

TALEN ENERGY CORPORATION
36,825,683 SHARES OF COMMON STOCK

This prospectus supplement is being filed to update and supplement the information contained in the prospectus dated July 9, 2024, as supplemented by Prospectus Supplement No. 1, dated August 13, 2024, Prospectus Supplement No. 2, dated November 14, 2024, Prospectus Supplement No. 3, dated December 13, 2024, and Prospectus Supplement No. 4, dated December 20, 2024 (as so supplemented, the "Prospectus"), with the information contained in our Current Report on Form 8-K, filed with the Securities and Exchange Commission (the "SEC") on January 6, 2025 (the "Current Report"). Accordingly, we have attached the Current Report to this prospectus supplement.

The Prospectus and this prospectus supplement relate to the resale from time to time of up to 36,825,683 shares of our common stock, par value \$0.001 per share (the "Common Stock"), by the selling stockholders named in the Prospectus or their permitted transferees.

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 other 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. The information in this prospectus supplement modifies and supersedes, in part, the information in the Prospectus. Any information in the Prospectus that is modified or superseded shall not be deemed to constitute a part of the Prospectus except as modified or superseded by this prospectus supplement.

You should not assume that the information provided in this prospectus supplement or the Prospectus is accurate as of any date other than their respective dates. Neither the delivery of this prospectus supplement and Prospectus, nor any sale made hereunder, shall under any circumstances create any implication that there has been no change in our affairs since the date of this prospectus supplement or that the information contained in this prospectus supplement or the Prospectus is correct as of any time after the date of that information.

The Common Stock is listed on The Nasdaq Global Select Market ("Nasdaq") under the symbol "TLN". On January 6, 2025, the last sale price of the Common Stock as reported on Nasdaq was \$218.20 per share.

Investing in our securities involves certain risks, including those that are described in the section titled "Risk Factors" beginning on page 19 of the Prospectus.

Neither the SEC nor any state securities commission has approved or disapproved of the securities to be issued under the Prospectus or determined if the Prospectus or this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is January 7, 2024.

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): **January 6, 2025**

Talen Energy Corporation

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

001-37388
(Commission File Number)

47-1197305
(IRS Employer
Identification No.)

2929 Allen Pkwy, Suite 2200
Houston, TX 77019
(Address of principal executive offices) (Zip Code)

(888) 211-6011
(Registrant's telephone number, including area code)

Not applicable
(Former name, former address and former fiscal year, 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
Common stock, par value \$0.001 per share	TLN	The Nasdaq Global Select Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

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.

On January 6, 2025, Talen Energy Supply, LLC (the "Issuer"), a direct subsidiary of Talen Energy Corporation (the "Company"), issued a press release announcing that it is soliciting consents (the "Consent Solicitation") to adopt certain proposed amendments to the Indenture, dated as of May 12, 2023, between the Issuer and Wilmington Savings Fund Society, FSB, as trustee (the "Trustee"), as amended by the first supplemental indenture, dated as of May 17, 2023, among the Issuer, the guarantors party thereto (the "Guarantors") and the Trustee, and as further amended by the second supplemental Indenture, dated as of October 6, 2023, among the Company, the Guarantors and the Trustee, relating to the Issuer's \$1,200,000,000 aggregate principal amount of 8.625% Senior Secured Notes due 2030 (the "Notes") to (i) modify certain provisions, including certain covenants and related definitions, in the Indenture in order to substantially conform to the corresponding provisions set forth in the amendments to the Issuer's credit agreement described in the Company's Current Reports on Form 8-K filed on December 13, 2024 and December 20, 2024 and (ii) waive the Issuer's right to optionally redeem up to 10.0% of the Notes prior to June 1, 2025 at a price equal to 103.000% of the aggregate principal amount of Notes to be redeemed. A copy of the press release announcing the Consent Solicitation is attached hereto as Exhibit 99.1 and incorporated by reference herein.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits:

Exhibit No.	Description.
99.1	Press Release dated January 6, 2025.
104	Cover Page Interactive Data File (cover page XBRL tags embedded within the Inline XBRL document).

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 hereunto duly authorized.

Date: January 6, 2025

TALEN ENERGY CORPORATION

By: /s/ Terry L. Nutt
Name: Terry L. Nutt
Title: Chief Financial Officer