

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, 2008

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  
(formerly known as Great Plains Energy Incorporated Cash or Deferred Arrangement ("Employee Savings Plus"))  
(hereinafter referred to as 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  
1201 Walnut  
Kansas City, Missouri 64106-2124

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**GREAT PLAINS ENERGY INCORPORATED 401(K) SAVINGS PLAN  
(FORMERLY KNOWN AS GREAT PLAINS ENERGY INCORPORATED CASH OR DEFERRED ARRANGEMENT (“EMPLOYEE SAVINGS PLUS”))**

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**EXHIBITS**

<b>Exhibit No.</b>	<b>Description</b>
23	Consent of Independent Registered Public Accounting Firm

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Participants and Administrative Committee of the Great Plains Energy  
Incorporated 401(k) Savings Plan (formerly known as Great Plains Energy Incorporated  
Cash or Deferred Arrangement (“Employee Savings Plus”)):

We have audited the accompanying statements of net assets available for benefits of the Great Plains Energy Incorporated 401(k) Savings Plan (formerly known as Great Plains Energy Incorporated Cash or Deferred Arrangement (“Employee Savings Plus”)) (the “Plan”) as of December 31, 2008 and 2007, and the related statement of changes in net assets available for benefits for the year ended December 31, 2008. 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 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, 2008 and 2007, and the changes in net assets available for benefits for the year ended December 31, 2008, 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 schedules listed in the table of contents are presented for the purpose of additional analysis and are not a required part of the basic financial statements, but are 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. These schedules are the responsibility of the Plan’s management. Such schedules have been subjected to the auditing procedures applied in our audit of the basic 2008 financial statements and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

/s/ Deloitte & Touche LLP

Kansas City, Missouri  
June 29, 2009

**GREAT PLAINS ENERGY INCORPORATED  
401(k) SAVINGS PLAN (FORMERLY KNOWN  
AS GREAT PLAINS ENERGY INCORPORATED  
CASH OR DEFERRED ARRANGEMENT (“EMPLOYEE  
SAVINGS PLUS”))**

**STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS  
DECEMBER 31, 2008 AND 2007**

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	2008	2007
ASSETS:		
Investments—at fair value (Note 3)	\$ 178,325,051	\$ 238,386,755
CASH	<u>3,000</u>	<u>—</u>
NET ASSETS AVAILABLE FOR BENEFITS AT FAIR VALUE	178,328,051	238,386,755
Adjustments from fair value to contract value for fully benefit- responsive stable value fund	<u>896,774</u>	<u>139,324</u>
NET ASSETS AVAILABLE FOR BENEFITS	<u>\$ 179,224,825</u>	<u>\$ 238,526,079</u>

See notes to financial statements.

**GREAT PLAINS ENERGY INCORPORATED  
401(k) SAVINGS PLAN (FORMERLY KNOWN  
AS GREAT PLAINS ENERGY INCORPORATED  
CASH OR DEFERRED ARRANGEMENT (“EMPLOYEE  
SAVINGS PLUS”))**

**STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS  
YEAR ENDED DECEMBER 31, 2008**

Investment income (loss):		
Net depreciation in fair value of investments	\$	(88,087,097)
Interest		1,039,820
Dividends		8,789,524
Net investment income (loss)		<u>(78,257,753)</u>
Contributions:		
Employer contributions		5,754,554
Employee contributions		16,736,762
Rollovers		523,805
Total contributions		<u>23,015,121</u>
Transfer From the Great Plains Energy Incorporated Capital Accumulation Plan (Note 10)		<u>10,820,788</u>
Deductions:		
Benefits paid to participants		14,658,488
Dividend distributions		203,997
Expenses paid		16,925
Total deductions		<u>14,879,410</u>
DECREASE IN NET ASSETS		<u>(59,301,254)</u>
NET ASSETS AVAILABLE FOR BENEFITS		
Beginning of year		<u>238,526,079</u>
End of year	\$	<u><u>179,224,825</u></u>

See notes to financial statements.

**GREAT PLAINS ENERGY INCORPORATED 401(K) SAVINGS PLAN  
(FORMERLY KNOWN AS GREAT PLAINS ENERGY INCORPORATED  
CASH OR DEFERRED ARRANGEMENT (“EMPLOYEE  
SAVINGS PLUS”))**

**NOTES TO FINANCIAL STATEMENTS**

**AS OF DECEMBER 31, 2008 AND 2007 AND FOR THE YEAR ENDED DECEMBER 31, 2008**

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**1. PLAN DESCRIPTION**

The following description of the Great Plains Energy Incorporated 401(k) Savings Plan (formerly known as Great Plains Energy Incorporated Cash or Deferred Arrangement (“Employee Savings Plus”)) (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 management and bargaining unit employees of Kansas City Power & Light Company (KCP&L), sponsored by Great Plains Energy Incorporated (the Company). The Plan provides that employees are immediately eligible to make elective contributions to the Plan. The Company serves as the administrator of the Plan. Fidelity Management Trust Company (Fidelity) serves as the trustee of the Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Effective July 14, 2008, the Company acquired Aquila, Inc. (Aquila) which became a wholly-owned subsidiary of the Company. Each share of Aquila common stock was exchanged for 0.0856 shares of Great Plains Energy common stock and \$1.80. Immediately prior to the acquisition by Great Plains Energy, Aquila sold its Colorado electric operations and its Colorado, Iowa, Kansas and Nebraska natural gas operations to Black Hills Corporation (Black Hills). Approximately 1,000 employees of these utility operations of Aquila became employees of Black Hills effective upon the sale and were treated as terminated employees. In addition, approximately 100 employees were terminated effective with the merger. All employees of Aquila that were not terminated, or did not become employees of Black Hills, became employees of KCP&L. Employees of KCP&L participate in the Plan.

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 the cash distribution was elected.

**Contributions** – The Plan was restated on January 1, 2008. Prior to the effective date of the restatement, management 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). 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 allows for salary deferrals up to 75% of annual compensation.

Under either program participants who have attained age 50 and who elect to make the maximum level of elective contributions, as defined by the Plan, may elect to make a catch-up contribution. Participants direct the investment of their contributions into various investment options offered by the Plan.

The Plan currently offers investment options which include thirty-two mutual funds, Company stock, a common/collective trust fund and a brokerage account. Participants may purchase shares of mutual funds not offered by the Plan through the brokerage account. Matching contributions are invested in Great Plains Energy Incorporated Common Stock unless the participant makes an affirmative election for a different investment option(s). Employee contributions are 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, management participants are eligible for a matching contribution immediately upon participation after hire; union participants are eligible for a matching contribution after completing one year of service. Prior to January 1, 2008, management and union participants were eligible for a matching contribution 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. Employees participating in the new program are eligible to receive the Company match immediately upon participation in the Plan (after January 1, 2008, the effective date).

Under the new program, employees are allowed to contribute up to 75% of base, bonus, incentive, and overtime pay. Old program participants may contribute up to 40% of base pay and, depending on bargaining status, shift differentials and some overtime.

Additionally, all employees hired on or after January 1, 2008, unless they opt out or make an affirmative election for a different deferral rate, are automatically enrolled in the Plan at a 6% contribution level. Employees will 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.

**Participant Accounts** - Each participant's account is credited with the participant's contribution and allocations of (a) the Company's contribution, (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 continues to participate under 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. 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.

**Participant Loans** - The Plan allows participants to borrow up to the lesser of one-half of the vested amount of their participant account, excluding their employer discretionary contributions, 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 10 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.

**Payment of Benefits** - Participants who leave the Company as a result of termination, retirement, or permanent disability may receive the vested interest in their account in one lump-sum payment or in a series of monthly or annual installments over a period of not longer than five years, rollover their account to another trustee or elect to defer distribution. Upon death, distributions will be made to beneficiaries in a lump sum or in monthly or annual installments over a period of no more than three years. If the value of the participant's retirement, termination, or disability benefit is \$5,000 or less, payment shall be made to the participant as soon as practicable in a single lump sum distribution. In all other cases, at the election of the participant in a manner prescribed by the Administrative Committee or its designee, retirement, disability, and termination benefits shall be paid in a single lump sum distribution or in a series of substantially equal monthly or annual installments over a period of not longer than five years. In the absence of a written directive from the participant as to the manner of payment, if the value of the participant's retirement, termination, or disability benefit is greater than \$5,000, payment shall be made in annual installments over a period of five years. In the event of a mandatory distribution greater than \$1,000, if the distributee does not elect to have such distribution paid directly to an eligible retirement plan specified by the distributee in a direct rollover or to receive the distribution directly, the Plan will pay the distribution in a direct rollover to an individual retirement plan designated by the Administrative Committee.

**Forfeited Accounts** - At December 31, 2008 and 2007 there were \$122,467 and \$97,398 in forfeited non-vested accounts, respectively. Forfeitures in the amount of \$70,343 were used to fund the 2008 match true-up contributions in March 2009.

## 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.

**Use of Estimates** - The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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 a common/collective trust fund. 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 mutual funds, common stocks and cash reserves 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 fund is 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 Fidelity Managed Income Portfolio (the Portfolio) 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. Common stock is valued at quoted market prices. Participant loans are valued at the outstanding loan balances, which approximates fair value.

The Portfolio is a stable value fund that is an open-end commingled pool dedicated exclusively to the management of assets of defined contribution plans. The Portfolio's investment objective is to seek preservation of capital and a competitive level of income over time. To achieve its investment objective, the Portfolio invests in underlying assets (typically fixed income securities or bond funds and may include derivative instruments such as futures contracts and swap agreements) and enters into a "wrapper" contract issued by a third party. Participants may 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.

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 Financial Accounting Standards Board Staff Position, AAG INV-1 and SOP 94-4-1, *Reporting of Fully Benefit-Responsive Contracts Held by Certain Investment Companies Subject to the AICPA Investment Company Guide and Defined-Contribution Health and Welfare and Pension Plans* (the FSP), the statements of net assets available for benefits presents the common/collective trust fund with underlying investments in investment contracts at fair value, as well as an additional line item showing an adjustment of fully benefit-responsive investment contracts from fair value to contract value. The statement of changes in net assets available for benefits is presented on a contract value basis and was not affected by the FSP.

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.

**New Accounting Pronouncements** - The financial statements reflect the adoption of FASB Statement No. 157, Fair Value Measurements (SFAS No. 157) effective January 1, 2008. SFAS No. 157 was effective for financial statements issued for fiscal years beginning after November 15, 2007 and establishes a single authoritative definition of fair value, sets a framework for measuring fair value and requires additional disclosures about fair value measurement. The adoption of SFAS No. 157 had no impact on the Plan's statements of net assets available for benefits and changes in net assets available for benefits.

**Unit Values** - Individual participant accounts for the common/collective trust fund are maintained on a unit value basis. Participants do not have beneficial ownership in the specific underlying securities or other assets in the fund, but do have an interest therein represented by units valued daily. The fund earns 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.

### 3. FAIR VALUE OF INVESTMENTS

In accordance with SFAS No. 157, 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 and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. As required by SFAS No. 157, at December 31, 2008, the Plan's portfolio of investments were classified as follows, based on fair values:

	December 31, 2008	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Common stock	\$ 53,105,785	\$ 53,105,785	-\$	-
Mutual funds	100,737,069	100,737,069	-	-
Common/collective trust fund	16,624,789	-	16,624,789	-
Brokerage account	2,304,177	-	2,304,177	-
Participant loans	5,553,231	-	-	5,553,231
<b>Total Investments</b>	<b>\$ 178,325,051</b>	<b>\$ 153,842,854</b>	<b>\$ 18,928,966</b>	<b>\$ 5,553,231</b>

The table below sets forth a summary of changes in the fair value of the Plan's level 3 assets for the year ended December 31, 2008.

		<b>Participant Loans</b>
Balance, beginning of year	\$	5,332,024
Issuances and settlements, net		221,207
Balance, end of year	\$	<u>5,553,231</u>

#### 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, 2008 and 2007 are as follows:

		<b>December 31,</b>	
		<b>2008</b>	<b>2007</b>
Great Plains Energy Incorporated Common Stock, 2,747,265 and 2,559,874 shares, respectively	* \$	53,105,785	* \$ 75,057,607
Fidelity Managed Income Portfolio, 17,521,563 and 12,959,569 units, respectively		16,624,789	12,820,244
Fidelity Puritan Fund, 1,176,009 and 1,030,784 shares, respectively		15,358,675	19,615,823
Fidelity Magellan Fund, 284,149 and 310,933 shares, respectively		13,031,069	29,187,275
American Funds Growth Fund of America, 463,072 and 354,355 shares, respectively		9,465,190	12,048,085
Fidelity Diversified International Fund, 425,966 and 407,149 shares, respectively		9,162,528	16,245,094

\* Nonparticipant-directed (see Note 4)

During 2008, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) decreased in value by \$88,087,097 as follows:

Mutual funds	\$	(62,618,109)
Common stock		(25,468,988)
Net depreciation in fair value	\$	<u>(88,087,097)</u>

#### 5. NONPARTICIPANT-DIRECTED INVESTMENTS

Information about the net assets and the significant components of the changes in net assets relating to the nonparticipant-directed investments is as follows as of December 31, 2008 and 2007, and for the year ended December 31, 2008. Great Plains Energy Incorporated Common Stock is considered to be nonparticipant-directed for purposes of this disclosure as the participant-directed and nonparticipant-directed amounts cannot be separately determined.

	2008	2007
Net assets -		
Great Plains Energy Incorporated Common Stock	\$ 53,105,785	\$ 75,057,607

**Year Ended  
December 31, 2008**

Changes in Net Assets:

Contributions	\$	5,092,187
Interest and dividends		4,483,723
Dividend distributions		(203,997)
Net depreciation in fair value of investments		(25,468,988)
Benefits paid to participants		(4,623,543)
Transfers to participant-directed investments		(4,361,958)
Transfers from participant-directed investments		3,130,754
	\$	<u>(21,951,822)</u>

**6. EXEMPT PARTY-IN-INTEREST TRANSACTIONS**

Certain Plan investments are shares of mutual funds, units in a common/collective trust fund, a brokerage account and shares of Company stock managed by Fidelity Investments. Fidelity serves as the trustee of the Plan and, therefore, these transactions qualify as party-in-interest transactions.

**7. 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.

**8. FEDERAL INCOME TAX STATUS**

The Internal Revenue Service 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. Therefore, no provision for income taxes has been included in the Plan's financial statements.

## 9. RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of net assets available for benefits as of December 31, 2008, per the financial statements to the Form 5500:

	<b>2008</b>
Net assets available for benefits per the financial statements	\$ 179,224,825
Adjustment from contract value to fair value for fully benefit-responsive stable value fund	<u>(896,774)</u>
Net assets available for benefits per Form 5500	<u>\$ 178,328,051</u>
Net decrease in net assets per the financial statements	\$ (59,301,254)
Change in fair value for fully benefit-responsive stable value fund	<u>(757,450)</u>
Net decrease in net assets per Form 5500	<u>\$ (60,058,704)</u>

## 10. PLAN MERGERS

Effective May 15, 2008, the Great Plains Energy Incorporated Capital Accumulation Plan was merged into the Plan. Participant account balances of \$10,820,788 were transferred to the Plan in May 2008.

## 11. SUBSEQUENT EVENTS

Effective July 1, 2009, Fidelity was removed as recordkeeper and trustee for the Plan and JP Morgan Retirement Plan Services was appointed and confirmed as successor recordkeeper and trustee of the Plan.

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**GREAT PLAINS ENERGY INCORPORATED  
401(k) SAVINGS PLAN (FORMERLY KNOWN  
AS GREAT PLAINS ENERGY INCORPORATED  
CASH OR DEFERRED ARRANGEMENT (“EMPLOYEE  
SAVINGS PLUS”))**

**FORM 5500, SCHEDULE H, PART IV, LINE 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)  
DECEMBER 31, 2008**

(a)	(b)	(c)	(d)	(e)
	Identity of Issue, Borrower, Lessor or Similar Party	Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	Cost	Current Value
	* Great Plains Energy Incorporated	Common stock	\$ 71,560,874	\$ 53,105,785
	* Fidelity Managed Income Portfolio	Common/Collective Trust Fund	**	16,624,789
	* Fidelity Puritan Fund	Registered Investment Company	**	15,358,675
	* Fidelity Magellan Fund	Registered Investment Company	**	13,031,069
	American Funds Growth Fund of America	Registered Investment Company	**	9,465,190
	* Fidelity Diversified International Fund	Registered Investment Company	**	9,162,528
	PIMCO Total Return Fund-Inst Class	Registered Investment Company	**	7,851,219
	* Fidelity Capital Appreciation Fund	Registered Investment Company	**	6,577,520
	Artisan Mid Cap Fund-Investor Class	Registered Investment Company	**	4,404,552
	* Fidelity Freedom 2020 Fund	Registered Investment Company	**	3,658,226
	T. Rowe Price Equity Income Fund	Registered Investment Company	**	3,121,719
	Davis NY Venture Fund	Registered Investment Company	**	3,008,831
	* Fidelity Freedom 2010 Fund	Registered Investment Company	**	2,870,639
	* Fidelity Freedom 2030 Fund	Registered Investment Company	**	2,827,115
	* Fidelity Small Cap Stock Fund	Registered Investment Company	**	2,504,354
	* Fidelity Low-Priced Stock Fund	Registered Investment Company	**	2,243,914
	* Fidelity Freedom 2015 Fund	Registered Investment Company	**	2,115,824
	Vanguard Inflation Protection Securities Fund	Registered Investment Company	**	2,073,196
	Spartan US Equity Index Fund	Registered Investment Company	**	1,844,958
	Hotchkis & Wiley Mid-Cap Value Fund	Registered Investment Company	**	1,821,517
	American Beacon Small Cap Value Fund	Registered Investment Company	**	1,202,700
	* Fidelity Freedom 2025 Fund	Registered Investment Company	**	1,173,185
	* Fidelity Freedom 2040 Fund	Registered Investment Company	**	1,097,039
	Harbor International Fund – Institutional	Registered Investment Company	**	651,104
	* Fidelity Freedom Income Fund	Registered Investment Company	**	495,103
	Morgan Stanley Institutional Fund, Inc. – Emerging Markets Portfolio	Registered Investment Company	**	449,478
	* Fidelity Freedom 2035 Fund	Registered Investment Company	**	376,493

(Continued)

**GREAT PLAINS ENERGY INCORPORATED  
401(k) SAVINGS PLAN (FORMERLY KNOWN  
AS GREAT PLAINS ENERGY INCORPORATED  
CASH OR DEFERRED ARRANGEMENT (“EMPLOYEE  
SAVINGS PLUS”))**

**FORM 5500, SCHEDULE H, PART IV, LINE 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)  
DECEMBER 31, 2008**

(a)	(b)	(c)	(d)	(e)
	Identity of Issue, Borrower, Lessor or Similar Party	Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	Cost	Current Value
*	Fidelity Freedom 2050 Fund	Registered Investment Company	**	369,676
*	Fidelity Freedom 2005 Fund	Registered Investment Company	**	284,695
*	Fidelity Freedom 2000 Fund	Registered Investment Company	**	273,598
*	Fidelity Freedom 2045 Fund	Registered Investment Company	**	190,168
	Goldman Sachs High Yield Fund	Registered Investment Company	**	108,806
	Spartan International Index Fund	Registered Investment Company	**	81,180
	Spartan Extended Market Index Fund	Registered Investment Company	**	42,798
*	Fidelity Brokerage Account	Brokerage Account	**	2,304,177
*	Participant Loans	Various participants, interest rates ranging from 6.0% to 11.5% maturing through 2023	**	5,553,231
				\$ 178,325,051

\* Represents party-in-interest to the Plan.

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

(Concluded)

GREAT PLAINS ENERGY INCORPORATED 401(k)  
 SAVINGS PLAN (FORMERLY KNOWN  
 AS GREAT PLAINS ENERGY INCORPORATED  
 CASH OR DEFERRED ARRANGEMENT ("EMPLOYEE  
 SAVINGS PLUS"))

FORM 5500, SCHEDULE H, PART IV, LINE 4j —  
 SCHEDULE OF REPORTABLE TRANSACTIONS FOR THE YEAR ENDED DECEMBER 31, 2008

(a) Identity of Party involved	(b) Description of Asset (Include Interest Rate and Maturity In Case of a Loan)	(c) Purchase Price	(d) Selling Price	(e) Lease Rental	(f) Expense Incurred With Transaction	(g) Cost of Asset	(h) Current Value of Asset on Transaction Date	(I) Net Gain or Loss
<b>SINGLE TRANSACTIONS</b>								
None								
<b>SERIES IN SAME SECURITY</b>								
* Great Plains Energy Incorporated	Common Stock							
	(631 Purchases)	\$12,707,951				\$12,707,951	\$12,707,951	
	(721 Sales)		\$9,190,785			9,869,575	9,190,785	\$(678,790)

\* Represents a party-in-interest to the Plan.



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/ Michael W. Cline  
Michael W. Cline

By: /s/ Barbara B. Curry  
Barbara B. Curry

By: /s/ Todd A. Kobayashi  
Todd Kobayashi

By: /s/ John R. Marshall  
John Marshall

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

June 29, 2009



**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in Registration Statement No. 333-132828 and 333-147939 of Great Plains Energy Incorporated on Form S-8 of our report dated June 29, 2009, appearing in this Annual Report on Form 11-K of the Great Plains Energy Incorporated 401(k) Savings Plan (formerly known as Great Plains Energy Incorporated Cash or Deferred Arrangement ("Employee Savings Plus")) for the year ended December 31, 2008.

/s/ Deloitte & Touche LLP

Kansas City, MO  
June 29, 2009