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): December 9, 2022

LIGHTBRIDGE CORPORATION

(Exact name of registrant as specified in its charter) 001-34487 91-1975651 (IRS Employer (State or other jurisdiction (Commission of incorporation) File Number) Identification No.) 11710 Plaza America Drive, Suite 2000 Reston, VA 20190 (Address of principal executive offices, including zip code) (571) 730-1200 (Registrant's Telephone Number, Including Area Code) 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: Name of Each Exchange on Which Registered: Title of Each Class: Trading Symbol(s): Common Stock, \$0.001 par value LTBR The Nasdaq Capital 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. \square

Item 1.01 Entry into a Material Definitive Agreement.

On December 9, 2022, Lightbridge Corporation ("Lightbridge" or the "Company") entered into initial releases with Battelle Energy Alliance, LLC ("Battelle"), the operating contractor of Idaho National Laboratory, in collaboration with the U.S. Department of Energy ("DOE"), which releases set forth the initial scopes of work and funding commitments under an "Umbrella" Strategic Partnership Project Agreement and an "Umbrella" Cooperative Research and Development Agreement (together, the "Agreements"), each dated September 27, 2022, between the Company and Battelle. Under the Agreements, the Company will be responsible for most expenses and will reimburse Battelle for its expenses and employee time, and Battelle and DOE will contribute materials such as depleted and enriched uranium feedstocks for the fabrication of ingots and extrusion of billets. Battelle will also fabricate irradiation capsule hardware and assemble the experiment with fuel coupons and irradiate the experiment in the Advanced Test Reactor (ATR). Each Agreement has an initial term of seven years from the effective date.

Pursuant to the initial releases, the Company will work with Battelle at Idaho National Laboratory to fabricate a delta-phase enriched uranium/zirconium alloy ingot that is suitable for extruding fuel coupon specimens in accordance with Lightbridge FuelTM specifications, and irradiate the extruded fuel coupon specimens in the ATR at Idaho National Laboratory. Cash payments from Lightbridge to Battelle are estimated at approximately \$3.4 million (excluding project contingencies) on a cost reimbursable basis over four years under these initial releases.

The foregoing summaries of the Agreements and initial releases do not purport to be complete and are qualified in their entirety by reference to the full text of the Agreements and initial releases, copies of which will be attached as exhibits to the Company's Annual Report on Form 10-K for the fiscal year ending December 31, 2022.

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.

LIGHTBRIDGE CORPORATION

Dated: December 9, 2022 By: /s/ Seth Grae

Name: Seth Grae

Title: President and Chief Executive Officer

3