

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 24, 2024**

LIGHTBRIDGE CORPORATION

(Exact name of registrant as specified in its charter)

Nevada

(State or other jurisdiction
of incorporation)

001-34487

(Commission
File Number)

91-1975651

(IRS Employer
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:

Title of Each Class:

Common Stock, \$0.001 par value

Trading Symbol(s):

LTBR

Name of Each Exchange on Which Registered:

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. ☐

Item 1.01 Entry into a Material Definitive Agreement.

On October 24, 2024, Lightbridge Corporation (“Lightbridge” or the “Company”) and Battelle Energy Alliance, LLC (“Battelle”), the operating contractor of Idaho National Laboratory, entered into Modification No. 3 (“Modification No. 3”) to the Project Task Statement under the Strategic Partnership Project Agreement, dated December 9, 2022, as amended on May 23, 2023 and March 26, 2024, by and between the Company and Battelle. Pursuant to the terms of Modification No. 3, the potential amounts payable by the Company to reimburse Battelle for its expenses and employee time were increased by approximately \$294,416, bringing the total estimated cost for the work to be performed under the “Umbrella” Strategic Partnership Project Agreement, described below, to \$2,003,048.

As previously disclosed, on December 9, 2022, the Company entered into initial releases with Battelle 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 is responsible for most expenses and will reimburse Battelle for its expenses and employee time, and Battelle and DOE will contribute feedstock materials 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 is working 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 Fuel™ specifications, and irradiate the extruded fuel coupon specimens in the ATR at Idaho National Laboratory. After accounting for Modification No. 3, cash payments from Lightbridge to Battelle under both Agreements are estimated at approximately \$4.6 million (excluding project contingencies) on a cost reimbursable basis over the performance periods under the initial releases.

The foregoing summary of Modification No. 3 does not purport to be complete and is qualified in its entirety by reference to the full text of Modification No. 3, a copy of which is attached hereto as Exhibit 10.1.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
10.1 ▲	Modification No. 3 to the Project Task Statement, dated October 24, 2024, under the Strategic Partnership Project Agreement, dated December 9, 2022, as amended on May 23, 2023 and March 26, 2024, by and between Lightbridge Corporation and Battelle Energy Alliance, LLC.
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

▲ Certain portions of this Exhibit have been redacted pursuant to Item 601(b)(10)(iv) of Regulation S-K. The Company agrees to furnish supplementally an unredacted copy of this Exhibit to the SEC upon request.

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: October 25, 2024

By: /s/ Seth Grae
Name: Seth Grae
Title: President and Chief Executive Officer

SPP No. [REDACTED], PTS-1, Mod 3

MODIFICATION NO. 3 TO
UMBRELLA STRATEGIC PARTNERSHIP PROJECT NO. [REDACTED], PTS-1

PROJECT TASK STATEMENT**No. 1****BETWEEN****Battelle Energy Alliance, LLC**
(hereinafter "Contractor" or "BEA")**AND****Lightbridge Corporation**
(hereinafter "Sponsor" or "Lightbridge")**10/23/2024****Produce U-Zr Coupons for Capsule Irradiation**

This Project Task Statement (PTS) is under the authority and subject to all terms and conditions of Umbrella Strategic Partnership Project Agreement (SPP) No. [REDACTED].

This Modification No. 3 is to increase the Contractor's estimated cost for the work to be performed under this agreement from \$1,708,623.00 to \$2,003,048.00.

A. PURPOSE

The fabrication and characterization of specimens is an important component of any irradiation experiment. The development of a casting and extrusion process to create the desired fuel form for this experiment is substantial. The work will include developing a casting process, heat treating billets from the casting process, machining them into a shape suitable for extrusion, developing an extrusion process, heat treating extruded slugs, and characterizing microstructural and compositional features of the final extruded product. Any necessary development work will be done with depleted uranium (DU). After the process is proven successful, it will be repeated with enriched uranium to produce fuel slugs for the related irradiation experiment.

B. SCOPE**Duration of PTS**

The period of performance of this PTS is [REDACTED].

Technical Objectives

This PTS is focused on the proof of ability to fabricate a delta-phase U-Zr ingot that is suitable for extruding fuel coupon specimen in accordance with Lightbridge fuel specifications. Fabrication test specimen will be made with depleted uranium (DU), irradiation test specimens will be made with enriched uranium. Final fuel coupons will match the requirements specified by previous experiment design documents (e.g., enrichment). Tasks in this PTS cover the following work:

- Casting U-Zr ingot; and characterization of cast ingot

Tasks and Division of Responsibilities

Task 1: Create Fuel Specification to Support Casting

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Task 2: Fabrication Mockup

Task 2.1: Extrusion Method Tooling

[REDACTED]

Task 2.2: Casting Demonstration

[illegible]

[REDACTED]
[REDACTED]
[REDACTED]

Task 2.3: Extrusion Demonstration

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Task 3: Casting of Enriched Ingot

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Task 4: Fabrication of Enriched Coupon

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Task 5: Characterization of Ingot & Extruded Products

Task 5.1: Microstructural Characterization

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

Task 5.2: Thermal Property Assessment

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Task 5.3: Mechanical Property Assessment

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Task No.	Task	Contractor Role/Responsibilities	Sponsor's Role
		[REDACTED]	[REDACTED]
4	Extrusion of Coupons	[REDACTED]	[REDACTED]
5	Characterization of Ingot & Extruded Products	[REDACTED]	[REDACTED]

Hold Points

Task No.	Do not proceed to:	Until this is completed:
1	Task No. 2.2/2.3	[REDACTED]
2.1	Task 2.3	[REDACTED]
2	Task No. 3	[REDACTED]
3	Task No. 4	[REDACTED]
4	Task No. 5	[REDACTED]

C. ASSUMPTIONS

- [REDACTED]
- [REDACTED]

- [REDACTED]
[REDACTED]
- [REDACTED]
[REDACTED]

D. TECHNICAL CONTACTS

For Contractor:

[REDACTED]

For Sponsor:

[REDACTED]

E. PROJECT MANAGEMENT CONTACTS

For Contractor:

[REDACTED]

For Sponsor:

[REDACTED]

F. COSTS

1. The Contractor estimated cost for the work to be performed under this Agreement is \$2,003,048.00.
2. The Contractor has no obligation to continue or complete performance of the work at a cost in excess of its estimated cost, including any subsequent amendment.
3. The Contractor agrees to provide at least 30 days' notice to the Sponsor if the actual cost to complete performance will exceed its estimated cost.

Payment Terms:

[REDACTED]

[REDACTED]

The Sponsor shall pay the Contractor as follows:

A. Advance Payment.

[REDACTED]

B. Monthly Payments.

[REDACTED]

1. Invoices will be submitted electronically to the Sponsor at the following address:

[REDACTED]

C. Applicable Currency. All payments due the Contractor under this Agreement, including cost estimates and obligations of funds, shall be in United States dollars (U.S.\$).

G. FINANCIAL AND PROJECT PERFORMANCE REPORTING

BEA will provide monthly cost and schedule data outputs from INL standard project reporting tools to Sponsor after each end of fiscal year (FY) month processing. A minimum subset of data should include Schedule and Cost Performance Indices, a standard Cost Performance Report with performance measurement baseline (PMB) curve to include EAC/ETC data as well as any variances & associated descriptions/ corrective action plans (this is typically called a “format 5 VAR” or agreed equivalent). Reporting detail shall be provided at the same work break down structure (WBS) level as agreed upon in the project schedule and cost estimate developed by BEA in support of this PTS.

IN WITNESS WHEREOF, the Parties hereto have executed this Modification by their authorized representatives on the dates shown below.

BATTELLE ENERGY ALLIANCE, LLC:

Name: [REDACTED]

Title [REDACTED]

Date: [REDACTED]

Signature: [REDACTED]

LIGHTBRIDGE CORPORATION:

Name: Andrey Mushakov

Title Executive Vice President, Nuclear Ops.

Date: October 24, 2024

Signature: [REDACTED]