

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

FORM N-6F

**NOTICE OF INTENT TO ELECT TO BE SUBJECT TO SECTIONS 55
THROUGH 65 OF THE INVESTMENT COMPANY ACT OF 1940**

The undersigned hereby notifies the Securities and Exchange Commission that it intends to file a notification of election to be subject to sections 55 through 65 of the Investment Company Act of 1940, (the "Act") and in connection with such notice submits the following information:

Name: Horizon Technology Finance Corporation

Address of Principal Business Office: 76 Batterson Park Road
Farmington, CT 06032

Telephone Number: (860) 676-8654

**Name and Address of Agent
For Service of Process:** Robert D. Pomeroy, Jr.
Chief Executive Officer
Horizon Technology Finance Corporation
76 Batterson Park Road
Farmington, CT 06032

The undersigned hereby notifies the Securities and Exchange Commission that it intends to file a notification of election to be subject to sections 55 through 65 of the Act within ninety days of this filing. The company would be excluded from the definition of an investment company by section 3(c)(1) of the Act, except that it presently proposes to make a public offering of its securities as a business development company.

SIGNATURE

Pursuant to the requirements of section 6(f) of the Act, the undersigned company has caused this notice of intent to elect to be subject to sections 55 through 65 of the Act pursuant to section 54(a) of the Act to be duly executed on its behalf in the city of Farmington and the State of Connecticut on the 19th day of March, 2010.

HORIZON TECHNOLOGY FINANCE CORPORATION

By: /s/ Robert D. Pomeroy, Jr.

Name: Robert D. Pomeroy, Jr.

Title: Chief Executive Officer

Attest: /s/ John C. Bombara

Name: John C. Bombara

Title: Secretary