

September 8, 2026



Lightbridge Letter to Shareholders Outlines Expedited Pathway to Bring Lightbridge Fuel™ to Commercial Reactors

RESTON, Va., Sept. 08, 2026 (GLOBE NEWSWIRE) -- Lightbridge Corporation ("Lightbridge" or the "Company") (Nasdaq: LTBR), an advanced nuclear fuel technology company, today issued a letter to shareholders from Lightbridge's Chairman & Chief Executive Officer, Seth Grae, following the Company's selection for the U.S. Department of Energy's Launch Pad INL Program.

Dear Shareholders,

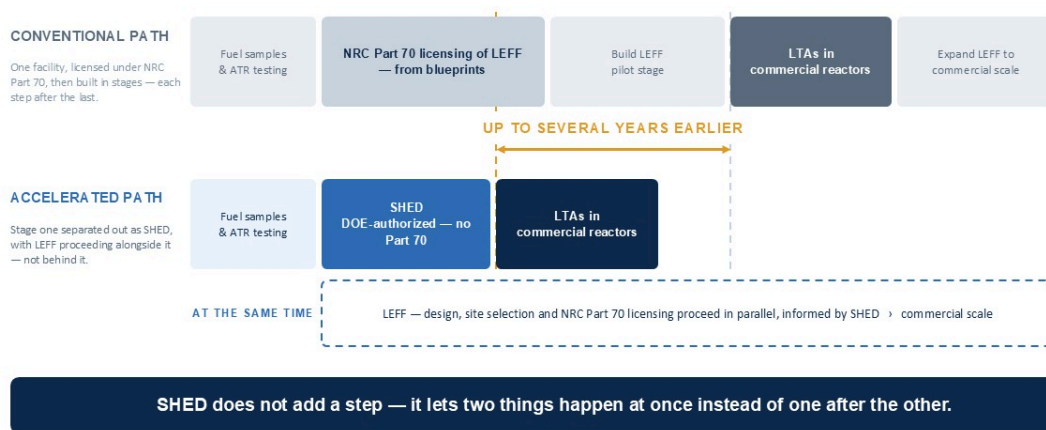
Recently, we announced that Lightbridge has been selected to participate in the U.S. Department of Energy's (DOE's) Launch Pad program at Idaho National Laboratory (INL). This is an important milestone for our Company that can enable an accelerated pathway for the commercial deployment of Lightbridge Fuel™. In this letter, I want to provide additional context on the significance of this milestone and convey why we believe we will look back on this day as one of the most consequential milestones in Lightbridge's history.

What makes this milestone so significant for Lightbridge?

DOE's Launch Pad INL enables a new two-prong commercialization strategy. The **Special HALEU Extrusion Demonstration (SHED)** facility that will produce Lead Test Assemblies (LTAs) will be deployed under DOE authorization. The **Lightbridge Expandable Fuel Facility (LEFF)** will proceed separately toward U.S. Nuclear Regulatory Commission (NRC) licensing for commercial-scale production (**see below**). This two-pronged approach can accelerate our time-to-market by several years compared to our previous projections. While detailed cost estimates for SHED are still being developed, based on preliminary estimates, we currently expect our existing cash and financial resources to be sufficient to fund the construction, operation, and decommissioning of SHED.

WHY SHED IS FASTER, NOT LONGER

The Conventional Path vs. Our Accelerated Path



Illustrative only. Segment widths indicate sequence, not duration; the diagram is not drawn to a time scale. See Forward-Looking Statements.

The path for SHED goes through the DOE. The path for LEFF runs through the NRC. Which one applies depends on the facility's scale and purpose. SHED, a pilot-scale facility that produces LTAs, the full-size assemblies of Lightbridge Fuel that a utility would load into the core of an operating commercial reactor, which the NRC treats as part of a testing program, does not require an NRC license. LEFF, a commercial-scale fuel fabrication facility, does.

We've previously described LEFF as the world's first fuel fabrication plant designed to expand in capacity as commercial demand for our fuel grows. Our original plan was to build LEFF under an NRC license in stages, starting with pilot-scale fabrication to produce LTAs, and then expand production to commercial scale to support batch reloads. That path is well understood from a regulatory licensing standpoint but would cost substantially more and take much longer.

Lightbridge engineers solved this the way they have solved most of our hard problems: by redesigning the thing itself rather than accepting constraints. Their idea was to take the first stage of LEFF, separate it entirely, and deploy it as its own facility at INL (**see below**). This is the Special HALEU Extrusion Demonstration (SHED) facility. SHED will only be authorized by DOE, never by the NRC, allowing it to move forward quickly and at lower cost, meeting the utilities' desire for LTAs by the mid-2030s (a timeline we hope to beat). SHED will operate under a nuclear quality assurance (NQA-1) program from the outset, so the NRC can approve the LTAs it produces for testing in a utility's reactor. This is the plan we submitted under Launch Pad INL, and it is the plan DOE has now selected.

SHED is Stage One, Deployed Early



Launch Pad is a DOE initiative supporting the Trump Administration's goal of widescale nuclear energy expansion through streamlined pathways for developers to demonstrate and accelerate commercial deployment.

SHED's advantages for LEFF

We are moving rapidly to finalize the design for SHED and select a site for LEFF. Both are proceeding in parallel. SHED will have tremendous advantages for LEFF. In SHED, we will hone everything from equipment layout to process demonstration and opportunities for automation of production for full-length fuel rods to our NQA-1 quality assurance program, and all of it will inform the final design for LEFF. It will result in a much more refined design of LEFF, as one of the world's most advanced commercial nuclear fuel fabrication facility. We expect that SHED will also make NRC licensing of LEFF occur more quickly (and hence at a lower cost). Rather than licensing LEFF based on blueprints, the NRC will have the opportunity to visit SHED and examine the LTAs produced there, which will be substantially similar to the commercial fuel that will be produced at LEFF.

The voice of the customer

We view utilities as the most powerful companies in the nuclear power industry. They operate the reactors, and they pull goods and services through the supply chains. If a utility does not want a product, it doesn't matter how well a supplier makes it or how many it produces; no reactor operator will buy it. To succeed as a supplier to utilities, we need to know what utilities want.

In June, we launched and held an inaugural meeting of a reconstituted Nuclear Utility Fuel Advisory Board to ensure we are building toward what utilities actually want. The board provides us with direct input from utility industry representatives on fuel development priorities, licensing considerations, deployment strategies, operational requirements, and commercialization planning. What we have heard has been consistent.

Utilities want three things from a new fuel for their existing large reactors, and each can result in economic benefits.

Higher capacity factors. A reactor that runs more of the time earns more from the same plant and can spread fixed costs over more electricity sold. This results in more revenue for the utility and a lower cost per megawatt-hour, which ultimately reaches ratepayers.

Higher power output. The same result through a different mechanism: more power from the same plant, the same site, and the same operating license.

Enhanced safety. Beyond its own merit, an improved safety margin can reduce the cost of safety-related equipment. A plant whose backup diesel generators are not required to start as quickly, for example, may be able to use less expensive equipment.

Utilities have also been specific about timing. They want a fuel product that delivers all three, available as LTAs in commercial nuclear power plants by the mid-2030s, and in large-scale commercial use, by 2040. Those dates form the urgency behind SHED, and we believe our current plan positions us to meet them, with the goal of beating them.

Benefits of Lightbridge Fuel to utilities

Lightbridge Fuel™: Next-Generation Nuclear Fuel Technology




Lightbridge

Above: Illustration of a 17x17 Lightbridge
Fuel PWR assembly

Lightbridge Fuel was designed against all three of those requirements. Its enhanced safety characteristics are inherent in the design and follow from the fuel's metallurgy rather than from any changes the utility would have to make; the operational gains described below are what a utility would see in its own numbers.

Capacity factor. Our fuel for existing light water reactors is designed to remain in the reactor longer between refuelings, which means fewer outages over the life of the plant and more days providing power. It is also designed for a faster ramp rate, allowing a reactor to reach full power and come down for a refueling outage more quickly than it can on current fuel, shortening the transition days at either end of an outage.

Power output. We expect our fuel to increase the power output of an existing reactor by up to 10% without changing the plant's steam generators. Utilities periodically replace steam generators, sometimes in connection with a license extension. For plants that move to a high-capacity steam generator, we believe our fuel can increase power output by up to 20%. New-build reactors constructed with higher-capacity steam generators could see an increase of roughly one third — a utility could build three reactors and get the power of four. Reactors designed from the outset to optimize use of our fuel could potentially see uprates well above 30%.

Onward in Idaho Falls

SHED will be deployed at INL, and that location matters more than it might appear.

At the INL Materials and Fuels Complex (MFC), Lightbridge engineers have worked alongside INL engineers to produce the fuel samples now undergoing testing. A short distance away at SHED, many of those same engineers — joined by new colleagues we are actively hiring — will produce Lead Test Assemblies, again with INL support. The people, the site, and the working relationships carry forward intact. Few technology companies get to scale up without also starting over.

Idaho Falls is now home to more Lightbridge employees than any other location, and that number continues to grow. Our job openings are updated frequently on the Career page of our website, and the quality of applicants we have seen has been a genuine source of confidence about what comes next.

The path from fuel samples at MFC to Lead Test Assemblies at SHED to commercial fuel at LEFF begins in Idaho. We are grateful to DOE and NRIC for selecting us under Launch Pad INL, and to our colleagues at INL who have brought us to this point.

I want to close by thanking our shareholders. Many of you have held our stock through years when the milestones were technical, and the timelines were long, and that patience is a large part of what made this moment possible.

Over the next several quarters, we expect to provide more detail on the plan described in this letter. That includes the results of post-irradiation examination of the fuel samples produced with INL, progress on the SHED design and site work, site selection for LEFF, and the cost, timeline, and economic assumptions that analysts need to model both facilities, including our expectations for the value our fuel creates for utilities through higher capacity factors, increased power output, and enhanced safety.

Selection under Launch Pad INL is what makes SHED possible, and SHED is what makes LTAs in a commercial reactor possible within the timeframe utilities have told us they need. That is why we believe we will look back on this as one of the most consequential milestones in Lightbridge's history. We are grateful to have you with us for what comes next.

Seth Grae
Chairman & CEO
Lightbridge Corporation

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, when combined with 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 & Nuclear Components Total Return Indexes. For more information, please visit www.ltbridge.com.

To receive Lightbridge Corporation updates via e-mail, subscribe at <https://www.ltbridge.com/investors/news-events/email-alerts>

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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; the impact that Launch Pad INL will have on Lightbridge's nuclear fuel development timeline; 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 applicable laws, regulations, governmental policies, or regulatory interpretations, including those affecting the licensing, testing, manufacture, and commercialization of Lightbridge Fuel; 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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Photos accompanying this announcement are available at:

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Source: Lightbridge Corporation

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