

PROSPECTUS SUPPLEMENT
(To Prospectus dated October 23, 2023)

Up to \$1,250,000,000



**Rexford
Industrial**

Rexford Industrial Realty, Inc.
Common Stock

This prospectus supplement is being filed to update, amend and supplement certain information in the prospectus supplement dated and filed with the Securities and Exchange Commission (the “SEC”) on October 23, 2023 (the “Original Prospectus Supplement”) and the base prospectus dated October 23, 2023 (the “Prospectus”) relating to the offer and sale of shares of our common stock, par value \$0.01 per share (“our common stock”), having an aggregate gross sales price of up to \$1,250,000,000 pursuant to separate equity distribution agreements dated as of February 17, 2023 and amended as of October 23, 2023, and in the case of BTIG, LLC, dated of October 23, 2023 (each as may be amended from time to time, and collectively, the “Original Equity Distribution Agreements”) with each of BofA Securities, Inc., BTIG, LLC, Goldman Sachs & Co. LLC, Jefferies LLC, J.P. Morgan Securities LLC, Mizuho Securities USA LLC, Regions Securities LLC, Scotia Capital (USA) Inc., Truist Securities, Inc. and Wells Fargo Securities, LLC, each a sales agent (as defined in the Original Prospectus Supplement) and, in certain cases, one of their respective affiliates (except with respect to BTIG, LLC, in which case the relevant forward purchaser is Nomura Global Financial Products, Inc. and the relevant forward seller is Nomura Securities International, Inc. (acting through BTIG, LLC, as its agent)). As of the date of this prospectus supplement, shares of our common stock with an aggregate gross sales price of \$322.6 million has been offered and sold under the Original Equity Distribution Agreements. Additional shares of our common stock with an aggregate gross sales price of up to \$927.4 million may be offered and sold pursuant to the Equity Distribution Agreements (as defined below). This prospectus supplement is only intended to update, amend and supplement certain information in the Original Prospectus Supplement to the extent set forth in the following paragraph. You should read this prospectus supplement together with the Original Prospectus Supplement and Prospectus.

On July 22, 2025, we entered into (i) an amendment to the Original Equity Distribution Agreements with each of BofA Securities, Inc., BTIG, LLC, Goldman Sachs & Co. LLC, Jefferies LLC, J.P. Morgan Securities LLC, Mizuho Securities USA LLC, Regions Securities LLC, Scotia Capital (USA) Inc., Truist Securities, Inc. and Wells Fargo Securities, LLC and (ii) equity distribution agreements with each of BMO Capital Markets Corp. and BNP Paribas Securities Corp. (the “New Equity Distribution Agreements” and, together with the Original Equity Distribution Agreements, the “Equity Distribution Agreements”). Pursuant to the New Equity Distribution Agreements, BMO Capital Markets Corp. and BNP Paribas Securities Corp. shall each become sales agents and Forward Sellers, and their respective affiliates shall each become Forward Purchasers. Accordingly, any reference in the Original Prospectus Supplement to (i) “sales agent” or “sales agents” shall hereafter be deemed to refer to BofA Securities, Inc., BMO Capital Markets Corp., BNP Paribas Securities Corp., BTIG, LLC, Goldman Sachs & Co. LLC, Jefferies LLC, J.P. Morgan Securities LLC, Mizuho Securities USA LLC, Regions Securities LLC, Scotia Capital (USA) Inc., Truist Securities, Inc. and Wells Fargo Securities, LLC, as applicable, (ii) “forward seller” or “forward sellers” shall hereafter be deemed to refer to BofA Securities, Inc., BMO Capital Markets Corp., BNP Paribas Securities Corp., Goldman Sachs & Co. LLC, Jefferies LLC, J.P. Morgan Securities LLC, Mizuho Securities USA LLC, Nomura Securities International, Inc. (acting through BTIG, LLC as its agent), Regions Securities LLC, Scotia Capital (USA) Inc., Truist Securities, Inc. and Wells Fargo Securities, LLC, as applicable, and (iii) “forward purchaser” or “forward purchasers” shall hereafter be deemed to refer to Bank of America, N.A., Bank of Montreal, BNP PARIBAS, Goldman Sachs & Co. LLC, Jefferies LLC, JPMorgan Chase Bank, National Association, Mizuho Securities USA LLC, Nomura Global Financial Products, Inc., Regions Securities LLC, The Bank of Nova Scotia, Truist Bank and Wells Fargo Bank, National Association, as applicable.

Investing in shares of our common stock involves risks that are described in the “Risk Factors” section beginning on page S-4 of the Original Prospectus Supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus to which it relates is truthful or complete. Any representation to the contrary is a criminal offense.

BofA Securities

BNP PARIBAS

Goldman Sachs & Co. LLC

J.P. Morgan

Regions Securities LLC

Truist Securities

BMO Capital Markets

BTIG

Jefferies

Mizuho

Scotiabank

Wells Fargo Securities

The date of this prospectus supplement is July 22, 2025.