Prospectus Supplement (To Prospectus dated May 8, 2006)



Great Plains Energy Incorporated

\$100,000,000 6.875% Notes due 2017

We will pay interest on the notes on March 15 and September 15 of each year, beginning March 15, 2008. The notes will mature on September 15, 2017. We may redeem the notes at any time in whole or from time to time in part at the price specified in this prospectus supplement.

The notes will be senior unsecured obligations of Great Plains Energy Incorporated exclusively (and not the obligation of any of our subsidiaries) and will rank equally with any future senior unsecured indebtedness of Great Plains Energy Incorporated. The notes will not be listed on any securities exchange.

Investing in the notes involves risks that are described in the section entitled "Risk factors" beginning on page S-9 of this prospectus supplement.

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 accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Public offering price	Underwriting discount	Proceeds, before expenses, to Great Plains Energy Incorporated
Per note	99.484%	0.650%	98.834%
Total	\$99,484,000	\$650,000	\$98,834,000

The notes will be ready for delivery in book-entry form only through The Depository Trust Company on or about September 25, 2007.

Sole book-running manager

JPMorgan

Co-manager

UMB Financial Services, Inc.

September 20, 2007

Prospectus supplement

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About this prospectus supplement

This document is in two parts. The first part is this prospectus supplement, which describes the terms of the offering of the notes. The second part is the accompanying prospectus dated May 8, 2006, which we refer to as the "accompanying prospectus." The accompanying prospectus contains a description of our debt securities and gives more general information, some of which may not apply to the notes.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus or in any free writing prospectus. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Before you invest in the notes, you should carefully read the registration statement (including the exhibits thereto) of which this prospectus supplement and the accompanying prospectus form a part, this prospectus supplement, the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and accompanying prospectus. The incorporated documents are described in this prospectus supplement under "Where you can find more information."

Unless the context otherwise requires or as otherwise indicated, when we refer to "Great Plains Energy Incorporated," we mean the corporation by that name; and when we refer to "Great Plains Energy," the "Company," "we," "us" or "our" in this prospectus supplement or when we otherwise refer to ourselves in this prospectus supplement, we mean Great Plains Energy Incorporated and its consolidated subsidiaries.

Cautionary statements regarding certain forward-looking information

This prospectus supplement, the accompanying 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 of the Comprehensive Energy Plan and other matters affecting future operations, as well as certain prospective financial and business information regarding Great Plains Energy and Aquila, Inc. (Aquila) and statements relating to synergies that we expect to achieve from the pending acquisition of Aquila, which we and Aquila made public in filings with the Securities and Exchange Commission (SEC) that are incorporated by reference in this prospectus supplement. You can typically identify forward-looking statements by the use of forward-looking words, such as "expect," "anticipate," "estimate," "project," "may," "intend," "will," "could," "believe," "continue," "potential," "plan," "forecast" and other similar words. These forward-looking statements are based on assumptions, expectations, and assessments made by our management or Aquila's 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 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 supplement. 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, Great Plains Energy and our subsidiary, Kansas City Power & Light Company
- 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 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
- · 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
- · 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
- the ability to successfully complete merger, acquisition or divestiture plans (including the acquisition of Aquila and Aquila's sale of assets to Black Hills Corporation (Black Hills))
- · variations between the stated assumptions on which forward-looking statements are based and our actual experience
- · 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 supplement and in our other SEC filings.

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.

The SEC allows us to "incorporate by reference" into this prospectus supplement the information we file with it. 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 should be read with the same care. Information that we file later with the SEC that is incorporated by reference into this prospectus supplement will automatically update and supersede this information. We are incorporating by reference into this prospectus supplement 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 year ended December 31, 2006, filed with the SEC on February 27, 2007;
- Our Quarterly Reports on Form 10-Q for the quarterly period ended March 31, 2007 and June 30, 2007, filed with the SEC on May 9, 2007 and August 3, 2007, respectively;
- Our Current Reports on Form 8-K dated:
 - February 1, 2007 and filed with the SEC on February 2, 2007;
 - February 7, 2007 and filed with the SEC on February 8, 2007 (concerning the Agreement and Plan of Merger with Aquila);
 - February 7, 2007 and filed with the SEC on February 12, 2007;
 - March 1, 2007 and filed with the SEC on March 1, 2007;
 - March 1, 2007 and filed with the SEC on March 2, 2007;
 - March 2, 2007 and filed with the SEC on March 2, 2007;

- March 6, 2007 and filed with the SEC on March 7, 2007;
- March 15, 2007 and filed with the SEC on March 20, 2007;
- March 19, 2007 and filed with the SEC on March 20, 2007;
- April 30, 2007 and filed with the SEC on May 4, 2007;
- May 1, 2007 and filed with the SEC on May 1, 2007;
- June 4, 2007 and filed with the SEC on June 4, 2007;
- July 10, 2007 and filed with the SEC on July 16, 2007;
- August 8, 2007 and filed with the SEC on August 9, 2007;
- September 7, 2007 and filed with the SEC on September 10, 2007;
- September 12, 2007 and filed with the SEC on September 13, 2007;
- September 20, 2007 and filed with the SEC on September 20, 2007; and
- Our joint proxy statement/prospectus dated August 27, 2007 (File No. 333-142715), filed with the SEC on August 28, 2007.

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.

Summary

Great Plains Energy Incorporated

Great Plains Energy Incorporated is a public utility holding company and does not own or operate any significant assets other than the stock of our subsidiaries. Our principal active subsidiaries are:

- Kansas City Power & Light Company (KCP&L), which provides regulated electric utility service to customers in the Kansas City
 metropolitan area in Missouri and Kansas. KCP&L is a wholly-owned subsidiary directly owned by Great Plains Energy Incorporated.
- Strategic Energy, L.L.C. (Strategic Energy), which provides competitive retail electricity supply services in several electricity markets
 offering retail choice. Strategic Energy is a wholly-owned subsidiary indirectly owned by Great Plains Energy Incorporated through
 intermediate holding companies.

We also indirectly hold investments in affordable housing limited partnerships. Finally, our direct wholly-owned subsidiary, Great Plains Energy Services Incorporated, provides services at cost to us and our subsidiaries, including KCP&L.

We were incorporated in 2001 as a Missouri corporation and became the holding company for KCP&L that year as a result of a corporate reorganization. Our principal executive offices are located at 1201 Walnut Street, Kansas City, Missouri 64106, and our telephone number is (816) 556-2200.

KCP&L

KCP&L is an integrated, regulated electric utility that engages in the generation, transmission, distribution and sale of electricity. As of December 31, 2006, KCP&L served over 505,000 customers located in all or portions of 24 counties in western Missouri and eastern Kansas. Customers included approximately 446,000 residences, over 57,000 commercial firms, and approximately 2,200 industrials, municipalities and other electric utilities as of December 31, 2006.

KCP&L's retail revenues averaged approximately 81% 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 43% of our consolidated revenues over the last three years. KCP&L's net income accounted for approximately 119%, 88% and 87% of our consolidated income from continuing operations in 2006, 2005 and 2004, respectively.

KCP&L owns approximately 4,055 megawatts of currently accredited generating capacity, of which about 14% is nuclear generation, 55% is coal-fired, 20% is gas-fired, and 11% is oil-fired. KCP&L also owns the 100.5 megawatt Spearville Wind Energy Facility, which is not currently eligible for accredited capacity under the Southwest Power Pool reliability standards. KCP&L owns a 47% interest in the 1,166 megawatt nuclear Wolf Creek Generating Station located in Coffey County, Kansas, a 70% interest in the 657 megawatt coal-fired latan No. 1 facility located in Platte County, Missouri, and a 50% interest in the 1,418 megawatt coal-fired LaCygne Generating Station located in Linn County, Kansas.

KCP&L is subject to regulation by the Public Service Commission of the State of Missouri (MPSC) and The State Corporation Commission of the State of Kansas (KCC) with respect to retail rates, certain accounting matters, standards of service and, in certain cases, the issuance of securities, certification of facilities and service territories. It is classified as a public utility under the Federal Power Act and accordingly is subject to regulation by the Federal Energy Regulatory Commission (FERC). By virtue of its 47% interest in the Wolf Creek Nuclear Generating Station, KCP&L is also subject to regulation by the Nuclear Regulatory Commission with respect to licensing, operations and safety-related requirements.

Missouri and Kansas jurisdictional retail revenue averaged 57% and 43%, respectively, of KCP&L's total retail revenue over the last three years.

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, Connecticut, Illinois, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania and Texas. 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 108,500 commercial, institutional and small manufacturing accounts (for approximately 26,700 customers), including numerous Fortune 500 companies, smaller companies and governmental entities. Strategic Energy's revenues averaged approximately 57% of our consolidated revenues over the last three years. Strategic Energy's net income (loss) accounted for approximately (8%), 17% and 24% of our consolidated income from continuing operations in 2006, 2005 and 2004, respectively.

Strategic Energy does not own any generation, transmission or distribution facilities. It purchases electricity from power suppliers based on forecasted peak demand for its retail customers. Management believes it will have adequate access to energy in the markets it serves.

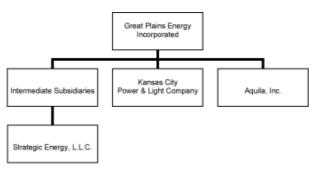
Strategic Energy, as a participant in the wholesale electricity and transmission markets, is subject to FERC jurisdiction. Additionally, Strategic Energy is subject to regulation by state regulatory agencies in states where Strategic Energy is licensed to sell power. Each state has a public utility commission and rules related to retail choice. Each state's rules are distinct and may conflict. These rules do not restrict the amount Strategic Energy can charge for its services, but can have an impact on Strategic Energy's ability to compete in any jurisdiction.

Pending Acquisition of Aquila

On February 6, 2007, we entered into agreements with Aquila and Black Hills for two separate but related transactions. Aquila is an integrated electric and natural gas utility headquartered in Kansas City, Missouri, with regulated electric utility operations in Missouri and Colorado; regulated gas utility operations in Colorado, Iowa, Kansas and Nebraska; and merchant energy services largely comprising a contractual entitlement to the energy produced by the 340-megawatt Crossroads gas-fired generating facility in Mississippi. Under the agreements:

- we will acquire all of the outstanding shares of Aquila and its Missouri-based electric utility operations and its merchant energy services for \$1.80 in cash plus 0.0856 of a share of our common stock for each share of Aquila common stock pursuant to an agreement and plan of merger (Merger Agreement) among us, Aquila and Black Hills; and
- immediately prior to our acquisition of Aquila, Black Hills will acquire the assets and associated liabilities of Aquila's Colorado electric utility operations and its Colorado, Iowa, Kansas and Nebraska gas utility operations for \$940 million in cash, subject to adjustment, pursuant to asset purchase agreements (Asset Purchase Agreements) among us, Aquila and Black Hills.

After applying a portion of the cash proceeds from the sale to Black Hills under the Asset Purchase Agreements, we expect that Aquila will have approximately \$1 billion of net consolidated debt and other liabilities following completion of the transactions, which will become part of our consolidated debt and other liabilities. As a result of the transactions, Aquila will become our wholly-owned subsidiary. A simplified organizational chart of our consolidated group (assuming completion of the Aquila transaction) follows:



The transactions contemplated by the agreements are subject to various conditions. Our acquisition of Aquila pursuant to the Merger Agreement is conditioned on the closing of the Asset Purchase Agreements and is subject to the approval of both our and Aquila's shareholders; regulatory approvals from the MPSC, the KCC and FERC; antitrust review under the Hart-Scott-Rodino Antitrust Improvements Act (HSR Act); the closing of the asset sale to Black Hills; and customary closing conditions. Black Hills' purchase of the Aquila assets under the Asset Purchase Agreements is conditioned on the closing of the Merger Agreement and is subject to regulatory approvals from the MPSC, the KCC, the Colorado Public Utilities Commission, the Nebraska Public Service Commission, the Iowa Utilities Board, and FERC; antitrust review under the HSR Act; and customary closing conditions. On April 4, 2007, we, KCP&L and Aquila filed applications with the MPSC and KCC seeking regulatory approval of the merger. On August 8, 2007, we and KCP&L filed updated testimony in these cases. On September 4, 2007, we mailed a joint proxy statement/prospectus to our shareholders regarding our and Aquila's special shareholder meetings scheduled to be held on October 10, 2007 and October 9, 2007, respectively. We, KCP&L, Aquila and Black Hills filed an application with FERC on May 25, 2007 (as amended June 20, 2007) for approval of the merger and the sale of Colorado electric assets to Black Hills, among other things. We, KCP&L, Aquila and Black Hills filed an answer on August 8, 2007, to the protests of various intervenors. We and Aquila filed the required notification under the HSR Act regarding the proposed merger on July 27, 2007, and Aquila and Black Hills filed the required notification under the HSR Act regarding the Aquila asset purchase on August 2, 2007. The HSR Act waiting periods were terminated on August 27, 2007. The transactions are expected to close in the firs quarter of 2008.

The MPSC and KCC applications filed by us, KCP&L and Aquila requested authorization to amortize transaction costs plus transition-related costs, excluding non-incremental labor costs, over a five-year period beginning January 1, 2008, or the month immediately following consummation of the merger, whichever occurs later. These MPSC and KCC applications, as amended by supplemental testimony filed on August 8, 2007, propose that the estimated cost savings associated with Missouri and Kansas utility operational synergies, net of non-incrementa labor costs, be split equally between utility customers and shareholders for a period of five years. Additionally, the MPSC application requested approval for the use of the additional amortization mechanism for Aquila's Missouri-based utilities, as implemented in KCP&L's 2006 rate case, once Aquila achieves financial metrics necessary to support an investment-grade credit rating. The FERC and MPSC applications also requested authorization for the distribution of proceeds from the Black Hills asset sale by Aquila to fund substantially all of the cash portion of the merger consideration to Aquila shareholders.

In addition, on April 4, 2007, Aquila and Black Hills filed applications with the Colorado Public Utilities Commission (CPUC), the KCC, the Nebraska Public Service Commission (NPSC) and the lowa Utilities Board (IUB) seeking approval of the sale of assets to Black Hills. Other than the approval of the IUB, none of these required regulatory approvals have been obtained as of the date of this prospectus supplement. We cannot assure you that any requested regulatory treatment will be realized.

In connection with the proposed sale of assets to Black Hills, in July 2007, the Staff of the CPUC submitted testimony recommending that the CPUC either deny the requested approval or approve the transactions subject to certain conditions, including that Black Hills not be allowed to recover the acquisition premium and transaction costs in rates and that Black Hills adopt ring-fencing provisions for the protection of ratepayers. This testimony represents a recommendation by the CPUC Staff, and does not constitute a final decision by the CPUC. The CPUC's final decisior will come only after the conclusion of the hearing and the CPUC's consideration of all arguments and proposals submitted by Aquila, Black Hills and all other parties. In July 2007, the Public Advocate in Nebraska submitted testimony recommending that the NPSC either deny the requested approval or approve the transaction subject to certain conditions, including that Black Hills not be allowed to recover the acquisition premium and transaction costs in rates and that Black Hills adopt ring-fencing provisions for the protection of ratepayers. This testimony represents a recommendation by the Public Advocate and does not constitute a final decision by the NPSC. The NPSC's final decision will come only after the conclusion of the hearing and the NPSC's consideration of all arguments and proposals submitted by Aquila, Black Hills and all other parties.

As part of the transactions, we will acquire Aquila's Missouri electric utility operations currently operated as divisions of Aquila under the names Missouri Public Service and St. Joseph Light & Power. The service territory of Aquila's Missouri electric utility operations is contiguous to KCP&L's service territory in Missouri, and Aquila served approximately 300,000 electric customers in Missouri as of December 31, 2006. Aquila's Missouri electric utility operations include 1,742 megawatts of owned or leased generation located in Missouri and Kansas, of which 46% is coal-fired, 24% is gas-fired, 19% is gas/oil-fired, 7% is coal/gas-fired and 4% is oil-fired. Aquila is also a joint owner with us of latan No. 1, a coal generating unit, and is a co-owner with us in latan No. 2, a coal generating unit that is currently being constructed adjacent to latan No. 1. As a result of the transaction, we would have an aggregate ownership interest of 88% in latan No. 1 and approximately 73% in latan No. 2.

Upon consummation of the transactions, our electric utility operations would serve approximately 805,000 customers within an approximate 18,000 square mile service territory in Missouri and Kansas. We would have accredited electric generating capacity of approximately 5,797 megawatts, consisting of 9% nuclear, 53% coal-fired, 21% gas-fired, 9% oil-fired, 6% gas/oil-fired and 2% coal/gas-fired capacity, and would also have our 100.5 megawatt Spearville Wind Energy Facility. Our electricity operations would continue to be regulated by the MPSC, the KCC and FERC. We do not expect any changes in our board of directors or senior management as a result of the transaction.

As a part of our joint proxy statement/prospectus dated August 27, 2007 seeking the approval of our and Aquila's shareholders related to the Merger Agreement, we included pro forma financial information reflecting our financial information along with pro forma financial information for Aquila as if the transactions contemplated by the Merger Agreement and the asset sale to Black Hills had been consummated as of January 1, 2006, with respect to the Unaudited Pro Forma Condensed Combined Statements of Income, and on June 30, 2007, with respect to the Unaudited Pro Forma Condensed Combined Balance Sheet. The completion of the Aquila transactions is subject to various uncertainties, including receipt of approvals from FERC, and public utility commissions or similar entities with jurisdiction in Missouri, Kansas, Iowa, Nebraska and Colorado, and will subject us to additional risks as set forth under "Risk Factors" in our joint proxy statement/prospectus dated August 27, 2007.

On February 7, 2007, Standard & Poor's Ratings Services placed our securities on CreditWatch with Negative implications, citing the proposed transactions with Aquila. On that date, Moody's Investors Service, Inc. reaffirmed our ratings and stable outlook.

The offering

The following summary contains basic information about the notes. It does not contain all the information that is important to you. For a more complete understanding of the notes, please refer to the section of this prospectus supplement entitled "Description of the notes" and the section of the accompanying prospectus entitled "Description of Debt Securities."

Issuer Great Plains Energy Incorporated

Notes offered \$100,000,000 aggregate principal amount of 6.875% Notes due 2017.

Maturity September 15, 2017.

Interest The notes will bear interest from September 25, 2007 at the rate set forth on the cover page of this

prospectus supplement.

Interest payment dates March 15 and September 15 of each year, beginning March 15, 2008.

Coupon step-up If the rating on the notes from Moody's Investors Service, Inc. (Moody's) is a rating set forth in the immediately

following table, the per annum interest rate on the notes will increase from that set forth on the cover page of

this prospectus supplement by the percentage set forth opposite that rating:

 Rating
 Percentage

 Ba1
 0.25%

 Ba2
 0.50%

 Ba3
 0.75%

 B1 or below
 1.00%

If the rating on the notes from Standard & Poor's Ratings Services, a division of McGraw-Hill, Inc. (S&P), is a rating set forth in the immediately following table, the per annum interest rate on the notes will increase from that set forth on the cover page of this prospectus supplement by the percentage set forth opposite that rating:

 Rating
 Percentage

 BB+
 0.25%

 BB
 0.50%

 BB 0.75%

 B+ or below
 1.00%

If Moody's or S&P subsequently increases its rating to any of the threshold ratings set forth above, the per annum interest rate on the notes will be decreased such that the per annum interest rate equals the interest rate set forth on the cover page of this prospectus supplement plus the percentages set forth opposite the ratings from the tables above in effect immediately following the increase. Each adjustment required by any decrease or increase in a rating set forth above, whether occasioned by the action of Moody's or S&P, shall be made independent of any and all other adjustments. In no event shall (1) the per annum interest rate on the notes be reduced below the interest rate set forth on the cover page of this prospectus supplement, and (2) the total increase in the per annum interest rate on the notes exceed 2.00% above the interest rate set forth on the cover page of this prospectus supplement. See "Description of the notes—Coupon step-up."

Ranking The notes will be our senior unsecured obligations. They will rank equal in right of payment with any future

senior unsecured obligations and will be senior in right of payment to any future subordinated indebtedness. The notes will be effectively subordinated to any future secured indebtedness to the extent of the collateral securing that indebtedness and to all existing and future liabilities, including trade payables, of our subsidiaries. As of June 30, 2007, Great Plains Energy Incorporated had no outstanding secured indebtedness and our subsidiaries had outstanding \$3.0 billion of total liabilities (excluding intercompany indebtedness), which included approximately \$1.0 billion, including current maturities, of total consolidated long-term debt, excluding

unused commitments and contractual obligations and other commitments.

Covenant The supplemental indenture establishing the terms of the notes will contain a covenant that provides that if

Great Plains Energy Incorporated itself incurs indebtedness for borrowed money secured by a lien on any shares of capital stock or other equity interests of any majority-owned subsidiary which Great Plains Energy Incorporated directly owns, we are required to secure the notes equally and ratably (or prior to) such indebtedness. See "Description of the notes—Additional covenant—Limitation on liens" in this prospectus

supplement.

Optional redemption We may redeem the notes in whole or from time to time in part at the "make-whole premium" indicated under the

section entitled "Description of the notes—Optional redemption" in this prospectus supplement.

Further issuances We may create and issue further notes ranking equally and ratably with and having the same terms as the notes

offered by this prospectus supplement. Any additional notes will, together with the notes offered by this

prospectus supplement, constitute a single series of notes under the indenture.

Use of proceeds We intend to use the net proceeds of this offering to make a contribution of capital to KCP&L for the repayment

by KCP&L of a portion of its outstanding commercial paper. See "Use of proceeds" in this prospectus

supplement.

Risk factors See "Risk factors" beginning on page S-9 of this prospectus supplement for important information regarding us

and an investment in the notes.

Ratings Moody's: Baa2 Stable Outlook

S&P: BBB- CreditWatch with Negative Implications.

Summary consolidated financial data

The following summary financial data for the years ended December 31, 2004 through December 31, 2006 have been derived from our audited consolidated financial statements and related notes, incorporated by reference in the accompanying prospectus and herein. The following summary consolidated financial data for year to date June 30, 2007 and June 30, 2006 have been derived from our unaudited financial statements and related notes, incorporated by reference in the accompanying prospectus and 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 financial condition and results of operations, the financial statements and related notes and other financial information incorporated by reference herein.

	Year to Date June 30,		Ye	Year Ended December 31,	
	2007	2006	2006 (\$ in thousands)	2005	2004
Income statement data:					
Operating revenues	\$1,468,904	\$1,201,289	\$2,675,349	\$2,604,882	\$2,464,018
Operating expenses	1,360,198	1,120,388	2,439,927	2,321,957	2,142,541
Operating income	\$ 108,706	\$ 80,901	\$ 235,422	\$ 282,925	\$ 321,477
Income from continuing operations	\$ 48,960	\$ 37,329	\$ 127,630	\$ 164,197	\$ 175,271
Income (loss) from discontinued operations, net of income taxes			<u></u>	(1,899)	7,276
Net income	\$ 48,960	\$ 37,329	\$ 127,630	\$ 162,298	\$ 182,547
Cash flow data: Cash flows from operating activities	\$ 57.299	\$ 112,366	\$ 308,982	\$ 416,891	\$ 354.070
Cash flows from investing activities	(213,662)	(238,389)	(475,707)	(327,823)	(234,418)
Cash flows from financing activities	138,255	119,131	125,480	(113,755)	(106,292)
Other financial data:					
Depreciation and amortization	\$ 90,861	\$ 78,196	\$ 160,549	\$ 153,080	\$ 150,090
Amortization of:					
Nuclear fuel	8,359	7,822	14,392	13,374	14,159
Other	4,355	4,666	9,271	10,580	11,827
Utility capital expenditures	194,702	229,910	475,931	327,283	190,548

Ratios of earnings to fixed charges

The following table sets forth our ratios of earnings to fixed charges for the periods indicated.

Year to Date

June 30,		Year Ended December 31,			
2007	2006	2005	2004	2003	2002
2.52	3.20	3.60	3.54	4.22	2.98

For purposes of computing the ratios of earnings to fixed charges: (i) earnings consist of income before deducting net provisions for income taxes adjustments for minority interests in subsidiaries and equity investment losses, and fixed charges; and (ii) fixed charges consist of interest on debt, amortization of debt discount, premium and expense, and the estimated interest component of lease payments and rentals.

Risk factors

An investment in the notes is subject to various risks. 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 factors, as well as the "Risk Factors" and "Cautionary Statements Regarding Certain Forward-Looking Information" sections in our Annual Report on Form 10-K for the year ended December 31, 2006, our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2007, and our joint proxy statement/prospectus dated August 27, 2007 (which are incorporated herein by reference), before you decide to invest in the notes.

Indebtedness—Our indebtedness could adversely affect our ability to fulfill our obligations under the notes.

Our consolidated indebtedness and debt service obligations are significant. For year to date June 30, 2007, our actual consolidated interest expense was \$39.6 million. Our actual consolidated ratio of earnings to fixed charges was 2.52 to 1 for year to date June 30, 2007. As of June 30, 2007, our total consolidated long-term debt, including current maturities, was \$1.0 billion, excluding unused commitments and contractual obligations and other commitments, and our total shareholders' equity was \$1.5 billion. Adjusted for this offering, as of June 30, 2007, our total consolidated long-term debt would have been \$1.1 billion, our total stand-alone debt would have been \$100.0 million and our total shareholders' equity would have been unchanged. 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 could be significant. We may incur additional short-term and long-term debt from time to time to finance the Comprehensive Energy Plan of our subsidiary, KCP&L, other construction requirements of KCP&L, the operations of Strategic Energy (including guarantees of, or letters of credit issued with respect to, obligations of Strategic Energy), pension benefit plan funding requirements, working capital, capital expenditures or other general corporate purposes, subject to the restrictions contained in the credit agreement that governs our senior unsecured revolving credit facility and in any other agreements under which we incur debt.

The indenture governing the notes does not limit the amount of unsecured debt that we or our subsidiaries may incur. In general, the indenture also does not limit the amount of secured debt that we or are subsidiaries may incur. However, the supplemental indenture establishing the terms of the notes will contain a covenant that provides that if Great Plains Energy Incorporated itself incurs indebtedness for borrowed money secured by a lien on any shares of capital stock or other equity interests of any majority-owned subsidiary which Great Plains Energy Incorporated directly owns, we are required to secure the notes equally and ratably (or prior to) such indebtedness. The covenant does not apply to majority-owned subsidiaries indirectly owned by Great Plains Energy Incorporated through intermediate subsidiaries (including Strategic Energy), and is subject to other significant exceptions. See "Description of the notes—Additional covenant—Limitation on liens."

The covenants contained in the indenture do not afford the holders of notes any protection in the event of a highly leveraged transaction or other transaction involving us that may adversely affect holders. In addition, if the Aquila transaction is completed as contemplated, Aquila would become our subsidiary with an expected \$1 billion of debt.

Our debt could have important consequences to holders of the notes, including the following:

 we are required to use a substantial portion of our consolidated cash flow from operations to pay principal and interest on our debt, thereby reducing the availability of our consolidated cash flow to fund KCP&L's Comprehensive Energy Plan and other construction requirements, pension

benefit plan funding requirements, working capital, capital expenditures and other general corporate requirements:

- if prevailing interest rates increase, our interest expense could increase because a portion of KCP&L's debt and any borrowings under KCP&L's or our senior unsecured revolving credit facilities will bear interest at floating rates;
- our leverage increases our vulnerability to economic downturns, and adverse competitive and industry conditions could place us at a competitive disadvantage compared to those of our competitors that are less leveraged; and
- our debt service obligations could limit our flexibility in planning for, or reacting to, changes in our business and our industry and could limit our ability to pursue other business opportunities, borrow more money for operations or raise capital in the future and implement our business strategies.

Unsecured Obligations—Because the notes are not secured and are effectively subordinated to the rights of secured creditors, the notes will be subject to the prior claims of any secured creditors, and if a default occurs, we may not have sufficient funds to fulfill our obligations under the notes.

The notes are senior unsecured obligations and will rank equally with any future unsecured and unsubordinated debt and will be effectively junior to any future secured debt we may incur. The indenture governing the notes does not limit the amount of unsecured debt that we or our subsidiaries may incur or restrict us or our subsidiaries from entering into sale and leaseback transactions. In general, the indenture also does not limit the amount of secured debt that we or are subsidiaries may incur. However, the supplemental indenture establishing the terms of the notes will contain a covenant that provides that if Great Plains Energy Incorporated itself incurs indebtedness for borrowed money secured by a lien on any shares of capital stock or other equity interests of any majority-owned subsidiary which Great Plains Energy Incorporated directly owns, we are required to secure the notes equally and ratably (or prior to) such indebtedness. This covenant is limited in its restrictions and subject to significant exceptions. See "Description of the notes—Additional covenant—Limitation on liens."

If we or our subsidiaries incur any secured debt, our assets and those of our subsidiaries which secure such debt will be subject to prior claims by our and their respective secured creditors. In the event of our bankruptcy, insolvency, liquidation, reorganization, dissolution or other winding up, assets that secure debt will be available to pay obligations on the notes only after all debt secured by those assets has been repaid in full. Holders of the notes will participate in any remaining assets ratably with all of our unsecured and unsubordinated creditors, including trade creditors. If we incur any additional obligations that rank equally with the notes, including trade payables, the holders of those obligations will be entitled to share ratably with the holders of the notes in any proceeds distributed upon our bankruptcy, insolvency, liquidation, reorganization, dissolution or other winding up. This may have the effect of reducing the amount of proceeds paid to holders of the notes. If there are not sufficient assets remaining to pay all these creditors, all or a portion of the notes then outstanding would remain unpaid.

Structural Subordination—We depend upon dividends or other intercompany transfers from our subsidiaries to meet our obligations under the notes. Claims of creditors of these subsidiaries may have priority over claims by us with respect to the assets and earnings of these subsidiaries.

The notes will be direct unsecured obligations of Great Plains Energy Incorporated exclusively, and not the obligation of any subsidiaries. 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 and other liabilities, including the notes, 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 distributions (except for payments required pursuant to the

terms of intercompany indebtedness) to us or otherwise pay amounts due with respect to the notes or to make specific funds available for such payments. In addition, none of these subsidiaries is guaranteeing the notes. All existing and future liabilities of our subsidiaries will be effectively senior to the notes. Our rights and the rights of any holder of the notes (or other of our creditors) to participate in the assets of any subsidiary upon that subsidiary's liquidation, bankruptcy or recapitalization will be subject to the prior claims of that subsidiary's creditors and preferred equity holders, if any, except to the extent we may be a creditor with recognized claims against such subsidiary.

In the event of our bankruptcy, insolvency, liquidation, reorganization, dissolution or other winding up, the holders of the notes may not receive any amounts with respect to the notes until after the payment in full of the claims of creditors and preferred equity holders, if any, of our subsidiaries.

As of June 30, 2007, our subsidiaries had \$3.0 billion of total liabilities, excluding intercompany indebtedness. In addition, if the Aquila transaction is completed as contemplated, Aquila would become our subsidiary with an expected \$1 billion of net consolidated debt and other liabilities.

No Prior Market for the Notes—There is no prior market for the notes, and if a market develops, it may not be liquid.

We do not intend to list the notes on any national securities exchange or to seek their quotation on any automated dealer quotation system. We cannot assure holders of the notes that any liquid market for the notes will ever develop or be maintained. The underwriters have advised us that they currently intend to make a market in the notes following the offering. However, the underwriters have no obligation to make a market in the notes and they may stop at any time. Further, there can be no assurance as to the liquidity of any market that may develop for the notes, holders' ability to sell their notes or the price at which holders will be able to sell their notes. Future trading prices of the notes will depend on many factors, including prevailing interest rates, our financial condition and results of operations, the then-current ratings assigned to the notes and the market for similar securities. Any trading market that develops would be affected by many factors independent of and in addition to the foregoing, including:

- the time remaining to the maturity of the notes;
- the outstanding amount of the notes;
- the terms related to optional redemption of the notes; and
- the level, direction and volatility of market interest rates generally.

Rating of the Notes—Ratings of the notes may change after issuance and affect the market price and marketability of the notes.

We currently expect that, upon issuance, the notes will be rated by Moody's Investors Service, Inc. and Standard & Poor's Ratings Services. Such ratings are limited in scope, and do not address all material risks relating to an investment in the notes, but rather reflect only the view of each rating agency at the time the rating is issued. An explanation of the significance of such rating may be obtained from such rating agency. There is no assurance that such credit ratings will be issued or remain in effect for any given period of time or that such ratings will not be decreased, suspended or withdrawn entirely by the rating agencies, if, in each rating agency's judgment, circumstances so warrant. On February 7, 2007, Standard & Poor's Ratings Services placed our securities on CreditWatch with Negative implications, citing our proposed transactions with Aquila. The rating agencies indicated that our ratings could be negatively affected if:

• there is a substantial increase in leverage to fund additional capital expenditure requirements under KCP&L's Comprehensive Energy Plan or a lack of regulatory support for, or significant delay in, recovery of additional capital expenses incurred by KCP&L;

- favorable regulatory approvals are not obtained:
- problems arise relating to the integration of Aguila;
- net debt assumed in the Aguila transaction is greater than expected;
- Strategic Energy's financial performance is weaker than projected; or
- there is further deterioration of credit metrics, including if ratios of cash flow from operations (before changes in working capital) to debt and interest fall below specified thresholds.

Many of the foregoing factors are not within our control. Holders of notes will have no recourse against us or any other parties in the event of a change in or suspension or withdrawal of such ratings. Any decrease, suspension or withdrawal of such ratings may have an adverse effect on the market price or marketability of the notes.

Prospective Financial Information—Investors are cautioned not to place undue reliance on the prospective financial information relating to Aquila and Great Plains Energy disclosed in connection with our pending acquisition of Aquila.

In connection with our pending acquisition of Aquila, we and Aquila made public prospective financial and business information regarding Great Plains Energy, and Aguila made public prospective financial and business information regarding Aguila, which had been exchanged between the companies' respective management teams and financial advisors. Investors are cautioned not to place undue reliance on these forward-looking statements for a number of reasons. The prospective financial information was made public for the purpose of informing shareholders, in connection with soliciting their approval of the merger, as to the information considered by the companies' respective management and boards of directors in entering into the merger agreement. It was not prepared with a view toward public disclosure or for purposes of this offering. nor was it intended to be relied upon by potential investors in making an investment decision relating to the notes. The prospective financial information has not been updated since its disclosure, and we are not undertaking to update the information in the future. Moreover, we had no involvement with Aquila's preparation of its prospective financial information. These forward-looking statements are not fact, are based on and heavily influenced by the underlying estimates and assumptions stated therein that, by their nature, are not capable of any precise prediction and are inherently uncertain, and should not be relied upon as being necessarily indicative of future results. Also, neither our independent registered public accounting firm nor any other independent registered public accounting firm has compiled, examined, or performed any procedures with respect to any such prospective financial information, nor have they expressed any opinion or any other form of assurance on such information or its achievability, and assume no responsibility for, and disclaim any association with, any such prospective financial information. As a result of the foregoing, and the general risks that we face in our business, including those discussed in the "Risk Factors" and "Cautionary Statements Regarding Certain Forward-Looking Information" sections in our Annual Report on Form 10-K for the year ended December 31, 2006 and our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2007, and under "Risk Factors" in our joint proxy statement/prospectus dated August 27, 2007, incorporated herein by reference, these forward-looking statements are inherently uncertain, and actual results may differ materially from those contained in the prospective financial information.

Use of proceeds

We estimate the net proceeds to us from the sale of the notes will be approximately \$98.3 million, after deducting the underwriters' discounts and other expenses of the offering payable by us. We expect to use the net proceeds of this offering to make a contribution of capital to KCP&L for the repayment of a portion of KCP&L's outstanding commercial paper bearing interest at a weighted average interest rate of 5.61% as of June 30, 2007.

Capitalization and short-term debt

The following table sets forth our consolidated capitalization as of June 30, 2007, and as adjusted to give effect to the issuance and sale of the notes and the use of the proceeds from this offering as set forth under "Use of proceeds" above. This table should be read in conjunction with our consolidated financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus. See "Where you can find more information" in this prospectus supplement.

	June 3	June 30, 2007	
	Actual	As Adjusted	
		nillions)	
Short-term debt (includes current maturities)	\$ 500.0	\$ 401.7	
Long-term debt:			
Notes offered hereby	\$ —	\$ 100.0	
Unamortized discount	_	(0.5)	
Total consolidated KCP&L long-term debt	855.2	855.2	
7.74% Affordable Housing Notes	0.9	0.9	
Less current debt	(0.6)	(0.6)	
Total long-term debt	\$ 855.5	\$ 955.0	
•			
Shareholders' equity:			
Total common shareholders' equity	1,527.3	1,527.3	
Total preferred shareholders' equity	39.0	39.0	
Total capitalization and short-term debt	\$2,921.8	\$ 2,923.0	
·			
S-13			

Description of the notes

The following description of the particular terms of the notes supplements and, to the extent inconsistent therewith, replaces the description of the general terms and provisions of the notes set forth in the accompanying prospectus under "Description of Debt Securities," to which description reference is hereby made. Whenever a defined term is referred to and not herein defined, the definition thereof is contained in the accompanying prospectus or in the indenture referred to therein. As used in this section, the terms "we," "us," "our" or "Great Plains Energy" refer to Great Plains Energy Incorporated only and not to its subsidiaries.

The following description, together with the "Description of Debt Securities" in the accompanying prospectus, is a summary of the material provisions of the notes and the indenture and does not purport to be complete. This summary is subject to and is qualified by reference to all the provisions of the notes and the indenture, including the definitions of certain terms used in the indenture. We urge you to read the indenture because it, and not this description, defines your rights as a holder of the notes.

General

The notes constitute a single series of debt securities to be issued pursuant to an indenture, dated as of June 1, 2004, between the Company and The Bank of New York Trust Company, N.A. (as successor to BNY Midwest Trust Company), as Trustee, as supplemented. The terms of the notes include those expressly set forth in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as amended. The notes will initially be limited to \$100,000,000 aggregate principal amount and will mature on September 15, 2017.

The notes will bear interest at the rate per year set forth on the cover page of this prospectus supplement from the date of issuance or from the most recent interest payment date to which interest has been paid or provided for, payable semiannually in arrears on March 15 and September 15 of each year, beginning March 15, 2008, to the persons in whose names the notes are registered at the close of business on the immediately preceding March 1 and September 1, respectively, whether or not such day is a Business Day.

The notes will be direct unsecured obligations of Great Plains Energy exclusively, and not the obligation of any of our subsidiaries. The notes will (i) rank equally with our future senior indebtedness, (ii) be effectively subordinated (with respect to underlying collateral) to any secured indebtedness that we may incur in the future, and (iii) be structurally subordinated to all existing and future liabilities, including trade payables, of our subsidiaries.

The notes will be issued only in registered form in minimum denominations of \$1,000 and in integral multiples of \$1,000.

We may create and issue further notes ranking equally and ratably with the notes offered by this prospectus supplement, including notes having the same series designation and terms (except for the initial public offering price and the issue date) as the notes offered hereby, without the approval of the holders of the notes offered hereby, provided that holders of the outstanding notes offered by this prospectus supplement will be subject to federal income tax in the same amounts, in the same manner and at the same times as would have been the case if such additional notes of the same series were not issued. In such case, such additional notes will, together with the notes offered by this prospectus supplement, constitute a single series of notes under the indenture.

Coupon step-up

If the rating on the notes from Moody's is a rating set forth in the immediately following table, the per annum interest rate on the notes will increase from that set forth on the cover page of this prospectus supplement by the percentage set forth opposite that rating:

Rating	<u>Percentage</u>
Ba1	0.25%
Ba2	0.50%
Ba3	0.75%
B1 or below	1.00%

If the rating on the notes from S&P is a rating set forth in the immediately following table, the per annum interest rate on the notes will increase from that set forth on the cover page of this prospectus supplement by the percentage set forth opposite that rating:

Rating	<u>Percentage</u>
BB+	0.25%
BB	0.50%
BB-	0.75%
B+ or below	1.00%

If Moody's or S&P subsequently increases its rating to any of the threshold ratings set forth above, the per annum interest rate on the notes will be decreased such that the per annum interest rate equals the interest rate set forth on the cover page of this prospectus supplement plus the percentages set forth opposite the ratings from the tables above in effect immediately following the increase. Each adjustment required by any decrease or increase in a rating set forth above, whether occasioned by the action of Moody's or S&P, shall be made independent of any and all other adjustments. In no event shall (1) the per annum interest rate on the notes be reduced below the interest rate set forth on the cover page of this prospectus supplement, and (2) the total increase in the per annum interest rate on the notes exceed 2.00% above the interest rate set forth on the cover page of this prospectus supplement.

If either Moody's or S&P ceases to provide a rating, any subsequent increase or decrease in the interest rate of the notes necessitated by a reduction or increase in the rating by the agency continuing to provide the rating shall be twice the percentage set forth in the applicable table above. No adjustments in the interest rate of the notes shall be made solely as a result of either Moody's or S&P ceasing to provide a rating. If both Moody's and S&P cease to provide a rating, the interest rate on the notes will increase to, or remain at, as the case may be, 2.00% above the interest rate set forth on the cover page of this prospectus supplement.

Any interest rate increase or decrease, as described above, will take effect from the first day of the interest period during which a rating change requires an adjustment to the interest rate on the notes as described above.

Optional redemption

The notes will be redeemable at any time in whole or from time to time in part, at our option, each at a "make-whole premium" redemption price calculated by us equal to the greater of:

- 100% of the principal amount of the notes to be redeemed; and
- the sum of the present values of the remaining scheduled payments of principal and interest thereon (not including any portion of such payments of interest accrued as of the date of redemption), discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Treasury Rate, plus 35 basis points,

plus, in each case, accrued interest thereon to the date of redemption. Notwithstanding the foregoing, installments of interest on notes that are due and payable on interest payment dates falling on or prior to a redemption date will be payable on the interest payment date to the registered holders as of the close of business on the relevant record date according to the notes and the indenture.

"Comparable Treasury Issue" means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the notes to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of such notes.

"Comparable Treasury Price" means, with respect to any redemption date,

- the average of four Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or
- if the Quotation Agent obtains fewer than four such Reference Treasury Dealer Quotations, the average of all such quotations, or
- if only one Reference Treasury Dealer Quotation is received, such quotation.

"Quotation Agent" means the Reference Treasury Dealer appointed by us.

"Reference Treasury Dealer" means

- J.P. Morgan Securities Inc. (or its affiliates that are primary U.S. government securities dealers ("Primary Treasury Dealer")) or its successor; provided, however, that if the foregoing shall cease to be a Primary Treasury Dealer, we will substitute therefor another Primary Treasury Dealer, and
- three other Primary Treasury Dealers that we select.

"Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Quotation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Quotation Agent by such Reference Treasury Dealer at 5:00 p.m., New York City time, on the third business day preceding such redemption date.

"Treasury Rate" means, with respect to any redemption date, the rate per annum equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

Notice of any redemption will be mailed at least 30 days but not more than 60 days before the redemption date to each holder of the notes to be redeemed. Unless we default in payment of the redemption price, on and after the redemption date, interest will cease to accrue on the notes or portions thereof called for redemption. If less than all of the notes are to be redeemed, the particular notes or portions of such notes to be redeemed will be selected by The Depository Trust Company in such manner as it shall determine.

Notwithstanding the foregoing, any notice of redemption at our option may state that such redemption will be conditional upon receipt by the trustee 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 notes 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 notes.

Additional covenant

Limitation on liens

So long as any notes remain outstanding, we will not issue, assume, guarantee or permit to exist any indebtedness for borrowed money secured by a lien on any shares of capital stock or other equity interests of any majority-owned subsidiary, which shares of capital stock or other equity interests Great

Plains Energy itself now or hereafter directly owns, without effectively securing the notes equally and ratably with (or prior to) that indebtedness.

The foregoing limitation does not limit the following liens and indebtedness:

- any lien on shares of capital stock or other equity interests of an entity existing at the time that such entity becomes a majority-owned subsidiary;
- any lien on shares of capital stock or other equity interests created at the time Great Plains Energy acquires those shares of capital stock or other equity interests, or within 270 days after that time, to secure all or a portion of the purchase price for those shares of capital stock or other equity interests;
- any lien on shares of capital stock or other equity interests in favor of the United States (or any State or territory thereof), any foreign
 country or any department, agency or instrumentality or political subdivision of those jurisdictions, to secure payment pursuant to any
 contract or statute;
- any lien on shares of capital stock or other equity interests arising in connection with court proceedings; provided that either: (1) the
 execution or enforcement of that lien is effectively stayed within 30 days after entry of the corresponding judgment (or the corresponding
 judgment has been discharged within that 30 day period) and the claims secured by that lien are being contested in good faith by
 appropriate proceedings; (2) the payment of that lien is covered in full by insurance and the insurance provider has not denied or
 contested coverage; or (3) so long as that lien is adequately bonded, any appropriate legal proceedings that have been duly initiated for
 the review of the corresponding judgment, decree or order have not been fully terminated or the periods within which those proceedings
 may be initiated have not expired;
- any lien on shares of capital stock or other equity interests in favor of Great Plains Energy;
- any lien on shares of capital stock or other equity interests of any special purpose subsidiary formed for the sole and exclusive purpose of
 the acquisition, development, ownership or operation of an asset with indebtedness as to which there is no recourse to Great Plains
 Energy or any of its affiliates other than such subsidiary;
- any lien on shares of capital stock or other equity interests of any special purpose, bankruptcy-remote subsidiary formed for the sole and
 exclusive purpose of engaging in activities in connection with the purchase, sale and financing of accounts receivable, payment
 intangibles, accounts or notes receivable and related rights and property in connection with and pursuant to a Permitted Securitization;
 and
- the replacement, extension or renewal of any lien referred to above, provided that: (1) the principal amount of indebtedness secured by those liens immediately after the replacement, extension or renewal may not exceed the principal amount of indebtedness secured by those liens immediately before the replacement, extension or renewal; and (2) the replacement, extension or renewal lien is limited to no more than the same proportion of the shares of capital stock or other equity interests as were covered by the lien that was replaced, extended or renewed.

A "Permitted Securitization" means any sale and/or contribution, or series of related sales and/or contributions, by Great Plains Energy or any of its subsidiaries of accounts receivable, payment intangibles, notes receivable and related rights and property (collectively, "receivables") or interests therein to a trust, corporation or other entity, where the purchase of such receivables or interests therein is funded in whole or in part by the incurrence or issuance by the purchaser or any successor purchaser of indebtedness or securities that are to receive payments from, or that represent interests in, the cash flow derived primarily from such receivables or interests therein.

Book-entry system

Upon issuance, the notes will be represented by one or more global securities deposited with, or on behalf of, The Depository Trust Company, as depositary. The global securities representing the notes will be registered in the name of the depositary or its nominee. Except under the circumstances described in the accompanying prospectus under "Book-Entry System," the notes will not be issuable in definitive form. So long as the notes are represented by one or more global securities, the depositary or its nominee will be considered the sole owner or holder of such notes for all purposes under the indenture, and the beneficial owners of such notes will be entitled only to those rights and benefits afforded to them in accordance with the depositary's regular operating procedures. The depositary has confirmed to us, the underwriters and the Trustee that it intends to follow such procedures with respect to the notes. A further description of the depositary's procedures with respect to global securities is set forth in the accompanying prospectus under "Book-Entry System."

Underwriting

J.P. Morgan Securities Inc. (JPMorgan) is acting as sole bookrunner of the offering. Subject to the terms and conditions contained in the underwriting agreement between us and the underwriters, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase from us, the principal amount of notes that appears opposite its name in the table below:

	Principal
Underwriters	amount
J.P. Morgan Securities Inc.	\$ 90,000,000
UMB Financial Services, Inc.	10,000,000
Total	\$100,000,000

The underwriting agreement provides that the underwriters will purchase all of the notes if any of them are purchased.

The underwriters are offering the notes, subject to prior sale, when, as and if issued to and accepted by the underwriters, subject to approval of legal matters by their counsel, including the validity of the notes, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

The underwriters initially propose to offer the notes to the public at the public offering price that appears on the cover page of this prospectus supplement. The underwriters may offer the notes to selected dealers at the public offering price minus a concession of up to 0.40% of the principal amount. In addition, the underwriters may allow, and those selected dealers may reallow, a concession of up to 0.25% of the principal amount to certain other dealers. After the initial public offering, the underwriters may change the public offering price and any other selling terms. The underwriters may offer and sell notes through certain of their affiliates.

In the underwriting agreement, we have agreed that:

- We will pay our expenses related to the offering, which we estimate will be approximately \$0.5 million, not including the underwriting discount and commission.
- We will indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, or contribute to payments that the underwriters may be required to make in respect of those liabilities.

The following table shows the underwriting discounts and commissions to be paid to the underwriters in connection with this offering:

As a Percentage of
Principal Amount
0 650%
\$ 6.50

Per 6.875% note due 2017

The notes are a new issue of securities with no established trading market. We do not intend to apply for the notes to be listed on any securities exchange or to arrange for the notes to be quoted on any quotation system. The underwriters have advised us that they intend to make a market in the notes, but the underwriters are not obligated to do so. The underwriters may discontinue any market making in the notes at any time at their sole discretion. Accordingly, we cannot assure you that a liquid trading market will develop for the notes, that you will be able to sell your notes at a particular time or that the prices that you receive when you sell will be favorable.

In connection with the offering, the underwriters are permitted to engage in transactions that stabilize the market price of the notes. Such transactions consist of bids or purchases to peg, fix or maintain the price of the notes. If the underwriters create a short position in the notes in connection with the offering, i.e., if the underwriters sell more notes than are on the cover page of this prospectus supplement, then the underwriters may reduce that short position by purchasing notes in the open market. Purchases of a security to stabilize the price or to reduce a short position could cause the price of the security to be higher than it might be in the absence of such purchases.

Neither we nor 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 the notes. In addition, neither we nor 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.

Affiliates of each of the underwriters are lenders under revolving credit facilities entered into separately with us and KCP&L in May 2006. In connection with each of these arrangements, JPMorgan Chase Bank, N.A., an affiliate of JPMorgan, acted as syndication agent, and JPMorgan acted as a joint-lead arranger. An affiliate of UMB Financial Services, Inc. is the transfer agent and registrar for our stock, and is the trustee under KCP&L's general mortgage indenture and deed of trust, and indentures supplemental thereto. Our Chairman and Chief Executive Officer is a director of UMB Financial Corporation, the holding company parent of UMB Financial Services, Inc. The underwriters and their affiliates have provided and in the future may continue to provide investment banking, commercial banking and other financial services to Great Plains Energy Incorporated, KCP&L and their respective affiliates in the ordinary course of business for which they have received and will receive customary compensation.

Affiliates of certain of the underwriters participate in the commercial paper program of KCP&L and may from time to time hold KCP&L's commercial paper. As a result, more than 10% of the net offering proceeds may be paid to underwriters or their affiliates and accordingly, the offering will be made in reliance upon Rule 2710(h).

Legal matters

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

At September 1, 2007, Mr. English owned beneficially 6,466 shares of our common stock, including restricted stock, and 6,497 performance shares, which may be paid in shares of our 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 of Great Plains Energy Incorporated and its subsidiaries, incorporated by reference in this prospectus supplement from the Annual Report on Form 10-K of Great Plains Energy Incorporated for the year ended December 31, 2006, 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 new accounting standards SFAS No. 158, Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, FASB Staff Position (FSP) No. AUG-AIR-1, Accounting for Planned Major Maintenance Activities, and FIN 47, Accounting for Conditional Asset Retirement Obligations, (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.

The consolidated financial statements and the related financial statement schedule of Aquila, Inc. as of December 31, 2006 and 2005, and for each of the years in the three year period ended December 31, 2006 and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2006 have been incorporated by reference in this prospectus supplement from the Annual Report on Form 10-K of Aquila, Inc. in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the December 31, 2006 financial statements refers to the adoption of Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standard No. 158, *Employers'* Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R) and the adoption of FASB Statement of Financial Accounting Standard No. 123 (Revised), *Share-Based Payment*, replacing Financial Accounting Standard No. 123, Accounting for Stock-Based Compensation.

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 5.

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, reregulation 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
- 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.

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

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;

- 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.

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 dated 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 depositary 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 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.

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 reallowed or paid to dealers.

Any initial offering price and any discounts, concessions or commissions allowed or reallowed 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 overallot in connection with the offering, creating a short position for their own accounts. In addition, to cover overallotments 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 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.

