SPIRE CORP Form 11-K June 27, 2008

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

FORM 11-K

	ronm ii-v
[X]	Annual Report Pursuant to Section 15(d) of the Securities Exchange Act of 1934. For the fiscal year ended December 31, 2007; or
[_]	Transition Report Pursuant to 15(d) of the Securities Exchange Act of 1934. For the transition period from to
	Commission file number: 0-12742
	SPIRE CORPORATION 401(k) PROFIT SHARING PLAN (Full title of the plan)
	SPIRE CORPORATION
(Nam	ee of issuer of the securities held pursuant to the plan)
	ONE PATRIOTS PARK BEDFORD, MASSACHUSETTS 01730-2396
	(Address of principal executive offices)
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SPIRE CORPORATION 401(k) PROFIT SHARING PLAN

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Plan Administrator Spire Corporation 401(k) Profit Sharing Plan Bedford, Massachusetts

We have audited the accompanying statements of net assets available for benefits of Spire Corporation 401(k) Profit Sharing Plan (the Plan) as of December 31, 2007 and 2006 and the related statement of changes in net assets available for benefits for the year ended December 31, 2007. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Plan's 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, and 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, 2007 and 2006, and the changes in net assets available for benefits for the year ended December 31, 2007, in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) as of December 31, 2007 is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting under the Employee Retirement Income Security Act of 1974. The supplemental schedule is the responsibility of the Plan's management. The supplemental schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ Carlin, Charron & Rosen, LLP

CARLIN, CHARRON & ROSEN, LLP

Westborough, Massachusetts June 27, 2008

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SPIRE CORPORATION 401(k) PROFIT SHARING PLAN Statements of Net Assets Available for Benefits December 31, 2007 and 2006

	2007	2006
Assets		
<pre>Investments: At fair value: Common stock - Spire Corporation Mutual funds Participant loans Hartford Fixed Income Fund</pre>	5,341,544 133,171	\$ 1,608,632 4,352,003 87,924 170,252
Money market receivable	4,732	
Total assets	8,942,581	6,218,811
Liabilities		
Excess contributions payable	29,149	47,710
Net assets reflecting all investments at fair value	8,913,432	6,171,101
Adjustment from fair value to contract value for fully benefit responsive investment contracts	7 , 976	10,666
Net assets available for benefits	\$ 8,921,408	\$ 6,181,767

See notes to financial statements.

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SPIRE CORPORATION 401(k) PROFIT SHARING PLAN
Statement of Changes in Net Assets Available for Benefits
For the Year Ended December 31, 2007

Additions to net assets:	
Investment income:	
Interest and dividends	\$ 359 , 917
Interest on loans	7,137
Net appreciation in fair value of investments	2,436,707
	 2,803,761
Participant contributions	 433,863
Total additions	3,237,624
Deductions from net assets:	
Benefits paid to participants	497 , 590
Administrative fees	 393
	407.000
Total deductions	 497,983
Net increase	2,739,641
Net increase	2,739,041
Net assets available for benefits:	
Beginning of year	 6,181,767
End of year	8,921,408 ======

See notes to financial statements.

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SPIRE CORPORATION 401(k) PROFIT SHARING PLAN Notes to Financial Statements
For the Year Ended December 31, 2007

1. PLAN DESCRIPTION

The following description of the Spire Corporation 401(k) Profit Sharing Plan (the Plan) provides only general information. Participants should refer to the Plan agreement for a more complete description of the Plan's provisions.

General

The Plan is a defined contribution plan covering all employees of Spire Corporation (the Company) who have completed 90 days of service and are age twenty-one or older. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Contributions

Each year, participants may contribute up to the maximum amount of pre-tax annual compensation as determined under the Internal Revenue Code. Participants who have attained age 50 before the end of the Plan year are eligible to make catch-up contributions. Participants may also contribute amounts representing distributions from other qualified defined benefit or defined contribution plans. Participants direct the investment of their contributions into various investment options offered by the Plan. The Plan currently offers the Company's common stock, twenty-one mutual funds, and an insurance contract as investment options for participants. The Company may contribute, at the determination of the board of directors, a discretionary matching contribution on the first 15 percent of base compensation that a participant contributes to the Plan. The Company's matching contribution is invested directly in Company common stock. The Company may also make a profit sharing contribution. In 2007, the Company did not make matching or profit sharing contributions. Contributions are subject to certain limitations.

Participant Accounts

Each participant's account is credited with the participant's contributions and the Company's matching contribution (if any) and an allocation of (a) the Company's profit sharing contribution (if any), and (b) plan earnings. 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 voluntary contributions plus actual earnings thereon. Vesting in the Company matching contribution is based on years of continuous service. A participant is 100 percent vested after six years of credited service.

Forfeited Accounts

At December 31, 2007 and 2006, forfeited nonvested accounts totaled \$32,714 and \$28,950, respectively. These amounts may be used to reduce future employer contributions.

Participant Loans

Participants may borrow from their fund accounts a minimum of \$1,000 up to a maximum equal to \$50,000 or 50 percent of their vested account balance, whichever is less. The maximum number of

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outstanding loans at any given time is five. Loan terms range from 1 to 10 years, but not beyond the Normal Retirement Date. The loans are secured by the balance in the participant's account and bear interest at a rate commensurate with local prevailing rates as determined by the plan administrator. Interest rates are Prime Rate + 1% and currently range from 5% to 9.5%. Principal and interest are repaid through payroll deductions.

Payments of Benefits

On termination of service for any reason, a participant may elect to receive a lump-sum amount equal to the value of the participant's vested interest in his or her account or annual installments over a period of not more than a participant's and his or her beneficiary's assumed life expectancy determined at the time of distribution. Withdrawals may be made under certain other circumstances in accordance with the Plan document.

Administrative Costs

Except for loan fees, which are charged against the borrowers' accounts, administrative costs of the Plan are paid by the Company.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The financial statements of the Plan are prepared on the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America.

Use of Estimates

The preparation of financial statements in conformity with generally accepted 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, liabilities and changes therein and disclosure of contingent assets and liabilities, if any. Actual results could differ from those estimates.

Recent Accounting Standard Changes

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements". This standard addresses how companies should measure fair value when they are required to use a fair-value measure for recognition or disclosure purposes under GAAP. This standard is effective for all financial statements issued for fiscal years beginning after November 15, 2007. Relative to SFAS No. 157, the FASB issued FASB Staff Position ("FSP") 157-1 and 157-2. FSP No. 157-1 amends SFAS No. 157 to exclude SFAS No. 13, "Accounting for Leases", and its related interpretive accounting

pronouncements that address leasing transactions, while FSP 157-2 delays the effective date of SFAS No. 157 for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis. The Plan is in the process of evaluating whether the adoption of FSP No. 157-2 will have a material effect on its financial position, results of operations or cash flows.

Investment Valuation

Investments in mutual funds are stated at fair value based on quoted market prices, which represents the net asset value of shares held by the Plan at year end. Investments in the Spire Corporation common stock are stated at fair value based on the quoted market price on the last business day of the year for Company's common stock.

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Investments in benefit responsive insurance contracts are stated at fair value as determined by the custodian of those Plan assets. The difference between fair value and contract value of the benefit responsive insurance contracts are presented as an adjustment to net assets available for benefits.

Other investment securities are stated at fair value based on their quoted market prices on the last business day of the year. Participant loans are valued at cost, which approximates fair value.

Investment Transactions and Investment Income

Investment transactions are accounted for on a trade-date basis. Interest income is recorded on the accrual basis. Dividend income is recorded on the ex-dividend date.

The Plan presents in the statement of changes in net assets the net appreciation or depreciation in the fair value of its investments that consists of the realized gains or losses and unrealized appreciation or depreciation on those investments.

Payment of Benefits

Benefits are recorded when paid.

3. INVESTMENTS

Investments that represent five percent or more of the Plan's net assets are as follows:

	December 31,	
	2007	2006
Mutual funds		
Oppenheimer Quest Opportunity Value	\$ 831,305	\$ 854,265
Franklin Flexible Capital Growth	1,114,589	1,058,695
American Funds Europacific Growth	725,646	485,937
Eaton Vance Large Cap Value	451 , 696	352 , 755

Common stock

Spire Corporation

3,284,103 1,608,632

During 2007 the Plan's investments (including investments bought, sold, and held during the year) appreciated in value as follows:

		\$2,436,707
${\tt Common}$	stock	2,273,245
Mutual	funds	\$ 163,462

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NONPARTICIPANT-DIRECTED INVESTMENTS

Information about the net assets and the significant components of the changes in net assets relating to nonparticipant-directed investments is as follows:

	December 31,	
	2007	2006
Net assets:		
Common stock - Spire Corporation	\$3,268,876	\$1,592,053
Other	393,040	35 , 002
Total nonparticipant-directed	\$3,661,916	\$1,627,055
	=======	========
Changes in net assets during 2007:		
Benefits paid to participants	\$ (215 , 973)	
Net appreciation	2,250,834	
	\$2,034,861	
	========	

INVESTMENT CONTRACT WITH INSURANCE COMPANY

In 1995, the Plan entered into a benefit-responsive investment contract with The Hartford Group (Hartford). Hartford maintains the contributions in a general account. The account is credited with earnings on the underlying investments and charged for participant withdrawals and administrative expenses. The contract is included in the statements of net assets available for benefits at fair value as determined using the market approach based on market prices of similar contracts. The adjustment from fair value to contract value for the investment contract is based on the contract value as reported to the Plan by Hartford. Contract value represents contributions made under the contract, plus earnings, less participant withdrawals and administrative expenses. Participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value.

The fair value of the investment contract at December 31, 2007 and 2006 was \$179,031 and \$170,252, respectively. The average yield was 3% for both 2007 and 2006. The interest crediting rate was 3.36% and 3.29% for 2007 and 2006, respectively.

Certain events, such as the premature termination of the contract by the Plan or the termination of the Plan, would limit the Plan's ability to

transact at contract value with Hartford. The Plan administrator believes the occurrence of such events that would also limit the Plan's ability to transact at contract value with Plan participants is not probable.

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, participants would become 100 percent vested in their employer contributions.

7. INCOME TAX STATUS

The Internal Revenue Service has determined and informed the Company by a letter dated May 23, 1995, that the Plan and related trust are designed in accordance with applicable sections of the Internal Revenue Code (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.

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8. EXCESS CONTRIBUTIONS

Benefit distributions for the plan year ended December 31, 2007 and 2006 include payments of \$29,149 and \$47,710, respectively, made to certain active participants to return to them excess deferral contributions as required to satisfy the relevant nondiscrimination provisions of the Plan for the prior year.

Contributions received for the year ended December 31, 2007 are net of payments of \$29,149 made on March 31, 2008 to certain active participants to return to them excess deferral contributions as required to satisfy the relevant nondiscrimination provisions of the Plan. That amount is also included in the plan's statement of net assets available for benefits as excess contributions payable at December 31, 2007.

9. RISKS AND UNCERTAINTIES

The Plan invests in various investment securities. Investment securities are exposed to various risks, such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits.

10. RECONCILIATION OF FINANCIAL STATEMENTS TO FORM 5500

The following is a reconciliation of net assets available for benefits at December 31 per the financial statements to the 2007 Form 5500:

2007 2006

Net assets available for benefits per the financial statements Plus: Excess contributions payable	\$8,921,408 29,149	\$6,181,767 47,710
Net assets available for benefits per the 2007 Form 5500	\$8,950,557	\$6,229,477
	=======	========

The following is a reconciliation of participant contributions for the year ended December 31, 2007 per the financial statements to the 2007 Form 5500:

Participant contributions per the financial statements	\$ 433,863
Less: Prior year excess contributions payable	(47,710)
Plus: Current year excess contributions payable	29,149
Participant contributions per the Form 5500	\$ 415,302

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SPIRE CORPORATION 401(k) PROFIT SHARING PLAN

Schedule H, Line 4i - Form 5500 Schedule of Assets (Held at End of Year) December 31, 2007

E.I.N. 04-2457335 Plan Number 002

(a)	(b)	(c)	(d)
		Description of Investment	
	Identity of Issue,	Including Maturity Date,	
	Borrower, Lessor or	Rate of Interest, Collateral,	
	Similar Party	Par or Maturity Value	Cost
*	Spire Corporation	126,156 shares of common stock	\$1,295,42
	OppenheimerFunds	Oppenheimer Quest Opportunity Value	n/
	Franklin Templeton Investments	Franklin Flexible Capital Growth	n/
	Third Avenue	Third Avenue Small Cap Value A	n/
	American Funds	Europacific Growth	n/
	Hartford Life Insurance Co.	Fixed Income	n/
	ATM Funds	ATM Cash Reserve Shares	n /

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Hartford Life Insurance Co.	Fixed Income
AIM Funds	AIM Cash Reserve Shares
American Funds	American Balanced
Franklin Templeton Investments	Franklin Small-Mid Cap Growth
MFS Investment Management	Mass Investors Growth Stock
Eaton Vance	Large Cap Value
Eaton Vance	Income Fund of Boston
Allianz Funds	RCM Global Technology
American Funds	New Perspective
OppenheimerFunds	Oppenheimer Strategic Income
Sentinel Group Funds	Sentinel Small Company
PIMCO Funds	Total Return
Davis Funds	Davis New York Venture

n/ n/ n/ n/ n/ n/ n/

n/

Evergreen Investments
Pioneer Investments
Goldman Sachs
Allianz NJF
Participant Loans

Evergreen Money Market Pioneer Cash Reserves MidCap Value A Dividend Value R Interest rates 5% to 9.5%

* Represents party-in-interest

The independent registered public accounting firm's report should be read with this supplementary schedule.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Investment Committee of the Spire Corporation 401(k) Profit Sharing Plan have duly caused this annual report to be signed on their behalf by the undersigned hereunto duly authorized.

SPIRE CORPORATION 401(k) PROFIT SHARING PLAN

Date: June 27, 2008 By: /s/ Christian Dufresne

Christian Dufresne

Chief Financial Officer and Treasurer

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