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Lightbridge Successfully Demonstrates High Temperature Co-Extrusion of Lightbridge Fuel™ Surrogate Rods for Commercial Scale Nuclear Reactors Using Patented Process

Commercial Length Rod Design Addresses $20 Billion Worldwide Market

RESTON, Va., Sept. 24, 2019 (GLOBE NEWSWIRE) -- Lightbridge Corporation (NASDAQ: LTBR), a nuclear fuel developer, and Enfission, LLC, a joint venture of Lightbridge and Framatome, today announced successful demonstration of the manufacturing process for 12-foot, commercial-length Lightbridge Fuel™ rods using surrogate materials. The demonstration of Lightbridge's fuel manufacturing process utilizes an internally developed and patented, high-temperature coextrusion process. Lightbridge Fuel™ is designed to significantly enhance the economics and safety of nuclear power, by extending core life, increasing power output, lessening the number of refueling outages, and operating about 1000° C cooler than standard fuel.

Seth Grae, President & Chief Executive Officer of Lightbridge Corporation and Enfission, commented, "Production of commercial-length coextruded rods, designed for the majority of water-cooled reactors, marks another major milestone for our Company. This is the first time our process has been demonstrated for full length commercial reactors, and follows our recent announcement that we had successfully demonstrated the process to produce fuel rods at a length designed for small modular reactors. The market for pressurized water reactors, boiling water reactors, and pressurized heavy water reactors includes over 350 reactors worldwide. The average annual fuel spend per reactor, per year is approximately $50 million, which we estimate equates to a $20 billion addressable global market. Importantly, the 97 commercial reactors in the US today produce nearly 60 percent of U.S. emission-free electrical generation. Moreover, when comparing statistics published by the U.S. Energy Information Administration to an independent report on our fuel prepared by Siemens' U.S. subsidiary, Pace Global, we believe adding electricity generation with our fuel will represent the lowest levelized cost of electricity–even compared to natural gas.

"Lightbridge Fuel™ is designed for existing and new reactors, improving their economics by increasing power output and enabling longer fuel cycles. Lightbridge fuel adds non-carbon-emitting baseload electricity with improved reactor safety. Lightbridge invented and patented the technology, and has near-term plans to demonstrate the fuel in a commercial reactor and in research reactors.

"We are pleased to advance this project with our partner Framatome, the world's largest nuclear fuel manufacturer, through our Enfission joint venture. We plan to manufacture the fuel in the U.S for both domestic use and international export. Lightbridge and Framatome

plan to form Enfission Europe to serve the European market. The technology is patented in all major markets around the world including the U.S., Europe, China, Russia and other key markets, which we believe will enable our fuel to far surpass the competition due to the economic and other benefits."

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.

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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.

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.

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