This preliminary prospectus supplement relates to an effective registration statement under the Securities Act of 1933, as amended, but is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not offers to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MARCH 19, 2012

Preliminary Prospectus Supplement (To Prospectus Dated March 14, 2012)

\$287,386,000

GREAT PLAINS ENERGY

Great Plains Energy Incorporated

% Notes due

This prospectus supplement relates to the remarketing of \$287,386,000 aggregate principal amount of our 10.00% Subordinated Notes due 2042, originally issued as components of the Equity Units we issued in May 2009 (the "equity units"), as % Notes due 20 . The notes are being remarketed pursuant to the terms of the equity units.

Interest on the notes will accrue from and including March 15, 2012. The interest rate on the notes will be reset to % per year, effective on and after March , 2012. We will pay interest on the notes on June 15 and December 15 of each year, beginning June 15, 2012. For United States federal income tax purposes, the notes constitute contingent payment debt instruments.

The notes will mature on . On or after June 15, 2014, we may redeem the notes at any time in whole or from time to time in part at the prices specified in this prospectus supplement.

The notes were originally issued as subordinated notes, but are being remarketed as senior notes. 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 existing and 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 "<u>Risk Factors</u>" beginning on page S-10 of this prospectus supplement and beginning on page 5 of the accompanying prospectus.

	Per Note	Total
Public offering price (1)	%	\$
Remarketing fee to remarketing agents (2)	%	\$
Net proceeds (3)	%	\$

(1) Plus accrued interest at the rate of 10.00% from and including March 15, 2012 to, but not including, March , 2012, and any accrued interest at the rate of % per year from and including March , 2012, if settlement is after that date.

(2) We will pay all fees and expenses of the remarketing agents. The remarketing fee equals % of the principal amount of the remarketed notes.

(3) We will not directly receive any proceeds from the remarketing. See "Use of Proceeds" in 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.

The notes will be ready for delivery in book-entry form only through The Depository Trust Company on or about March , 2012.

Joint Lead Remarketing Agents

Goldman, Sachs & Co.

Co-Remarketing Agents

J.P. Morgan

BNP PARIBAS

SunTrust Robinson Humphrey

US Bancorp

March , 2012

TABLE OF CONTENTS

Prospectus Supplement

	Page
About this Prospectus Supplement	S-1
Cautionary Statements Regarding Certain Forward-Looking Information	S-1
Where You Can Find More Information	S-3
Prospectus Supplement Summary	S-4
Risk Factors	S-10
<u>Use of Proceeds</u>	S-13
Description of the Notes	S-14
Material U.S. Federal Income Tax Consequences	S-18
Remarketing (Conflicts of Interest)	S-24
Legal Matters	S-27
Experts	S-27

Prospectus

About this Prospectus	1
Cautionary Statements Regarding Certain Forward-Looking Information	1
Great Plains Energy Incorporated	4
Risk Factors	5
Ratio of Earnings to Fixed Charges	6
Use of Proceeds	7
Description of Debt Securities	8
Description of Common Stock	18
Description of Stock Purchase Contracts and Stock Purchase Units or Warrants for Stock	20
Book-Entry System	21
Plan of Distribution	24
Legal Matters	25
Experts	25
Where You Can Find More Information	26

i

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of the reoffering of the notes. The second part is the accompanying prospectus dated March 14, 2012, 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.

Neither we nor the remarketing agents have authorized anyone to provide you with information different from that contained in this prospectus supplement. We take no responsibility for, and can provide no assurance as to the reliability of, any information that others may give you. We are not, and the remarketing agents 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," 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. In some cases, you can identify forward-looking statements by use of the words "may," "should," "expect," "plan," "anticipate," "estimate," "predict," "potential," or "continue." Forward-looking statements include, but are not limited to, statements regarding the outcome of regulatory proceedings, cost estimates of capital projects 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 discussed 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 claim the protection of the safe harbor for 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 regional, national and international markets and their effects on sales, prices and costs, including, but not limited to, possible further deterioration in economic conditions and the timing and extent of economic recovery;
- prices and availability of electricity in regional and national wholesale markets;
- market perception of the energy industry and the 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, reregulation and restructuring of the electric utility industry;
- decisions of regulators regarding rates the 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 credit spreads and in availability and cost of capital and the effects on nuclear decommissioning trust and pension plan assets and costs;
- impairments of long-lived assets or goodwill;
- credit ratings;
- inflation rates;
- effectiveness of risk management policies and procedures and the ability of counterparties to satisfy their contractual commitments;
- impact of terrorist acts, including, but not limited to, cyber terrorism;
- ability to carry out marketing and sales plans;
- · weather conditions including, but not limited to, weather-related damage and their effects on sales, prices and costs;
- cost, availability, quality and deliverability of fuel;
- the inherent uncertainties in estimating the effects of weather, economic conditions and other factors on customer consumption and financial results;
- ability to achieve generation goals and the occurrence and duration of planned and unplanned generation outages;
- delays in the anticipated in-service dates and cost increases of generation, transmission, distribution or other projects;
- the inherent risks associated with the ownership and operation of a nuclear facility including, but not limited to, environmental, health, safety, regulatory and financial risks;
- workforce risks including, but not limited to, increased costs of retirement, health care and other benefits; 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 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 Securities and Exchange Commission (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, as amended (the "Exchange Act") (excluding information deemed to be furnished and not filed with the SEC) 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, 2011, filed with the SEC on February 28, 2012;
- Our Current Reports on Form 8-K dated February 7, 2012 and filed with the SEC on February 10, 2012; and February 21, 2012 and filed with the SEC on February 21, 2012; and
- Our Proxy Statement filed on Schedule 14A filed with the SEC on March 23, 2011 (which contains information that has been updated by the Current Report on Form 8-K dated May 3, 2011 and filed with the SEC on May 6, 2011 (with respect to Items 5.02 and 5.07), which is incorporated by reference into this prospectus supplement).

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 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, 1200 Main Street, Kansas City, Missouri 64105 (Telephone No.: (816) 556-2200), Attention: Corporate Secretary, or by contacting us on our website.

PROSPECTUS SUPPLEMENT SUMMARY

Our Company

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. Our wholly-owned direct subsidiaries with operations or active subsidiaries are as follows:

- Kansas City Power & Light Company ("KCP&L") is an integrated, regulated electric utility that provides electricity to customers primarily in the states of Missouri and Kansas. KCP&L has one active wholly-owned subsidiary, Kansas City Power & Light Receivables Company.
- KCP&L Greater Missouri Operations Company ("GMO") is an integrated, regulated electric utility that primarily provides electricity to
 customers in the state of Missouri. GMO also provides regulated steam service to certain customers in the St. Joseph, Missouri area. GMO
 wholly owns MPS Merchant Services, Inc., which has certain long-term natural gas contracts remaining from its former non-regulated trading
 operations.

Our principal executive offices are located at 1200 Main Street, Kansas City, Missouri 64105, and our telephone number is (816) 556-2200.

The Remarketing

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 Remarketed	287,386,000 aggregate principal amount of $%$ Notes due 20 .
Maturity	,20 .
Interest Payment Dates	The interest rate on the notes will be reset to % per year (the "reset rate"), effective from and after March , 2012. Interest on the notes currently is payable on March 15, June 15, September 15 and December 15 of each year, and following March , 2012, interest on the notes will be payable on June 15 and December 15 of each year, beginning June 15, 2012. On June 15, 2012, the first interest payment date of the notes, we will pay interest on the notes in an amount equal to (a) interest at the rate of 10.00% per year from and including March 15, 2012 to, but not including, March , 2012 and (b) interest at the rate of % per year from and including March , 2012 to, but not including, such interest payment date.
Ranking	The notes will be our senior unsecured obligations. They will rank equal in right of payment with our existing and future senior unsecured obligations and will be senior in right of payment to any existing and 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 December 31, 2011, Great Plains Energy Incorporated had no outstanding secured indebtedness and our subsidiaries had outstanding \$5.1 billion of total liabilities (excluding intercompany indebtedness), which included approximately \$2.6 billion, including current maturities, of total long-term debt, excluding unused commitments and contractual obligations and other commitments.
Covenant	The supplemental indenture establishing the terms of the notes in connection with the remarketing 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 with (or prior to) such indebtedness. See "Description of the Notes—Additional Covenant—Limitation on Liens" in this prospectus supplement.
Optional Redemption	On or after June 15, 2014, and prior to , 20 , we may redeem the notes at any time in whole or from time to time in part at the "make-whole" redemption price indicated under the section entitled "Description of the Notes—Optional Redemption" in this prospectus supplement.

	On or after , 20 , we may redeem the notes at any time in whole or from time to time in part at a redemption price equal to 100% of the principal amount of the notes to be redeemed plus accrued and unpaid interest thereon. See "Description of the Notes—Optional Redemption" in this prospectus supplement.
The Remarketing	The notes were originally issued by us on May 18, 2009 under our subordinated indenture, as supplemented by Supplemental Indenture No. 1 thereto (the "original indenture"), in connection with our issuance and sale to the public of equity units. In connection with this remarketing, we will further amend and supplement the original indenture (the original indenture, as so amended and supplemented, the "indenture"). Each equity unit initially consisted of both a purchase contract and a 1/20 th , or 5%, undivided beneficial interest in \$1,000 principal amount of the notes, which together are referred to as a "corporate unit." In order to secure their obligations under the purchase contracts, holders of the corporate units pledged their undivided beneficial ownership interests in the original notes to us through a collateral agent.
	Pursuant to the terms of the equity units, the remarketing agents are remarketing the notes on behalf of current holders of corporate units under the terms of and subject to the conditions in the remarketing agreement among us, Goldman, Sachs & Co. and J.P. Morgan Securities LLC, as representatives of the remarketing agents, and The Bank of New York Mellon Trust Company, N.A., as purchase contract agent and as attorney-in-fact for holders of the purchase contracts. See "Remarketing" in this prospectus supplement.
	The terms of the remarketing agreement require the remarketing agents to use their reasonable efforts to remarket the original notes that are included in the corporate units at a public offering price that will result in proceeds sufficient to purchase the treasury portfolio at the treasury portfolio purchase price, as described in this prospectus supplement.
Further Issuances	We may create and issue further notes under the indenture ranking equally and ratably with and having the same terms as the notes offered by this prospectus supplement; <i>provided</i> that if such additional notes are not fungible with the notes offered by this prospectus supplement for United States federal income tax purposes, such additional notes will have a separate CUSIP number. Any such additional notes will, together with the notes offered by this prospectus supplement, constitute a single series of notes under the indenture.
Use of Proceeds	The proceeds from the remarketing are estimated to be \$. We will not receive any proceeds from the remarketing. Instead, the proceeds from the remarketing of the notes that are included in corporate units will be used to purchase the treasury portfolio described in this prospectus supplement, a portion of which will then be pledged to secure the purchase contract obligations of the holders of the corporate units. Any remaining proceeds from the remarketing of the notes that are included

	in corporate units will be remitted ratably to holders of the corporate units. On June 15, 2012, the purchase contract settlement date, a portion of the proceeds from the treasury portfolio will be paid to us in settlement of the obligation of the holders of corporate units under the purchase contracts in exchange for the shares of our common stock that are to be issued to such holders pursuant to the purchase contracts. See "Use of Proceeds" in this prospectus supplement.
Risk Factors	See "Risk Factors" beginning on page S-10 of this prospectus supplement and page 5 of the accompanying prospectus and other information incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors you should carefully consider before deciding to invest in the notes.
U.S. Federal Income Taxation	We have treated and will continue to treat the notes for U.S. federal income tax purposes as indebtedness that is subject to the Treasury regulations governing contingent payment debt instruments. These regulations are complex, and in some respects uncertain in application. For a detailed discussion, please see "Material U.S. Federal Income Tax Consequences."
No Listing of the Notes	We do not intend to make application to list the notes on any national securities exchange or to include them in any automated quotation system.
FINRA Compliance	Because one of the remarketing agents owns in excess of 10% of our issued and outstanding preferred stock, a "conflict of interest" is deemed to exist under FINRA Rule 5121. Therefore, the offering will be made in compliance with such rule. See "Remarketing (Conflicts of Interest)—Conflicts of Interest" in this prospectus supplement.

Summary Consolidated Financial Data

The following consolidated summary financial data for the years ended December 31, 2009 through December 31, 2011 have been derived from our audited consolidated financial statements and related notes, incorporated by reference in this prospectus supplement and the accompanying prospectus. The information set forth below is qualified in its entirety by reference to, and therefore, should be read together with, the relevant management's discussion and analysis of financial condition and results of operations, financial statements and related notes and other financial information incorporated by reference herein.

		Year Ended December 31,	
	2011	2010 llions; except per sha	2009
income Statement Data:	(\$ 111 1111	mons; except per sna	re uala)
Operating revenues	\$2,318.0	\$2,255.5	\$1,965.0
Operating expenses	1,838.2	1,783.2	1,644.9
Operating income	\$ 479.8	\$ 472.3	\$ 320.1
Income from continuing operations	\$ 174.2	\$ 211.9	\$ 151.9
Loss from discontinued operations, net of income taxes	_	_	(1.5)
Net income	\$ 174.2	\$ 211.9	\$ 150.4
Less: Net (income) loss attributable to noncontrolling interest	0.2	(0.2)	(0.3)
Net income attributable to Great Plains Energy	\$ 174.4	\$ 211.7	\$ 150.1
Per Share Data:			
Average number of basic common shares outstanding	135.6	135.1	129.3
Average number of diluted common shares outstanding	138.7	136.9	129.8
Basic earnings (loss) per common share			
Continuing operations	\$ 1.27	\$ 1.55	\$ 1.16
Discontinued operations	—	—	(0.01)
Basic earnings per common share	\$ 1.27	\$ 1.55	\$ 1.15
Diluted earnings (loss) per common share			
Continuing operations	\$ 1.25	\$ 1.53	\$ 1.15
Discontinued operations	—	—	(0.01)
Diluted earnings per common share	\$ 1.25	\$ 1.53	\$ 1.14
Cash dividends per common share	\$ 0.835	\$ 0.83	\$ 0.83
Cash Flow Data:			
Cash flows from operating activities	\$ 443.0	\$ 552.1	\$ 335.4
Cash flows from investing activities	(485.7)	(657.7)	(897.6)
Cash flows from financing activities	38.1	50.5	567.0
Other Financial Data:			
Depreciation and amortization	\$ 273.1	\$ 331.6	\$ 302.2
Amortization of:			
Nuclear fuel	21.4	25.1	16.1
Other	12.7	(4.7)	(10.1)
Utility capital expenditures	456.6	618.0	841.1

Ratios of Earnings to Fixed Charges				
The following table sets forth our ratios of earnings to fixed charges for the periods indicated.				
Year Ended December 31,				
		Year Ended December 31,		
2011	2010	· · · · · · · · · · · · · · · · · · ·	2008	2007
2011 2.03	<u>2010</u> 2.28	2009 1.81	<u>2008</u> 2.26	<u>2007</u> 2.53

For purposes of computing the ratios of earnings to fixed charges: (i) earnings consist of income before deducting net provisions for income taxes, 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.

S-9	9
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RISK FACTORS

An investment in the notes is subject to various risks. These risks should be considered carefully with the information provided elsewhere and incorporated by reference in this prospectus supplement and the accompanying prospectus before deciding to invest in the notes. In addition to the risk factors set forth below, please read the information included or incorporated by reference under "Risk Factors" and "Cautionary Statements Regarding Certain Forward-Looking Information" in the accompanying prospectus and our Annual Report on Form 10-K for the year ended December 31, 2011 for a description of additional uncertainties associated with our business, results of operations and financial condition and the forward-looking statements included or incorporated by reference in this prospectus supplement and the accompanying prospectus. As used in this section, "we," "our," "us" and the "Company" refer to Great Plains Energy Incorporated and not to any of its subsidiaries.

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

Our consolidated indebtedness and debt service obligations are significant. Our actual consolidated interest expense was \$218.4 million for the year ended December 31, 2011. As of December 31, 2011, our total consolidated long-term debt, including current maturities, was \$3.5 billion, excluding unused commitments and contractual obligations and other commitments, and our total shareholders' equity was \$3.0 billion. In addition, we issue guarantees and cause letters of credit to be issued under our credit agreement for the benefit of our 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 construction requirements of KCP&L and GMO, 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 our 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, 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.

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 the construction requirements of KCP&L and GMO, 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 small portion of GMO's debt and any borrowings under KCP&L's, GMO'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 our 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 with (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 December 31, 2011, our subsidiaries had \$5.1 billion of total liabilities, excluding intercompany indebtedness.

U.S. Federal Income Tax Treatment—We are treating the notes as contingent payment debt instruments.

Because of the manner in which the interest rate on the notes is reset, we have treated and will continue to treat the notes as indebtedness subject to Treasury regulations governing contingent payment debt instruments. Under the contingent payment debt instrument Treasury regulations, regardless of your method of accounting for U.S. federal income taxes, you are generally required to accrue interest income on the notes on a constant yield basis at an assumed yield that was determined at the time of issuance of the notes (with certain adjustments). However, the proper application of the contingent payment debt instrument Treasury regulations to the notes following the remarketing is uncertain in a number of respects, and we cannot assure you that the Internal Revenue Service will not successfully assert a different treatment of the notes that could materially affect the timing and character of income, gain or loss with respect to an investment in the notes.

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

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 remarketing agents have advised us that they currently intend to make a market in the notes following the offering. However, the remarketing agents 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.

Great Plains Energy Incorporated, KCP&L, GMO and certain of their securities are rated by Moody's Investors Service, Inc. and Standard & Poor's Ratings Services. 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. Any decrease, suspension or withdrawal of such ratings may have an adverse effect on the market price or marketability of debt securities issued by Great Plains Energy Incorporated, including the notes.

USE OF PROCEEDS

We are remarketing \$287,386,000 aggregate principal amount of the notes on behalf of participating holders of our corporate units. The proceeds from the remarketing are estimated to be \$, including the payment by new investors of accrued and unpaid interest on the notes (prior to the reset of the interest rate) from and including March 15, 2012 to, but not including, March , 2012. We will not receive any proceeds from the remarketing. See "Remarketing." Proceeds from the remarketing will be used as follows:

- of these proceeds will be applied to purchase the treasury portfolio at the treasury portfolio purchase price as described below, a portion of which will then be pledged to the collateral agent to secure the corporate unit holders' obligations to purchase our common stock under the purchase contracts on June 15, 2012; and
- any proceeds from the remarketing of the notes that are included in corporate units remaining after deducting the purchase price for the treasury
 portfolio will be remitted ratably to holders of the corporate units.

The "treasury portfolio" consists of:

- U.S. Treasury securities (or principal or interest strips thereof) that mature on or prior to June 15, 2012 in an aggregate amount equal to the principal amount of the notes included in corporate units; and
- U.S. Treasury securities (or principal or interest strips thereof) that mature on or prior to June 15, 2012 in an aggregate amount equal to the aggregate interest payment that would be due on June 15, 2012 on the principal amount of the notes that would have been components of the corporate units assuming (1) there was no remarketing and (2) the interest rate on the notes had not been reset.

As used herein, "treasury portfolio purchase price" means the lowest aggregate price quoted by a primary U.S. government securities dealer in New York City to the quotation agent on the third business day immediately preceding March , 2012 for the purchase of the treasury portfolio for settlement on the remarketing settlement date.

The "quotation agent" means any primary U.S. Government securities dealer in New York City selected by us.

On June 15, 2012, the purchase contract settlement date, a portion of the proceeds from the treasury portfolio will be paid to us in settlement of the obligations of the holders of corporate units under the purchase contracts in exchange for the shares of our common stock that are to be issued to such holders pursuant to the purchase contracts.

We intend to use the net proceeds we receive from the settlement of the purchase contracts to make an intercompany loan to GMO, with the same maturity date and interest payment terms as the notes and with the same effective interest rate or rates, as adjusted for any debt or remarketing fee and other related issuance costs. GMO expects to use such funds to repay a portion of the \$500 million aggregate principal amount of its 11.875% Senior Notes that mature in July 2012, and for general corporate purposes.

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 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 definition 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 initially issued pursuant to a subordinated indenture, dated as of May 18, 2009, between the Company and The Bank of New York Mellon Trust Company, N.A., as Trustee, as supplemented by Supplemental Indenture No. 1 thereto, dated as of the same date. In connection with this remarketing, we will further amend and supplement the indenture. 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 mature on _____, 20.

The interest rate on the notes will be reset to % per year, effective on and after March , 2012. Interest will be paid semiannually in arrears on June 15 and December 15 of each year, beginning June 15, 2012, to the persons in whose names the notes are registered at the close of business on the immediately preceding June 1 and December 1, respectively, whether or not such day is a Business Day. On June 15, 2012, the first interest payment date of the notes, we will pay interest on the notes in an amount equal to (i) interest at the rate of 10.00% per year from and including March 15, 2012 to, but not including, March , 2012 and (ii) interest at the rate of % per year from and including March , 2012 to, but not including, March , 2012 and (ii) interest at the rate of % per year from and including March , 2012 to, but not including, such interest payment date. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months (and for any period shorter than a full quarterly, semi-annual or annual period, on the basis of a 30-day month and for any period less than a month, on the basis of the actual number of days elapsed per 30-day month). If any date on which interest is payable on the notes is not a Business Day, then payment of the interest payable on that date will be made on the next succeeding day which is a Business Day (and without any additional interest or other payment in respect of such delay). Under the terms of the notes offered hereby, we are entitled to elect at one or more times to defer payment of interest on the notes for one or more consecutive interest periods. However, in connection with a successful remarketing, we will no longer be entitled to defer interest payments on the notes.

As used herein, "Business Day" means each Monday, Tuesday, Wednesday, Thursday and Friday that is not a day on which banking institutions or trust companies in the Borough of Manhattan, the City and State of New York, the state of Missouri, or in the city where the Corporate Trust Office of the trustee is located, are obligated or authorized by law or executive order to close, except as otherwise specified in a company order pursuant to the indenture.

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 existing and 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 in excess thereof.

Subject to the terms of the indenture, we may, at any time, without consent of the holders of the notes, issue additional notes having the same ranking, interest rate, maturity and other terms (except for the issue date and the date from which interest accrues and the first interest payment date) as the notes being offered hereby; *provided* that if such additional notes are not fungible with the notes being offered hereby for United States federal income tax purposes, such additional notes will have a separate CUSIP number. Any such additional notes, together with the notes offered hereby, will constitute a single series of notes under the indenture.

Optional Redemption

On or after June 15, 2014, and prior to , 20 (the date that is months prior to the maturity date of the notes), 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" 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 basis points,

plus, in each case, accrued and unpaid interest on the principal amount being redeemed to the date of redemption.

On or after , 20, the notes will be redeemable at any time in whole or from time to time in part, at our option, at a redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest on the principal amount being redeemed 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.

The notes are not redeemable prior to June 15, 2014.

"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

• each of Goldman, Sachs & Co. and J.P. Morgan Securities LLC or their affiliates, and their respective successors, unless either of them ceases to be a primary U.S. government securities dealer in the United States of America ("Primary Treasury Dealer"), in which case we will substitute therefor another Primary Treasury Dealer, and

• two 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 while the notes are represented by a global security, 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 Incorporated 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 Incorporated 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 Incorporated;
- 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 Incorporated
 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 Incorporated 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

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 remarketing agents 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."

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES

The following is a summary of the material U.S. federal income tax consequences of the purchase, ownership and disposition of the notes by U.S. Holders and Non-U.S. Holders (each, as defined below) as of the date hereof.

Except where noted, this summary deals only with notes that are held as capital assets within the meaning of section 1221 of the Internal Revenue Code of 1986, as amended (the "Code") (generally, for investment) by holders that purchase the notes in the remarketing, and does not represent a detailed description of the U.S. federal income tax consequences applicable to you if you are subject to special treatment under the U.S. federal income tax laws, including if you are:

- a dealer in securities or currencies;
- a financial institution;
- a regulated investment company;
- a real estate investment trust;
- a tax–exempt organization;
- an insurance company;
- a person holding the notes as part of a hedging, integrated, conversion or constructive sale transaction or a straddle;
- a trader in securities that has elected the mark-to-market method of accounting for your securities;
- a person liable for alternative minimum tax;
- a partnership or other pass-through entity (or an investor therein);
- a U.S. Holder whose "functional currency" is not the United States dollar;
- a "controlled foreign corporation;"
- a "passive foreign investment company;" or
- a United States expatriate.

If a partnership (including an entity classified as a partnership for U.S. federal income tax purposes) holds the notes, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding the notes, you should consult your tax advisors.

This summary is based upon provisions of the Code and regulations, rulings and judicial decisions as of the date hereof. Those authorities may be changed, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those summarized below. This summary does not represent a detailed description of the U.S. federal income tax consequences to you in light of your particular circumstances.

No statutory, administrative or judicial authority directly addresses the treatment of the notes or instruments similar to the notes for U.S. federal income tax purposes. As a result, no assurance can be given that the Internal Revenue Service (the "IRS") or the courts will agree with the tax consequences described herein.

PROSPECTIVE INVESTORS ARE ADVISED TO CONSULT THEIR OWN TAX ADVISORS CONCERNING THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSIDERATIONS ARISING UNDER THE LAWS OF ANY STATE, LOCAL OR FOREIGN TAXING JURISDICTION OR ANY APPLICABLE TAX TREATIES, AND THE POSSIBLE EFFECT OF CHANGES IN APPLICABLE TAX LAW.



Classification of the Notes

We believe that, for U.S. federal income tax purposes, the notes are treated as indebtedness and the rest of this summary so assumes.

Because of the manner in which the interest rate on the notes is reset, we have treated and will continue to treat the notes as contingent payment debt obligations under the Treasury regulations. By purchasing the notes, you will be deemed to have agreed with this treatment. Accordingly, all payments on the notes including stated interest will be taken into account under these Treasury regulations and actual cash payments of interest on the notes will not be reported separately as taxable income. As discussed more fully below, the effect of these Treasury regulations will be to require you, regardless of your usual method of tax accounting, to use the accrual method with respect to the notes.

U.S. Holders

The following is a summary of the material U.S. federal income tax consequences that will apply to you if you are a U.S. Holder of the notes.

"U.S. Holder" means a beneficial owner of the notes that is for U.S. federal income tax purposes:

- an individual citizen or resident of the United States;
- a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if it (1) is subject to the primary supervision of a court within the United States and one or more United States persons (as defined in the Code) have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable Treasury regulations to be treated as a United States person.

The material U.S. federal income tax consequences to "Non–U.S. Holders" of the notes, which are beneficial owners of notes, other than partnerships (including, for purposes of the following discussion, any entities or arrangements treated as partnerships for U.S. federal income tax purposes) who are not U.S. Holders, are described under "—Non–U.S. Holders" below.

Accrual of Interest

Under the contingent payment debt rules, each year you will be required to include in income original issue discount adjusted in the manner described below, regardless of your usual method of tax accounting. Such original issue discount will be based on the comparable yield of the notes. This amount will differ from the interest payments actually received by you.

Pursuant to the contingent payment debt rules, we were required to provide the comparable yield and, solely for tax purposes, were also required to provide a projected payment schedule with respect to the notes. We determined, as of the issue date of the notes, that the comparable yield for the notes was 11.00%, compounded quarterly through June 15, 2012 and, thereafter, annually. Based on the comparable yield, the projected payment schedule for the notes per \$1,000 of principal amount was \$32.50 for the initial period ending on September 15, 2009, \$25.00 for each subsequent quarter ending on or prior to June 15, 2012, \$117.26 for each annual period ending on and after June 15, 2013 and \$1,117.26 at maturity (which includes the stated principal amount of the notes as well as the final projected interest payment). Under the indenture governing the notes, we agreed, and by acceptance of a beneficial interest in the notes you will be deemed to have agreed, for U.S. federal income tax purposes, to be bound by our determination of the comparable yield and projected payment schedule.

The comparable yield and the projected payment schedule are not provided for any purpose other than the determination of your interest accruals and adjustments thereof in respect of the notes and do not constitute a representation regarding the actual amount of the payment on a note.

The amount of original issue discount on a note for each accrual period is determined by multiplying the comparable yield of the note, adjusted for the length of the accrual period, by the note's adjusted issue price at the beginning of the accrual period, determined in accordance with the rules set forth in the contingent payment debt regulations. The adjusted issue price of each note at the beginning of each accrual period generally equals \$1,000, increased by original issue discount previously accrued on the note and decreased by the projected amount of any payments previously scheduled to be made on the note. The amount of original issue discount so determined is then allocated on a ratable basis to each day in the accrual period that a holder held the note. Following the remarketing, the notes will become subject to special rules that become applicable to contingent payment debt instruments when all of the contingent payments have become fixed. Under these special rules, you must take into account positive or negative adjustments to the projected payment schedule in a reasonable manner over the period to which such adjustments relate. We are required to provide information returns stating the amount of original issue discount accrued on notes held of record by persons other than corporations and other exempt owners.

If you purchase a note in the remarketing for an amount that differs from the adjusted issue price of the note at the time of such purchase, you will still be required to accrue original issue discount on the note in accordance with the comparable yield. However, such difference will result in adjustments to your original issue discount inclusion. If the purchase price of a note is less than its adjusted issue price, a "positive adjustment" (i.e., an increase) will result, and if the purchase price is more than the adjusted issue price of a note, a "negative adjustment" (i.e., a decrease) will result. Any difference between your purchase price for the note and the adjusted issue price of the note should generally be allocated under a reasonable method to daily portions of original issue discount over the remaining term of the notes. The amount so allocated to a daily portion of original issue discount should be taken into account by you as a reduction or increase in such original issue discount on the date the daily portion accrues. If your method of allocation takes into account such difference on a constant yield basis, you will recognize net interest income on the notes in an amount that should approximate the economic accrual of income on the notes after the remarketing date. Any negative or positive adjustment of the kind described in this paragraph made by you will decrease or increase, respectively, your tax basis in the note.

Certain U.S. Holders will receive IRS Forms 1099–OID reporting interest accruals on their note. Those forms will not, however, reflect the effect of any positive or negative adjustments resulting from your purchase of the note in the remarketing at a price that differs from its adjusted issue price on the date of purchase. You are urged to consult your tax advisor as to whether, and how, such adjustments should be made to the amounts reported on any IRS Form 1099–OID.

Sale, Exchange or Other Disposition of the Notes

Upon the disposition of a note, you will generally have gain or loss equal to the difference between your amount realized and your adjusted tax basis in the note. Gain and, to some extent, loss recognized on the sale, exchange or other disposition of a note at any time up to and including June 15, 2012 will generally be treated as ordinary income or loss. The amount of any ordinary loss will not exceed your prior net interest inclusions (reduced by the total net negative adjustments previously allowed as an ordinary loss). Gain recognized on the sale, exchange or other disposition of a note starting after June 15, 2012 will generally be ordinary income to the extent attributable to the excess, if any, of the present value of the total remaining principal and interest payments due on the note and the present value of the total remaining payments set forth on the projected payment schedule for such note. Any gain or loss recognized on a sale, exchange or other disposition of a note which is not treated as ordinary income or loss (as described above) generally will be treated as capital gain or loss. In the

case of a U.S. Holder that is not a corporation, capital gains derived in respect of capital assets held for more than one year are currently subject to tax at preferential rates. Your ability to deduct capital losses is subject to limitations.

Special rules apply in determining the tax basis of a note. Your tax basis in a note is generally increased by original issue discount you previously accrued on the note (without regard to adjustments, except as noted above with regard to any difference between your purchase price and the adjusted issue price of a note), and reduced by the payments projected to be made.

Medicare Tax

For taxable years beginning after December 31, 2012, a U.S. Holder that is an individual, an estate or a trust that does not fall into a special class of trusts that is exempt from such tax will be subject to a 3.8% tax on the lesser of (1) the U.S. Holder's "net investment income" (in the case of individuals) or "undistributed net investment income" (in the case of estates and trusts) for the relevant taxable year and (2) the excess of the U.S. Holder's "modified adjusted gross income" (in the case of individuals) or "adjusted gross income" (in the case of estates and trusts) for the relevant taxable year and (2) the excess of the U.S. Holder's "modified adjusted gross income" (in the case of individuals) or "adjusted gross income" (in the case of estates and trusts) for the taxable year over a certain threshold (which in the case of individuals will be between \$125,000 and \$250,000, depending on the individual's circumstances). A U.S. Holder's net investment income generally will include its interest income on the notes and its net gains from the disposition of the notes, unless such interest income or net gains are derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities). U.S. Holders that are individuals, estates or trusts should consult their own tax advisors regarding the applicability of the Medicare tax to their income and gains in respect of their investment in the notes.

Information Reporting and Backup Withholding

A U.S. Holder generally will be subject to information reporting with respect to payments in respect of principal, interest and the gross proceeds from a disposition of the notes unless the U.S. Holder is an exempt recipient such as a corporation. A U.S. Holder generally will be subject to backup withholding with respect to these payments if the U.S. Holder fails to furnish its social security or other taxpayer identification number or otherwise fails to establish an exemption from backup withholding.

Backup withholding is not an additional tax. Any amount withhold under the backup withholding rules is allowable as a refund or credit against the U.S. Holder's U.S. federal income tax liability, if any, provided that the required information or appropriate claim for refund is properly and timely submitted to the IRS.

U.S. Holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules in their particular situations, the availability of an exemption therefrom and the procedure for obtaining such an exemption, if available.

Non-U.S. Holders

The following discussion is a summary of the material U.S. federal income tax consequences that will apply to you if you are a Non–U.S. Holder of the notes. You should consult your own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to you.

U.S. Federal Withholding Tax

Subject to the discussion of backup withholding below, U.S. federal withholding tax will not apply to any payment of principal and, under the "portfolio interest" rule, interest on the notes (including original issue discount), provided that:

interest paid on the notes is not effectively connected with your conduct of a trade or business in the United States;

- you do not actually (or constructively) own 10% or more of the total combined voting power of all classes of our voting stock within the meaning of the Code and applicable United States Treasury regulations;
- you are not a controlled foreign corporation that is related to us through stock ownership;
- you are not a bank whose receipt of interest on the notes is described in section 881(c)(3)(A) of the Code; and
- either (a) you timely provide your name and address on an IRS Form W–8BEN (or other applicable form), and certify, under penalties of perjury, that
 you are not a United States person as defined under the Code or (b) you hold your notes through certain foreign intermediaries and satisfy the
 certification requirements of applicable United States Treasury regulations.

If you cannot satisfy the requirements described above, payments of interest (including original issue discount) made to you will be subject to U.S. federal withholding tax, unless you:

- timely provide the withholding agent with a properly executed IRS Form W–8BEN (or other applicable form) claiming an exemption from or reduction in withholding under the benefit of an applicable income tax treaty;
- timely provide the withholding agent with a properly executed IRS Form W–8ECI (or other applicable form) stating that interest paid on the notes is
 not subject to withholding tax because it is effectively connected with your conduct of a trade or business in the United States (as discussed below
 under "U.S. Federal Income Tax"); or
- otherwise properly establish an exemption from U.S. federal withholding taxes.

Subject to the discussion of backup withholding below, U.S. federal withholding tax generally will not apply to any gain that you realize on the sale, exchange, retirement or other disposition of a note.

U.S. Federal Income Tax

If you are engaged in a trade or business in the United States and interest (including original issue discount) or gain on the notes is effectively connected with the conduct of that trade or business (and, if required by an applicable income tax treaty, is attributable to a United States permanent establishment), then you will be subject to U.S. federal income tax on that interest or gain on a net income basis (although you will be exempt from U.S. federal withholding tax on interest, provided the certification requirements discussed above in "U.S. Federal Withholding Tax" are satisfied) in the same manner as if you were a United States person (as defined under the Code). In addition, if you are a foreign corporation, you may be subject to a branch profits tax equal to 30% (or lower applicable income tax treaty rate) of such interest or gain, subject to adjustments.

Any gain realized on the disposition of a note by a Non-U.S. Holder generally will not be subject to U.S. federal income tax unless:

- the gain is effectively connected with your conduct of a trade or business in the United States (as discussed above); or
- you are an individual who is present in the United States for 183 days or more in the taxable year of that disposition, and certain other conditions are
 met.

Information Reporting and Backup Withholding

Information returns generally will be filed with the IRS in connection with payments of interest on the notes. Copies of the information returns reporting such interest payments and any withholding therefrom may also be made available to the tax authorities in the country in which a Non-U.S. Holder resides under the

provisions of an applicable income tax treaty. Unless a Non-U.S. Holder complies with certification procedures to establish that it is not a United States person (as defined in the Code), information returns may be filed with the IRS in connection with the proceeds from a sale or other disposition of the notes and the Non-U.S. Holder may be subject to backup withholding on payments on the notes or on the proceeds from a sale or other disposition of the notes. Compliance with the certification procedures required to claim the exemption from withholding tax on interest described above will satisfy the certification requirements necessary to avoid backup withholding as well.

Backup withholding is not an additional tax. Any amount withheld under the backup withholding rules is allowable as a refund or credit against the Non-U.S. Holder's U.S. federal income tax liability, if any, provided that the required information or appropriate claim for refund is properly and timely submitted to the IRS.

Non-U.S. Holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules in their particular situations, the availability of an exemption therefrom and the procedure for obtaining such an exemption, if available.

REMARKETING (CONFLICTS OF INTEREST)

Subject to the terms and conditions contained in the remarketing agreement, dated February 14, 2012 among us, Goldman, Sachs & Co. and J.P. Morgan Securities LLC, as representatives of the remarketing agents, and The Bank of New York Mellon Trust Company, N.A., not individually but solely as purchase contract agent and as attorney-in-fact of the holders of the purchase contracts, the remarketing agents have agreed to use their reasonable efforts to remarket the notes at a public offering price that will result in proceeds sufficient to purchase the treasury portfolio at the treasury portfolio purchase price, as described under "Use of Proceeds."

In connection with the remarketing, the remarketing agents reset the interest rate on the notes to % per year and established , as the new maturity date for the notes.

None of the remarketing agents has any obligations to purchase any of the notes. The remarketing agreement provides that the remarketing is subject to customary conditions precedent, including the delivery of legal opinions.

We will pay all fees and expenses of the remarketing agents from cash on hand. The remarketing fee of \$ equals % of the principal amount of the notes. Holders of corporate units will not be responsible for the payment of any remarketing fee in connection with the remarketing. Expenses associated with this offering to be paid by us, other than remarketing fees, are estimated to be approximately \$.

We have also agreed to indemnify severally the remarketing agents against certain liabilities, including liabilities under the Securities Act, or to contribute to payments which the remarketing agents may be required to make in respect of any such liabilities.

There is currently no established trading market for the notes. 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 remarketing agents have advised us that they intend to make a market in the notes, but they are not obligated to do so. At their sole discretion, the remarketing agents may discontinue any market making in the notes at any time without notice. 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 you receive when you sell will be favorable.

In connection with the remarketing of the notes, the remarketing agents may engage in transactions that stabilize, maintain or otherwise affect the prices of the notes. Specifically, the remarketing agents may overallot in connection with the remarketing of the notes, creating syndicate short positions. In addition, the remarketing agents may bid for and purchase notes in the open market to cover syndicate short positions or to stabilize the price of the notes. The remarketing agents also may impose a penalty bid. This occurs when a particular remarketing agent repays to the remarketing syndicate a portion of the remarketing fee received by it because the remarketing syndicate has repurchased notes sold by or for the account of such remarketing agent in stabilizing or short covering transactions. Any of these activities may stabilize or maintain the market prices of the notes above independent market levels. The remarketing agents are not required to engage in any of these activities, and may end any of them at any time without notice.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State"), each remarketing agent has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date") it has not made and will not make an offer of notes which are the subject of the offering contemplated by this Prospectus to the public in that Relevant Member State other than:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the joint book-running managers for any such offer; or

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

provided that no such offer of notes shall require us or any remarketing agent to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer of notes to the public" in relation to any notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each remarketing agent has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the "FSMA")) received by it in connection with the issue or sale of the notes in circumstances in which Section 21(1) of the FSMA does not apply to us; and

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

Hong Kong

The notes may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the notes may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder

Japan

The notes have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each remarketing agent has agreed that it will not offer or sell any notes, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for reoffering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.



Singapore

This Prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this Prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the notes are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the notes under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

The remarketing agents and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The remarketing agents and their affiliates have provided and in the future may continue to provide investment banking, commercial banking and other financial services, including the provision of credit facilities, to us and our affiliates in the ordinary course of business for which they have received and will receive customary compensation. Affiliates of certain of the remarketing agents are lenders under revolving credit agreements entered into separately with Great Plains Energy, KCP&L and GMO in August 2010 and amended in December 2011. In connection with these arrangements, affiliates of J.P. Morgan Securities LLC, Goldman, Sachs & Co., BNP Paribas Securities Corp., SunTrust Robinson Humphrey, Inc. and U.S. Bancorp Investments, Inc. acted as lenders and affiliates of J.P. Morgan Securities, the remarketing agents and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the Company. The remarketing agents and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Conflicts of Interest

Because Goldman, Sachs & Co., one of the remarketing agents, beneficially owns in excess of 10% of our issued and outstanding preferred stock, Goldman, Sachs & Co. is deemed to have a "conflict of interest" with us within the meaning of FINRA Rule 5121. Pursuant to that rule, the appointment of a qualified independent underwriter is not necessary in connection with this offering, as the offering is of investment grade securities. Goldman, Sachs & Co. will not sell the notes to discretionary accounts without written approval from the account holder.

LEGAL MATTERS

Certain legal matters in connection with the remarketing of the notes will be passed upon for us by Heather A. Humphrey, General Counsel and Senior Vice President—Human Resources and Dewey & LeBoeuf LLP, New York, New York. Certain legal matters will be passed upon for the remarketing agents by Davis Polk & Wardwell LLP, Menlo Park, California.

At March 1, 2012, Ms. Humphrey owned beneficially a number of shares of the Company's common stock, including restricted stock, and performance shares which may be paid in shares of common stock at a later date based on the Company's performance, which represented less than 0.1% of the total outstanding common stock.

EXPERTS

The consolidated financial statements, and the related financial statement schedules, incorporated in this prospectus supplement by reference from Great Plains Energy Incorporated and its subsidiaries' Annual Report on Form 10-K for the year ended December 31, 2011, and the effectiveness of Great Plains Energy Incorporated and its subsidiaries' internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports which are incorporated herein by reference. Such financial statements and financial statement schedules have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

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. We may offer the securities simultaneously or at different times, in one or more separate series, in amounts, at prices and on terms to be determined at or prior to the time or times of sale.

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 one or more 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 our 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 1200 Main Street, Kansas City, Missouri 64105 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 "<u>Risk Factors</u>" beginning on page 5 of this prospectus.

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."

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.

The date of this prospectus is March 14, 2012.

TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	1
CAUTIONARY STATEMENTS REGARDING CERTAIN FORWARD -LOOKING INFORMATION	1
GREAT PLAINS ENERGY INCORPORATED	4
Risk Factors	5
RATIO OF EARNINGS TO FIXED CHARGES	6
<u>Use of Proceeds</u>	7
DESCRIPTION OF DEBT SECURITIES	8
DESCRIPTION OF COMMON STOCK	18
DESCRIPTION OF STOCK PURCHASE CONTRACTS AND STOCK PURCHASE UNITS OR WARRANTS FOR STOCK	20
BOOK-ENTRY SYSTEM	21
PLAN OF DISTRIBUTION	24
LEGAL MATTERS	25
EXPERTS	25
WHERE YOU CAN FIND MORE INFORMATION	26

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process. By using this process, we may, from time to time, sell any combination of 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 supplement to this prospectus 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 (including the exhibits) of which this prospectus forms a part, this prospectus, the applicable prospectus supplement and the documents incorporated by reference into this prospectus. The incorporated documents are described under "Where You Can Find More Information."

You should rely only on the information contained or incorporated by reference in this prospectus and any prospectus supplement, or in any free writing prospectus. We have not, and the underwriters have not, authorized anyone to provide you with different information and neither we nor the underwriters of any offering of securities will authorize anyone else 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, any prospectus supplement 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.

Unless the context otherwise requires or as otherwise indicated, when we refer to "Great Plains Energy," the "Company," "we," "us" or "our" in this prospectus or when we otherwise refer to ourselves in this prospectus, we mean Great Plains Energy Incorporated and its subsidiaries, unless the context clearly indicates otherwise.

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. In some cases, you can identify forward-looking statements by use of the words "may," "should," "expect," "plan," "anticipate," "estimate," "predict," "potential," or "continue." Forward-looking statements include, but are not limited to, statements regarding the outcome of regulatory proceedings 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 discussed 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 claim the protection of the safe harbor for forward-looking statements contained in the Private Securities

1

Litigation Reform Act of 1995 for all forward-looking statements. 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 regional, national and international markets and their effects on sales, prices and costs, including, but not limited to, possible further deterioration in economic conditions and the timing and extent of economic recovery;
- prices and availability of electricity in regional and national wholesale markets;
- market perception of the energy industry and the 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, reregulation and restructuring of the electric utility industry;
- decisions of regulators regarding rates the 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 credit spreads and in availability and cost of capital and the effects on nuclear decommissioning trust and pension plan assets and costs;
- impairments of long-lived assets or goodwill;
- credit ratings;
- inflation rates;
- effectiveness of risk management policies and procedures and the ability of counterparties to satisfy their contractual commitments;
- impact of terrorist acts, including, but not limited to, cyber terrorism;
- ability to carry out marketing and sales plans;
- weather conditions including, but not limited to, weather-related damage and their effects on sales, prices and costs;
- cost, availability, quality and deliverability of fuel;
- the inherent uncertainties in estimating the effects of weather, economic conditions and other factors on customer consumption and financial results;
- ability to achieve generation goals and the occurrence and duration of planned and unplanned generation outages;
- delays in the anticipated in-service dates and cost increases of generation, transmission, distribution or other projects;
- the inherent risks associated with the ownership and operation of a nuclear facility including, but not limited to, environmental, health, safety, regulatory and financial risks;
- · workforce risks including, but not limited to, increased costs of retirement, health care and other benefits; 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 contained under the heading "Risk Factors" in this prospectus, any prospectus supplement, and in our other SEC filings.

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. Our wholly-owned direct subsidiaries with operations or active subsidiaries are as follows:

- Kansas City Power & Light Company ("KCP&L") is an integrated, regulated electric utility that provides electricity to customers primarily in the states of Missouri and Kansas. KCP&L has one wholly-owned subsidiary, Kansas City Power & Light Receivables Company ("Receivables Company").
- KCP&L Greater Missouri Operations Company ("GMO") is an integrated, regulated electric utility that primarily provides electricity to customers in the state of Missouri. GMO also provides regulated steam service to certain customers in the St. Joseph, Missouri area. GMO wholly owns MPS Merchant Services, Inc., which has certain long-term natural gas contracts remaining from its former non-regulated trading operations.

RISK FACTORS

Investing in our securities involves risks. Our business is influenced by many factors that are difficult to predict, involve uncertainties that may materially affect actual results and are often beyond our control. 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, 2011, 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.

RATIO OF EARNINGS TO FIXED CHARGES

The following table shows our ratio of earnings to fixed charges for the periods indicated:

Fiscal Years Ended December 31,					
2011	2010	2009	2008	2007	
2.03	2.28	1.81	2.26	2.53	

For purposes of computing the ratios of earnings to fixed charges: (i) earnings consist of income before deducting net provisions for income taxes, 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.

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 issuance of any of the offered securities for general corporate purposes, including, among others:

- repayment of debt;
- repurchase, retirement or refinancing of other securities;
- funding of construction expenditures;
- investments in subsidiaries; and
- acquisitions.

Pending such uses, we may also invest the proceeds in certificates of deposit, United States government securities or certain other short-term interestbearing 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 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, dated as of June 1, 2004, that we entered into with The Bank of New York Mellon Trust Company, N.A., as successor trustee. We will issue the subordinated debt securities in one or more series under the subordinated 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 qualified under the Trust Indenture Act of 1939 ("Trust Indenture Act"). The following summaries of certain provisions of the senior indenture, the subordinated 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 the senior debt securities or the subordinated debt securities on the subordinated debt securities or a series, without the consent of the holders of the senior debt securities or the subordinated debt securities or subordinated debt securities or subordinated debt securities are 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 and other special considerations applicable prosp

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 December 31, 2011, Great Plains Energy Incorporated had approximately \$1,375.7 million of outstanding Senior Indebtedness (as defined below) (including guarantees of \$653.7 million of GMO indebtedness) and \$287,500,000 aggregate principal amount of subordinated indebtedness.

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 December 31, 2011, our subsidiaries had approximately \$2,811.8 million of aggregate outstanding debt (including debt guaranteed by Great Plains Energy Incorporated).

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, deletion or modification 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 similar 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
- any other default has occurred and continues without cure or waiver (after the expiration of any applicable grace period) pursuant to which the holders of Senior Indebtedness are permitted to accelerate the maturity of such Senior Indebtedness,

then all Senior Indebtedness must be paid, or provision for such payment be made, 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, or 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 suborgated 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, and subject to the subordination provisions of, the subordinated indenture and other obligations which are either effectively by their 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 effectively by their terms or expressly made subordinate to or *pari passu* with the subordinate of the extent our payment obligations under any such guarantee are effectively by their terms or expressly made 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 effectively by its terms or 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;

(2) indebtedness evidenced by bonds, debentures, notes or other similar instruments issued by us (other than such instruments that are effectively by their terms or expressly made subordinate to or *pari passu* with the subordinated debt securities),

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.

However, trade accounts payable and accrued liabilities arising in the ordinary course of business will not be Senior Indebtedness.

The subordinated indenture will not limit the aggregate amount of Senior Indebtedness that we may issue. At December 31, 2011, the outstanding Senior Indebtedness of Great Plains Energy Incorporated totaled approximately \$1,375.7 million (including guarantees of \$653.7 million of GMO indebtedness).

Registration, Transfer and Exchange. 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, 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 or person 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.

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;
- in the case of the subordinated indenture and in connection with the appointment of a successor trustee with respect to the debt securities of one or more (but not all) series, to add to or change any provisions of the subordinated indenture as shall be necessary to provide for or facilitate the administration of the trusts thereunder by more than one trustee pursuant to the subordinated 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.

The senior indenture provides that, except as provided above, the consent of the holders of a majority in aggregate principal amount of the senior debt securities 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 senior indenture pursuant to one or more supplemental indentures or of modifying or waiving in any manner the rights of the holders of the senior debt securities; provided, however, that if less than all of the series of senior debt securities outstanding 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 senior debt securities of all series so directly affected, considered as one class, will be required.

The subordinated indenture provides that, except as provided above, the consent of the holders of (i) a majority in aggregate principal amount of debt securities of all series then outstanding under the subordinated indenture that are subject to the subordination provision of the subordinated indenture that are not subject to the subordination provision of the subordinated indenture that are not subject to the subordinating any of the provisions of, the subordinated indenture pursuant to one or more supplemental indentures or of modifying or waiving in any manner, or eliminating any of the holders of the debt securities issued under the subordinated indenture; provided, however, that if less than all series of debt securities outstanding under the subordinated indenture are directly affected by a proposed supplemental indenture, then the consent only of the holders of (i) a majority in aggregate principal amount of outstanding debt securities issued under the subordinated indenture of all series so directly affected that are subject to the subordinated indenture of all series so directly affected that are subject to the subordinated indenture of all series so directly affected that are not subject to the subordinated indenture of all series so directly affected that are subject to the subordinated indenture of all series so directly affected that are not subject to the subordinated indenture of all series so directly affected that are not subject to the subordinated indenture, considered as one class, and (ii) a majority in aggregate principal amount of outstanding debt securities issued under the subordinated indenture of all series so directly affected that are subject to the subordinated indenture of all series so directly affected that are not subject to the subordination provisions of the subordinated indenture, considered as one class, and (ii) a majority in aggregate principal amount of outstanding debt securities issued under the subordinated to the subordinated indenture, considered as one class, will

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 company order under which a series of debt securities is issued, or modified in any such supplemental indenture or company order, 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. 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 debt securities, 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 applicable indenture, supplemental indenture or other instrument establishing such series.

In the case of either (1) or (2), the following conditions, among others, must be met:

- we will be 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 (in the opinion of a nationally recognized firm of independent accountants, certified to the applicable trustee in writing), without reinvestment, to pay all the principal of, and premium, if any, and interest on the notes of such series on the dates payments are due (which may include one or more redemption dates designated by us),
- 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 must have occurred and be continuing on the date of the deposit, and 91 days must have passed after the deposit has been made and, during that period, certain events of default must not have occurred and be continuing as of the end of that period,
- · the deposit must not cause the applicable trustee to have any conflicting interest with respect to our other securities,

- we must 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 must be 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, and
- we must have delivered an officer's certificate and an opinion of counsel to the trustee as provided in the applicable indenture.

We may exercise our defeasance option under paragraph (1) with respect to notes of any series notwithstanding our prior exercise of our covenant defeasance option under paragraph (2). If we exercise our defeasance option under paragraph (1) 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) above. 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 applicable 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 and the Subordinated Debt Securities. As of December 31, 2011, The Bank of New York Mellon Trust Company, N.A., which is the trustee under the senior indenture and the subordinated indenture, and its affiliates were the trustees for \$987.5 million of our unsecured debt, and \$1,515.9 million of KCP&L's secured and unsecured debt (including Environmental Improvement Revenue Refunding debt issued by certain governmental entities), under several separate indentures. In addition, an affiliate of The Bank of New York Mellon Trust Company, N.A. is one of the lenders under separate credit agreements with us, KCP&L and GMO and is the trustee under a KCP&L nuclear decommissioning fund trust. Affiliates of The Bank of New York Mellon Trust Company, N.A. also perform other services for, and transact 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, except funds held in trust for the benefit of holders of particular debt securities.

Governing Law. The senior indenture is, and any senior debt securities will be, governed by New York law. The subordinated indenture is, 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 262,962,000 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
- 250,000,000 shares of Common Stock with no par value.

At December 31, 2011, 390,000 shares of Cumulative Preferred Stock and 136,141,739 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. Cumulative voting 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 sinking fund provisions, redemption provisions or conversion rights.

Transfer Agent and Registrar. Computershare Trust Company, 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 fiveyear 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."

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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, and/or
- 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 securities 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, or 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 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.

Except as otherwise provided in any applicable prospectus supplement, 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), subject to DTC's or such successor's procedures, as the case may be.

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 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 is the holding company for DTC, National Securities Clearing

Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. 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 the 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 to 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 the 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 in one or more of the following ways from time to time: (i) to underwriters for resale to the public or to institutional investors; (ii) directly to institutional investors; or (iii) through agents to the public or to institutional investors. The prospectus supplement with respect to each series of securities will set forth the terms of the offering of such securities, including the name or names of any underwriters or agents, the purchase price of such securities, and the proceeds to us from such sale, any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation, any initial public offering price, any discounts or concessions allowed or reallowed or paid to dealers and any securities exchange on which such securities may be listed.

If underwriters participate in the sale, such securities will be acquired by the underwriters 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 any series of securities will be subject to certain conditions precedent and the underwriters will be obligated to purchase all of such 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.

Underwriters and agents may be entitled under agreements entered into with us to indemnification against certain civil liabilities, including liabilities under the Securities Act of 1933, as amended. Underwriters and agents may engage in transactions with, or perform services for, us in the ordinary course of business.

Each series of securities will be a new issue of securities and, other than our common stock, which is listed on The New York Stock Exchange, will have no established trading market. Any underwriters to whom securities are sold for public offering and sale may make a market in such securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities may or may not be listed on a national securities exchange.

LEGAL MATTERS

Legal matters with respect to the securities offered under this prospectus will be passed upon for us by Heather A. Humphrey, General Counsel and Senior Vice President—Human Resources and Dewey & LeBoeuf LLP. Davis Polk & Wardwell LLP will pass on certain matters for the underwriters, dealers, purchasers, or agents. At March 1, 2012, Ms. Humphrey owned beneficially a number of shares of the Company's common stock, including restricted stock, and performance shares which may be paid in shares of common stock at a later date based on the Company's performance, which represented less than 0.1% of the total outstanding common stock.

EXPERTS

The consolidated financial statements, and the related financial statement schedules, incorporated in this prospectus by reference from Great Plains Energy Incorporated and its subsidiaries' Annual Report on Form 10-K for the year ended December 31, 2011, and the effectiveness of Great Plains Energy Incorporated and its subsidiaries' internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports which are incorporated herein by reference. Such financial statements and financial statement schedules have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

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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 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 (excluding information deemed to be furnished and not filed with the SEC) until the offering of the securities described in this prospectus is completed:

- Our Annual Report on Form 10-K for the year ended December 31, 2011, filed with the SEC on February 28, 2012; and
- Our Current Reports on Form 8-K dated February 7, 2012 and filed with the SEC on February 10, 2012; and February 21, 2012 and filed with the SEC on February 21, 2012.

Our website is www.greatplainsenergy.com. Information contained on our website is not incorporated herein. 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 of 1934 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, 1200 Main Street, Kansas City, Missouri 64105 (Telephone No.: 816-556-2200), Attention: Corporate Secretary, or by contacting us on our website.

\$287,386,000



Great Plains Energy Incorporated

% Notes due

PROSPECTUS SUPPLEMENT March , 2012

Joint Lead Remarketing Agents

Goldman, Sachs & Co.

J.P. Morgan

Co-Remarketing Agents

BNP PARIBAS

SunTrust Robinson Humphrey

US Bancorp