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

FORM 8-A

FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

HORIZON TECHNOLOGY FINANCE CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Delaware

27-2114934

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

312 Farmington Avenue, Farmington, Connecticut

06032

(Address of Principal Executive Offices)

(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of Each Class to be so Registered:

Name of the Exchange on Which Each Class is to be so Registered

4.875% Notes due 2026

New York Stock Exchange

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), please check the following box. \boxtimes

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), please check the following box. o

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box \square

Securities Act registration statement file number to which this form relates: 333-225698

Securities to be registered pursuant to Section 12(g) of the Act: None

Item 1. Description of Registrant's Securities to be Registered.

The securities to be registered hereby are the 4.875% Notes due 2026 (the "Notes") of Horizon Technology Finance Corporation, a Delaware corporation (the "Registrant"). The Notes are expected to be listed on the New York Stock Exchange and to trade thereon within 30 days of the original issues date under the trading symbol "HTFB." As of March 30, 2021, the registrant has sold and issued \$57,500,000 in aggregate principal amount of the Notes.

The description of the Notes is incorporated herein by reference to (i) the information set forth under the heading "Description of Our Debt Securities" in the Registrant's Prospectus included in its Registration Statement on Form N-2 (Registration No. 333-225698) as filed with the Securities and Exchange Commission (the "SEC") on June 18, 2018 under the Securities Act of 1933, as amended (the "Securities Act"), and (ii) the information under the headings "The Offering" and "Description of Notes" in the Registrant's Prospectus Supplement dated March 23, 2021, as filed with the SEC on March 24, 2021 pursuant to Rule 424(b)(2) under the Securities Act. The foregoing descriptions are incorporated herein by reference.

Item 2. Exhibits

Pursuant to the Instructions as to exhibits for registration statements on Form 8-A, the documents listed below are filed as exhibits to this Registration Statement:

Number	Exhibit
4.1	Indenture, dated as of March 23, 2012, between the Registrant and U.S. Bank National Association (Incorporated by reference to to
<u>4.1</u>	Exhibit (d)(7) of the Company's Post-Effective Amendment No. 2 to the Registration Statement on Form N-2, File No. 333-178516,
	filed on March 23, 2012).
<u>4.2</u>	Third Supplemental Indenture, dated as of March 30, 2021 between the Registrant and U.S. Bank National Association (incorporated by
	reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed on March 30, 2021).
<u>4.3</u>	Form of Global Note (included in Exhibit 4.2).

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

HORIZON TECHNOLOGY FINANCE CORPORATION

Date: March 31, 2021 By: /s Robert D. Pomeory, Jr.

Robert D. Pomeroy, Jr.

Chairman and Chief Executive Officer