

PROSPECTUS SUPPLEMENT NO. 7
(to Prospectus dated April 21, 2026)

SPIRE GLOBAL, INC.

3,162,500 Shares of Class A Common Stock

This prospectus supplement amends and supplements the prospectus dated April 21, 2026 (as supplemented or amended from time to time, the “Prospectus”), which forms a part of our Registration Statement on Form S-1 (No. 333-286800).

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/A, filed with the Securities and Exchange Commission on August 6, 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 August 4, 2026, the last quoted sale price for our Class A common stock as reported on NYSE was \$13.48 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 August 6, 2026

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

**FORM 8-K/A
(Amendment No. 1)**

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. ☐

Explanatory Note

On May 28, 2026, Spire Global, Inc. (the “Company”) filed a Current Report on Form 8-K (the “Form 8-K”) disclosing the voting results at the Company’s 2026 annual meeting of stockholders held on May 27, 2026 (the “Annual Meeting”). The sole purpose of this amendment (this “Amendment”) to the Form 8-K is to disclose, in accordance with Item 5.07(d) of Form 8-K, the Company’s decision as to how frequently the Company will conduct future stockholder advisory votes on the compensation paid to the Company’s named executive officers. No changes are being made to the Form 8-K, other than to add the disclosure set forth in this Amendment.

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

At the Annual Meeting, the Company’s stockholders voted on, among other matters, an advisory vote regarding the frequency of future votes on the compensation paid to the Company’s named executive officers. The frequency of every one year received the highest number of votes cast by stockholders, consistent with the recommendation of the Company’s Board of Directors. On August 5, 2026, the Company’s Board of Directors determined that, to the extent required by applicable law, regulation, or stock exchange rules, the Company will hold a stockholder advisory vote on the compensation paid to the Company’s named executive officers every one year, until the next stockholder advisory vote on the frequency of future votes on the compensation paid to the Company’s named executive officers, which is currently required to take place no later than the Company’s 2032 annual meeting of stockholders.

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: August 6, 2026

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