UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the

Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 15, 2010

HORIZON TECHNOLOGY FINANCE CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

814-00802 (Commission File Number) 27-2114934 (I.R.S. Employer Identification No.)

76 Batterson Park Road

Farmington, CT 06032

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (860) 676-8654

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Section 8 Other Events

Item 8.01 Other Events

On December 15, 2010, Horizon Technology Finance Corporation (the "Company") announced that its Board of Directors has declared a fourth quarter dividend of \$0.22 per share, payable on December 31, 2010 to stockholders of record on December 28, 2010. A copy of the press release announcing such dividend is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

Section 9 Financial Statements and Exhibits

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

99.1 Press Release of the Company dated December 15, 2010.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: December 16, 2010 HORIZON TECHNOLOGY FINANCE CORPORATION

By: /s/ Robert D. Pomeroy, Jr.
Robert D. Pomeroy, Jr.
Chief Executive Officer



Horizon Technology Finance Corporation Declares Fourth Quarter Dividend of \$0.22 per Share

FARMINGTON, CT — December 15, 2010 — Horizon Technology Finance Corporation (NASDAQ: HRZN) (the "Company"), announced that its Board of Directors has declared a fourth quarter dividend of \$0.22 per share, payable on December 31, 2010 to stockholders of record on December 28, 2010. The Company expects the dividend to be paid from taxable earnings since the Company's initial public offering ("IPO") with specific tax characteristics reported to stockholders after the end of the calendar year.

"As disclosed in connection with our IPO, we have declared this dividend reflecting the number of days remaining in the fourth quarter of 2010 since the completion of our IPO," said Robert D. Pomeroy, Jr., Chairman and Chief Executive Officer. "To the extent declared by the Board of Directors, we expect to announce the dividend for the first quarter of 2011 in mid May 2011."

The Company's dividend reinvestment plan ("DRIP") provides for reinvestment of dividends, unless a shareholder elects to receive cash. As a result, if the Company's Board of Directors declares a cash dividend, the Company's shareholders who have not "opted out" of the Company's DRIP will have their cash dividends automatically reinvested in additional shares of the Company's common stock, rather than receiving cash dividends. If you are a Horizon shareholder and your shares of Horizon common stock are held through a brokerage firm or other financial intermediary and you wish not to participate in the DRIP, please contact your broker or other financial intermediary.

About Horizon Technology Finance Corporation

Horizon Technology Finance Corporation is a closed-end investment company that has elected to be treated as a business development company under the Investment Company Act of 1940. The Company makes secured loans to development-stage companies in the technology, life science, healthcare information and services, and cleantech industries. The Company is externally managed by its investment advisor, Horizon Technology Finance Management LLC.

Forward-Looking Statements

Statements included herein may constitute "forward-looking statements," which relate to future events or our future performance or financial condition. These statements are not guarantees of future performance, condition or results and involve a number of risks and uncertainties. Actual results may differ materially from those in the forward-looking statements as a result of a number of factors, including those described from time to time in our filings with the Securities and Exchange Commission. The Company undertakes no duty to update any forward-looking statement made herein. All forward-looking statements speak only as of the date of this press release.

Contact

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