

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, 2001

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:

Great Plains Energy Incorporated
(formerly Kansas City Power & Light Company)
Cash or Deferred Arrangement
(Employee Savings Plus Plan)
(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
(formerly Kansas City Power & Light Company)
1201 Walnut
Kansas City, Missouri 64106-2124

GREAT PLAINS ENERGY INCORPORATED (FORMERLY KANSAS CITY POWER & LIGHT COMPANY)
CASH OR DEFERRED ARRANGEMENT ("EMPLOYEE SAVINGS PLUS")

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Note: Certain supplemental schedules required by the rules and regulations of
the Department of Labor are omitted because of the absence of conditions under
which they are required.

INDEPENDENT AUDITORS' REPORT

To the Participants and Administrative Committee of the Great Plains Energy Incorporated (formerly Kansas City Power & Light Company)
Cash or Deferred Arrangement
("Employee Savings Plus")
Kansas City, Missouri

We have audited the accompanying statements of net assets available for benefits of Great Plains Energy Incorporated Cash or Deferred Arrangement ("Employee Savings Plus") (the "Plan") as of December 31, 2001, and the related statement of changes in net assets available for benefits for the year then ended. 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 audit. The financial statements (statement of changes in net assets available for benefits not presented herein) of the Plan for the year ended December 31, 2000 were audited by other auditors whose report, dated June 13, 2001, expressed an unqualified opinion on those statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. 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 audit provides a reasonable basis for our opinion.

In our opinion, the 2001 financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2001, and the changes in net assets available for benefits for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Our audit was performed 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 supplemental schedules are the responsibility of the Plan's management. The supplemental schedules have been subjected to the auditing procedures applied in our audit of the basic 2001 financial statements and, in our opinion, are fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ DELOITTE & TOUCHE, LLP

June 7, 2002

Report of Independent Accountants

To the Participants and Administrative Committee of
the Kansas City Power & Light Company
Cash or Deferred Arrangement Employee Savings Plus Plan

In our opinion, the statement of net assets available for benefits as of December 31, 2000 presents fairly, in all material respects, the net assets available for benefits of the Kansas City Power & Light Company Cash or Deferred Arrangement Employee Savings Plus Plan (the "Plan") at December 31, 2000 in conformity with accounting principles generally accepted in the United States of America. This financial statement is the responsibility of the Plan's management; our responsibility is to express an opinion on this financial statement based on our audit. We conducted our audit of this statement in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statement is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statement, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

/s/PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP

Kansas City, Missouri
June 13, 2001

GREAT PLAINS ENERGY INCORPORATED
(FORMERLY KANSAS CITY POWER & LIGHT COMPANY)
CASH OR DEFERRED ARRANGEMENT
("EMPLOYEE SAVINGS PLUS")

STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
DECEMBER 31, 2001 AND 2000

	2001	2000
ASSETS:		
Investments (Note 3)	\$180,754,985	\$193,235,751
Receivables:		
Employer contributions	125,256	110,406
Employee contributions	437,973	404,672
Loan payments from participants		88,509
Total receivables	563,229	603,587
Cash	134,251	
NET ASSETS AVAILABLE FOR BENEFITS	\$181,452,465	\$193,839,338

See notes to financial statements.

GREAT PLAINS ENERGY INCORPORATED
(FORMERLY KANSAS CITY POWER & LIGHT COMPANY)
CASH OR DEFERRED ARRANGEMENT
("EMPLOYEE SAVINGS PLUS")

STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
YEAR ENDED DECEMBER 31, 2001

	2001
ADDITIONS:	
Investment income:	
Interest	\$ 2,693,053
Dividends	5,119,457
Contributions:	
Employer contributions	2,875,116
Employee contributions	10,600,430
Total additions	21,288,056
DEDUCTIONS:	
Benefits paid to participants	13,813,243
Net depreciation in fair value of investments	19,861,686
Total deductions	33,674,929
DECREASE IN NET ASSETS	(12,386,873)
NET ASSETS AVAILABLE FOR BENEFITS:	
Beginning of year	193,839,338
End of year	\$ 181,452,465

See notes to financial statements.

1. PLAN DESCRIPTION

The following description of the 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 full time bargaining unit employees of Kansas City Power & Light Company, sponsored by Great Plains Energy Incorporated (the "Company"). The Plan provides that employees are immediately eligible to make elective contributions to the Plan. Employees beginning employment during the first fifteen days of a month can begin participating in the Plan the first day of the following month. If an employee's first day of employment is after the fifteenth of the month, the employee is eligible to participate in the Plan the first day of the next following month. The Company serves as the administrator of the Plan and United Missouri Bank, N.A. 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 October 1, 2001, the name of the Plan changed from Kansas City Power & Light Company Cash or Deferred Arrangement Employee Savings Plus Plan to the Great Plains Energy Incorporated Cash or Deferred Arrangement ("Employee Savings Plus") Plan.

Prior to March 1, 2000, the Plan was also available to permanent, full-time and part-time employees of KLT, Inc., KLT Power Inc., KLT Gas Inc. and KLT Telecom, Inc. Effective March 1, 2000, the Plan was amended to terminate the participation of employees of KLT Inc., KLT Power Inc., KLT Gas Inc. and KLT Telecom, Inc. The assets of these participants were transferred to a separate plan.

Contributions - Each year participants may contribute between 2% and 15% of their annual compensation as defined in the Plan. Participants direct the investment of their contributions into various investment options offered by the Plan. Participants are 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. The matching contribution is invested directly in the Great Plains Energy Incorporated Stock Fund although participants who have attained the age of 55 may transfer funds in their company-match account to another investment fund offered by the Plan. Contributions are subject to certain Internal Revenue Code 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. 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. 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 percent vested after six 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.

Participant Loans - Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to the lesser of \$50,000 or 50% of their vested account balance, whichever is less. The loans are secured by the balance in the participant's account and bear interest at rates equal to prime plus 2%. Principal and interest is paid ratably through semi-monthly payroll deductions. Additionally, all loans are made for a period of less than five years unless proceeds of such loan are exclusively used for the purchase of a participant's primary residence which have a maximum of fifteen years.

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 until age 62 or retirement, whichever is later. 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.

Forfeited Accounts - At December 31, 2001 forfeited nonvested accounts totaled \$307. These accounts will be used to reduce employer contributions. Also, during 2001, employer contributions were reduced by \$14,255 from forfeited nonvested accounts.

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. The Plan utilizes various investment instruments. 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 that 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. Quoted market prices are used to value investments. Shares of mutual funds are valued at the net asset value of shares held by the Plan at year end. Participant loans are stated at cost, which approximates fair value.

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

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. INVESTMENTS

The Plan's investments that represented five percent or more of the Plan's net assets available for benefits as of December 31, 2001 and 2000, are as follows:

	December 31,	
	2001	2000
Great Plains Energy Incorporated Stock Fund, 3,163,481 and 3,020,567 shares, respectively (includes both nonparticipant-directed and participant-directed funds)	\$79,719,728	\$82,878,309
Fidelity Magellan Fund, 405,838 and 413,745 shares, respectively	42,296,431	49,359,823
Fidelity Puritan Fund, 888,619 and 856,757 shares, respectively	15,701,893	16,132,643
Fidelity Managed Income Fund, 11,688,859 and 10,037,206 shares, respectively	11,688,859	10,037,206
Fidelity Securities Fund OTC Portfolio, 355,011 and 337,836 shares, respectively	11,065,698	13,868,186

During 2001, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) depreciated in value by \$19,861,686 as follows:

Net Depreciation in Fair Value

Mutual funds	\$12,643,235
Common stock	7,218,451
	\$19,861,686

4. 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, 2001 and 2000, and for the year ended December 31, 2001. The stock fund is considered to be nonparticipant-directed for purposes of this disclosure as the participant-directed and non-participant-directed amounts cannot be separately determined.

	2001	2000
Net Assets -		
Great Plains Energy Incorporated Stock Fund	\$79,719,728	\$82,878,309

	December 31, 2001
Changes in Net Assets:	
Contributions	\$ 5,181,372
Dividends	5,119,458
Interest	2,981
Net depreciation	(7,218,451)
Benefits paid to participants	(2,558,033)
Transfers to participant-directed investments	(3,685,908)
	(3,158,581)

5. RELATED-PARTY TRANSACTIONS

Certain Plan investments are shares of mutual funds and shares of Company stock managed by UMB Bank, N.A. UMB Bank, N.A. is the trustee as defined by the Plan and, therefore, these transactions qualify as party-in-interest transactions.

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 Internal Revenue Service has determined and informed the Company by a letter dated April 2, 2002, that the Plan and related trust are designed in accordance with applicable regulations of the Internal Revenue Code (IRC).

8. SUBSEQUENT EVENTS

Effective January 1, 2002, various amendments were made to the Plan including the addition of the Fidelity Midcap Stock Fund, the Fidelity Freedom 2040 Fund and the Fidelity Intermediate Bond Fund, an employee stock ownership plan ("ESOP") component was added to the Plan and the maximum deferral percentage for participants was increased from 15% to 40% of compensation.

GREAT PLAINS ENERGY INCORPORATED
(FORMERLY KANSAS CITY POWER & LIGHT COMPANY)
CASH OR DEFERRED ARRANGEMENT
("EMPLOYEE SAVINGS PLUS")

FORM 5500, SCHEDULE H, PART IV, LINE 4i - SCHEDULE OF ASSETS HELD FOR
INVESTMENT PURPOSES AT THE END OF YEAR
DECEMBER 31, 2001

(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 Stock Fund	Common stock	\$ 77,562,904	\$ 79,719,728
	Fidelity Magellan Fund	Mutual Fund	**	42,296,431
	Fidelity Puritan Fund	Mutual Fund	**	15,701,893
	Fidelity Managed Income Portfolio	Money Market Fund	**	11,688,859
	Fidelity Securities Fund OTC Portfolio	Mutual Fund	**	11,065,698
	Fidelity Securities Fund Blue Chip Growth Fund	Mutual Fund	**	6,755,545
	Fidelity Overseas Fund	Mutual Fund	**	3,142,505
	Fidelity Charles Street Trust Asset Manager	Mutual Fund	**	2,429,982
	Fidelity Institutional Investors Trust Freedom 2020 Fund	Mutual Fund	**	691,400
	Fidelity Institutional Investors Trust Freedom 2030 Fund	Mutual Fund	**	649,560
	Fidelity Institutional Investors Trust Freedom Income Fund	Mutual Fund	**	602,376
	Fidelity Institutional Investors Trust Freedom 2010 Fund	Mutual Fund	**	584,680
	Fidelity Institutional Investors Trust Freedom 2000 Fund	Mutual Fund	**	278,822
*	UMB Bank, N.A. Money Market Account	Money Market Fund	**	1,090
	Participant Loans	Participant loans (maturing 2003 to 2016 at interest rates of 7.5% to 12%)	**	5,146,416
				\$180,754,985

* Represents party-in-interest to the Plan.

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

GREAT PLAINS ENERGY INCORPORATED
(FORMERLY KANSAS POWER & LIGHT COMPANY)
CASH OR DEFERRED ARRANGEMENT
("EMPLOYEE SAVINGS PLUS")

FORM 5500, SCHEDULE H, PART IV, LINE 4j - SCHEDULE OF REPORTABLE TRANSACTIONS
YEAR ENDED DECEMBER 31, 2001

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Identity of Party Involved	Description of Asset	Purchase Price	Selling Price	Cost of Asset	Current Value of Asset on Transaction Date	Net Gain/(Loss)
SINGLE TRANSACTIONS						
None						
SERIES TRANSACTIONS						
* UMB Bank, n.a.	Great Plains Incorporated Stock Fund (218 purchases)	\$ 14,572,316		\$ 14,572,316	\$ 14,572,316	
* UMB Bank, n.a.	Money Market Account (89 purchases)	12,720,111		12,720,111	12,720,111	
	(97 sales)		12,720,095	12,720,095	12,720,095	

* Includes both participant-directed and nonparticipant-directed funds.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Administrative Committee of the Employee Savings Plus Plan has duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

EMPLOYEE SAVINGS PLUS PLAN

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(By: /s/Andrea F. Bielsker

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Andrea F. Bielsker

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(By: /s/William G. Riggins

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William G. Riggins

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(By: /s/Andrew B. Stroud, Jr.

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Andrew B. Stroud, Jr.

June 28, 2002

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in Registration Statement No. 333-32636 of Great Plains Energy Incorporated on Form S-8 of our report dated June 7, 2002, appearing in this Annual Report on Form 11-K of the Great Plains Energy Incorporated Cash or Deferred Arrangement ("Employee Savings Plus") for the year ended December 31, 2001.

/s/ DELOITTE & TOUCHE, LLP

Kansas City, Missouri
June 28, 2002

Exhibit 2

Consent of Independent Accountants

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (File No. 333-32636) of Kansas City Power & Light Company of our report dated June 13, 2001, relating to the 2000 financial statement of the Kansas City Power & Light Company Cash or Deferred Arrangement Employee Savings Plus Plan, which appears in this Form 11-K.

/s/PricewaterhouseCoopers LLP
PricewaterhouseCoopers LLP

Kansas City, Missouri
June 28, 2002