

September 23, 2019



# **Enfission and Lightbridge Announce Successful Demonstration of Patented Manufacturing Process and Fabrication of Lightbridge Fuel™ Surrogate Rods for a NuScale Small Modular Reactor**

RESTON, Va., Sept. 23, 2019 (GLOBE NEWSWIRE) -- [Lightbridge Corporation](#) (NASDAQ: LTBR) and Enfission, LLC, a joint venture between Lightbridge and Framatome, today announced successful demonstration of the manufacturing process and fabrication of Lightbridge Fuel™ surrogate rods in a length that could be usable in NuScale Power's small modular reactors (SMR). The demonstration included the production of several coextruded rods using an internally developed and patented coextrusion process. The fuel rod design is expected to increase core performance, extend core life, lessen the number of refueling outages, and offer reduced levelized cost of electricity.

The NuScale length Lightbridge Fuel™ rods (i.e., 6 feet in length) were coextruded from billets contained in a zirconium canister and resulted in a bonded cladding surrounding the surrogate fuel material core. The surrogate materials were designed to simulate the flow stresses, including temperatures and extrusion pressures, expected in the manufacture of the Lightbridge Fuel™ rods utilizing a uranium-zirconium alloy.

Seth Grae, President & Chief Executive Officer of Lightbridge Corporation and Enfission, commented, "This successful demonstration marks a major milestone for Lightbridge and our Enfission joint venture, as it represents first reduction to practice for our proprietary manufacturing process and confirms rod fabrication feasibility to 6 feet in length as a first step. It also represents a leap forward towards commercial production of Lightbridge Fuel™. It is important to note that these surrogate rods were produced in the United States using our patented technology and processes. We are now moving rapidly towards a similar demonstration of full-length (i.e., 12 feet) coextruded rods for the existing US fleet of large commercial nuclear power plants and we look forward to providing further updates."

"We at NuScale look forward to exploring applications for Lightbridge fuel in our groundbreaking NuScale Power Module (NPM)," said Dr. Jose Reyes, co-founder and Chief Technology Officer for NuScale Power. "We look forward to advancing this research collaboration and Lightbridge's ongoing progress in this space."

Demonstration of the coextrusion manufacturing process follows a Memorandum of Understanding between NuScale and Enfission in May 2019, whereby the parties agreed to collaborate on the development of research and testing programs to explore the application of the Lightbridge Fuel™ technology in NuScale's natural circulation SMR design.

**About Lightbridge Corporation**

Lightbridge (NASDAQ: LTBR) is a nuclear fuel technology development company based in Reston, Virginia, USA. The Company develops proprietary next generation nuclear fuel technologies for current and future reactors, which significantly enhances the economics and safety of nuclear power, operating about 1000° C cooler than standard fuel. In January 2018, Lightbridge and Framatome, Inc. formed a 50-50 joint venture, Enfission, LLC, to develop, license, manufacture, and sell nuclear fuel assemblies based on Lightbridge-designed metallic fuel technology and other advanced nuclear fuel intellectual property. Enfission has the exclusive rights to this technology and is responsible for the development of manufacturing processes and fuel assembly designs for pressurized water reactors (PWRs), boiling water reactors (BWRs), water-cooled small modular reactors, and water-cooled research reactors developed around this intellectual property. PWRs and BWRs constitute the most widely used reactor types in the world. Four large electric utilities that generate about half the nuclear power in the US already advise Lightbridge on fuel development and deployment. In addition to distributions from Enfission based on the parties' ownership interest in the joint venture, Lightbridge anticipates receiving future licensing revenues in connection with sales by Enfission of nuclear fuel incorporating its intellectual property. Lightbridge also provides comprehensive advisory services for established and emerging nuclear programs based on a philosophy of transparency, non-proliferation, safety and operational excellence. For more information please visit: [www.ltbridge.com](http://www.ltbridge.com).

To receive Lightbridge Corporation updates via e-mail, subscribe at <http://ir.ltbridge.com/alerts.cfm>.

Lightbridge is on Twitter. Sign up to follow @LightbridgeCorp at <http://twitter.com/lightbridgecorp>.

## **About Enfission**

Enfission is a US-based 50-50 joint venture between Lightbridge Corporation and Framatome. Enfission was established January 25, 2018 to complete the development, regulatory licensing, and commercial deployment worldwide of nuclear fuel assemblies based on multi-lobe metallic twisted fuel technology. Enfission will produce Lightbridge Fuel™ assemblies initially for operators of U.S. commercial nuclear power plants, then follow with production of Lightbridge Fuel™ assemblies for other types of reactors and for markets around the world. Additional information about the Company is available at: [www.enfission.net](http://www.enfission.net).

## **Forward Looking Statements**

*With the exception of historical matters, the matters discussed in this news release are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements regarding the timing and outcome of research and development activities and other steps to commercialization of Lightbridge Fuel™. 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, the degree of market adoption of the Company's product and service offerings; market competition; dependence on strategic partners; demand for fuel for nuclear reactors; the Company's ability to manage its business effectively in a rapidly evolving market; as well as other factors described in Lightbridge's filings with the Securities and Exchange Commission. Lightbridge does not assume any obligation to update or revise any such forward-looking statements, whether as the result of*

*new developments or otherwise. Readers are cautioned not to put undue reliance on forward-looking statements.*

**Investor Relations Contact:**

David Waldman/Natalya Rudman

Tel. +1 855-379-9900

[ir@ltbridge.com](mailto:ir@ltbridge.com)



Source: Lightbridge Corporation