

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549**

**FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Spire Global, Inc.
(Exact name of registrant as specified in its charter)

Delaware

4899

85-1276957

(State or other jurisdiction
of incorporation or organization)

(Primary Standard Industrial
Classification Code Number)

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

**8000 Towers Crescent Drive
Suite 1100
Vienna, Virginia 22182
(202) 301-5127**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Theresa Condor
President and Chief Executive Officer
Spire Global, Inc.
8000 Towers Crescent Drive
Suite 1100
Vienna, Virginia 22182
(202) 301-5127**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Spire Global, Inc.
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(202) 301-5127**

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2200 Wells Fargo Center
90 South Seventh Street
Minneapolis, Minnesota 55402
(612) 766-7000**

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. Neither we nor the selling stockholders may sell the securities described in this preliminary prospectus until the registration statement filed with the Securities and Exchange Commission is declared effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY—SUBJECT TO COMPLETION, DATED APRIL 23, 2026

SPIRE GLOBAL, INC.

5,000,000 Shares of Class A Common Stock

This prospectus relates to the resale by the selling stockholders identified in this prospectus of up to 5,000,000 shares of our Class A common stock, par value \$0.0001 per share, that are currently outstanding.

We are registering the offer and sale of these shares to satisfy certain registration rights we have granted. The selling stockholders may sell the shares described in this prospectus in a number of different ways and at varying prices. We will not receive any of the proceeds from such sales. The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by them in disposing of these shares. We will bear all other costs, fees and expenses incurred in effecting the registration of these shares, as described in more detail in the section titled “Use of Proceeds” appearing elsewhere in this prospectus. We provide more information about how the selling stockholders may sell their shares in the section titled “Plan of Distribution” appearing elsewhere in this prospectus.

The selling stockholders may sell any, all or none of the shares of Class A common stock and we do not know when or in what amount the selling stockholders may sell their shares hereunder following the effective date of this registration statement.

Our Class A common stock is traded on the New York Stock Exchange (“NYSE”) under the symbol “SPIR.” On April 21, 2026, the last quoted sale price for our Class A common stock as reported on NYSE was \$18.74 per share.

Investing in our securities involves a high degree of risk. Before buying any securities, you should carefully read the discussion of the risks of investing in our securities in the section titled “Risk Factors” beginning on page 5 of this prospectus.

You should rely only on the information contained in this prospectus or any prospectus supplement or amendment hereto. We have not authorized anyone to provide you with different information.

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 , 2026

TABLE OF CONTENTS

| | |
|--|----|
| <u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u> | 1 |
| <u>PROSPECTUS SUMMARY</u> | 3 |
| <u>THE OFFERING</u> | 4 |
| <u>RISK FACTORS</u> | 5 |
| <u>USE OF PROCEEDS</u> | 6 |
| <u>SELLING STOCKHOLDERS</u> | 7 |
| <u>PLAN OF DISTRIBUTION</u> | 9 |
| <u>DESCRIPTION OF SECURITIES TO BE REGISTERED</u> | 11 |
| <u>LEGAL MATTERS</u> | 16 |
| <u>EXPERTS</u> | 16 |
| <u>WHERE YOU CAN FIND MORE INFORMATION</u> | 16 |
| <u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u> | 16 |

Neither we nor the selling stockholders have authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus, any applicable prospectus supplement or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. Neither we nor the selling stockholders take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor the selling stockholders are making an offer of these securities in any jurisdiction where the offer is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus, any applicable prospectus supplement or in any free writing prospectus is accurate as of any date other than their respective dates.

Except as otherwise indicated by the context, references in this prospectus to “we,” “us,” “our” and the “Company” are to the consolidated business of Spire Global, Inc.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of the federal securities laws, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “would,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential,” “seek” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans or intentions. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- our cash runway and potential need for additional capital to support business growth, which might not be available on company favorable terms, if at all;
- significant political, trade, regulatory developments, and other circumstances beyond our control, including as a result of geopolitical uncertainty and instability and tariffs, which could have a material adverse effect on our financial condition or results of operations;
- global and domestic economic conditions, including currency exchange rate fluctuations, inflation, interest rates and their impact on demand and pricing for our offerings in affected markets;
- changes in our growth, strategy, future operations, financial position, estimated revenue and losses, projected costs, prospects, and plans;
- our ability to remedy identified material weaknesses;
- the ability to develop new offerings, services, solutions and features and bring them to market in a timely manner and make enhancements to our business;
- the quality and effectiveness of and advancements in our technology and our ability to accurately and effectively use data and engage in predictive analytics;
- overall level of customer demand for our products and services;
- expectations and timing related to product launches;
- the expected timing of revenue recognition, especially in connection with milestone-based services;
- expectations of achieving and maintaining profitability;
- expectations regarding future solar cycles and the anticipated impact on our satellites;
- projections of total addressable markets, market opportunity, and market share;
- our expectations concerning relationships with third parties;
- our ability to acquire or develop products or technologies we believe could complement or expand our platform or to expand our products and services internationally;
- our ability to obtain and protect patents, trademarks, licenses and other intellectual property rights;
- our ability to utilize potential net operating loss carryforwards;
- developments and projections relating to our competitors and industries, such as the projected growth in demand for data solutions;
- our ability to acquire new customers and partners or obtain renewals, upgrades, or expansions from our existing customers, including government customers;

- our ability to compete with existing and new competitors in existing and new markets and offerings;
- our ability to retain or recruit officers, key employees or directors;
- our expectations regarding regulatory approvals and authorizations; and
- the expectations regarding the effects of existing and developing laws and regulations, including with respect to regulations around satellites, intellectual property law, and privacy and data protection.

We caution you that the foregoing list may not contain all of the forward-looking statements made or incorporated by reference in this prospectus.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained or incorporated by reference in this prospectus on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors, including those described in the section titled “Risk Factors” and elsewhere in this prospectus and our most recent Annual Report on Form 10-K, as well as any amendments thereto reflected in subsequent filings with the Securities and Exchange Commission (the “SEC”), and any other documents we file with the SEC from time to time. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained or incorporated by reference in this prospectus. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

Neither we, the selling stockholders nor any other person assumes responsibility for the accuracy and completeness of any of these forward-looking statements. Moreover, the forward-looking statements made or incorporated by reference in this prospectus relate only to expectations as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made or incorporated by reference in this prospectus to reflect events or circumstances after the date such statements are made or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date such statements are made, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely upon these statements.

PROSPECTUS SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus. This summary may not contain all of the information that you should consider before investing in our Class A common stock. You should carefully read the entire prospectus, any prospectus supplement or any free writing prospectus, and the information incorporated by reference herein and therein before making an investment decision.

Our Company

We are a global provider of space-based data, analytics, and space services, offering unique datasets and powerful insights about Earth so that organizations can make decisions with confidence in a rapidly changing world. We build, own, and operate a fully deployed constellation of multi-purpose nanosatellites that observe the Earth in real time using radio frequency (“RF”) technology. The data acquired by our satellites provide global weather intelligence, aircraft and ship movements, and spoofing and jamming detection to help predict how these patterns affect economies, global security, business operations, and the environment. Additionally, we deliver space-based intelligence through a mission-ready satellite network and military-grade analytics. Our platform supports persistent signal monitoring, source detection, and asset tasking across any global region of interest. We also offer Space Services solutions that enable our customers to deploy and scale their own constellation, by leveraging our proven space platform, global ground station network, end-to-end manufacturing facility, and extensive launch partnership network.

We operate in the “listening” (radio frequency) satellite market. We do not operate in the “looking” (imagery) or “talking” (communications) satellite markets.

Corporate Information

We were incorporated in May 2020 as a Delaware corporation and a special purpose acquisition company under the name NavSight Holdings, Inc. (“NavSight”). On September 9, 2020, NavSight completed its initial public offering. On August 16, 2021 (the “Closing Date”), Spire Global Subsidiary, Inc. (formerly known as Spire Global, Inc.) (“Old Spire”) closed its previously announced merger with NavSight, pursuant to the terms of the Business Combination Agreement, dated as of February 28, 2021, by and among Old Spire, NavSight, NavSight Merger Sub, Inc., a wholly owned subsidiary of NavSight, and Peter Platzer, Theresa Condor, Jeroen Cappaert, and Joel Spark (the “Business Combination Agreement”). In connection with the Business Combination Agreement, NavSight changed its name to Spire Global, Inc.

Our principal executive office is located at 8000 Towers Crescent Drive, Suite 1100, Vienna, Virginia 22182, and our telephone number is (202) 301-5127. Information contained on our website or connected thereto does not constitute part of, and is not incorporated by reference into, this prospectus or the registration statement of which it forms a part.

THE OFFERING

| | |
|---|--|
| Issuer | Spire Global, Inc. |
| Shares of Class A common stock offered by selling stockholders | 5,000,000 shares |
| Terms of the offering | The selling stockholders determine when and how they will dispose of the shares of Class A common stock registered under this prospectus for resale. |
| Use of Proceeds | All net proceeds from the sale of the shares of Class A common stock covered by this prospectus will go to the selling stockholders. We will receive none of the proceeds from the sale of the shares of Class A common stock covered by this prospectus by the selling stockholders. See "Use of Proceeds." |
| Risk Factors | See the section titled "Risk Factors" and other information included or incorporated by reference in this prospectus for a discussion of factors that you should consider carefully before deciding to invest in our Class A common stock. |
| Market for Class A common stock | Our Class A common stock is traded on the NYSE under the symbol "SPIR" |

RISK FACTORS

Investment in any shares of Class A common stock offered pursuant to this prospectus and any applicable prospectus supplement involves risks. Before deciding whether to acquire any such shares, you should consider carefully the risks and uncertainties described under the heading “Risk Factors” in our most recent Annual Report on Form 10-K and any amendments thereto, as well as any risks and uncertainties described in subsequent filings with the SEC, together with other information contained or incorporated by reference in this prospectus and any applicable prospectus supplement. The risks described in these documents are not the only ones we face. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors, or factors that we currently deem immaterial, that could have material adverse effects on our future results. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of the risks we face actually occur, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our Class A common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section above titled “Special Note Regarding Forward-Looking Statements.”

USE OF PROCEEDS

All of the shares of Class A common stock offered by the selling stockholders pursuant to this prospectus will be sold by the selling stockholders for their accounts. We will not receive any of the proceeds from these sales. The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by it for brokerage, accounting, tax or legal services or any other expenses incurred by it in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, NYSE listing fees and fees of our counsel and our independent registered public accountants.

SELLING STOCKHOLDERS

The shares of Class A common stock being offered by the selling stockholders are those previously issued to the selling stockholders.

On April 8, 2026, we entered into a securities purchase agreement (the “2026 Purchase Agreement”) with the purchasers named therein, for the private placement (the “2026 Private Placement”) of 5,000,000 shares of our Class A common stock at a purchase price of \$14.00 per share. The aggregate gross proceeds for the 2026 Private Placement were \$70.0 million, before deducting offering expenses, and the 2026 Private Placement closed on April 10, 2026.

We are registering the shares of Class A common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of the shares of Class A common stock and the purchase of shares of Class A common stock by certain of the selling stockholders pursuant to the Securities Purchase Agreement (the “2025 Purchase Agreement”), dated March 12, 2025 (the “2025 Private Placement”), the selling stockholders have not had any material relationship with us within the past three years. In the 2025 Private Placement, the Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B purchased 137,500 shares of Class A common stock, Manatuck Hill Navigator Master Fund, LP purchased 66,400 shares of Class A common stock, Manatuck Hill Scout Fund, LP purchased 125,800 shares of Class A common stock, Manatuck Hill Mariner Master Fund, LP, which is controlled by the same natural person as Manatuck Hill Navigator Master Fund, LP and Manatuck Hill Scout Fund, LP, purchased 120,300 shares of Class A common stock, 325 Capital LLC and its affiliates purchased 1,875,000 shares of Class A common stock, and GROW Small Cap Equity Long Short L.P. purchased 62,500 shares of Class A common stock.

The table below lists the selling stockholders and other information regarding the beneficial ownership of the shares of Class A common stock by each of the selling stockholders. The second column lists the number of shares of Class A common stock beneficially owned by each selling stockholder, based on its ownership of the shares of Class A common stock as of April 21, 2026.

The third column lists the shares of Class A common stock being offered by this prospectus by the selling stockholders.

In accordance with the terms of a registration rights agreement with the selling stockholders, this prospectus generally covers the resale of the sum of the number of shares of Class A common stock issued to the selling stockholders in the 2026 Private Placement described above. The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus.

The selling stockholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”

| <u>Name of Selling Stockholder</u> | <u>Number of Shares of Class A Common Stock Owned Prior to Offering</u> | <u>Maximum Number of Shares of Class A Common Stock to be Sold Pursuant to this Prospectus</u> | <u>Number of Shares of Class A Common Stock Owned After Offering</u> |
|---|---|--|--|
| 21 APRIL FUND, L.P. ⁽¹⁾ | <u>41,175</u> | <u>41,175</u> | = |
| 21 APRIL FUND, LTD. ⁽¹⁾ | <u>93,825</u> | <u>93,825</u> | = |
| Superius Securities Group Inc Profit Sharing Plan ⁽²⁾ | <u>35,000</u> | <u>35,000</u> | = |
| Shay Capital LLC ⁽³⁾ | <u>105,121</u> | <u>70,000</u> | <u>35,121</u> |
| Jon D and Linda W Gruber Trust ⁽⁴⁾ | <u>160,000</u> | <u>35,000</u> | <u>125,000</u> |
| Polar Multi-Strategy Master Fund ⁽⁵⁾ | <u>1,321,428</u> | <u>1,321,428</u> | = |
| Polar Long/Short Master Fund ⁽⁵⁾ | <u>428,572</u> | <u>428,572</u> | = |
| CVI Investments, Inc. ⁽⁶⁾ | <u>250,000</u> | <u>250,000</u> | = |
| Lytton-Kambara Foundation ⁽⁷⁾ | <u>185,000</u> | <u>185,000</u> | = |
| Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B ⁽⁸⁾ | <u>80,000</u> | <u>80,000</u> | = |
| Manatuck Hill Navigator Master Fund, LP ⁽⁹⁾ | <u>25,000</u> | <u>25,000</u> | = |
| Manatuck Hill Scout Fund, LP ⁽⁹⁾ | <u>45,000</u> | <u>45,000</u> | = |

| | | | |
|--|------------------|------------------|------------------|
| 325 Capital LLC ⁽¹⁰⁾ | <u>3,275,000</u> | <u>1,400,000</u> | <u>1,875,000</u> |
| GROW Small Cap Equity Long Short L.P. ⁽¹¹⁾ | <u>70,000</u> | <u>70,000</u> | = |
| Pinnacle Family Office Investments, L.P. ⁽¹²⁾ | <u>150,000</u> | <u>150,000</u> | = |
| Citadel CEMF Investments Ltd. ⁽¹³⁾ | <u>770,000</u> | <u>770,000</u> | = |

- (1) Michael M. Kellen is the Portfolio Manager of 21 APRIL FUND, L.P. and 21 APRIL FUND, LTD. The business address of these funds is c/o BLEICHROEDER LP, 1345 Avenue of the Americas, 48th Floor, New York, NY 10105-4800.
- (2) James Hudgins is the Trustee of Superius Securities Group Inc Profit Sharing Plan. The business address of Superius Securities Group Inc Profit Sharing Plan is 94 Grand Ave., Englewood, NJ 07631.
- (3) Andrew Meehan is the Chief Operating Officer of Shay Capital LLC. The business address of Shay Capital LLC is 280 Park Avenue (5th Floor West), New York, NY 10017.
- (4) Jon D Gruber is the Trustee of the Jon D and Linda W Gruber Trust. The business address of the Jon D and Linda W Gruber Trust is 300 Tamal Plaza, Suite 215, Corte Madera, CA 94925.
- (5) John Paul Sabourin is the Chief Investment Officer of Polar Asset Management Partners Inc., which serves as the Investment Advisor to Polar Multi-Strategy Master Fund and Polar Long/Short Master Fund. The business address of these funds is 94 Solaris Avenue, Camana Bay, PO Box 1348, Grand Cayman KY1-1108, Cayman Islands, c/o Polar Asset Management Partners Inc., 16 York Street, Suite 2900, Toronto, Ontario, Canada M5J 0E6.
- (6) 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. CVI is affiliated with one or more FINRA members, none of whom are currently expected to participate in the sale of shares purchased by this selling stockholder in the 2026 Private Placement, pursuant to this prospectus. The business address of CVI is c/o Heights Capital Management, Inc., 101 California Street, Suite 3250, San Francisco, CA 94111.
- (7) Laurence Lytton is the President of the Lytton-Kambara Foundation. The business address of the Lytton-Kambara Foundation is Attn: Laurence Lytton, 467 Central Park West, 17-A, New York, NY 10025.
- (8) Ayrton Capital LLC, the investment manager to Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B, has discretionary authority to vote and dispose of the shares held by Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B and may be deemed to be the beneficial owner of these shares. Waqas Khatri, in his capacity as Managing Member of Ayrton Capital LLC, may also be deemed to have investment discretion and voting power over the shares held by Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B. Alto Opportunity Master Fund, SPC - Segregated Master Portfolio B and Mr. Khatri each disclaim any beneficial ownership of these shares. The business address of Ayrton Capital LLC is 55 Post Rd West, 2nd Floor, Westport, CT 06880.
- (9) Thomas Scalia is the General Partner of Manatuck Hill Navigator Master Fund, LP and Manatuck Hill Scout Fund, LP. The business address of these funds is c/o Manatuck Hill Partners, LLC, 1465 Post Rd East, Westport, CT 06880.
- (10) Anil Shrivastava is the Managing Partner of 325 Capital LLC, which serves as the investment manager to 325 Capital Master Fund LP and to separately managed accounts Gothic Corp 649429, Gothic ERP 649947, Gothic HSP 649359 and Gothic JBD 650324. The business address of 325 Capital LLC is 757 Third Avenue, 20th Floor, New York, NY 10017.
- (11) Carl Wiese is the Manager of GROW Small Cap Equity Long Short L.P. The business address of GROW Small Cap Equity Long Short L.P. is 4275 Executive Square, Suite 335, La Jolla, CA 92037.
- (12) Barry M. Kitt is the Manager of Pinnacle Family Office, LLC, which serves as the General Partner of Pinnacle Family Office Investments, L.P. The business address of Pinnacle Family Office Investments, L.P. is 5910 N. Central Expy, Ste 1475, Dallas, TX 75206.
- (13) Citadel Advisors LLC is a 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 or to direct the disposition over, the shares of Class A common stock covered by this prospectus. The foregoing should not be construed in and of itself 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 shares actually owned by such person (if any). The business address of Citadel CEMF Investments Ltd. is c/o Citadel Enterprise Americas LLC, 830 Brickell Plaza, Floor 15, Miami, FL 33131.

PLAN OF DISTRIBUTION

Each selling stockholder of the securities and any of their donees, pledgees, transferees, assignees and successors-in-interest may, from time to time, sell, transfer or otherwise dispose of any or all of their securities covered hereby on the NYSE or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices relating to the prevailing market price, at varying prices determined at the time of sale or at negotiated prices. A selling stockholder may use any one or more of the following methods when disposing of securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades (which may include crosses) 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 and/or secondary distribution;
- directly to purchasers, including through specific bidding, auction or other process in privately negotiated transactions;
- underwritten offerings;
- 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, including, without limitation, any securities sold, borrowed or purchased by a counterparty to a selling stockholder as a hedge to such transaction;
- through the distribution of the shares of Class A common stock by a selling stockholder to its employees, partners (including limited partners), members or stockholders;
- through delayed delivery requirements;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of Class A common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of Class A common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending the list of selling stockholders to include the pledgee, transferee, or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of Class A common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

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 this prospectus 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 Class A 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 Class A 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).

DESCRIPTION OF SECURITIES TO BE REGISTERED

The following summary description of our capital stock is based on the provisions of our restated certificate of incorporation, as amended (our “certificate of incorporation”), our amended and restated bylaws (our “bylaws”), the applicable provisions of the Delaware General Corporation Law (the “DGCL”) and the agreements described below. This information may not be complete in all respects and is qualified entirely by reference to the provisions of our certificate of incorporation, our bylaws, the DGCL and such agreements. For information on how to obtain copies of our certificate of incorporation, our bylaws and such agreements, which are exhibits to the registration statement of which this prospectus forms a part, see the section titled “Where You Can Find More Information.”

General

Our authorized capital stock consists of 1,115,000,000 shares, \$0.0001 par value per share, of which:

- 1,000,000,000 shares are designated as Class A common stock;
- 15,000,000 shares are designated as Class B common stock; and
- 100,000,000 shares are designated as preferred stock.

Common Stock

Our certificate of incorporation authorizes two classes of common stock: Class A common stock and Class B common stock. The rights of the holders of our Class A common stock and our Class B common stock are identical, except with respect to voting and certain economic rights. Some of the terms of these classes of our common stock are discussed in greater detail below.

Dividend Rights

Subject to the prior rights of holders of all classes and series of stock at the time outstanding having prior rights as to dividends, the holders of our Class A common stock are entitled to receive dividends on a pro rata basis out of any assets legally available as may be declared from time to time by our board of directors. Dividends may not be declared or paid on our Class B common stock.

Right to Receive Liquidation Distributions

If we become subject to a liquidation, dissolution, or winding up, the assets legally available for distribution to our stockholders would be distributable on an equal priority, pro rata basis to the holders of our Class A common stock unless different treatment is approved by the majority of the holders of our Class A common stock and our Class B common stock, each voting separately as a class, subject to the rights of any holders of any series of our preferred stock then outstanding. Our Class B common stock is entitled to receive a maximum of \$0.0001 per share upon a liquidation, dissolution, or winding up.

Voting Rights

Holders of our Class A common stock are entitled to one vote for each share held as of the record date for the determination of the stockholders entitled to vote on such matters and holders of our Class B common stock are entitled to nine votes for each share held at the record date for the determination of the stockholders entitled to vote on such matters, except as otherwise required by law. The holders of our Class A common stock and our Class B common stock vote together as a single class, unless otherwise expressly provided in our certificate of incorporation or required by law.

Under our certificate of incorporation, approval of the holders of at least two-thirds of the outstanding shares of our Class B common stock, voting as a separate class, is required to:

- directly or indirectly, whether by amendment, or through merger, recapitalization, consolidation or otherwise, amend or repeal, or adopt any provision of our certificate of incorporation inconsistent with, or otherwise alter, any provision of our certificate of incorporation relating to the voting or other rights, powers, preferences, privileges or restrictions of our Class B common stock;
- reclassify any outstanding shares of our Class A common stock into shares having the right to have more than one vote for each share thereof; or
- issue any shares of our Class B common stock.

In addition, Delaware law could require either holders of our Class A common stock or of our Class B common stock to vote separately as a single class in the following circumstances:

- if we were to seek to amend our certificate of incorporation in a manner that alters or changes the powers, preferences, or special rights of a class of stock in a manner that affected its holders adversely; and
- if we were to seek to amend our certificate of incorporation to increase or decrease the par value of a class of stock, then that class would be required to vote separately to approve the proposed amendment.

Subject to any rights of the holders of any series of our preferred stock to elect directors under specified circumstances, the number of directors that constitutes our board of directors will be fixed solely by resolution of our board of directors. Our certificate of incorporation and bylaws have established a classified board of directors that is divided into three classes with staggered three-year terms. Only the directors in one class will be subject to election by a plurality of the votes cast at each annual meeting of our stockholders, with the directors in the other classes continuing for the remainder of their respective three-year terms. There is no cumulative voting with respect to the election of directors.

Conversion and Transferability

Shares of our Class A common stock and our Class B common stock are not convertible into any other shares of our capital stock. Each share of our Class B common stock will automatically and without further action on the part of us or the holders of our Class B common stock be transferred to us for no consideration upon (i) the affirmative written election of such holder, (ii) the date fixed by our board of directors that is no less than 61 days and no more than 180 days following the first time after 11:59 p.m. Eastern Time on the Closing Date of our merger with NavSight, that both (a) such Founder (as such term is defined in our certificate of incorporation) is no longer providing services to us as an officer, employee, or consultant and (b) such Founder is no longer one of our directors, (iii) the date fixed by our board of directors that is no less than 61 days and no more than 180 days following the date that such Founder's employment with us is terminated for Cause for Termination (as such term is defined in our certificate of incorporation), or (iv) upon the death or disability of such Founder. In addition, upon the sale, assignment, transfer, or other disposition of shares of Class A common stock held by the Founders pursuant to transfers not permitted by our certificate of incorporation, an equivalent number of shares of Class B common stock held by such Founder will be automatically and without further action on the part of us or such Founder be transferred to us for no consideration.

Notwithstanding the foregoing, all outstanding shares of our Class B common stock will automatically and without further action on the part of us or the holders of Class B common stock be transferred to us for no consideration on (i) the date specified by the holders of two-thirds of the then outstanding shares of our Class B common stock, voting as a separate class, or in the affirmative written election executed by the holders of two-thirds of the then outstanding shares of our Class B common stock, or (ii) the date fixed by our board of directors that is no less than 61 days and no more than 180 days following the date that the number of outstanding shares of our Class B common stock held by the Founders represents less than 10% of the aggregate number of shares of our Class B common stock held collectively by the Founders as of 11:59 p.m. Eastern Time on the Closing Date.

Other Matters

All outstanding shares of our common stock are fully paid and nonassessable. Our common stock is not entitled to preemptive rights and is not subject to redemption or sinking fund provisions.

Preferred Stock

Our board of directors is authorized, subject to any limitations prescribed by law, to provide for the issuance of preferred stock in series, to establish from time to time the number of shares to be included in each such series, and by filing a certificate pursuant to the

applicable law of the State of Delaware (“Preferred Stock Designation”) to fix the designation, powers, preferences and rights of the shares of each series and any qualifications, limitations or restrictions thereof. Our board of directors is empowered to increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders, unless required by the Preferred Stock Designation, irrespective of the provisions of the DGCL. Our board of directors is able to authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of the Company and might adversely affect the market price of our Class A common stock and the voting and other rights of the holders of our common stock.

Anti-Takeover Provisions

Certain provisions of Delaware law, our certificate of incorporation, and our bylaws, which are summarized below, may have the effect of delaying, deferring, or discouraging another person from acquiring control of us. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors.

Section 203 of the DGCL

We are governed by the provisions of Section 203 of the DGCL. In general, Section 203 of the DGCL prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder was approved by the board of directors prior to the time that the stockholder became an interested stockholder;
- upon consummation of the transaction which 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 shares owned by directors who are also officers of the corporation and shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the time the stockholder became an interested stockholder, the business combination was approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include mergers, asset sales, and other transactions resulting in financial benefit to a stockholder and an “interested stockholder” as a person who, together with affiliates and associates, owns, or, within the prior three years, did own, 15% or more of the corporation’s outstanding voting stock. These provisions may have the effect of delaying, deferring, or preventing changes in control of us.

Certificate of Incorporation and Bylaws Provisions

Our certificate of incorporation and bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our board of directors or management team, including the following:

Dual Class Stock

As described above, our Class B common stock has nine votes per share, while our Class A common stock, which is the only class of our capital stock that is publicly traded, has one vote per share. As a result of this dual class structure, the Founders have an aggregate of ten votes per share of Class A common stock, which will provide the Founders significant influence over matters requiring stockholder approval, including the election of directors and significant corporate transactions, such as a merger, consolidation, sale of all or substantially all of our assets, or other major corporate transaction.

Board of Directors Vacancies

Our certificate of incorporation and bylaws authorize only a majority of the remaining members of our board of directors, although less than a quorum, to fill vacant directorships, including newly created seats. In addition, subject to the rights of holders of any series of preferred stock to elect directors under specific circumstances, the number of directors constituting our board of directors will be permitted to be set only by a resolution of our board of directors. These provisions would prevent a stockholder from increasing the size

of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This will make it more difficult to change the composition of our board of directors and will promote continuity of management.

Classified Board

Our board of directors is divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. This system of electing and removing directors may tend to discourage a third-party from making a tender offer or otherwise attempting to obtain control of us, because it generally makes it more difficult for stockholders to replace a majority of the directors.

Stockholder Action; Special Meeting of Stockholders

Our certificate of incorporation and bylaws provide that our stockholders may not take action by written consent but may only take action at a duly called annual or special meeting of the stockholders. As a result, a holder controlling a majority of the voting power of our capital stock would not be able to amend our bylaws, amend our certificate of incorporation or remove directors without holding a meeting of our stockholders called in accordance with our bylaws. Our bylaws further provide that special meetings of our stockholders may be called only by a majority of our board of directors, the chairperson of our board of directors, our Chief Executive Officer or our President, thus prohibiting stockholder action to call a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our bylaws provide advance notice procedures for stockholders seeking to bring business before the annual meeting of stockholders or to nominate candidates for election as directors at the annual meeting of stockholders. Our bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude our stockholders from bringing matters before the annual meeting of stockholders or from making nominations for directors at the annual meeting of stockholders if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

No Cumulative Voting

The DGCL provides that stockholders are not entitled to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our certificate of incorporation does not provide for cumulative voting.

Amendment of Certificate of Incorporation and Bylaws Provisions

Any amendment of our certificate of incorporation that requires stockholder approval pursuant to the DGCL requires the affirmative vote of the holders of at least a majority of the voting power of our then outstanding capital stock entitled to vote generally in the election of directors, voting together as a single class. Our bylaws provide that the affirmative vote of the holders of at least a majority of the total voting power of our then outstanding capital stock, voting together as a single class, is required for stockholders to alter, amend or repeal, or adopt any provision of our bylaws.

Issuance of Undesignated Preferred Stock

Our certificate of incorporation provides that our board of directors has the authority, without further action by our stockholders, to issue up to 100,000,000 shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a tender offer, proxy contest, or other means.

Exclusive Forum

Our bylaws provide that, unless otherwise consented to by us in writing, the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, or other employees to us or our stockholders; (iii) any action arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws; or (iv) any action asserting a claim governed by the internal affairs doctrine, in all cases subject to the court having jurisdiction over indispensable parties named as defendants. Our bylaws further provide that, unless otherwise consented to by us in writing, the federal district courts of the United States are the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, against any person in connection with any offering of our securities, including, without limitation and for the avoidance of doubt, any auditor, underwriter, expert, control person, or other defendant. Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to this provision. Nothing in this provision will apply to any action brought to enforce a duty or liability created by the Exchange Act. Stockholders cannot waive compliance (or consent to non-compliance) with the federal securities laws and the rules and regulations thereunder. These provisions may have the effect of discouraging lawsuits against us or our directors and officers.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, our stockholders have appraisal rights in connection with a merger or consolidation of us. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Registration Rights

The Investor Rights Agreement, dated as of February 28, 2021, by and between us, Six4 Holdings, LLC, Gilman Louie, Henry Crumpton, Jack Pearlstein, Robert Coleman, William Crowell, Peter Platzer, Theresa Condor, William Porteous and Stephen Messer provides that we are required to register for resale, pursuant to Rule 415 under the Securities Act, certain shares of Class A common stock and other equity securities that are held by the parties thereto from time to time, subject to the restrictions on transfer therein.

Pursuant to the Registration Rights Agreement, dated as of March 12, 2025, by and between us and the purchasers named therein, we agreed to file, on or before April 30, 2025, a registration statement with the SEC for purposes of registering for resale 4,843,750 shares of our Class A common stock and the shares underlying pre-funded warrants to purchase 156,250 shares of our Class A common stock, which shares of Class A common stock and pre-funded warrants were issued and sold in a private placement that closed on March 14, 2025. We also agreed to have such registration statement declared effective no later than June 30, 2025, and to keep the registration statement effective until the date that all registrable securities covered by the registration statement (i) have been sold, thereunder or pursuant to Rule 144, or (ii) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for us to be in compliance with the current public information requirement under Rule 144.

Pursuant to the Registration Rights Agreement, dated as of April 8, 2026, by and between us and the purchasers named therein, we agreed to file, on or before April 23, 2026, a registration statement with the SEC for purposes of registering for resale 5,000,000 shares of our Class A common stock, which were issued and sold in a private placement that closed on April 10, 2026. We also agreed to have such registration statement declared effective no later than May 8, 2026, and to keep the registration statement effective until the date that all registrable securities covered by the registration statement (i) have been sold, thereunder or pursuant to Rule 144, or (ii) may be sold without volume or manner-of-sale restrictions pursuant to Rule 144 and without the requirement for us to be in compliance with the current public information requirement under Rule 144.

Transfer Agent

The transfer agent for our common stock is Equiniti Trust Company, LLC.

Listing

Our Class A common stock is listed on the NYSE under the symbol "SPIR."

LEGAL MATTERS

Faegre Drinker Biddle & Reath LLP has passed upon the validity of the shares of our Class A common stock offered by this prospectus.

EXPERTS

The consolidated financial statements of Spire Global, Inc. as of December 31, 2025, and for the year ended December 31, 2025 have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The financial statements for the year ended December 31, 2024 incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2025 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 2, not presented therein) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy and information statements and other information with the SEC. These filings, including the registration statement of which this prospectus forms a part and the exhibits and schedules thereto, are available to the public in electronic form at the website maintained by the SEC at www.sec.gov.

Information about us, including copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and proxy and information statements filed with the SEC, is also available at our website at www.spire.com. However, the information on our website is not a part of, or incorporated by reference in, this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. To the extent there are inconsistencies between the information contained in this prospectus and the information contained in the documents filed with the SEC prior to the date of this prospectus and incorporated by reference, the information in this prospectus shall be deemed to supersede the information in such incorporated documents. We incorporate by reference the documents listed below (other than, in each case, documents or information deemed to have been furnished and not filed, including any information that we have disclosed under Items 2.02 or 7.01 of any Current Report on Form 8-K, in accordance with SEC rules):

- (i) our Annual Report on Form 10-K for the year ended December 31, 2025, as filed with the SEC on [March 19, 2026](#);
- (ii) our definitive proxy statement on Schedule 14A, as filed with the SEC on [April 13, 2026](#);
- (iii) our Current Report on Form 8-K filed with the SEC on [March 11, 2026](#) and [April 10, 2026](#); and
- (iv) the description of our Class A common stock contained in the registration statement on [Form 8-A12B](#) filed with the SEC on September 8, 2020, together with any amendment or report that we may file for the purpose of updating this description.

We will provide to any person, including any beneficial owner, to whom a prospectus is delivered, at no cost, upon written or oral request, a copy of any or all of the reports or documents that have been incorporated by reference in the prospectus contained in the registration statement but not delivered with the prospectus. You should direct requests for documents to:

Spire Global, Inc.
8000 Towers Crescent Drive, Suite 1100
Vienna, Virginia 22182
Attn: Alison Engel, Chief Financial Officer
Telephone: (202) 301-5127

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. Other Expenses of Issuance and Distribution

The following table lists the costs and expenses payable by the Company in connection with the sale of the shares of Class A common stock covered by this prospectus. All amounts shown are estimates except for the SEC registration fee.

| | |
|---|-----------|
| SEC registration fee | \$13,120 |
| Legal fees and expenses | 125,000 |
| Accounting fees and expenses | 47,000 |
| Financial Printer and miscellaneous fees and expenses | 5,000 |
| Total | \$190,120 |

ITEM 14. Indemnification of Directors and Officers

Section 145(a) of the DGCL provides, in general, that a corporation may indemnify any person who was or is a party to or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), because he or she is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Section 145(b) of the DGCL provides, in general, that a corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if he or she acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made with respect to any claim, issue or matter as to which he or she shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, he or she is fairly and reasonably entitled to indemnity for such expenses that the Court of Chancery or other adjudicating court shall deem proper.

Section 145(g) of the DGCL provides, in general, that a corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his or her status as such, whether or not the corporation would have the power to indemnify the person against such liability under Section 145 of the DGCL.

We entered into, and expect to continue to enter into, indemnification agreements with our directors and executive officers. These indemnification agreements may require us, among other things, to indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements shall also require us to advance all expenses reasonably and actually incurred by our directors and executive officers in investigating or defending any such action, suit or proceeding. The registrant believes that these provisions and agreements are necessary to attract qualified directors and executive officers.

We also maintain standard policies of insurance that cover certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

ITEM 15. Recent Sales of Unregistered Securities

February 2024 Private Placement

On February 4, 2024, we entered into a securities purchase agreement (the “2024 Purchase Agreement”) with Signal Ocean Ltd (“Signal Ocean”), for the issuance and sale of 833,333 shares of our Class A common stock to Signal Ocean at a price of \$12.00 per share (the “2024 Private Placement”). The 2024 Private Placement closed on February 8, 2024, resulting in gross proceeds to the Company of \$10.0 million.

The 2024 Private Placement was exempt from the registration requirements of the Securities Act pursuant to the exemption for transactions by an issuer not involving any public offering under Section 4(a)(2) of the Securities Act and in reliance on similar exemptions under applicable state laws.

February 2025 RSU Grants

On February 4, 2025, we issued restricted stock units for an aggregate of 183,550 shares of Class A common stock to certain of our employees under the 2021 Equity Incentive Plan.

These grants did not involve any underwriters, underwriting discounts or commissions or any public offering and were exempt from the registration requirements of the Securities Act pursuant to the exemption for transactions by an issuer not involving any public offering under Section 4(a)(2) of the Securities Act and in reliance on similar exemptions under applicable state laws.

March 2025 Private Placement

On March 12, 2025, we entered into the 2025 Purchase Agreement with the purchasers named therein for the 2025 Private Placement of (i) 4,843,750 shares of our Class A common stock at a purchase price of \$8.00 per share, and (ii) pre-funded warrants to purchase 156,250 shares of Class A common stock at a purchase price of \$7.9999 per pre-funded warrant. The pre-funded warrants had an exercise price of \$0.0001 per share of Class A common stock, were exercisable immediately, and remained outstanding until fully exercised. All pre-funded warrants have been exercised on a cashless basis. The aggregate gross proceeds for the 2025 Private Placement were \$40.0 million, before deducting offering expenses, and the 2025 Private Placement closed on March 14, 2025.

The 2025 Private Placement was exempt from the registration requirements of the Securities Act pursuant to the exemption for transactions by an issuer not involving any public offering under Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D of the Securities Act and in reliance on similar exemptions under applicable state laws.

April 2026 Private Placement

On April 8, 2026, we entered into the 2026 Purchase Agreement with the purchasers named therein for the 2026 Private Placement of 5,000,000 shares of our Class A common stock at a purchase price of \$14.00 per share. The aggregate gross proceeds for the 2026 Private Placement were \$70.0 million, before deducting offering expenses, and the 2026 Private Placement closed on April 10, 2026.

The 2026 Private Placement was exempt from the registration requirements of the Securities Act pursuant to the exemption for transactions by an issuer not involving any public offering under Section 4(a)(2) of the Securities Act and Rule 506 of Regulation D of the Securities Act and in reliance on similar exemptions under applicable state laws.

ITEM 16. Exhibits and Financial Statement Schedules

(a) Exhibit Index

| Exhibit Number | Description | Incorporated by Reference | | | |
|----------------|---|---------------------------|------------|---------|--------------------|
| | | Form | File No. | Exhibit | Filing Date |
| 3.1 | Amended and Restated Certificate of Incorporation, as amended through June 5, 2024. | 8-K | 001-39493 | 3.2 | June 6, 2024 |
| 3.2 | Bylaws of Spire Global, Inc. | S-1 | 333-259733 | 3.2 | September 23, 2021 |

| | | | | | |
|-------|--|-------|------------|---------|--------------------|
| 5.1* | Opinion of Faegre Drinker Biddle & Reath LLP. | | | | |
| 10.1 | Equity Distribution Agreement, dated September 14, 2022, by and between Spire Global, Inc. and Canaccord Genuity LLC. | 8-K | 001-39493 | 10.1 | September 14, 2022 |
| 10.2 | Investor Rights Agreement, dated as of February 28, 2021, by and among the registrant, Six4 Holdings, LLC, Gilman Louie, Henry Crumpton, Jack Pearlstein, Robert Coleman, William Crowell, Peter Platzer, Theresa Condor, William Porteous and Stephen Messer. | S-4/A | 333-256112 | Annex I | July 16, 2021 |
| 10.3+ | Spire Global, Inc. 2021 Equity Incentive Plan, as amended effective June 4, 2024. | 8-K | 001-39493 | 10.1 | June 6, 2024 |
| 10.4+ | Spire Global, Inc. 2021 Employee Stock Purchase Plan, conformed to reflect the reverse stock split effective August 31, 2023. | 8-K | 001-39493 | 10.2 | September 7, 2023 |
| 10.5+ | Spire Global, Inc. Outside Director Compensation Policy, as amended, effective June 13, 2023. | 10-Q | 001-39493 | 10.2 | August 9, 2023 |
| 10.6+ | Spire Global, Inc. Executive Officer Short-Term Incentive Plan. | 10-Q | 001-39493 | 10.1 | August 9, 2023 |
| 10.7+ | Managing Director Service Agreement, dated as December 19, 2024, between Peter Platzer and Spire Global Germany GmbH. | 8-K | 001-39493 | 10.1 | December 20, 2024 |
| 10.8+ | Employment Contract, dated as of December 19, 2024, between Theresa Condor and Spire Global Germany GmbH. | 8-K | 001-39493 | 10.2 | December 20, 2024 |
| 10.9+ | Form of Change in Control and Severance Agreement of Spire Global, Inc. | S-4/A | 333-256112 | 10.17 | July 16, 2021 |
| 10.10 | Contribution Agreement by and between Her Majesty the Queen in Right of Canada and exactEarth Ltd. dated as of October 18, 2018, with Amendment No. 1. | 10-K | 001-39493 | 10.15 | March 30, 2022 |

| | | | | | |
|--------|---|------|-----------|-------|------------------|
| 10.11 | <u>dated as of November 22, 2021. Contract, dated January 20, 2025, between exactEarth Ltd. and His Majesty the King in right of Canada, as represented by the Minister of Public Works and Government Services, as assigned to Spire Global Canada Subsidiary Corp. on January 21, 2025.</u> | 8-K | 001-39493 | 10.1 | February 7, 2025 |
| 10.12+ | <u>Employment Contract, effective January 6, 2025, between Celia Pelaz and Spire Global Germany GmbH.</u> | 8-K | 001-39493 | 10.1 | December 3, 2024 |
| 10.13 | <u>Securities Purchase Agreement, dated March 12, 2025, by and between the Company and the Purchasers named therein.</u> | 8-K | 001-39493 | 10.1 | March 17, 2025 |
| 10.14 | <u>Registration Rights Agreement, dated March 12, 2025, by and between the Company and the Purchasers named therein.</u> | 8-K | 001-39493 | 10.2 | March 17, 2025 |
| 10.15+ | <u>Offer Letter and Executive Employment Agreement, dated March 20, 2025, between Alison Engel and Spire Global, Inc.</u> | 8-K | 001-39493 | 10.1 | March 24, 2025 |
| 10.16+ | <u>Offer Letter and Executive Employment Agreement, dated November 25, 2024, 2025, between Gabriel Oehme and Spire Global, Inc.</u> | 10-K | 001-39493 | 10.16 | March 19, 2026 |
| 10.17+ | <u>Offer Letter and Executive Employment Agreement, dated August 25, 2025, between David Myers and Spire Global, Inc.</u> | 10-K | 001-39493 | 10.17 | March 19, 2026 |
| 10.18 | <u>Securities Purchase Agreement, dated April 8, 2026, by and between the Company and the Purchasers named therein.</u> | 8-K | 001-39493 | 10.1 | April 10, 2026 |
| 10.19 | <u>Registration Rights Agreement, dated April 8, 2026, by and between the Company and the Purchasers named therein.</u> | 8-K | 001-39493 | 10.2 | April 10, 2026 |
| 21.1 | <u>Subsidiaries of Registrant</u> | 10-K | 001-39493 | 21.1 | March 19, 2026 |

| | |
|-------|---|
| 23.1* | Consent of KPMG LLP, independent registered public accountants |
| 23.2* | Consent of PricewaterhouseCoopers LLP, independent registered public accountants |
| 23.3* | Consent of Faegre Drinker Biddle & Reath LLP (included in its opinion incorporated by reference as Exhibit 5.1) |
| 24.1* | Power of Attorney (set forth on the signature page to the initial filing of the registration statement) |
| 107* | Filing Fee Table |
| + | Indicates management contract or compensatory plan or arrangement. |
| * | Filed herewith |

(b) Financial Statement Schedules

All financial statement schedules are omitted because the information called for is not required or is shown either in the financial statements or in the notes thereto.

ITEM 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the “Calculation of Filing Fee Tables” or “Calculation of Registration Fee” table, as applicable, in the effective registration statement;
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser:

- (i) Each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:
- The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of an undersigned registrant; and
 - (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Vienna, Virginia, on the 23rd day of April 2026.

SPIRE GLOBAL, INC.

By: /s/ Theresa Condor
Name: Theresa Condor
Title: President, Chief Executive Officer and Director

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints each of Theresa Condor, Alison Engel and David Myers, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with full power to act separately and full power of substitution and resubstitution, for him and her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the SEC, granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

| <u>Signatures</u> | <u>Title</u> | <u>Date</u> |
|---|--|----------------|
| <u>By: /s/ Theresa Condor</u> Name: Theresa Condor | President, Chief Executive Officer and Director (Principal Executive Officer) | April 23, 2026 |
| <u>By: /s/ Alison Engel</u> Name: Alison Engel | Chief Financial Officer (Principal Financial and Accounting Officer) | April 23, 2026 |
| <u>By: /s/ Peter Platzer</u> Name: Peter Platzer | Executive Chairman and Director | April 23, 2026 |
| <u>By: /s/ Joan Amble</u> Name: Joan Amble | Director | April 23, 2026 |
| <u>By: /s/ Dirk Hoke</u> Name: Dirk Hoke | Director | April 23, 2026 |
| <u>By: /s/ Stephen Messer</u> Name: Stephen Messer | Director | April 23, 2026 |

By: /s/ William Porteous

Director

April 23, 2026

Name: William Porteous

By: /s/ Toni Rinow

Director

April 23, 2026

Name: Toni Rinow

By: /s/ John Martinez

Director

April 23, 2026

Name: John Martinez

April 23, 2026

Spire Global, Inc.
8000 Towers Crescent Drive, Suite 1100
Vienna, Virginia 22182

Re: Registration Statement on Form S-1

Ladies and Gentlemen:

We have acted as counsel to Spire Global, Inc., a Delaware corporation (the “Company”), in connection with the Registration Statement on Form S-1 (the “Registration Statement”) being filed by the Company with the U.S. Securities and Exchange Commission (the “Commission”) on the date hereof under the Securities Act of 1933, as amended (the “Securities Act”).

The Registration Statement relates to the registration of the resale from time to time by certain selling stockholders named therein (the “Selling Stockholders”), of up to an aggregate of 5,000,000 shares of the Company’s Class A common stock, par value \$0.0001 per share (the “Common Stock”), that are issued and outstanding and are currently held by the Selling Stockholders (the “Shares”). The Shares were issued to the Selling Stockholders pursuant to that certain securities purchase agreement, dated April 8, 2026, between the Company and the Selling Stockholders (the “Purchase Agreement”).

This opinion letter is being delivered in accordance with the requirements of Item 601(b)(5) of Regulation S-K.

For purposes of this opinion letter, we have examined the Registration Statement, the Company’s Restated Certificate of Incorporation, as amended and currently in effect, the Company’s Amended and Restated Bylaws, as currently in effect, an executed copy of the Purchase Agreement and the resolutions of the Company’s Board of Directors authorizing the Purchase Agreement and the issuance of the Shares. We have also examined a certificate of the Secretary of the Company dated the date hereof (the “Certificate”) and originals, or copies certified or otherwise authenticated to our satisfaction, of such corporate and other records, agreements, instruments, certificates of public officials and documents as we have deemed necessary as a basis for the opinion hereinafter expressed and have made such examination of statutes and decisions and reviewed such questions of law as we have deemed relevant and necessary in connection with the opinion hereinafter expressed.

As to facts material to this opinion letter, we have relied upon certificates, statements or representations of public officials, of officers and representatives of the Company (including the Certificate) and of others, without any independent verification thereof. We have assumed, without investigation, the following: (a) the genuineness of signatures, including electronic signatures, appearing upon agreements, instruments, certifications, documents, and proceedings, (b) that each document submitted to us for review is accurate and complete, each such document that is an original is authentic and each such document that is a copy conforms to an authentic original, (c) the legal capacity of natural persons who are involved on behalf of the Company to enter into and perform the referenced instrument or agreement or to carry out their role in the transactions contemplated thereby, (d) the truth, accuracy and completeness of the information, representations and warranties contained in the documents, instruments, certificates and records we have

reviewed, (e) the absence of any undisclosed modifications to the agreements and instruments reviewed by us, and (f) the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware.

Based upon and subject to the foregoing qualifications, assumptions and limitations and the further limitations set forth below, we are of the opinion that all necessary corporate action on the part of the Company has been taken to authorize the issuance of the Shares, and that the Shares are validly issued, fully paid and nonassessable.

Our opinion set forth above is limited to the General Corporation Law of the State of Delaware, and we express no opinion as to the effect of any other laws.

This opinion letter is rendered as of the date first written above, and we assume no responsibility for updating this opinion letter or the opinion set forth herein to take into account any event, action, interpretation or change in law occurring subsequent to the date hereof that may affect the validity of such opinion. This opinion letter is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters relating to the Company or the Shares.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and to being named in the Registration Statement under the caption "Legal Matters" with respect to the matters stated therein without implying or admitting that we are "experts" within the meaning of the Securities Act or the rules and regulations of the Commission issued thereunder with respect to any part of the Registration Statement, including this exhibit.

Very truly yours,

/s/ Faegre Drinker Biddle & Reath LLP

FAEGRE DRINKER BIDDLE & REATH LLP

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated March 19, 2026, with respect to the consolidated financial statements of Spire Global, Inc., incorporated herein by reference, and to the reference to our firm under the heading "Experts" in the prospectus.

/s/ KPMG LLP

McLean, Virginia
April 23, 2026

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-1 of Spire Global, Inc. of our report dated April 4, 2025, except for the effects of the revision discussed in Note 2 to the consolidated financial statements, as to which the date is March 19, 2026, relating to the financial statements, which appears in Spire Global, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2025. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
Washington, District of Columbia
April 23, 2026

Table 3: Combined Prospectuses

Not Applicable

| | Security Type | Security Class Title | Amount of Securities Previously Registered | Maximum Aggregate Offering Price of Securities Previously Registered | Form Type | File Number | Initial Effective Date |
|--|----------------------|-----------------------------|---|---|------------------|--------------------|-------------------------------|
|--|----------------------|-----------------------------|---|---|------------------|--------------------|-------------------------------|