September 9, 2026

Lightbridge Secures Access to Idaho National Laboratory's Advanced Test Reactor Loop Facility to Irradiate Clad Lightbridge Fuel™ Rodlets Under Prototypic Commercial Reactor Conditions

RESTON, Va., Sept. 09, 2026 (GLOBE NEWSWIRE) -- Lightbridge Corporation ("Lightbridge" or the "Company") (Nasdaq: LTBR), an advanced nuclear fuel technology company, today announced that it has entered into Project Task Statement (PTS) No. 2 under its Cooperative Research and Development Agreement (CRADA) with Battelle Energy Alliance, LLC (BEA), the U.S. Department of Energy's operating contractor for Idaho National Laboratory (INL), securing access to the loop testing facility of INL's Advanced Test Reactor (ATR) for the irradiation of clad Lightbridge Fuel™ rodlets.

Loop testing is the next step from materials research towards fuel qualification. Unlike static in-core positions, an ATR loop irradiates fuel within a self-contained and independently controlled environment of its own — the coolant chemistry, temperature, pressure, and flow environment a fuel rod would experience in a commercial light-water reactor. Data generated under those conditions is what regulators and utilities weigh when evaluating a new fuel for the operating fleet.

Under PTS No. 2, Lightbridge will test fuel rodlets fabricated from enriched uranium-zirconium alloy with cladding, in both cylindrical and multi-lobe geometry. The work builds directly on prior technical accomplishments under earlier project task statements with BEA, including fuel fabrication process development, and carries the program from materials and fabrication development into the irradiation testing that underpins qualification for commercial deployment in existing light-water reactors.

Seth Grae, Chairman and Chief Executive Officer of Lightbridge, commented, "Getting into a loop at the ATR is the access that matters. There are a limited number of positions in the world where a fuel rod can be irradiated under the conditions it will actually see inside a commercial reactor, and our fuel now has one of them. Every conversation we are having with utilities eventually arrives at the same question: show us the irradiation data. This is how we answer it."

The scope of work under PTS No. 2 includes experiment design, provision of materials, assembly, irradiation and shipment, and disposition of materials, over a period of performance of approximately 60 months.

"This is the experiment the fabrication work has been building toward," said Dr. Scott Holcombe, Senior Vice President and Chief Technology Officer of Lightbridge. "The data collected from this irradiation test will be used to confirm the performance of our fuel rod design and materials and will be used to benchmark our models. Samples from this irradiation are later intended to be subject to further irradiation testing in INL's Transient Reactor Test Facility (TREAT) under transient conditions."

About Idaho National Laboratory
Battelle Energy Alliance manages INL for the U.S. Department of Energy's Office of Nuclear Energy. INL is the nation's center for nuclear energy research and development and also performs research in each of DOE's strategic goal areas: energy, national security, science and the environment. For more information, visit www.inl.gov. Follow us on social media: Facebook, Instagram, LinkedIn and X.

About Lightbridge Corporation
Lightbridge Corporation (Nasdaq: LTBR) is focused on developing advanced nuclear fuel technology essential to delivering abundant, zero-emission, clean energy and providing energy security to the world. The Company is developing Lightbridge Fuel™, a proprietary next-generation nuclear fuel technology for existing light-water and pressurized heavy-water reactors, significantly enhancing reactor safety, economics, and proliferation resistance. The Company is also developing Lightbridge Fuel for new small modular reactors to deliver the same benefits, plus load-following with renewables, on a zero-carbon electric grid.

Lightbridge has entered into two long-term framework agreements with Battelle Energy Alliance, LLC, the United States Department of Energy's operating contractor for Idaho National Laboratory, the United States' lead nuclear energy research and development laboratory. DOE's Gateway for Accelerated Innovation in Nuclear program has twice awarded Lightbridge to support the development of Lightbridge Fuel over the past several years. An extensive worldwide patent portfolio backs Lightbridge's innovative fuel technology. Lightbridge is included in the Russell 2000®, Russell 3000®, and Solactive Global Uranium and Nuclear Components Total Return Indexes. For more information, please visit www.ltbridge.com.

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Forward-Looking Statements
With the exception of historical matters, the matters discussed herein are forward-looking statements. These statements are based on current expectations on the date of this news release and involve a number of risks and uncertainties that may cause actual results to differ significantly from such estimates. The risks include, but are not limited to: Lightbridge's ability to commercialize its nuclear fuel technology, including risks related to the design and testing of nuclear fuel incorporating its technology and the degree of market adoption of Lightbridge's product and service offerings; dependence on strategic partners; any adverse changes to Lightbridge's agreements or relationship with the U.S. government and its national laboratories; Lightbridge's ability to fund its future operations, including general corporate overhead and outside research and development expenses, and continue as a going concern; the future market and demand for Lightbridge's fuel for nuclear reactors and its ability to attract customers; Lightbridge's ability to manage the business effectively in a

rapidly evolving market; Lightbridge's ability to employ and retain qualified employees and consultants that have experience in the nuclear industry; competition and competitive factors in the markets in which Lightbridge competes, including from accident-tolerant fuels; access to and availability of nuclear test reactors and the risks associated with unexpected changes in Lightbridge's nuclear fuel development timeline; access to and availability of adequate resources and manufacturing capabilities at national laboratories that affect our nuclear fuel development timeline and project costs; Lightbridge's ability to deploy and operate a dedicated nuclear fuel fabrication facility; the increased costs associated with metallization of Lightbridge's nuclear fuel; uncertainties related to conducting business in foreign countries; public perception of nuclear energy generally; changes in laws, rules, and regulations governing Lightbridge's business; changes in the political environment; development and utilization of, and challenges to, Lightbridge's intellectual property domestically and abroad; the volatility of the trading price of Lightbridge's securities and the potential for purchasers of its securities to incur substantial losses; and other factors described in Lightbridge's filings with the Securities and Exchange Commission (the "SEC"). Lightbridge does not assume any obligation to update or revise any such forward-looking statements, whether as a result of new developments or otherwise, except as required by law. Readers are cautioned not to put undue reliance on forward-looking statements.

A further description of risks and uncertainties can be found in Lightbridge's Annual Report on Form 10-K for the fiscal year ended December 31, 2025, and in its other filings with the SEC, including in the sections thereof captioned "Risk Factors" and "Forward-Looking Statements," all of which are available at http://www.sec.gov/ *and* www.ltbridge.com.

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Source: Lightbridge Corporation