EXHIBIT 10.2

Portions of this exhibit have been omitted in compliance with Item 601 of Regulation S-K.

SPP No. [redacted]. Mod 3

MODIFICATION NO. 3 TO

STRATEGIC PARTNERSHIP PROJECT
(SPP) NO. [redacted]

BETWEEN

Battelle Energy Alliance, LLC (BEA)
Operating Under Contract No. DE-AC07-05ID14517
for the U. S. Department of Energy

AND

Lightbridge Corporation (Sponsor)

WHEREAS both Parties have entered into the above identified SPP and desire to modify said Agreement.

NOW THEREFORE, the Parties hereby agree to update the points of contacts and extend the period of performance by modifying as follows:

1. Article I. Parties to the Agreement, Appendix A, is hereby deleted in its entirety and replaced with Appendix A, Statement of Work

2. Article II. Term of the Agreement is hereby deleted in its entirety and replaced with the following:

   Contractor's estimated period of performance for completion of the SOW is from 09/27/2022 through 09/27/2034. The term of this Agreement may be extended by mutual, written agreement of the Parties.

All other terms and conditions of the Agreement shall remain unchanged and in full force and effect.

BATTELLE ENERGY ALLIANCE, LLC:		**LIGHTBRIDGE CORPORATION:**	
Name:	[redacted]	Name:	Andrey Mushakov
Title:	[redacted]	Title:	Executive Vice President, Nuclear Operations
Date:	10/02/2025	Date:	October 6, 2025
Signature:	[redacted]	Signature:	[redacted]

Appendix A
Statement of Work
Date: 09/09/2025
Fabrication and Irradiation Testing of Lightbridge Fuel Coupon Samples and Rodlets in ATR and TREAT, and Post-Irradiation Examination
SPP No. [redacted] Mod. 3

1. BACKGROUND AND PURPOSE

Lightbridge Corporation (Sponsor), located in Reston, Virginia, is a nuclear fuel technology development company. Lightbridge is developing proprietary next-generation nuclear fuel technologies for current and future reactors to significantly enhance the economics and safety of nuclear power, operating at about 1,000°C cooler than standard fuel. The purpose is to improve reactor economics through power uprates, longer fuel cycles, and carbon credits while adding non-emitting baseload electricity with dramatically improved reactor safety. Lightbridge is focusing its development efforts primarily on demonstrating its metallic fuel rod technology and a fuel assembly design for power uprates and longer fuel cycles in existing pressurized water reactors as well as water-cooled small modular reactors (SMRs).

Battelle Energy Alliance, LLC, the management and operating contractor of Idaho National Laboratory (INL; Contractor), located in Idaho Falls, Idaho, is the lead nuclear laboratory for the U.S. Department of Energy (DOE). INL's nuclear engineering expertise draws upon multiple disciplines required to analyze, design, demonstrate, deploy, and operate nuclear systems. These include capabilities in neutronics, thermal hydraulics, structural-design analyses for small- and large-scale experiments, mechanistic and probabilistic safety and other risk analyses, development of robust materials for the nuclear environment, and development of destructive and nondestructive nuclear materials detection and safeguards technologies.

INL also hosts unique, unparalleled irradiation and post-irradiation examination (PIE) facilities. For steady state irradiation testing the Advanced Test Reactor (ATR) provides the ability to tailor irradiation experiments to a variety of conditions. Transient testing is also available through the Transient Test Reactor (TREAT) where unique thermal-hydraulic behaviors can be investigated. Both reactors are supported by world class fabrication and assembly facilities that can utilize conventional and more advanced fabrication methods.

2. POINTS OF CONTACT

Name /Title	Organization	Phone/Email
[redacted]	[redacted]	[redacted]

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

3. SCOPE OF WORK

3.1 Overview

Duration of SPP
The period of performance of this SPP is twelve (12) years

All tasks are written at a high level and are not written with consideration to existing commitments, Department of Energy (DOE) directed work, or other potential work. All Project Task Statements (PTS) will be developed with consideration of existing commitments and DOE directed work at the time of the PTS development. PTS statements will be written such that upon work acceptance there is minimal risk to the capacity for INL to execute on schedule the existing commitments and DOE directed work at the time of work acceptance.

SPP Phase Descriptions

SPP Phase 1: Production of Coupons

[redacted]

SPP Phase 2: Post-Irradiation Examination of Coupons

[redacted]

SPP Phase 3: Fabrication Processes for Lightbridge Fuel

[redacted]

SPP Phase 4: Post-Irradiation Examination of Lightbridge Fuel

[redacted]

SPP Phase 5: Post-Irradiation Examination of TREAT Irradiated Lightbridge Fuel

[redacted]

SPP Phase 6: Fuel Qualification Plan Support

[redacted]

[redacted]

SPP Phase 7: Safety Analysis Modeling Development and Support

[redacted]

Phase 8, Fuel Thermo-mechanical Modeling Development and Support

[redacted]

4. QUALITY ASSURANCE

For each of the SPP phases described above, a quality assurance plan will be developed to provide direction for the quality management oversight of the work activities during the phase. The quality assurance plan for a particular phase will be included within or referenced within the detailed Project Task Statement (PTS) for that work and will be approved by Lightbridge prior to initiation of that work. It is intended that these quality assurance plans will be developed using a "graded approach" depending on the safety significance and complexity of each phase set of activities. However, it may be acceptable to use one overall quality assurance plan for the duration of all phases if acceptable to and approved by Lightbridge.

Lightbridge Corporation, in coordination with the quality assurance plan and support activities of INL, will conduct an acceptance process (dedication) performed in accordance with ASME NQA-1 to provide reasonable assurance that the testing, examination, and resulting fuel characteristic data reported by INL, is deemed conducted in accordance with ASME NQA-1 requirements. Lightbridge Corporation will become responsible for this resulting data generation, to meet any potential requirements of NRC regulation 10 CFR 21. This assurance will be achieved by identifying the critical characteristics of the item and verifying their acceptability by inspections, tests, or analyses performed by Lightbridge supplemented as necessary by one or more of the following: audits, surveys; product inspections or witness at hold-points at INL's facility, and analysis of historical records for acceptable performance.