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

FORM 11-K

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

For the fiscal year ended December 31, 2014

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

Exhibit No.	Description
23.1	Consent of Independent Registered Public Accounting Firm – Mayer Hoffman McCann P.C.

Report of Independent Registered Public Accounting Firm

Participants and Administrative Committee
Great Plains Energy Incorporated 401(k) Savings Plan

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, 2014 and 2013, and the related statement of changes in net assets available for benefits for the year ended December 31, 2014. 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 audits 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 includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2014 and 2013, and the changes in net assets available for benefits for the year ended December 31, 2014, in conformity with accounting principles generally accepted in the United States of America.

The supplemental information in the accompanying Form 5500, Schedule H, Part IV, Line 4i-Schedule of Assets (Held at End of Year) as of December 31, 2014, has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is presented for the purpose of additional analysis and is not a required part of the financial statements but includes supplemental information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental information. In forming our opinion on the supplemental information in the accompanying schedule, we have evaluated whether the supplemental information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental information is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ Mayer Hoffman McCann P.C.

Kansas City, Missouri
June 19, 2015

GREAT PLAINS ENERGY INCORPORATED
401(K) SAVINGS PLAN

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
DECEMBER 31, 2014 AND 2013

	2014	2013
ASSETS:		
PARTICIPANT-DIRECTED INVESTMENTS–at fair value (Note 3)	$513,680,364	$487,128,255
NOTES RECEIVABLE FROM PARTICIPANTS	9,746,889	9,367,674
EMPLOYER CONTRIBUTION RECEIVABLE	232,276	175,464
CASH	11,529	27,896
NET ASSETS REFLECTING INVESTMENTS AT FAIR VALUE	523,671,058	496,699,289
Adjustment from fair value to contract value for fully benefit responsive investment contract	(375,230)	(246,284)
NET ASSETS AVAILABLE FOR BENEFITS	$523,295,828	$496,453,005

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, 2014

Additions:	
Investment income	
Net appreciation in fair value of investments	$16,304,799
Interest	1,234
Dividends	20,366,410
Net investment income	36,672,443
Contributions	
Employer contributions	8,692,299
Participant contributions	22,688,956
Rollovers	254,793
Total contributions	31,636,048
Interest income on notes receivable from participants	500,293
Total additions	68,808,784
Deductions:	
Benefits paid to participants	41,541,768
Deemed distributions of notes receivable	50,644
Administrative expenses	373,549
Total deductions	41,965,961
INCREASE IN NET ASSETS	26,842,823
NET ASSETS AVAILABLE FOR BENEFITS	
Beginning of year	496,453,005
End of year	$523,295,828

See notes to financial statements.

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 soon as administratively possible after date of hire. The Company serves as the administrator of the Plan. On August 29, 2014, JPMorgan Retirement Plan Services LLC, the Recordkeeper for the Plan, sold their recordkeeping business to Great-West Life and Annuity Insurance Company. The newly formed entity became Great-West Financial Retirement Plan Services LLC with a branded name of Empower Retirement. The Plan's current trustee is J.P. Morgan Chase Bank, N.A. The Plan anticipates transitioning to a new trustee in 2015 as a result of J.P. Morgan's sale to Great-West. The future trustee will be Great-West Trust Company, LLC. 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 (Company Stock). Adding this component gives participants the option of receiving a direct cash distribution of any dividends paid on such Company 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 – The Plan was amended on December 18, 2014, effective January 1, 2015, to clarify that contributions made to either a Health Savings Account or Health Reimbursement Account by the Company not elected by the employee are not considered as compensation for plan purposes. In addition, the Plan was amended to include adjustable installment payments.

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 hired before October 1, 2013 participate in the Old Program. Effective January 1, 2014, newly hired or rehired non-union employees participate in the "New Program Plus" feature of the Plan. Effective October 1, 2013, newly hired or rehired union employees participate under the Cash Balance Matching 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. Participants can make their contributions on either a pre-tax or post-tax (Roth) basis. Participants may change their contribution percentage as often as they would like and such changes are effective as soon as administratively possible, generally within one or two pay periods.

The Plan was restated effective October 1, 2013 in connection with the application for an updated Internal Revenue Service (IRS) determination ruling letter.

The Plan currently offers investment options which include 26 mutual funds, one money market fund, Company stock, two common/collective trust funds and a self-directed brokerage account. Two mutual funds that were investment options in the Plan were eliminated and the balances transferred to the replacement investment options representing the same asset classes. One additional mutual fund option was added in 2014. 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 mutual fund based on 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 based on 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 contributions that do not exceed 6% 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. For employees participating in the New Program Plus, the Company matches 100% of the first 6% of total pay such employees contribute and makes an additional annual non-elective contribution equal to 4% of such employees’ eligible compensation. The Company matching contribution vests immediately and the annual non-elective contribution and associated earnings vest after three years of service. To be eligible for the annual non-elective Company contribution, New Program Plus employees must be credited with at least 1,000 hours in a Plan year and must either be employed at the end of the Plan year (December 31) or have terminated employment during the Plan year due to retirement, death or permanent and total disability. Eligible employees will receive the annual Company contribution without regard to whether they have made contributions from their pay to the Plan. In addition, matching contributions for Union employees hired or rehired on/after October 1, 2013 will be eligible to receive an immediate Company matching contribution equal to 75% of the first 6% of compensation contributed by the employee (under the Cash Balance Matching program). The 75% match will be subject to the current six-year graded vesting schedule.

Under the Old Program and the Cash Balance Matching Program, compensation is defined as base pay and, depending on bargaining status, shift differentials and some overtime. Under the New Program and New Program Plus, compensation is defined as base, commissions, annual incentive, and overtime pay. Also effective January 1, 2014, union employees are eligible to make an election to contribute a portion of their overtime pay to the Plan. Union employees may make separate deferral elections for their base pay and overtime pay and the elections may be for different amounts. Contributions to the Plan from overtime pay are not matched by the Company. The Plan was also amended to modify the definition of “spouse”, in order to conform to guidance issued by the Internal Revenue Service and the Department of Labor following the Supreme Court's decision in U.S. v. Windsor to recognize same-sex marriages which are legally valid in the state of celebration. A temporary employee shall be eligible to participate immediately following the date he or she has been credited with at least one thousand (1,000) Hours of Service during a 12-month period beginning on his or her first date of employment or any anniversary thereof.

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, 2014, employer contributions of $232,276 attributable to the 2014 plan year were credited to participant accounts. These contributions were contributed by the Company in cash and Company Stock based upon participant elections, and are therefore presented as a receivable on the statement of net assets available for benefits as of December 31, 2014. In addition, the Company contributed $44,165 as a non-elective contribution for those participants in the New Program Plus program. Forfeitures of $46,750 were used to reduce these contributions. Subsequent to December 31, 2013, employer contributions of $175,464 attributable to the 2013 plan year were credited to participant accounts. These contributions were funded by the Company in cash and Company Stock, and are therefore presented as a receivable on the statement of net assets available for benefits as of December 31, 2013.

Participant Accounts - Each participant's account is credited with the participant's contributions and allocations of the Company's contributions, 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 or the Cash Balance Matching Program, vesting in the Company matching contribution 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. Employees participating in the New Program are immediately vested in the Company matching contributions. A New Program Plus employee will be immediately vested in the Company matching contributions and will vest in non-elective Company contributions once he or she completes three years of credited service. 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 plus 2% at the time the loan is funded and is fixed over the life of the loan. Participants pay a one-time loan origination fee at the time the loan is executed. The loans are secured by the balance in the participant's account. Principal and interest is paid ratably through payroll deductions.

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 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, 2014 and 2013, there were $58,153 and $10,080 in forfeited non-vested accounts, respectively. These accounts will be used to pay expenses for administering the Plan or to reduce future matching contributions and/or New Program Plus contributions at the end of the plan year in which they became forfeitures. Forfeitures in the amount of $35,894 were used to pay 2014 administrative expenses. Forfeitures of $46,750 were used to reduce contributions subsequent to December 31, 2014.

New Accounting Standards **–** In May 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2015-07, “Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).” Currently, investments valued using the practical expedient are categorized within the fair value hierarchy. There is diversity in how certain investments measured at net asset value with future redemption dates should be categorized within the fair value hierarchy which this update addresses. If an investment has its fair value measured at net asset value per share (or its equivalent) using the practical expedient, it should not be categorized in the fair value hierarchy. Removing these types of investments from the fair value hierarchy chart eliminates the diversity in classification of these investments and ensures that all investments categorized in the fair value hierarchy are classified consistently. Investments that calculate net asset value per share (or its equivalent) without the use of the practical expedient will continue to be included in the fair value hierarchy. For public business entities, the amendments will be effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2015, with early adoption permitted. The Plan is currently evaluating the effects of ASU 2015-07 on the financial statements.

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 and disclosure of contingent assets and liabilities. 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 fair value of investment securities will occur in the near term and such changes could materially affect participant accounts and the amounts reported in the financial statements.

Investment Valuation and Income Recognition - The Plan's investments are reported 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.

The Morley Stable Value Fund is a common/collective trust fund that is considered to be a fully benefit-responsive investment contract with underlying investments in investment contracts and is valued at fair value and then adjusted 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 fund, but have an interest therein represented by units valued as of the last business day of the period. 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. Certain events limit the ability of the Plan to transact at contract value. Such events include (1) certain amendments to the Plan documents (including complete or partial Plan termination or merger with another plan), (2) changes to the Plan's prohibition on competing investment options or deletion of equity wash provisions, (3) bankruptcy of the Plan sponsor or other Plan sponsor events (for example, divestitures or spin-offs of a subsidiary) that cause a significant withdrawal from the Plan, or (4) the failure of the trust to qualify for exemption from federal income taxes or any required prohibited transaction exemption under ERISA. The Plan administrator believes that any events that would limit the Plan's ability to transact at contract value with participants are not probable of occurring.

In accordance with GAAP, the stable value fund is 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.

Purchases and sales of investments are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

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, investment management fees and operating expenses are reflected as a reduction of investment income 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 trust, but do have an interest therein represented by units valued daily. Underlying securities of the trust earn dividends and interest which are automatically reinvested by the fund. 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 and governing contract. Investment-related expenses are included in net appreciation in fair value of investments.

Payment of Benefits **-** Benefit payments to participants are recorded when paid.

3. FAIR VALUE OF INVESTMENTS

ASC 820, *Fair Value Measurements and Disclosures*, provides a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value, as follows: Level 1, which refers to securities valued using unadjusted 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.

Asset Valuation Techniques **-** Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs. The following is a description of the valuation methodologies used. There have been no changes in the methodologies used at December 31, 2014 and 2013.

Common Stocks — Valued at the closing price reported on the active market on which the individual securities are traded.

Mutual Funds — Valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-ended mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Common/Collective Trust Funds — Valued at the net asset value of units of a bank collective trust or its equivalent. The net asset value as provided by the trust is used as a practical expedient to estimate fair value. The net asset value is based on the fair value of the underlying investments held by the trust less its liabilities. This practical expedient is not used when it is determined to be probable that the trust will sell the investment for an amount different than the reported net asset value. Participant transactions (purchases and sales) may occur daily. If the Plan were to initiate a full redemption of a collective trust, the investment advisor generally reserves the right to temporarily delay withdrawal from the trust in order to ensure that securities liquidations will be carried out in an orderly business manner.

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, 2014 and 2013.

	Total December 31, 2014	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Great Plains Energy Incorporated common stock	$69,184,131	$69,184,131	$–	$–
Mutual funds:				
US equity funds	159,182,762	159,182,762	–	–
International equity funds	40,832,243	40,832,243	–	–
Asset allocation funds	109,191,974	109,191,974	–	–
Bond funds	49,263,688	49,263,688	–	–
Total mutual funds	358,470,667	358,470,667	–	–
Common/collective trust funds:				
Equity index fund	36,322,985	–	36,322,985	–
Fixed income fund	38,031,037	–	38,031,037	–
Total common/collective trust funds	74,354,022	–	74,354,022	–
Self-directed brokerage account: (a)				
Common stocks	5,790,150	5,790,150	–	–
Exchange-traded funds	726,058	726,058	–	–
Mutual funds	3,018,153	3,018,153	–	–
Cash equivalents	2,137,183	2,137,183	–	–
Total brokerage account	11,671,544	11,671,544	–	–
Total Investments	$513,680,364	$439,326,342	$74,354,022	$–

	Total December 31, 2013	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Great Plains Energy Incorporated common stock	$64,897,286	$64,897,286	$–	$–
Mutual funds:				
US equity funds	157,149,429	157,149,429	–	–
International equity funds	39,886,847	39,886,847	–	–
Asset allocation funds	102,742,631	102,742,631	–	–
Bond funds	41,295,466	41,295,466	–	–
Total mutual funds	341,074,373	341,074,373	–	–
Common/collective trust funds:				
Equity index fund	29,488,538	–	29,488,538	–
Fixed income fund	41,552,201	–	41,552,201	–
Total common/collective trust funds	71,040,739	–	71,040,739	–
Self-directed brokerage account: (a)				
Common stocks	5,068,552	5,068,552	–	–
Exchange-traded funds	389,000	389,000	–	–
Mutual funds	2,839,174	2,839,174	–	–
Cash equivalents	1,685,629	1,685,629	–	–
Great Plains Energy Incorporated common stock	2,424	2,424	–	–
Publicly-traded partnerships	107,956	107,956	–	–
Preferred stock	23,122	23,122	–	–
Total brokerage account	10,115,857	10,115,857	–	–
Total Investments	$487,128,255	$416,087,516	$71,040,739	$–

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

Transfers Between Levels — The availability of observable market data is monitored to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or model-based valuation techniques may require the transfer of financial instruments from one fair value level to another. In such instances, the transfer is reported at the beginning of the reporting period.

We evaluate the significance of transfers between levels based upon the nature of the financial instrument and size of the transfer relative to total net assets available for benefits. For the years ended, December 31, 2014 and 2013, there were no transfers between levels.

The valuation methods as described above 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.

4. INVESTMENTS

The Plan's investments that represented five percent or more of the Plan's net assets available for benefits as of December 31, 2014 and 2013 are as follows:

	December 31,	
	2014	**2013**
Great Plains Energy Incorporated Common Stock, 2,435,203 and 2,677,281 shares, respectively	$69,184,131	$64,897,286
JPMorgan Large Cap Growth R6 Fund, 1,168,553 shares and 1,245,651 shares, respectively	40,829,238	39,873,293
Morley Stable Value Fund, 1,527,235 shares and 1,692,907 shares, respectively	38,031,037	41,552,201
SSgA S&P 500 Index Non-Lending Fund Class C, 844,505 shares and 779,007 shares, respectively	36,322,985	29,488,538
American Funds Fundamental Investors R5 Fund, 563,937 shares and 536,121 shares, respectively	29,369,850	27,872,912
Metropolitan West Total Return Bond Fund, 2,839,137 shares	29,186,333	–
PIMCO Total Return Instl Fund 2,425,501 shares	–	25,928,604

During 2014, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) increased (decreased) in fair value by $16,304,799 as follows:

Mutual funds:	
US equity funds	$(1,856,190)
International equity funds	141,781
Asset allocation funds	2,504,311
Bond funds	66,998
Total mutual funds	856,900
Common/collective trust funds:	
Equity index fund	4,349,272
Fixed income fund *	396,277
Total common/collective trust funds	4,745,549
Self-directed brokerage account	145,605
Great Plains Energy Incorporated common stock	10,556,745
Net appreciation in fair value of investments	$16,304,799

* Amount reflects the change in contract value for the Morley Stable Value Fund.

5. EXEMPT PARTY-IN-INTEREST TRANSACTIONS

JP Morgan and Empower served as recordkeeper of the Plan and JPMorgan Chase Bank N.A. serves as trustee of the Plan. Plan investments at December 31, 2014 and 2013 include units in two mutual funds in which JP Morgan serves as the advisor and administrator, a self-directed brokerage account managed by JP Morgan, and shares of Company stock. Therefore, these transactions qualify as exempt party-in-interest transactions. Fees incurred by the plan for the investment management services are included in net appreciation in fair value of the investment, as they are paid through revenue sharing, rather than a direct payment. Direct fees totaling $331,411 and $13,658 were paid to JP Morgan and Empower, respectively, in 2014.

As of December 31, 2014 and 2013, respectively, the Plan held 2,435,203 and 2,677,281 shares of common stock of Great Plains Energy Incorporated, the sponsoring employer. During the year ended December 31, 2014, the Plan recorded dividend income from the Company Stock of $2,373,069.

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 all Company contributions.

7. FEDERAL INCOME TAX STATUS

The IRS has determined and informed the Company by a letter dated January 21, 2015, that the Plan and related trust are designed in accordance with applicable sections of the IRC.

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 open tax periods. The plan administrator believes it is no longer subject to income tax examinations for years prior to 2011.

8. NET ASSET VALUE (NAV) PER SHARE

The following table for December 31, 2014 and 2013 sets forth a summary of the Plan's investments with a reported NAV.

Investment	Fair Value – December 31, 2014*	Fair Value – December 31, 2013*	Redemption Frequency	Other Redemption Restrictions	Redemption Notice Period
SSgA S&P 500 Index Non-Lending Fund Class C (a)	$36,322,985	$29,488,538	Daily	None	None
Morley Stable Value Fund (b)	38,031,037	41,552,201	Daily (b)	Discretionary on partial or full liquidation	Within 12 months (b)
Total	$74,354,022	$71,040,739			

*The fair value of the investments has 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 strategy seeks 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 12 months in advance of a partial or total liquidation of the investment. The fund trustee may grant a redemption earlier than 12 months, in its discretion, if it determines the redemption is not detrimental to the best interest of the fund and plans participating therein. Redemptions for benefit payments and participant-directed investment transfers will be executed within 30 days if reasonably possible.

9. RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of net assets available for benefits as of December 31, 2014 and 2013, as reflected in the financial statements to the Form 5500:

	2014	**2013**
Net assets available for benefits per the financial statements	$523,295,828	$496,453,005
Adjustment from contract value to fair value for fully benefit-responsive investment contract	375,230	246,284
Net assets available for benefits per Form 5500	$523,671,058	$496,699,289

The following is a reconciliation of the net increase in net assets as reflected in the financial statements to the net income per the Form 5500 for the year ended December 31, 2014:

Net increase in net assets per the financial statements	$26,842,823
Change in adjustment from contract value to fair value for fully benefit-responsive investment contract	128,946
Net income per Form 5500	$26,971,769

10. SUBSEQUENT EVENTS

The Company monitors significant events occurring after the statement of net assets available for benefits date and prior to the issuance of the financial statements to determine the impact, if any, of events on the financial statements issued. All subsequent events of which the Company is aware were evaluated through the filing date of this Form 11-K.

* * * * * *

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, 2014

(a)	(b) Identity of Issue, Borrower, Lessor or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	(d) Cost	(e) Current Value
*	Great Plains Energy Incorporated	Common Stock	**	$69,184,131
*	JPMorgan Large Cap Growth R6 Fund	Mutual Fund	**	40,829,238
	Morley Stable Value Fund	Common/Collective Trust Fund	**	38,031,037
	SSgA S&P 500 Index Non-Lending Fund Class C	Common/Collective Trust Fund	**	36,322,985
	American Funds Fundamental Investors R5 Fund	Mutual Fund	**	29,369,850
	Metropolitan West Total Return Bond Fund	Mutual Fund	**	29,186,333
	Harbor International Instl Fund	Mutual Fund	**	23,982,983
	American Century One Choice 2025 Instl Fund	Mutual Fund	**	23,516,460
	Artisan Mid Cap Instl Fund	Mutual Fund	**	22,713,285
	Vanguard Extended Market Index I Fund	Mutual Fund	**	19,210,918
	American Century One Choice 2020 Instl Fund	Mutual Fund	**	17,676,746
	T. Rowe Price Equity Income Fund	Mutual Fund	**	14,996,659
	American Century One Choice 2035 Instl Fund	Mutual Fund	**	14,721,429
	Vanguard Inflation-Protection Securities Inv Fund	Mutual Fund	**	14,228,736
	American Century One Choice 2030 Instl Fund	Mutual Fund	**	13,954,983
	MFS International Growth R4 Fund	Mutual Fund	**	13,545,878
	American Century One Choice 2015 Instl Fund	Mutual Fund	**	12,607,391
	American Century Small Cap Value Instl Fund	Mutual Fund	**	12,379,607
	American Century One Choice 2045 Instl Fund	Mutual Fund	**	8,892,141
	American Century One Choice 2040 Instl Fund	Mutual Fund	**	8,604,168
	Fidelity Low-Priced Stock Fund	Mutual Fund	**	7,753,524
	ClearBridge Small Cap Growth Fund	Mutual Fund	**	6,640,513
	American Century One Choice In Ret Instl Fund	Mutual Fund	**	5,050,893
	Victory Established Value I Fund	Mutual Fund	**	4,957,349
	American Century One Choice 2050 Instl Fund	Mutual Fund	**	4,167,763
	Neuberger Berman High Income Bond Inv Fund	Mutual Fund	**	3,681,718
	Morgan Stanley Institutional Emerging Markets I Fund	Mutual Fund	**	3,303,382
*	JPMorgan US Treasury Security Money Market Fund	Money Market Fund	**	2,123,675
	Permanent Portfolio	Mutual Fund	**	331,819
	Fidelity Advisor Strategic Income Instl Fund	Mutual Fund	**	43,226
*	Self-directed brokerage account	Brokerage Account	**	11,671,544
*	Notes Receivable from Participants	Interest rates ranging from 5.25% to 11.5% maturing through 2029	**	9,746,889
				$523,427,253

* 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/ Steven P. Busser
Steven P. Busser

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

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

By: /s/ Kevin T. Noblet
Kevin T. Noblet

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

June 19, 2015

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (No. 333-180327, 333-132828 and 333-147939) on Form S-8 of Great Plains Energy Incorporated of our report dated June 19, 2015, with respect to the statements of net assets available for benefits of the Great Plains Energy Incorporated 401(k) Savings Plan as of December 31, 2014 and 2013, the related statement of changes in net assets available for benefits for the year ended December 31, 2014, and the related supplemental schedule as of December 31, 2014, which report appears in this annual report on Form 11-K of the Great Plains Energy Incorporated 401(k) Savings Plan.

/s/ Mayer Hoffman McCann P.C.

Kansas City, Missouri
June 19, 2015