock Exchange, the securities will not be listed on a national securities exchange. No assurance can be given that any broker-dealer will make a market in any series of the securities, and, in any event, no assurance can be given as to the liquidity of the trading market for any of the securities.

LEGAL MATTERS

Unless otherwise specified in the applicable prospectus supplement, legal matters with respect to the securities offered under this prospectus will be passed upon for us by Mark English, General Counsel and Assistant Secretary, and Sidley Austin LLP, counsel for the Company, and for the underwriters, dealers, purchasers, or agents by Davis Polk & Wardwell, 1600 El Camino Real, Menlo Park, California 94025. At May 1, 2006, Mr. English owned beneficially 1,312 shares of our common stock, including restricted stock and 4,355 performance shares, which may be paid in shares of common stock at a later date based on our performance.

EXPERTS

The consolidated financial statements, the related financial statement schedules and management's report on the effectiveness of internal control over financial reporting incorporated in this prospectus by reference from the Annual Report on Form 10-K of Great Plains Energy Incorporated have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports (which reports (1) express an unqualified opinion on the consolidated financial statements and financial statement schedules and include an explanatory paragraph regarding the adoption of a new accounting standard and revisions made to the consolidated statements of cash flows for the years ended December 31, 2004 and 2003, (2) express an unqualified opinion on management's assessment regarding the effectiveness of internal control over financial reporting, and (3) express an unqualified opinion on the effectiveness of internal control over financial reporting), which are incorporated herein by reference, and have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

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6,318,000 Shares



Great Plains Energy Incorporated

Common Stock

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

Credit Suisse
Merrill Lynch & Co.

Senior Co-Managers

Banc of America Securities LLC
Morgan Stanley
Wachovia Securities

Co-Managers

BNY Capital Markets, Inc.
KeyBanc Capital Markets
Lazard Capital Markets
Scotia Capital

May 17, 2006
