

PROSPECTUS

24,509,804 Shares of Common Stock

This prospectus covers the offer and resale by the selling stockholders (the “Selling Stockholders”) identified in this prospectus of an aggregate of 24,509,804 shares of our common stock, par value \$0.01 per share. The shares were sold to the Selling Stockholders in a private placement transaction that closed on July 2, 2026 (the “Private Placement”).

We are not selling any shares of common stock under this prospectus and will not receive any proceeds from the sale by the Selling Stockholders of such shares.

Sales of shares of common stock by the Selling Stockholders may occur at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market prices or at negotiated prices. The Selling Stockholders may sell the shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholders, the purchasers of the shares, or both.

We are paying the cost of registering the shares covered by this prospectus as well as various related expenses. The Selling Stockholders are responsible for all selling commissions, transfer taxes and other costs related to the offer and sale of their shares. See “*Plan of Distribution*” for more information about how the Selling Stockholders may sell or dispose of their shares.

Our common stock is listed on the Nasdaq Stock Market under the trading symbol “NNBR.” On July 20, 2026, the last reported sale price of our common stock was \$3.48 per share.

Investing in our common stock involves a high degree of risk. Before making an investment decision, please read the information under “Risk Factors” on page 3 of this prospectus and under similar headings in any amendment or supplement to this prospectus or in any filing with the Securities and Exchange Commission that is incorporated by reference herein.

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

The date of this prospectus is July 21, 2026

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 (the “Registration Statement”) that we filed with the Securities and Exchange Commission (the “SEC”) using the “shelf” registration process. Under this shelf registration process, the Selling Stockholders hereunder may, from time to time in one or more offerings, sell the shares of common stock offered by them described in this prospectus.

We have not authorized anyone to provide you with information other than the information that we have provided or incorporated by reference in this prospectus and your reliance on any unauthorized information or representation is at your own risk. This prospectus may be used only in jurisdictions where offers and sales of these securities are permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus, any information we have incorporated by reference is accurate only as of the date of the document so incorporated and that any information in a supplement or amendment to this prospectus is accurate only as of the date of such supplement or amendment, in each case regardless of the time of delivery of this prospectus, or any sale of the shares. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus and the information incorporated herein by reference contain summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below in the section titled “Where You Can Find Additional Information.”

Unless otherwise stated, all references in this prospectus to “we,” “us,” “our,” “the Company,” “NN,” and similar designations, except where the context requires otherwise, refer collectively to NN, Inc. and its subsidiaries.

Our name “NN,” the NN logo and other trademarks or service marks of NN, Inc. appearing in this prospectus and in any prospectus supplement or free writing prospectus and the information incorporated by reference herein or therein are the property of NN, Inc. Other trademarks, service marks or trade names appearing in this prospectus in any prospectus supplement or free writing prospectus and the information incorporated by reference herein or therein are the property of their respective owners. We do not intend our use or display of other companies’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

PROSPECTUS SUMMARY

This summary highlights certain information about us, the Private Placement and selected information contained elsewhere in or incorporated by reference into this prospectus. This summary is not complete and does not contain all of the information that you should consider before making an investment decision. For a more complete understanding of our company, you should read and consider carefully the more detailed information included or incorporated by reference in this prospectus and any applicable prospectus supplement, including the factors described under the heading “Risk Factors” on page 3 of this prospectus, as well as the information incorporated herein by reference, before making an investment decision.

Company Overview

NN, Inc., a Delaware corporation, is a diversified industrial company that combines advanced engineering and production capabilities with in-depth materials science expertise to design and manufacture high-precision components and assemblies for a variety of end markets on a global basis.

Our enterprise and management structure is designed to accelerate growth and further balance our portfolio by aligning our strategic assets and businesses. Our businesses are organized into the Mobile Solutions group, which is focused on growth in the automotive, general industrial, and medical end markets, and the Power Solutions group, which is focused on growth in the electrical, general industrial, automotive, and medical end markets, and are based principally on the end markets they serve.

Corporate Information

We were incorporated in Delaware in October 1980. Our principal executive offices are maintained at 6210 Ardrey Kell Road, Suite 120, Charlotte, North Carolina 28277 and our telephone number is (980) 264-4300. Our website address is www.nninc.com. The information contained on, or accessible through, our website is not incorporated by reference into this prospectus, and you should not consider any information contained in, or that can be accessed through, our website as part of this prospectus or in deciding whether to purchase our securities. We have included our website in this prospectus solely as an inactive textual reference.

Private Placement

On June 30, 2026, we entered into a Securities Purchase Agreement (the “Purchase Agreement”) with certain institutional investors named in this prospectus pursuant to which we sold and issued 24,509,804 shares of common stock in the Private Placement, which closed on July 2, 2026. The purchase price per share of common stock was \$3.06. The total aggregate purchase price paid by the Selling Stockholders was \$75.0 million.

In connection with the Private Placement, on June 30, 2026, we entered into a Registration Rights Agreement (the “Registration Rights Agreement”) with the Selling Stockholders named in this prospectus, pursuant to which we agreed to prepare and file, within 45 days following the date of the Registration Rights Agreement, a registration statement with the SEC to register for resale the shares of our common stock issued at the closing under the Purchase Agreement, and to use commercially reasonable efforts to cause the registration statement to promptly become effective.

For additional information regarding the Purchase Agreement and Registration Rights Agreement, refer to the summary of the Private Placement included under Item 1.01 of our [Current Report on Form 8-K filed with the SEC on July 1, 2026](#), which is incorporated by reference herein.

Implications of Being a Smaller Reporting Company

We are a smaller reporting company and may continue to be a smaller reporting company if either (i) the market value of our shares held by non-affiliates is less than \$250 million or (ii) our annual revenue was less than \$100 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700 million. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and are subject to reduced disclosure obligations regarding executive compensation.

The Offering

Common stock offered by the Selling Stockholders	24,509,804 shares
Terms of the offering	The Selling Stockholders will determine when and how they will sell the common stock offered in this prospectus, as described in “Plan of Distribution.”
Use of proceeds	We will not receive any proceeds from the sale of the shares of common stock covered by this prospectus.
Risk factors	See “ <i>Risk Factors</i> ” on page 3 for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Nasdaq Stock Market symbol	NNBR

The Selling Stockholders named in this prospectus may offer and sell up to 24,509,804 shares of our common stock. Our common stock is currently listed on the Nasdaq Stock Market under the symbol “NNBR.” shares of our common stock that may be offered under this prospectus are fully paid and non-assessable. We will not receive any of the proceeds of sales by the Selling Stockholders of any of the common stock covered by this prospectus. When we refer to the Selling Stockholders in this prospectus, we are referring to the Selling Stockholders identified in this prospectus and, as applicable, their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement of which this prospectus is a part.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in any applicable prospectus supplement and any related free writing prospectus, and under similar headings in our most recent Annual Report on Form 10-K, as updated by our subsequent annual, quarterly and other reports and documents that are incorporated by reference into this prospectus and any applicable prospectus supplement before deciding whether to purchase any of our securities being registered pursuant to the registration statement of which this prospectus is a part. Each of the risk factors described in the documents referenced above could adversely affect our business, operating results, and financial condition, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial, may also significantly impair our business operations. Please also read carefully the section below titled “Special Note Regarding Forward-Looking Statements.”

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, each applicable prospectus supplement, and the information incorporated by reference in this prospectus and each prospectus supplement contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which are intended to be covered by the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and include this statement for purposes of complying with these safe harbor provisions. Forward-looking statements generally will be accompanied by words such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “forecast,” “growth,” “guidance,” “intend,” “may,” “possible,” “potential,” “predict,” “project,” “trajectory,” “will” or the negative of those terms, and similar expressions that convey uncertainty of future events or outcomes. Forward-looking statements involve a number of risks and uncertainties that are outside of management’s control and that may cause actual results to be materially different from such forward-looking statements. Such factors include, among others, general economic conditions and economic conditions in the industrial sector; competitive influences; risks that current customers will commence or increase captive production; risks of capacity underutilization; quality issues; inflationary pressures and material changes in the cost or availability of raw materials, supply chain shortages and disruptions, the availability of labor and labor disruptions along the supply chain; our dependence on certain major customers, some of whom are not parties to long-term agreements (and/or are terminable on short notice); the impact of acquisitions and divestitures, as well as expansion of end markets and product offerings; our ability to hire or retain key personnel; the restrictions contained in our debt agreements; the level of our indebtedness and our ability to obtain financing at favorable rates, if at all, or to refinance existing debt as it matures; our ability to secure, maintain or enforce patents or other appropriate protections for our intellectual property; the impact of climate change on our operations; economic, social, political and geopolitical instability, military conflict, currency fluctuation, and other risks of doing business outside of the United States; uncertainty of government policies and actions in respect to global trade and tariffs, including the potential impacts of tariffs on the United States economy, the economy of other countries in which we conduct operations and our industry; cyber liability or potential liability for breaches of our or our service providers’ information technology systems or business operations disruptions; and other risks and uncertainties set forth in documents filed, or to be filed, with the SEC. For the reasons described above, we caution against relying on any forward-looking statements, which should also be read in conjunction with the sections entitled “Business,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and in other sections incorporated by reference from our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as applicable, as well as our other filings with the SEC. You should be aware that the occurrence of any of the events discussed under the heading “Risk Factors” in any applicable prospectus supplement and any documents incorporated by reference herein or therein could substantially harm our business, operating results, and financial condition and that if any of these events occurs, it could adversely affect the value of an investment in our securities.

The cautionary statements made in this prospectus are intended to be applicable to all related forward-looking statements wherever they may appear in this prospectus or in any prospectus supplement or any documents incorporated by reference herein or therein. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date they are made. Except as required by law, we assume no obligation to update our forward-looking statements, even if new information becomes available in the future.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale or other disposition of shares of our common stock held by the Selling Stockholders pursuant to this prospectus. We will bear the out-of-pocket costs, expenses and fees incurred in connection with the registration of shares of our common stock to be sold by the Selling Stockholders pursuant to this prospectus. Other than registration expenses, the Selling Stockholders will bear underwriting discounts, commissions, placement agent fees or other similar expenses payable with respect to sales of shares of our common stock.

DESCRIPTION OF CAPITAL STOCK

General

Our authorized capital stock consists of 90,000,000 shares of common stock, \$0.01 par value per share, and 5,000,000 shares of preferred stock, \$0.01 par value per share (“Preferred Stock”). Our board of directors (the “Board”) is authorized, without stockholder approval, except as required by the listing standards of the Nasdaq Stock Market, to issue additional shares of our capital stock. In addition, our board of directors may, without further action by our stockholders, designate the rights, preferences, privileges, and restrictions of our Preferred Stock in one or more series.

As of May 18, 2026, we had outstanding 52,742,725 shares of common stock and 65,000 shares of Series D Perpetual Preferred Stock, \$0.01 par value per share (the “Series D Preferred Stock”).

Common Stock

The following description of common stock is a summary and is qualified in its entirety by reference to the actual terms and provisions contained in our Restated Certificate of Incorporation, as amended from time to time (the “Certificate of Incorporation”), and our Amended and Restated Bylaws, as amended from time to time (the “Bylaws”), each of which is filed as an exhibit to the registration statement of which this prospectus is a part. We encourage you to read our Certificate of Incorporation, our Bylaws, and the applicable provisions of the Delaware General Corporation Law (“DGCL”) for additional information.

Dividends

Subject to preferential rights of any other class or series of Preferred Stock, holders of common stock may receive dividends pro rata out of assets that we can legally use to pay dividends, when, as and if they are declared by our Board.

Voting Rights

Holders of common stock will have the exclusive power to vote on all matters presented to our stockholders, including the election of directors, except as otherwise provided by Delaware law or as provided with respect to any other class or series of stock. Holders of common stock are entitled to one vote per share. There is no cumulative voting in the election of our directors, which means that, subject to any rights to elect directors that are granted to the holders of any class or series of Preferred Stock, a majority of the votes cast at a meeting of stockholders at which a quorum is present is required to elect a director in any uncontested election and a plurality of the votes cast at a meeting of stockholders at which a quorum is present is required to elect a director in any contested election.

Liquidation Rights

In the event we are liquidated, dissolved or our affairs are wound up, after we pay or make adequate provision for all of our known debts and liabilities, each holder of common stock will receive dividends pro rata out of assets that we can legally use to pay distributions, subject to any rights that are granted to the holders of any class or series of Preferred Stock.

Fully Paid and Nonassessable

The outstanding shares of our common stock are fully paid and nonassessable.

Absence of Other Rights

Holders of common stock have no preference, appraisal or exchange rights, except for any appraisal rights provided by Delaware law. Furthermore, holders of common stock have no conversion, sinking fund or redemption rights, or preemptive rights to subscribe for any of our securities.

Preferred Stock

Our Certificate of Incorporation authorizes our Board, without stockholder approval, to designate and issue up to 5,000,000 shares of Preferred Stock, in one or more series and to fix the rights, preferences.

privileges and restrictions granted to or imposed upon each such series of Preferred Stock, including voting rights, dividend rights, conversion rights, terms of redemption, liquidation preference, sinking fund terms, subscription rights and the number of shares constituting any series or the designation of a series. Our Board can issue, without stockholder approval, Preferred Stock with voting and conversion rights that could adversely affect the voting power of the holders of common stock and reduce the likelihood that such holders will receive dividend payments or payments upon liquidation. Such issuance could have the effect of decreasing the market price of the common stock. The issuance of Preferred Stock or even the ability to issue Preferred Stock could also have the effect of delaying, deterring or preventing a change of control or other corporate action.

Series D Preferred Stock

The following description of our Series D Preferred Stock is a summary and is qualified in its entirety by reference to the actual terms and provisions contained in the Certificate of Designation of Series D Perpetual Preferred Stock (“Series D Certificate of Designation”), which is filed as an exhibit to the registration statement of which this prospectus is a part. We encourage you to read our Series D Certificate of Designation and the DGCL for additional information.

On March 22, 2021, we completed a private placement of 65,000 shares of Series D Preferred Stock pursuant to a Securities Purchase Agreement, dated March 22, 2021, by and between the Company and NGTV Nevada Holdings LP (the “Securities Purchase Agreement”). As of May 19, 2026, 65,000 shares of Series D Preferred Stock are outstanding.

Dividends

Holders of Series D Preferred Stock are entitled to receive, when, as and if declared by the Board, and we shall pay, out of funds lawfully available therefor, cumulative dividends payable in cash quarterly in arrears at the rate per share of 10% per annum of the Initial Liquidation Preference (as defined below) per share of Series D Preferred Stock (the “Cash Dividend Rate”). On any dividend payment date, if a dividend is not paid in cash, the liquidation preference per share of Series D Preferred Stock will be increased to 12.0% per annum (the “Preference Accrual Rate”) on the then current liquidation preference per share of Series D Preferred Stock (the “Liquidation Preference Adjustment”). On March 22, 2026, the Cash Dividend Rate and the Preference Accrual Rate, expressed as a percentage, increased by an amount equal to 2.5%, and shall continue to increase by an amount equal to 2.5% on each anniversary date. In addition to the foregoing, beginning on September 30, 2027 and continuing quarterly thereafter, the Board shall declare and we shall pay in cash a dividend to the holders of Series D Preferred Stock unless otherwise prohibited by the DGCL or any effective credit agreement to which we are a party.

Voting Rights

Holders of the Series D Preferred Stock shall not have any voting rights, other than with respect to: (i) amendments or waivers to our organizational documents that generally have an adverse effect on the Series D Preferred Stock; (ii) authorization, creation, or issuance of, or the combination or reclassification of any securities into, any additional shares of Series D Preferred Stock or any senior or parity securities; (iii) the declaration or payment of any dividend or distribution on, or redemption or repurchase of, any issued and outstanding shares of common stock or any other junior securities; (iv) incurrence by us and our subsidiaries of indebtedness other than (x) any indebtedness that would be permitted to be incurred under any credit agreement to which we were a party at the time the Series D Preferred Stock was issued, (y) indebtedness incurred in connection with refinancing our existing indebtedness outstanding, subject to certain limitations, and (z) indebtedness the net proceeds of which are contemporaneously used to redeem all outstanding shares of Series D Preferred Stock; (v) the making of any dispositions, subject to certain exceptions; and (vi) any voluntary liquidation or bankruptcy filing. For effecting or validating any of the foregoing actions by the Company, whether or not such approval is required pursuant to the DGCL, the affirmative vote or consent of the holders of at least a majority of the shares of Series D Preferred Stock outstanding at such time, voting together as a separate class, given in person or by proxy, either in writing without a meeting or by vote at any meeting called for the purpose is required.

Liquidation Preference

The Series D Preferred Stock has a liquidation preference of \$1,000 per share of Series D Preferred Stock (the “Initial Liquidation Preference”). In the event of a liquidation, dissolution or winding up of the affairs of the Company, after payment or provision for payment of the debts and other liabilities of the Company, the holders of Series D Preferred Stock shall be entitled to receive, in respect of any shares of Series D Preferred Stock held by them, out of assets of the Company available for distribution to stockholders of the Company or their assignees, and subject to the rights of any outstanding shares of any class or series of securities that ranks senior to the Series D Preferred Stock and before any amount shall be distributed to any holders of any class or series of securities that ranks junior to the Series D Preferred Stock, a liquidating distribution in an amount equal to the greater of (i) the Initial Liquidation Preference as such amount may have been increased for any adjustments, and (ii) 140% of the Initial Liquidation Preference.

Conversion and Exchange Rights

The shares of Series D Preferred Stock are not convertible into or exchangeable for shares of common stock or any other security.

Redemption

We may redeem all or a portion of (but in no event less than 25,000 of the Series D Preferred Stock) the then outstanding shares of Series D Preferred Stock for an amount equal to the liquidation preference then in effect of such shares of Series D Preferred Stock (the “Redemption Price”). If we redeem only a portion of the then outstanding shares of Series D Preferred Stock, the shares of Series D Preferred Stock subject to such redemption shall be allocated pro rata among the holders of the then outstanding shares of Series D Preferred Stock.

In connection with a Change of Control (as defined in the Series D Certificate of Designation), each holder of shares of Series D Preferred Stock has the right to require that we redeem all or a portion of such holder’s shares of Series D Preferred Stock for cash in an amount equal to the Redemption Price then in effect. We may also redeem all or a portion of the then outstanding shares of Series D Preferred Stock for cash in an amount equal to the Redemption Price then in effect.

Ranking

The Series D Preferred Stock shall rank, with respect to the payment of dividends and other distributions, including the distribution of assets upon liquidation, dissolution or winding up of the Company, (i) senior to the common stock and to any other class or series of the Preferred Stock, and (ii) junior to any existing or future secured or unsecured indebtedness of the Company.

Warrants

As of May 18, 2026, there were warrants to purchase up to 1,215,000 shares of common stock at an exercise price of \$11.03 per share outstanding, which are exercisable, in full or in part, at any time prior to December 11, 2026.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. In general, Section 203, subject to certain exceptions, prohibits a publicly held Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that such person or entity became an interested stockholder, unless:

- prior to such date, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding specified shares; or

- at or subsequent to such date of the transaction that resulted in a person or entity becoming an interested stockholder, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66⅔% of the outstanding voting stock that is not owned by the interested stockholder.

The application of Section 203 may limit the ability of stockholders to approve a transaction that they may deem to be in their best interests. In addition, Section 203 makes it more difficult for an interested stockholder to effect various business combinations with a corporation for a three-year period, although the stockholders may, by adopting an amendment to our Certificate of Incorporation or Bylaws, elect not to be governed by this section, effective 12 months after adoption.

In general, Section 203 defines “business combination” as:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, exchange, mortgage, pledge, transfer or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;
- subject to certain exceptions, any transaction which results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an “interested stockholder” as any person that is:

- the owner of 15% or more of the outstanding voting stock of the corporation;
- an affiliate or associate of the corporation and was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the relevant date; or
- an affiliate or associate of the above.

Our Certificate of Incorporation and Bylaws do not exclude us from the restrictions imposed under Section 203. We anticipate that the provisions of Section 203 may encourage companies interested in acquiring us to negotiate in advance with our board of directors because the stockholder approval requirement would be avoided if a majority of the directors then in office approve either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder.

Other Corporate Governance Matters

Under our Certificate of Incorporation, directors shall be elected for a one-year term expiring at the next annual meeting. Directors elected to succeed those directors whose terms then expire shall be elected for a term of office to expire at the succeeding annual meeting after their election, with each director to hold office until his or her successor shall have been duly elected and qualified.

Subject to the preferential rights of any other class or series of preferred stock, any director, or the entire Board, may be removed from office at any time, with or without cause, by the affirmative vote of the holders of a majority of the voting power of all the then outstanding shares of voting stock of the Company, voting together as a single class. Our Bylaws require that stockholders provide the Secretary of our company with notice of the nomination of a person for election as a director with respect to an election to be held at an annual meeting of stockholders, not less than 90 nor more than 120 days prior to the anniversary date of the immediately preceding annual meeting of stockholders or special meeting in lieu of an annual meeting, provided, however, that if the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date, notice by the stockholder to be timely must be given, not earlier than the 120th day prior to such annual meeting and not later than the 90th day prior to such annual meeting or, if later, the 10th day following the day on which public disclosure of the date of such annual meeting was

first made. To be timely, a stockholder's notice for nominations to be made at a special meeting must be made not earlier than the 120th day prior to such special meeting and not later than the 90th day prior to such special meeting or, if later, the 10th day following the day on which public disclosure of the date of such special meeting was first made. Our Bylaws provide that special meetings of stockholders of our company may be called only by: (i) the Chairman of the Board, (ii) by a majority of the Board, or (iii) the Chief Executive Officer of our Company. Our Certificate of Incorporation, as well as applicable provisions of the DGCL, provide that no action required or permitted to be taken at any annual or special meeting of our stockholders may be taken without a meeting, unless the consent of two-thirds of the voting power of the then outstanding shares of stock of the company entitled to vote on the matter is obtained. These provisions may diminish the likelihood that a potential acquirer would make an offer for our common stock or that there would otherwise be a change in control of our company.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A.. The transfer agent's address is 462 South 4th Street, Louisville, Kentucky 40202.

Listing

Our common stock is listed on the Nasdaq Stock Market under the trading symbol "NNBR."

SELLING STOCKHOLDERS

The Selling Stockholders may sell some, all or none of their shares. We do not know how long the Selling Stockholders will hold the shares before selling them, and we currently have no agreements, arrangements or understandings with the Selling Stockholders regarding the sale or other disposition of any of the shares. The shares covered hereby may be offered from time to time by the Selling Stockholders. As a result, we cannot estimate the number of shares of common stock the Selling Stockholders will beneficially own after termination of sales under this prospectus. In addition, the Selling Stockholders may have sold, transferred or otherwise disposed of all or a portion of their shares of common stock since the date on which they provided information for the table below.

Information regarding each additional Selling Stockholder, if any, will be set forth by a prospectus supplement to the extent required prior to the time of any offer or sale of such Selling Stockholder's shares pursuant to this prospectus. Any prospectus supplement may add, update, substitute, or change the information contained in this prospectus, including the identity of each Selling Stockholder and the number of shares registered on its behalf. A Selling Stockholder may sell or otherwise transfer all, some or none of such shares in this offering. See “*Plan of Distribution*.”

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our common stock. Generally, a person “beneficially owns” shares of our common stock if the person has or shares with others the right to vote those shares or to dispose of them, or if the person has the right to acquire voting or disposition rights within 60 days.

The information in the table below and the footnotes thereto regarding shares of common stock to be beneficially owned after the offering assumes the sale of all shares being offered by the Selling Stockholders under this prospectus. This information has been obtained from the Selling Stockholders. The percentage of shares owned after the offering is based on 77,083,705 shares outstanding as of July 2, 2026.

Name	Number of Shares Beneficially Owned Before this Offering	Number of Shares Offered	Number of Shares Beneficially Owned After this Offering	Percentage of Shares Beneficially Owned
AIGH Investment Partners, LP ⁽¹⁾	5,708,663	5,697,167	11,496	*
WVP Emerging Manager Onshore Fund, LLC – AIGH Series ⁽²⁾	1,822,869	1,819,177	3,692	*
Alyeska Master Fund, L.P. ⁽³⁾	4,901,960	4,901,960	—	—
CVI Investments, Inc. ⁽⁴⁾	1,633,986	1,633,986	—	—
Polar Long/Short Master Fund ⁽⁵⁾	1,307,189	1,307,189	—	—
Alice W Lytton Family LLC ⁽⁶⁾	507,189	507,189	—	—
Lytton-Kambara Foundation ⁽⁷⁾	800,000	800,000	—	—
Special Situations Private Equity, L.P. ⁽⁸⁾	490,195	490,195	—	—
Special Situations Cayman Fund, L.P. ⁽⁸⁾	780,014	780,014	—	—
Special Situations Fund III QP, L.P. ⁽⁸⁾	2,651,359	2,651,359	—	—
Citadel CEMF Investments Ltd. ⁽⁹⁾	3,921,568	3,921,568	—	—

* Less than 1%

- (1) Mr. Orin Hirschman is the managing member of AIGH Capital Management, LLC, a Maryland limited liability company (“AIGH CM”), which is an advisor with respect to securities held by AIGH Investment Partners, LP (“AIGH LP”). Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM, directly held by AIGH LP and directly held by Mr. Hirschman and his family. The address for AIGH CM, AIGH LP and Mr. Hirschman is 6006 Berkeley Avenue, Baltimore, Maryland 21209.

- (2) Mr. Orin Hirschman is the managing member of AIGH CM, who is a sub-advisor with respect to securities held by WVP Emerging Manager Onshore Fund, LLC - AIGH Series. Mr. Hirschman has voting and investment control over the securities indirectly held by AIGH CM and directly held by Mr. Hirschman and his family directly. The address for AIGH CM and Mr. Hirschman is 6006 Berkeley Avenue, Baltimore, Maryland 21209.
- (3) Alyeska Investment Group, L.P., the investment manager of Alyeska Master Fund, L.P., has voting and investment control of the shares held by Alyeska Master Fund, L.P. Anand Parekh is the Chief Executive Officer of Alyeska Investment Group, L.P. and may be deemed to be the beneficial owner of such shares. Mr. Parekh, however, disclaims any beneficial ownership of the shares held by Alyeska Master Fund, L.P., other than to the extent of any pecuniary interest therein. The registered address of Alyeska Master Fund, L.P. is at c/o Maples Corporate Services Limited, P.O. Box 309, Ugland House, South Church Street George Town, Grand Cayman, KY1-1104, Cayman Islands. Alyeska Investment Group, L.P. is located at 77 W. Wacker, Suite 700, Chicago IL 60601.
- (4) Heights Capital Management, Inc., the authorized agent of CVI Investments, Inc. ("CVI"), has discretionary authority to vote and dispose of the shares held by CVI and may be deemed to be the beneficial owner of these shares. Martin Kobinger, in his capacity as Investment Manager of Heights Capital Management, Inc., may also be deemed to have investment discretion and voting power over the shares held by CVI. Mr. Kobinger disclaims any such beneficial ownership of the shares. The principal business address of CVI is c/o Heights Capital Management, Inc., 101 California Street, Suite 3250, San Francisco, California 94111.
- (5) Polar Long/Short Master Fund ("Polar") is under management by Polar Asset Management Partners Inc. ("PAMPI"). PAMPI serves as investment advisor of Polar and has control and discretion over the shares held by Polar. As such, PAMPI may be deemed the beneficial owner of the shares held by Polar. PAMPI disclaims any beneficial ownership of the reported shares other than to the extent of any pecuniary interest therein. John Paul Sabourin, in his capacity as Chief Investment Officer of PAMPI, may also be deemed the beneficial owner of the shares held by Polar. Mr. Sabourin disclaims any beneficial ownership of the reported shares other than to the extent of any pecuniary interest therein. The principal business address of Polar is 94 Solaris Avenue, Camana Bay, PO Box 1348, Grand Cayman KY1-1108, Cayman Islands.
- (6) Laurence Lytton may be deemed to have voting and dispositive power with respect to the common shares beneficially owned by the Alice W Lytton Family LLC. The address of Alice W Lytton Family LLC is 467 Central Park West 17-A, New York, NY 10025, Attn: Laurence Lytton, Managing Partner.
- (7) Laurence Lytton has sole voting and investment control of the securities beneficially owned by the Lytton-Kambara Foundation. The address of the Lytton-Kambara Foundation is 467 Central Park West 17-A, New York, NY 10025, Attn: Laurence Lytton, President.
- (8) AWM Investment Company, Inc. ("AWM") is the investment adviser to each of the Special Situations Funds. David Greenhouse and Adam Stettner are the principal owners of AWM. Through their control of AWM, Messrs. Greenhouse and Stettner share voting and investment control over the portfolio securities of each of the Special Situations Funds. Messrs. Greenhouse and Stettner disclaim any beneficial ownership of the reported shares other than to the extent of any pecuniary interest each of them may have therein. The address of AWM, each of the Funds and Messrs. Greenhouse and Stettner is 527 Madison Avenue, Suite 2600, New York, NY 10022.
- (9) Citadel Advisors LLC is the portfolio manager of Citadel CEMF Investments Ltd. Citadel Advisors Holdings LP ("CAH") is the sole member of Citadel Advisors LLC. Citadel GP LLC ("CGP"), is the general partner of CAH. Kenneth Griffin owns a controlling interest in CGP. Mr. Griffin, as the owner of a controlling interest in CGP, may be deemed to have shared power to vote or direct the vote of, and/or shared power to dispose of or to direct the disposition over, the shares of common stock listed above. The foregoing is not and shall not be construed as an admission that Mr. Griffin or any of the Citadel-related entities listed above is the beneficial owner of any securities of the Company other than the securities actually owned by such person (if any). The address of Citadel CEMF Investments Ltd. is 830 Brickell Plaza, Floor 15, Miami, FL 33131.

PLAN OF DISTRIBUTION

Each Selling Stockholder of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on any stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the Selling Stockholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The Selling Stockholders may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep the registration statement of which this prospectus is a part effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and

without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for the Company to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the shares of common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the Selling Stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the shares of common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

Cooley LLP, Chicago, Illinois, will pass upon the validity of the shares of common stock offered hereby.

EXPERTS

The audited financial statements and management's assessment of the effectiveness of internal control over financial reporting incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the reports of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement on Form S-3 we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers, such as us, that file electronically with the SEC.

Copies of certain information filed by us with the SEC are also available on our website at www.nninc.com. Information contained in or accessible through our website does not constitute a part of this prospectus and is not incorporated by reference in this prospectus. We have included our website address as an inactive textual reference only.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, or are otherwise not incorporated into registration statements pursuant to applicable rules promulgated by the SEC)::

- [our Annual Report on Form 10-K for the fiscal year ended December 31, 2025, filed with the SEC on March 4, 2026;](#)
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2025 from our [definitive proxy statement on Schedule 14A, filed with the SEC on April 6, 2026;](#)
- [our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2026, filed with the SEC on May 6, 2026;](#)
- our Current Reports on Form 8-K (other than information furnished rather than filed), filed with the SEC on [January 20, 2026, January 30, 2026, May 20, 2026, June 12, 2026 and July 1, 2026;](#) and
- the description of our common stock, which is registered under Section 12 of the Exchange Act, described in [Exhibit 4.5](#) to our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on [March 15, 2021](#), including any amendments or reports filed for the purposes of updating such description.

We also incorporate by reference into this prospectus all documents (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items and other portions of documents that are furnished, but not filed, or are otherwise not incorporated into registration statements pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us at NN, Inc., 6210 Ardrey Kell Road, Suite 120, Charlotte, North Carolina 28277 Attention: Secretary or telephoning us at (980) 264-4300.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.