

PROSPECTUS SUPPLEMENT NO. 2
(to Prospectus dated May 4, 2026)

SPIRE GLOBAL, INC.

5,000,000 Shares of Class A Common Stock

This prospectus supplement amends and supplements the prospectus dated May 4, 2026 (as supplemented or amended from time to time, the “Prospectus”), which forms a part of our Registration Statement on Form S-1 (No. 333-295274).

This prospectus supplement is being filed to update and supplement the information in the Prospectus with the information contained in our Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 28, 2026 (the “Current Report”). Accordingly, we have attached the Current Report to this prospectus supplement.

This prospectus supplement updates and supplements the information in the Prospectus and is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This prospectus supplement should be read in conjunction with the Prospectus and if there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

Our Class A common stock is traded on the New York Stock Exchange (“NYSE”) under the symbol “SPIR.” On May 27, 2026, the last quoted sale price for our Class A common stock as reported on NYSE was \$25.48 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 the Prospectus.

You should rely only on the information contained in the Prospectus, this prospectus supplement and any other 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 May 28, 2026

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 27, 2026

SPIRE GLOBAL, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-39493
(Commission File Number)

85-1276957
(IRS Employer
Identification No.)

**8000 Towers Crescent Drive
Suite 1100
Vienna, Virginia**
(Address of principal executive offices)

22182
(Zip code)

Registrant's telephone number, including area code: (202) 301-5127

Not Applicable

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A common stock, par value of \$0.0001 per share	SPIR	The New York Stock Exchange

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

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 13(a) of the Exchange Act.

Item 5.07 Submission of Matters to a Vote of Security Holders.

On May 27, 2026, Spire Global, Inc. (the “Company”) held its 2026 annual meeting of stockholders (the “Annual Meeting”), at which the proposals, as described in more detail in the Company’s definitive proxy statement filed with the Securities and Exchange Commission on April 13, 2026, were presented. The voting results for each of the proposals considered at the Annual Meeting are provided below.

1. Election of Directors

The stockholders elected the following nominees as Class II directors to serve on the Company’s board of directors until the Company’s 2029 annual meeting of stockholders and until their successors are duly elected and qualified.

Nominee	Votes For	Votes Withheld	Broker Non-Votes
William Porteous	21,486,971	5,022,430	8,832,979
Toni Rinow	26,448,344	61,057	8,832,979

2. Frequency of Future Votes on Named Executive Officer Compensation

In an advisory (non-binding) vote, the stockholders voted as follows with respect to the frequency of future stockholder advisory votes on the compensation paid to the Company’s named executive officers:

One Year	Two Years	Three Years	Abstentions	Broker Non-Votes
26,069,947	109,001	47,155	283,298	8,832,979

3. Named Executive Officer Compensation

The stockholders approved, in an advisory (non-binding) vote, the compensation paid to the Company’s named executive officers.

Votes For	Votes Against	Abstentions	Broker Non-Votes
21,214,112	4,407,288	888,001	8,832,979

4. Registered Public Accounting Firm

The stockholders ratified the appointment of KPMG LLP as the Company’s independent registered public accounting firm for the fiscal year ending December 31, 2026.

Votes For	Votes Against	Abstentions
35,308,447	27,349	6,584

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

SPIRE GLOBAL, INC.

Date: May 28, 2026

By: /s/ Alison Engel
Name: Alison Engel
Title: Chief Financial Officer
