

Prospectus Supplement No. 2
(To Prospectus dated July 7, 2026)

FACTORIAL ENERGY INC.
86,441,489 Shares of Series A Common Stock by the Selling Securityholders
13,800,000 Shares of Series A Common Stock Issuable Upon the Exercise of Public Warrants

This prospectus supplement no. 2 (this “Prospectus Supplement”) amends and supplements the prospectus dated July 7, 2026 (as supplemented by prospectus supplement no. 1, dated September 21, 2026, and as may be further supplemented or amended from time to time, the “Prospectus”) which forms part of our Registration Statement on Form S-1 (Registration Statement No. 333-297158). This Prospectus Supplement is being filed to update and supplement the information included or incorporated by reference in the Prospectus with the information contained in our Current Report on Form 8-K, filed with the Securities and Exchange Commission (the “SEC”) on October 9, 2026 (the “Form 8-K”). Accordingly, we have attached the Form 8-K 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 this Prospectus Supplement.

Our common stock and public warrants are listed on the Nasdaq Global Market (“Nasdaq”) under the symbols “FAC” and “FACWW,” respectively. On October 8, 2026, the last quoted sale price of our common stock as reported on Nasdaq was \$5.08 per share and the last quoted sale price of our public warrants as reported on Nasdaq was \$0.72 per warrant.

We are an “emerging growth company” under applicable federal securities laws and will be subject to reduced public company reporting requirements.

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 “Risk Factors” beginning on page 9 of the Prospectus.

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

The date of this Prospectus Supplement is October 9, 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): October 7, 2026

FACTORIAL ENERGY INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-42629
(Commission File Number)

42-2967285
(IRS Employer
Identification No.)

805 Middlesex Turnpike
Billerica, MA 01821
(Address of principal executive offices including zip code)

Registrant's telephone number, including area code: (617) 315-9733

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	Name of each exchange on which registered
Series A Common Stock, par value \$0.00001 per share	FAC	The Nasdaq Global Market
Warrants, each whole warrant exercisable for one share of Series A Common Stock at an exercise price of \$11.50	FACWW	The Nasdaq Global Market

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 8.01 Other Events.

As previously disclosed in the Quarterly Report on Form 10-Q of Factorial Energy Inc. (the “Company”) for the quarter ended June 30, 2026, filed with the Securities and Exchange Commission on August 11, 2026, the Company was party to an arbitration, initiated on March 14, 2025, before the International Centre for Dispute Resolution. The arbitration was a contractual dispute with a vendor. On October 7, 2026, the arbitrator issued a final award in favor of the vendor, requiring the Company to pay a net amount of approximately \$4.5 million.

SIGNATURE

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 hereunto duly authorized.

FACTORIAL ENERGY INC.

Date: October 9, 2026

By: /s/ Siyu Huang
Name: Siyu Huang
Title: Chief Executive Officer
