

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2011

OR

TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 0-33207

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

Great Plains Energy Incorporated
401(k) Savings Plan
(hereinafter referred to as the Plan)

B. Name of issuer of the securities held pursuant to the Plan and the address of its principal executive office:

Great Plains Energy Incorporated
1200 Main Street
Kansas City, Missouri 64105

GREAT PLAINS ENERGY INCORPORATED 401(K) SAVINGS PLAN

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Note: All other schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, as amended, have been omitted because they are not applicable.

EXHIBITS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Participants and Management Administrative Committee of the
Great Plains Energy Incorporated 401(k) Savings Plan

Kansas City, Missouri

We have audited the accompanying statements of net assets available for benefits of the Great Plains Energy Incorporated 401(k) Savings Plan (the "Plan") as of December 31, 2011 and 2010, and the related statement of changes in net assets available for benefits for the year ended December 31, 2011. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2011 and 2010, and the changes in net assets available for benefits for the year ended December 31, 2011, in conformity with accounting principles generally accepted in the United States of America.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) as of December 31, 2011, is presented for the purpose of additional analysis and is not a required part of the basic 2011 financial statements, but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. This schedule is the responsibility of the Plan's management. Such schedule has been subjected to the auditing procedures applied in our audit of the basic 2011 financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the basic 2011 financial statements taken as a whole.

/s/ DELOITTE & TOUCHE LLP

Kansas City, Missouri

June 25, 2012

GREAT PLAINS ENERGY INCORPORATED
401(k) SAVINGS PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
DECEMBER 31, 2011 AND 2010

	2011	2010
ASSETS:		
Participant-directed investments—at fair value (Note 3)	\$ 384,603,440	\$ 402,577,987
NOTES RECEIVABLE FROM PARTICIPANTS—at amortized cost	9,976,750	9,530,279
EMPLOYER CONTRIBUTION RECEIVABLE	124,277	131,735
ACCRUED DIVIDENDS	1,822,640	—
CASH	330,211	21,511

NET ASSETS AVAILABLE FOR BENEFITS AT FAIR VALUE	396,857,318	412,261,512
Adjustment from fair value to contract value for fully benefit-responsive stable value funds	(102,861)	436,747
NET ASSETS AVAILABLE FOR BENEFITS	\$ 396,754,457	\$ 412,698,259

See notes to financial statements.

**GREAT PLAINS ENERGY INCORPORATED
401(k) SAVINGS PLAN**

**STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
YEAR ENDED DECEMBER 31, 2011**

Additions:		
Investment income:		
Net depreciation in fair value of investments	\$	(2,002,505)
Interest		4,990
Dividends		9,002,171
Net investment income		7,004,656
Contributions:		
Employer contributions		8,047,964
Employee contributions		21,177,559
Rollovers		590,860
Total contributions		29,816,383
Interest income on participant loans		556,867
Total additions		37,377,906
Deductions:		
Benefits paid to participants		53,251,934
Expenses paid		69,774
Total deductions		53,321,708
DECREASE IN NET ASSETS		(15,943,802)
NET ASSETS AVAILABLE FOR BENEFITS		
Beginning of year		412,698,259
End of year	\$	396,754,457

See notes to financial statements.

GREAT PLAINS ENERGY INCORPORATED 401(K) SAVINGS PLAN

**NOTES TO FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2011 AND 2010 AND FOR THE YEAR ENDED DECEMBER 31, 2011**

1. PLAN DESCRIPTION

The following description of the Great Plains Energy Incorporated 401(k) Savings Plan (the Plan) is provided for general information purposes only. Participants should refer to the Plan document for more complete information.

General - The Plan is a defined contribution plan covering all full-time and part-time employees of Kansas City Power & Light Company (KCP&L), sponsored by Great Plains Energy Incorporated (the Company). The Plan provides that employees are eligible to make elective contributions to the Plan as of the first payroll period beginning on or after date of hire. The Company serves as the administrator of the Plan. J.P. Morgan Retirement Plan Services (JP Morgan) serves as the recordkeeper for the Plan and JPMorgan Chase Bank, N.A. serves as the Plan's trustee. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA).

An Employee Stock Ownership Plan (ESOP) component was added to the Plan on January 1, 2002. The ESOP component consists of the portion of the Plan that is invested in Great Plains Energy Incorporated common stock. Adding this component gives participants the option of receiving a direct cash distribution of any dividends paid on such stock held in participant elective contribution accounts and, if they are 100% vested as of the dividend record date, their Company match accounts. Dividends paid on Company stock are automatically reinvested, unless cash distribution was elected.

Plan Amendments - On June 10, 2011, the Plan was amended to add a Roth provision and to allow the Company to make a qualified non-elective contribution as part of the Internal Revenue Service's Employee Plans Compliance Resolution System. The Plan was further amended on December 9, 2011, effective January 1, 2012, to establish a rule allocating any expense incurred in connection with a qualified domestic relations order directly to the participant's account and to establish a procedure whereby benefits of a participant or beneficiary who cannot be located after a diligent search can be forfeited, subject to restoration if and when such individual properly submits a claim for the benefits in the future.

Eligibility - Prior to the effective date of the January 1, 2008 restatement of the Plan, non-union employees who were hired prior to September 1, 2007 could elect to continue to participate under the existing (old program) plan provisions (provisions prior to January 1, 2008) or under modified plan provisions (new program). All union employees participate in the old program and all non-union employees hired on or after September 1, 2007 participate in the new program.

Contributions - Under the old program, each year participants may contribute between 2% and 40% of their annual compensation as defined in the Plan. Effective January 1, 2008, the new program allowed new program participants to make salary deferrals up to 75% of annual compensation. Contributions under the old program and new program are subject to statutory limitations. Under either program, participants who have attained age 50 and whose contributions

meet the IRS maximum deferral limit (or plan maximum as defined by the Plan, if less), may elect to make catch-up contributions. Participants direct the investment of their contributions into various investment options offered by the Plan.

The Plan was restated effective January 1, 2009 in connection with the application for an updated Internal Revenue Service (IRS) determination ruling letter, in addition to amending the Plan to lower the mandatory cash-out limit from \$5,000 to \$1,000, and to expand the distribution options.

The Plan currently offers investment options which include 24 mutual funds, Company stock, two common/collective trust funds and a brokerage account. One mutual fund that was an investment option in the Plan was eliminated and the balances transferred to the replacement investment option representing the same asset class in the current investment line-up. Participants may purchase shares of stocks, bonds, or mutual funds not offered by the Plan through the brokerage account option. Prior to January 1, 2010, matching contributions were invested in Great Plains Energy Incorporated common stock unless the participant made an affirmative election for a different investment option(s). The Plan was amended effective January 1, 2010 to direct matching contributions into a target date fund appropriate to the participant's normal retirement age unless the employee makes an affirmative election for a different investment option(s). Employee contributions are also invested in a target date fund appropriate to the participant's age unless the participant makes an affirmative election for a different investment option(s).

Effective January 1, 2008, new program participants became eligible for matching contributions immediately upon participation after hire; old program participants continued to be eligible for matching contributions after completing one year of service. The Company contributes 50% of the employee's elective contribution, not to exceed 3% of annual compensation, as defined in the Plan under the old program. Under the new program, the Company contributes up to 100% of the first 6% of annual compensation, as defined in the Plan.

In the old program, compensation is defined as base pay and, depending on bargaining status, shift differentials and some overtime. Under the new program, compensation is defined as base, bonus, incentive, and overtime pay. In the 2008 restatement of the Plan, Flex Dollars were inadvertently included in the definition of compensation under the new program. However, this was an unintended change and was neither communicated to participants nor implemented. When the error was realized in 2009, the Company amended the Plan effective July 1, 2009 to remove Flex Dollars from the definition of compensation. The Company completed a filing under the IRS Voluntary Correction Program to secure approval to remove Flex Dollars from the definition of compensation retroactive to January 1, 2008. The IRS approved this change in November 2010.

All employees hired on or after January 1, 2008 are automatically enrolled in the Plan at a 6% contribution level, unless they opt out or make an affirmative election for a different deferral rate. Employees have a 30-day notice period in which to opt-out or modify the automatic enrollment. Automatically enrolled participants have 90 days after the first employee contribution to withdraw funds that have been automatically contributed, without penalty.

Contributions are subject to certain Internal Revenue Code (IRC) limitations.

Subsequent to December 31, 2011, employer contributions of \$144,277 attributable to the 2011 plan year were credited to participant accounts. These contributions were funded in part through utilizing forfeitures of \$20,000 and the remainder of the amount was contributed by the Company in cash and stock, and is therefore presented as a receivable on the statement of net assets as of December 31, 2011. Subsequent to December 31, 2010, employer contributions of \$156,735

attributable to the 2010 plan year were credited to participant accounts. These contributions were funded in part through utilizing forfeitures of \$25,000 and the remainder of the amount was contributed by the Company in cash and stock, and is therefore presented as a receivable on the statement of net assets as of December 31, 2010.

Participant Accounts - Each participant's account is credited with the participant's contributions and allocations of (a) the Company's contributions, (b) Plan earnings, and charged with an allocation of administrative expenses as applicable. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting - Participants are immediately vested in their voluntary contributions plus actual earnings thereon. If the employee participates in the old program, vesting in the Company matching contributions portion of their accounts plus earnings thereon is based on years of continuous service. A participant is partially vested after two years and 100% vested after six years of credited service. However, full vesting of the employer match under the Plan is preserved for former Aquila, Inc. employees who became employees of KCP&L when the Company acquired Aquila, Inc. effective July 14, 2008. Employees participating in the new program are immediately vested in the Company matching contributions. Participants who retire after age 55, die or become totally or permanently disabled while an employee of the Company are considered 100% vested in the Company matching contributions, regardless of their length of service.

Notes Receivable from Participants - The Plan allows participants to borrow up to the lesser of one-half of the vested amount of their participant account, or \$50,000 reduced by the excess of the participant's highest loan balance that existed during the one year period ending on the day before the date a new loan is made over the outstanding balance of any loan on the date a new loan is made. The minimum loan amount is \$1,000. Loans for the acquisition of the participant's primary residence must be repaid within 15 years. All other loans must be repaid within 5 years. Interest is charged at prevailing market rates at the time the loan is funded plus 2% and is fixed over the life of the loan. Participants pay a one-time loan origination fee at the time the loan is executed. Notes receivable from participant are valued at amortized cost of the outstanding loan balance.

Payment of Benefits - If the value of the participant's account balance is \$1,000 or less, payment shall be made to the participant as soon as practicable following termination of employment in a single lump sum distribution unless the participant directs the Plan to roll his or her account balance to another qualified plan or IRA. In all other cases, at the election of the participant in a manner prescribed by the Management Administrative Committee or its designee, distribution of account balances may be deferred until April 1 following the calendar year in which the participant reaches age 70 1/2, or may be paid in a single lump sum distribution, one or more partial payments of \$1,000 each, or in a series of substantially equal monthly or annual installments. Participants may also elect to have their vested account balances rolled over to another qualified plan or to an IRA. In the absence of a written directive from the participant as to the manner of payment upon reaching age 70 1/2, if the value of the participant's account balance is greater than \$1,000, payment shall be made in annual installments over a period of five years.

Forfeited Accounts - At December 31, 2011 and 2010, there were \$41,673 and \$58,407 in forfeited non-vested accounts, respectively. Forfeitures in the amount of \$20,000 were used to fund the 2011 match true-up contributions in March 2012. Forfeitures in the amount of \$25,000 were used to fund the 2010 match true-up contributions in March 2011.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting - The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP).

Use of Estimates - The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of net assets available for benefits and changes therein. Actual results could differ from those estimates.

Risks and Uncertainties - The Plan utilizes various investment instruments, including common stock, mutual funds, a brokerage account and common/collective trust funds. Investment securities, in general, are exposed to various risks, such as interest rate, credit, and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and such changes could materially affect the amounts reported in the financial statements.

Investment Valuation and Income Recognition - The Plan's investments are stated at fair value. Fair value of a financial instrument is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. Shares of Company stock are valued at quoted market price. Shares of mutual funds are valued at quoted market prices, which represent the net asset value of shares held by the Plan at year-end. The common/collective trust funds are stated at estimated fair value as determined by the issuer of the common/collective trust fund based on the fair market value of the underlying investments.

The JPMCB Stable Asset Income Fund is a common/collective trust fund that is considered to be a stable value fund with underlying investments in investment contracts and is valued at fair value and then adjusted by the issuer to contract value. Fair value of the stable value fund is the net asset value of its underlying investments and contract value is principal plus accrued interest. Individual participant accounts invested in the common/collective trust fund are maintained on a unit value basis. Participants do not have beneficial ownership in specific underlying securities or other assets in the various funds, but have an interest therein represented by units valued as of the last business day of the period. The JPMCB Stable

Asset Income Fund is a stable value fund that is a common/collective trust fund operated and maintained by JPMorgan Chase Bank, N.A. The fund invests in synthetic guaranteed investment contracts, U.S. treasury and agency securities, and cash and cash equivalents, including money market instruments. Participants can ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. Contract value represents contributions made to the fund, plus earnings, less participant withdrawals and administrative expenses.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

In accordance with GAAP, the stable value funds are included at fair value in participant-directed investments in the statements of net assets available for benefits and an additional line item showing an adjustment from fair value to contract value. The statement of changes in net assets available for benefits is presented on a contract value basis.

Management fees and operating expenses charged to the Plan for the Plan's investments are deducted from income earned on a daily basis and are not separately reflected. Consequently, management fees and operating expenses are reflected as a reduction of investment return for such investments.

Unit Values - Individual participant accounts for the common/collective trust funds are maintained on a unit value basis. Participants do not have beneficial ownership in the specific underlying securities or other assets in the funds, but do have an interest therein represented by units valued daily. The funds earn dividends and interest which are automatically reinvested in additional units. Generally, contributions to and withdrawals from each fund are converted to units by dividing the amounts of such transactions by the unit values as last determined, and the participants' accounts are charged or credited with the number of units properly attributable to each participant.

Administrative Expenses - Administrative expenses of the Plan are paid by either the Plan or the Company, as provided in the Plan document.

Payment of Benefits - Benefits payments to participants are recorded upon distribution.

New Accounting Standards -

ASU No. 2010-06, Fair Value Measurements and Disclosures – In January 2010, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2010-06, *Fair Value Measurements and Disclosures*, which amends Accounting Standards Codification (ASC) 820, *Fair Value Measurements and Disclosures*, adding a new disclosure requirement to provide Level 3 activity of purchases, sales, issuances, and settlements on a gross basis. This requirement is effective for fiscal years beginning after December 15, 2010. The adoption in 2011 did not materially affect the Plan's financial statements.

ASU No. 2011-04 – In May 2011, the FASB issued ASU No. 2011-04, *Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs*, which amends ASC 820. ASU 2011-04 also requires the categorization by level for items that are only required to be disclosed at fair value and information about transfers between Level 1 and Level 2. In addition, the ASU provides guidance on measuring the fair value of financial instruments managed within a portfolio and the application of premiums and discounts on fair value measurements. The ASU requires additional disclosure for Level 3 measurements regarding the sensitivity of fair value to changes in unobservable inputs and any interrelationships between those inputs. The new guidance is effective for reporting periods beginning after December 15, 2011. The adoption will not have a material effect on the statement of net assets available for benefits and statement of changes in net assets available for benefits. Plan management has not determined the impact on the disclosures in the financial statements.

3. FAIR VALUE OF INVESTMENTS

ASC 820, *Fair Value Measurements and Disclosures*, established a single authoritative definition of fair value, set a framework for measuring fair value, and requires additional disclosures about fair value measurements. In accordance with ASC 820, the Plan classifies its investments into Level 1, which refers to securities valued using quoted prices from active markets for identical assets; Level 2, which refers to securities not traded on an active market but for which observable market inputs are readily available; and Level 3, which refers to securities valued based on significant unobservable inputs. Assets are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

The following tables set forth by level within the fair value hierarchy a summary of the Plan's investments measured at fair value on a recurring basis at December 31, 2011 and 2010.

	Total December 31, 2011	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Company common stock	\$ 69,642,927	\$ 69,642,927	\$	-\$

Mutual funds:				
US equity funds	118,835,603	118,835,603	–	–
International equity funds	23,645,468	23,645,468	–	–
Asset allocation funds	78,534,677	78,534,677	–	–
Bond funds	32,385,846	32,385,846	–	–
Total mutual funds	253,401,594	253,401,594	–	–
Common/collective trust funds:				
Equity index fund	12,464,917	–	12,464,917	–
Fixed income fund	41,479,431	–	41,479,431	–
Total common/collective trust funds	53,944,348	–	53,944,348	–
Brokerage account: (a)				
Common stocks	3,458,545	3,458,545	–	–
Mutual funds	2,466,458	2,466,458	–	–
Cash equivalents	1,490,792	1,490,792	–	–
Company common stock	76,230	76,230	–	–
Other	122,546	–	122,546	–
Total brokerage account	7,614,571	7,492,025	122,546	–
Total Investments	\$ 384,603,440	\$ 330,536,546	\$ 54,066,894	\$ –

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	Total December 31, 2010	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Company common stock	\$ 68,362,068	\$ 68,362,068	\$ –	\$ –
Mutual funds:				
US equity funds	135,064,308	135,064,308	–	–
International equity funds	26,631,226	26,631,226	–	–
Asset allocation funds	86,239,026	86,239,026	–	–
Bond funds	29,565,144	29,565,144	–	–
Total mutual funds	277,499,704	277,499,704	–	–
Common/collective trust funds:				
Equity index fund	7,212,075	–	7,212,075	–
Fixed income fund	41,940,620	–	41,940,620	–
Total common/collective trust funds	49,152,695	–	49,152,695	–
Brokerage account: (a)				
Common stocks	2,962,882	2,962,882	–	–
Mutual funds	2,736,701	2,736,701	–	–
Cash equivalents	1,636,930	1,636,930	–	–
Company common stock	67,865	67,865	–	–
Other	159,142	–	159,142	–
Total brokerage account	7,563,520	7,404,378	159,142	–
Total Investments	\$ 402,577,987	\$ 353,266,150	\$ 49,311,837	\$ –

(a) The brokerage account is invested in a variety of classes of common stocks, mutual funds and other investments as directed by participants.

For the years ended December 31, 2011 and 2010, there were no significant transfers in or out of levels 1, 2 or 3. The valuation methods as described in Note 2 may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

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The Plan's investments that represented five percent or more of the Plan's net assets available for benefits as of December 31, 2011 and 2010 are as follows:

	2011	December 31,	2010
Great Plains Energy Incorporated Common Stock, 3,197,563 and 3,525,635 shares, respectively	\$ 69,642,927	\$	68,362,068
American Funds Growth Fund of America, 1,308,559 and 1,470,081 shares, respectively	37,529,480		44,675,774
JPMCB Stable Asset Income Fund, 100,132 and 104,604 shares, respectively	41,479,431		41,940,620
PIMCO Total Return Fund – Institutional Class, 2,095,283 and 2,072,037 shares, respectively	22,775,727		22,481,605
Artisan Mid-Cap Fund Investor Class, 672,004 shares	*		22,599,489

* As of December 31, 2011, investment did not represent 5% of net assets available for benefits

During 2011, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) increased (decreased) in value by \$(2,002,505) as follows:

Mutual funds:		
US equity funds		\$ (7,278,225)
International equity funds		(3,311,163)
Asset allocation funds		(316,947)
Bond funds		427,633
Total mutual funds		<u>(10,478,702)</u>
Common/collective trust funds:		
Equity index fund		363,472
Fixed income fund		842,303
Total common/collective trust funds		<u>1,205,775</u>
Brokerage account		(585,045)
Company common stock		7,855,467
Net depreciation in fair value		<u>\$ (2,002,505)</u>

5. EXEMPT PARTY-IN-INTEREST TRANSACTIONS

JP Morgan and JPMorgan Chase Bank N.A., respectively, serve as recordkeeper and trustee of the Plan. Certain Plan investments at December 31, 2011 and 2010 are units in a common/collective trust fund issued by JP Morgan, a brokerage account managed by JP Morgan, and shares of Company stock. Therefore, these transactions qualify as exempt party-in-interest transactions.

As of December 31, 2011 and 2010, respectively, the Plan held 3,197,563 and 3,525,635 shares of common stock of Great Plains Energy Incorporated, the sponsoring employer. During the year ended December 31, 2011, the Plan recorded dividend income from the stock of \$2,822,339.

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6. PLAN TERMINATION

Although it has not expressed any intent to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, the participants would become 100% vested in their Company matching contributions.

7. FEDERAL INCOME TAX STATUS

The IRS has determined and informed the Company by a letter dated June 4, 2004, that the Plan and related trust are designed in accordance with applicable sections of the IRC. Although the Plan has been amended since receiving the determination letter, the Plan administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC. A new determination letter has been requested but has not been received. Therefore, no provision for income taxes has been included in the Plan's financial statements.

GAAP requires plan management to evaluate tax positions taken by the Plan and recognize a tax liability (or asset) if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan administrator believes it is no longer subject to income tax examinations for years prior to 2008.

8. NET ASSET VALUE (NAV) PER SHARE

The following table for December 31, 2011 and 2010 sets forth a summary of the Plan's investments with a reported NAV.

Investment	Fair Value – December 31, 2011*	Fair Value – December 31, 2010*	Redemption Frequency	Other Redemption Restrictions	Redemption Notice Period
SSgA S&P 500 Index NL-C Fund (a)	\$12,464,917	\$ 7,212,075	Daily	None	None
JPMCB Stable Asset Income Fund (b)	41,479,431	41,940,620	Daily (b)	None	None (b)
Total	\$53,944,348	\$49,152,695			

*The fair values of the investments have been estimated using the net asset value of the investment.

(a) Equity index fund strategy that seeks to replicate the movements of the Standard & Poor's (S&P) 500 Index, regardless of market conditions.

(b) The fund strategies seek current income while maintaining stability of invested principal. The fund invests in synthetic guaranteed investment contracts, U.S. Treasury and agency securities, and cash and cash equivalents, including money market instruments. The Plan is required to give notice one year in advance of a partial or total liquidation of the investment for any purpose other than for benefit payments and participant-directed investment transfers.

9. RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of net assets available for benefits as of December 31, 2011 and 2010, per the financial statements to the Form 5500:

	2011	2010
Net assets available for benefits per the financial statements	\$ 396,754,457	\$ 412,698,259
Adjustment from contract value to fair value for fully benefit-responsive stable value fund	102,861	(436,747)
Net assets available for benefits per Form 5500	\$ 396,857,318	\$ 412,261,512

The following is a reconciliation of the net decrease in net assets per the financial statements to the net income per the Form 5500 for the year ended December 31, 2011:

Net decrease in net assets per the financial statements	\$ (15,943,802)
Change in adjustment from contract value to fair value for fully benefit-responsive stable value fund	539,608
Net loss per Form 5500	\$ (15,404,194)

GREAT PLAINS ENERGY INCORPORATED
401(k) SAVINGS PLAN
EMPLOYER ID NO. 43-1916803, PLAN NO. 006

FORM 5500, SCHEDULE H, PART IV, LINE 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)
DECEMBER 31, 2011

(a)	(b)	(c)	(d)	(e)
	Identity of Issue, Borrower, Lessor or Similar Party	Description of Investment Including Maturity Date, Rate of	Cost	Current Value

**Interest, Collateral, Par or
Maturity Value**

*	Great Plains Energy Incorporated	Common stock	\$	**	\$	69,642,927
*	JPMCB Stable Asset Income Fund	Common/Collective Trust Fund		**		41,479,431
	American Funds Growth Fund of America R5	Registered Investment Company		**		37,529,480
	PIMCO Total Return Fund-Inst Class	Registered Investment Company		**		22,775,727
	American Funds Fundamental Investors R5 Fund	Registered Investment Company		**		19,488,948
	Artisan Mid Cap Fund-Investor Class	Registered Investment Company		**		19,238,342
	American Century Livestrong 2025	Registered Investment Company		**		17,533,449
	American Century Livestrong 2015	Registered Investment Company		**		14,094,437
	MFS International Growth Fund	Registered Investment Company		**		13,550,353
	SSgA S&P 500 Index NL-C Fund	Common/Collective Trust Fund		**		12,464,917
	American Century Livestrong 2020	Registered Investment Company		**		12,193,471
	T. Rowe Price Equity Income Fund	Registered Investment Company		**		10,547,089
	American Century Livestrong 2035	Registered Investment Company		**		9,291,830
	American Century Small Cap Value Fund	Registered Investment Company		**		9,181,165
	American Century Livestrong 2030	Registered Investment Company		**		8,638,949
	Vanguard Inflation-Protection Securities Fund	Registered Investment Company		**		8,383,913
	Vanguard Extended Market Index Fund	Registered Investment Company		**		8,238,143
	Harbor International Fund – Institutional	Registered Investment Company		**		7,730,882
	American Century Livestrong Income Fund	Registered Investment Company		**		7,139,755
	Fidelity Small Cap Stock Fund	Registered Investment Company		**		6,228,007
	Fidelity Low-Priced Stock Fund	Registered Investment Company		**		4,735,345
	American Century Livestrong 2045	Registered Investment Company		**		4,522,134
	American Century Livestrong 2040	Registered Investment Company		**		3,758,282
	Perkins Mid Cap Value Fund-I	Registered Investment Company		**		3,649,084
	Morgan Stanley Institutional Emerging Markets I Portfolio	Registered Investment Company		**		2,364,233
	American Century Livestrong 2050	Registered Investment Company		**		1,362,370
	Neuberger Berman High Income Bond Fund	Registered Investment Company		**		1,226,206
	CISC Brokerage Account	Brokerage Account		**		7,614,571
*	Notes Receivable from Participants	Various participants, interest rates ranging from 5.25% to 11.5% maturing through 2026		**		9,976,750
					\$	394,580,190

* Represents party-in-interest to the Plan.

** Cost information is not required for participant-directed investments and, therefore, is not included.

(Concluded)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Administrative Committee of the Great Plains Energy Incorporated 401(k) Savings Plan has duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

GREAT PLAINS ENERGY INCORPORATED
401(k) SAVINGS PLAN

By: /s/ Jimmy D. Alberts
Jimmy D. Alberts

By: /s/ Charles A. Caisley
Charles A. Caisley

By: /s/ Ellen E. Fairchild
Ellen E. Fairchild

By: /s/ Heather A. Humphrey
Heather A. Humphrey

By: /s/ Lori A. Wright
Lori A. Wright

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-180327, 333-132828 and 333-147939 of Great Plains Energy Incorporated on Form S-8 of our report dated June 25, 2012 relating to the financial statements and financial statement schedule of the Great Plains Energy Incorporated 401(k) Savings Plan appearing in this Annual Report on Form 11-K of the Great Plains Energy Incorporated 401(k) Savings Plan for the year ended December 31, 2011.

/s/ DELOITTE & TOUCHE LLP

Kansas City, Missouri

June 25, 2012