LIGHTBRIDGE Corp
Form 10-K
March 14, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended **December 31, 2017**

OR

¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number: **001-34487**

LIGHTBRIDGE CORPORATION

(Exact name of registrant as specified in its charter)

Nevada	**91-1975651**
(State or other jurisdiction of	(I.R.S. Employer

incorporation or organization) Identification No.)

11710 Plaza America Drive, Suite 2000 Reston, VA 20190

(Address of principal executive offices) (Zip Code)

(571) 730-1200

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Common Stock, $0.001 par value

Name of each exchange on which registered

The Nasdaq Capital Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer	¨	Accelerated Filer	¨
Non-Accelerated Filer	¨	Smaller reporting company	x
(Do not check if a smaller reporting company)		Emerging growth company	¨

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

At June 30, 2017, the aggregate market value of shares held by non-affiliates of the registrant (based upon the closing sale price of such shares on the Nasdaq Capital Market on June 30, 2017) was $16,817,767

At March 8, 2018 there were 22,829,365 shares of the registrant's common stock issued and outstanding.

LIGHTBRIDGE CORPORATION

FORM 10-K

For the Fiscal Year Ended December 31, 2017

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FORWARD-LOOKING STATEMENTS

In addition to historical information, this report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. We use words such as “believe”, “expect”, “anticipate”, “project”, “target”, “plan”, “optimistic”, “intend”, “ai similar expressions which are intended to identify forward-looking statements. Such statements include, among others, (1) those concerning market and business segment growth, demand and acceptance of our nuclear energy consulting services and nuclear fuel technology business, (2) any projections of sales, earnings, revenue, margins or other financial items, (3) any statements of the plans, strategies and objectives of management for future operations and the timing of the development of our nuclear fuel technology, (4) any statements regarding future economic conditions or performance, (5) uncertainties related to conducting business in foreign countries, (6) any statements about future financings and liquidity, (7) any statement about the timing or success of entering into a potential joint venture as well as (8) all assumptions, expectations, predictions, intentions or beliefs about future events. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, as well as assumptions that if they were to ever materialize or prove incorrect, could cause the results of the Company to differ materially from those expressed or implied by such forward-looking statements. Such risks and uncertainties, among others, include:

- our ability to commercialize our nuclear fuel technology, including risks related to the design and testing of nuclear fuel incorporating our technology,
- the realization of expected benefits from Enfission, LLC, our joint venture with Framatome, Inc., and our future collaboration with Framatome,
- our ability to attract new customers,
- our 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 we compete,
- public perception of nuclear energy generally,
- general economic and business conditions in the local economies in which we regularly conduct business, which can affect demand for the Company’s services,
- changes in laws, rules and regulations governing our business,
- development and utilization of, and challenges to, our intellectual property,
- potential and contingent liabilities, and
- the risks identified in Item 1A. “Risk Factors” included herein and in our Form 10-K filing.

Most of these factors are beyond our ability to predict or control. Future events and actual results could differ materially from those set forth in, contemplated by or underlying the forward-looking statements. Forward-looking statements speak only as of the date on which they are made. The Company assumes no obligation and does not intend to update these forward-looking statements, except as required by law.

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PART I

ITEM 1. DESCRIPTION OF BUSINESS

When used in this Annual Report on Form 10-K, the terms “Lightbridge”, the “Company”, “we”, “our”, and “us” refer Lightbridge Corporation together with its wholly-owned subsidiaries Lightbridge International Holding LLC and Thorium Power Inc.

Company Overview

Lightbridge is a leading nuclear fuel technology company. Our primary focus is the development and commercialization of next generation nuclear fuel that will significantly improve the economics and safety of existing and new reactors, with a meaningful impact on addressing climate change and air pollution challenges. We believe our nuclear fuel technology has the potential to enhance reactor safety and the proliferation resistance of spent fuel and increase the power output of commercial reactors, reducing the cost of generating electricity and the amount of nuclear waste per unit of electricity generated.

We will conduct our business in 2018 principally through Enfission, LLC (“Enfission”), our 50/50 joint venture with Framatome, which was formed on January 24, 2018, for the development, regulatory licensing, fabrication, and sale of nuclear fuel assemblies based on Lightbridge-designed metallic fuel technology and other advanced nuclear fuel intellectual property. Enfission serves as our exclusive vehicle for the development of manufacturing processes and fuel assembly designs for pressurized water reactors and boiling water reactors, which collectively constitute most of the power reactors in the world, as well as water-cooled small modular reactors and water-cooled research reactors. In addition to our nuclear fuel technology segment, we also opportunistically provide nuclear power consulting and strategic advisory services to commercial and governmental entities worldwide.

We were incorporated under the laws of the State of Nevada on February 2, 1999. Our principal executive offices are located at 11710 Plaza America Drive, Suite 2000, Reston, Virginia 20190 USA.

Overview of Our Next Generation Nuclear Fuel

Since the founding of our company, we have been engaged in the design and development of proprietary, innovative nuclear fuels to improve the cost competitiveness, safety, proliferation resistance and performance of nuclear power generation. Since 2010 we have focused on the development of all-metal fuel (i.e., non-oxide fuel) for currently operating as well as new-build reactors. Our focus on metallic fuel is based on listening to the voices of prospective customers, as nuclear utilities have expressed interest in the improved economics and enhanced safety that metallic fuel can provide.

The fuel in a nuclear reactor generates heat energy. That heat is then converted through steam into electricity that is sold. We have designed our innovative, proprietary metallic fuels to be capable of significantly higher burnup and power density compared to conventional oxide fuels. *Burnup* is the total amount of electricity generated per unit mass of nuclear fuel and is a function of the power density of a nuclear fuel and the amount of time the fuel operates in the reactor. *Power density* is the amount of heat power generated per unit volume of nuclear fuel. Conventional oxide fuel used in existing commercial reactors is approaching the limits of its burnup and power density capability. As a result, further optimization to increase power output from the same core size and improve the economics and safety of nuclear power generation using conventional oxide fuel technologies is limited.

As the nuclear industry prepares to meet the increasing global demand for electricity production, longer operating cycles and higher reactor power outputs have become a much sought-after solution for the current and future reactor fleet. We believe our proprietary nuclear fuel designs have the potential to significantly enhance the nuclear power industry's economics by:

- providing an increase in power output of potentially up to 10% while simultaneously extending the operating cycle length from 18 to 24 months in existing pressurized water reactors (PWRs), including in Westinghouse-type four-loop PWR plants which are currently constrained to an 18-month operating cycle by oxide fuel, or increasing the power potentially up to 17% while retaining an 18-month operating cycle;

We believe our fuel designs will allow current and new build nuclear reactors to safely increase power production and reduce operations and maintenance costs on a per kilowatt-hour basis. New build nuclear reactors could also benefit from the reduced upfront capital investment per kilowatt of generating capacity in case of implementing a power uprate. In addition to the projected electricity production cost savings, we believe that our technology can result in utilities or countries needing to deploy fewer new reactors to generate the same amount of electricity (in case of a power uprate), resulting in significant capital cost savings. For utilities or countries that already have operating reactors, our technology could be utilized to increase the power output of those reactors as opposed to building new reactors. Further, we believe that the fuel fabrication or manufacturing process for this new fuel design is simpler, which we expect could lower fuel fabrication costs.

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Due to the significantly lower fuel operating temperature, our metallic nuclear fuel rods are also expected to provide major improvements to safety margins during off-normal events. US Nuclear Regulatory Commission licensing processes require engineering analysis of a large break loss-of-coolant accident (LOCA), as well as many other scenarios. The LOCA scenario assumes failure of a large water pipe in the reactor coolant system. Under LOCA conditions, the fuel and cladding temperatures rise due to reduced cooling capacity. Preliminary analytical modeling shows that under a design-basis LOCA scenario, unlike conventional uranium dioxide fuel, the cladding of the Lightbridge-designed metallic fuel rods would stay at least 200 degrees below the 850-900 degrees Celsius temperature at which steam begins to react with the zirconium cladding to generate hydrogen gas. Buildup of hydrogen gas in a nuclear power plant can lead to the hydrogen exploding. Lightbridge fuel is designed to prevent hydrogen gas generation in design-basis LOCA situations, which is a major safety benefit.

Enfission, LLC

In January 2018, we formed Enfission, LLC, a 50/50 joint venture with Framatome, Inc., to develop, license, manufacture, and sell nuclear fuel assemblies based on Lightbridge-designed metallic fuel technology and other advanced nuclear fuel intellectual property. Enfission serves as our exclusive vehicle 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. PWRs and BWRs constitute the most widely used reactor types in the world. In addition to distributions from Enfission based on our ownership interest in the joint venture, we anticipate receiving future licensing revenues in connection with sales by Enfission of nuclear fuel incorporating our intellectual property.

Framatome Inc. is a wholly-owned US subsidiary of Framatome, which we refer to individually or collectively in this Annual Report on Form 10-K, together with their affiliates, as Framatome. Framatome designs, manufactures and installs components and fuel for nuclear power plants and offers a full range of reactor services.

Anticipated Schedule for Development and Sale of Nuclear Fuel Assemblies

Set forth below is our anticipated schedule for Enfission's development and sale of nuclear fuel assemblies. Please see Item 1A, *Risk Factors*, for a discussion of certain risks that may delay or impair the commercialization of nuclear fuel assemblies incorporating our nuclear fuel technology. Based on our current expectations, we anticipate that, either directly or through Enfission, we will:

- develop a regulatory licensing plan for lead test assemblies and present it to the US Nuclear Regulatory Commission in 2018;

Accordingly, based on our current expected schedule, a purchase order for an initial reload batch placed by a utility is expected as soon as 2026-2027 (after two 18-month cycles of LTA operation), with final qualification (i.e., deployment of fuel in the first reload batch) in a commercial reactor expected as soon as 2028-2029. We intend to seek development funding contributions or other financing arrangements with utilities several years in advance of LTA demonstration.

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Ownership and Management of Enfission

Lightbridge owns 50 percent of Enfission's Class A voting membership units and Framatome owns the other 50 percent. Any distributions will be made based on the members' pro rata ownership percentage. Lightbridge and Framatome each provided an initial capital contribution of $10,000, as well as licensed certain intellectual property to Enfission. Certain additional capital contributions made by Lightbridge and Framatome will partly be in the form of exclusive license rights to intellectual property developed pursuant to a research and development service agreement with Enfission.

Seth Grae, our Chief Executive Officer, also serves as Chief Executive Officer of Enfission. Enfission is managed by a board of directors composed of six directors, half of whom are appointed by Lightbridge and the other half are appointed by Framatome. The chairperson of Enfission's board of directors alternates every year between directors appointed by Lightbridge and directors appointed by Framatome. The Enfission board acts by majority vote, provided that at least one director appointed by each of Lightbridge and Framatome votes in favor of the action. Certain major decisions require the approval of at least two-thirds of the directors, and certain fundamental decisions, including amending the Enfission operating agreement and issuing additional membership units, require the approval of two-thirds of the Class A members.

Agreements with Enfission and Framatome

Enfission has entered into several agreements with Lightbridge and Framatome relating to intellectual property, the provision of personnel and administrative support to Enfission, and research and development efforts.

Lightbridge and Framatome have also directly entered into binding agreements forming the foundation for Enfission, including the following agreements in November 2017 which govern joint research and development activities and the treatment of all related existing and future intellectual property:

- R&D Services Agreement ("RDSA") — The RDSA defines the terms and conditions for joint research and development activities between Framatome and Lightbridge. Enfission is a party to the RDSA. Key terms and conditions of the RDSA include: (i) designating a 17x17 fuel assembly as the first joint project of the parties and forming a steering committee for the project; (ii) establishing a framework for future work release orders relating to research and development activities of the parties; and (iii) granting rights to the use of background and foreground intellectual property needed to perform research and development activities.

In connection with the RDSA, we currently anticipate purchasing via Enfission a minimum amount of research and development services from Framatome of approximately $3.3 million, for the period up through December 31, 2018. This amount is likely to increase over the course of the year.

Other Development of Our Nuclear Fuel Technology

We retain the right to commercialize our nuclear fuel technology outside of the domain encompassed by Enfission, most notably in VVERs and Pressurized Heavy Water Reactors (PSWRs), including Canada Deuterium Uranium (CANDU) reactors. We anticipate all of our efforts for the foreseeable future will be directed towards Enfission.

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Competition

To our knowledge, our nuclear fuel technology is the only technology that could be commercially viable to increase, in a safe and economically attractive way, power output potentially by up to 17% in existing PWRs and up to 30% in new build PWRs. Due to long product development timelines, significant nuclear regulatory requirements, and our intellectual property, we believe that the barriers to entry are very high for a competitor to our nuclear fuel technology segment.

Competition with respect to the design of commercially viable nuclear fuel products is limited to conventional uranium oxide fuels, which are reaching the limits in terms of their capability to provide increased power output or longer fuel cycles. We believe that the industry needs fuel products that can provide these benefits. While we believe conventional uranium oxide fuel may be capable of achieving power uprates of up to 10% in existing PWRs, doing so would require uranium-235 enrichment levels above 5% (as is also the case with our metallic fuel), higher reload batch sizes, or a combination thereof. The alternative route of increasing reload batch sizes while keeping uranium enrichment levels below 5% for power uprates up to 10% using conventional uranium oxide fuel raises the cost of each fuel reload, resulting in a significant fuel cycle cost penalty to the nuclear utility. The cost penalty could have a dramatic adverse impact on the economics of existing plants whose original capital cost has already been written off, which includes most US nuclear power plants.

Nuclear power faces competition from other sources of electricity, including natural gas, which is currently the cheapest option for power generation in the US and has resulted in some utilities abandoning nuclear power. Other sources of electricity may also be viewed as safer than nuclear power, although we believe that generating nuclear energy with Lightbridge fuel is the safest way to produce baseload electricity in suitable power reactors. To the extent demand for electricity generated by nuclear power decreases, the potential market for our nuclear fuel technology will decline.

Raw Materials

We do not plan to utilize any raw materials directly in the conduct of our operations. The fuel fabricators which will ultimately fabricate fuel products incorporating our nuclear fuel technology will require zirconium and uranium, and additional raw materials that are required for the production of nuclear fuel assemblies that go into the reactor core. Uranium and zirconium are available from various suppliers at market prices. Our plan is that utilities will contract with Enfission to order nuclear fuel assemblies, and Enfission will subcontract manufacturing of fuel assemblies to Framatome, which will physically produce and then ship the completed nuclear fuel assemblies to the reactor sites on behalf of Enfission.

Government Approvals and Relationships with Critical Development Partners/Vendors

The sales and marketing of our services and technology internationally may be subject to US export control regulations and the export control laws of other countries. Governmental authorizations may be required before we can export our services or technology or collaborate with foreign entities. If authorizations are required and not granted, our international business plans could be materially affected. Furthermore, the export authorization process is often time consuming. Violation of export control regulations could subject us to fines and other penalties, such as losing the ability to export for a period of years, which would limit our revenue growth opportunities and significantly hinder our attempts to expand our business internationally.

In 2015-2016, we received our export controls authorization from the US Department of Energy for all of our planned work outside the United States, specifically in France, Germany, Norway, Sweden, and Canada.

The testing, fabrication and use of nuclear fuels by Enfission and our future partners, licensees and nuclear power generators will be heavily regulated. The test facilities and other locations where our fuel designs may be tested before commercial use require governmental approvals from the host country's nuclear regulatory authority. The responsibility for obtaining the necessary regulatory approvals will lie with our research and development contractors that conduct such tests and experiments. Nuclear fuel fabricators, which will ultimately fabricate fuel using our technology under commercial licenses from us, are similarly regulated. Utilities that operate nuclear power plants that may utilize the fuel produced by these fuel fabricators require specific licenses relating to possession and use of nuclear materials as well as numerous other governmental approvals for the ownership and operation of nuclear power plants.

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Certain Challenges

The ability to fabricate the LTAs and a nuclear utility that is willing to accept the LTAs, is required for LTA demonstration in a commercial reactor. In the US, the fabricator and the utility will be primarily responsible for securing necessary regulatory licensing approvals for the LTA operation. To this end, in 2011, we established a Nuclear Utility Fuel Advisory Board (NUFAB) to further strengthen dialogue with global nuclear utilities. Separately, we formed Enfission with the fabricator Framatome to complete the development, demonstration, regulatory licensing, and commercial deployment of our metallic nuclear fuel in most types of reactors that are currently in operation, under construction, and planned around the world.

There is a lack of publicly available experimental data on our metallic fuel. We will need to conduct various irradiation experiments to confirm fuel performance under normal and off-normal events. Loop irradiation in a test reactor environment prototypic of commercial reactor operating conditions and other experiments on unirradiated and irradiated metallic fuel samples will be essential to demonstrate the performance and advantages of our metallic fuel. We are currently planning loop irradiation testing of our metallic fuel samples in a research reactor as part of this effort.

Existing analytical models may be inadequate. New analytical models, capable of accurately predicting the behavior of our metallic fuel during normal operation and off-normal events, may be required. Experimental data measured from our planned irradiation demonstrations will help to identify areas where new analytical models or modifications to existing ones may be required.

Demonstration of a fabrication process both for semi-scale irradiation fuel samples and subsequently for full-length (12-14 feet) metallic fuel rods for PWR LTAs is required. Past operating experience with differently shaped fuel rods with a similar metallic fuel composition involved fabrication of metallic fuel rods up to 3 feet in length in Russia. We have identified two suitable locations (one in France and one in the United States) for fabrication of test fuel samples up to 700mm in length for test reactor irradiation. Our current plan is for these fabricated test fuel samples to be irradiated to their target burnup in a pressurized water loop of the Halden Research Reactor located in Halden, Norway. We have identified multiple suitable locations for post-irradiation examination of the irradiated test fuel samples, including in Sweden, Canada or the United States. Once the test fuel samples have been manufactured, we plan to demonstrate fabrication of full-length fuel rods (12-14ft. in length) initially using depleted or natural uranium and subsequently utilize the same process to manufacture full-length fuel rods using high-assay low enriched uranium for lead test assemblies.

Overview of the Nuclear Power Industry

Presently, nuclear power provides approximately 7% of the world's energy, including approximately 11% of the world's electricity. According to the World Nuclear Association, as of February 1, 2018 there were approximately 448 operable nuclear power plants worldwide, mostly light water reactors, with the most common types being PWRs, boiling-water reactors (BWRs), and VVER reactors. Nuclear power provides a non-fossil fuel, low-carbon energy solution that can meet baseload electricity needs.

Due to substantial project risks and the significant upfront capital commitment associated with building new reactors, many nuclear utilities in deregulated markets choose to optimize their existing generating capacity through increasing their capacity utilization factor, power uprates and plant life extensions. We expect this trend to continue, particularly in the mature nuclear markets with significant existing nuclear capacity. We expect most of the new build activity to occur in emerging nuclear markets.

Of the world's existing reactors currently in operation, PWRs (including Russian-designed VVERs) account for more than half of the net operating capacity, with BWRs being the second most prevalent and accounting for another 15-20%.

Of the nuclear reactors currently under construction, we estimate over 80% are either PWRs or VVERs with a rated electric power output of 1,000 megawatts ("MWe") or greater.

Utilities have embraced power uprates as a cost-effective way to increase their generation capacity. While the efforts thus far have occurred mostly in the United States, we believe there is a large, untapped worldwide market for power uprates. The incentive to proceed with longer operating cycles and/or power uprates of up to 10% level is significant since there are few changes required to implement the power uprate, and the changes that are required are relatively inexpensive. The limiting factor at the moment is the fuel.

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In some instances, utilities will modify and/or replace components in order to accommodate a higher power level. Technical analyses must demonstrate that the proposed plant configuration remains safe and that measures to protect the health and safety of the public continue to be effective. These analyses, which span many technical disciplines, are reviewed and approved by the regulator before a power uprate can be performed.

The utility will conduct an economic analysis to evaluate the potential financial benefits of the proposed uprate. Typically, power uprates enable utilities to increase their generating capacity at a cost significantly less than the cost of building a new plant. In many cases, power uprates can be completed in months as opposed to the several years required for new build, thus the invested dollars begin producing revenue shortly after they are spent. Power uprates, therefore, represent an efficient use of capital.

Most nuclear power plants originally had a licensed lifetime of 25 to 40 years, but engineering assessments have established that many can operate much longer. In the US, approximately 60 reactors have been granted license extensions to continue operating for a total of 60 years. Most of the plants that have not already requested a license extension are expected to apply in the near future. A license extension at about the 30-year mark requires additional capital expenditure for the replacement of worn equipment and outdated control systems. Multiple utilities have stated plans to apply to the NRC for additional 20 years of licensed lifetime, up to a total of 80 years per reactor.

The technical and economic feasibility of replacing major reactor components, such as steam generators in PWRs, has been demonstrated. The increased revenue generated from extending the lifetime of existing plants is attractive to utilities, especially in view of the difficulties in obtaining public acceptance of constructing replacement nuclear capacity.

Almost all of the new build reactor designs are either Generation III or Generation III+ type reactors. The primary difference from second-generation designs is that many incorporate passive or inherent safety features which require no active controls or operational intervention to avoid accidents in the event of malfunction. Many of these passive systems rely on gravity, natural convection, or resistance to high temperatures.

Influence of the Accident at Fukushima, Japan and New International Nuclear Build

The nuclear accident at the Fukushima nuclear power plant in Japan following the strong earthquake and massive tsunami that occurred on March 11, 2011 increased public opposition to nuclear power, resulting in a slowdown in, or, in some cases, a complete halt to, new construction of nuclear power plants and an early shut down of existing power plants in certain countries. As a result, some countries that were considering launching new domestic nuclear power programs before the Fukushima accident have delayed or cancelled preparatory activities they were planning to

undertake as part of such programs. This has diminished the number of consulting opportunities that we could compete for globally, at least in the near-term. In addition, the Fukushima accident appears to have shrunk the projected size of the global nuclear power market in 2025-2030 as reflected in the most recent reference case projections published by the World Nuclear Association. At the same time, the event has brought a greater emphasis on safety to the forefront that may be beneficial to us because our metallic fuel provides improved safety and fuel performance during normal operation and design-basis accidents.

Our Intellectual Property

Our nuclear fuel technologies are protected by multiple US and international patents. Set forth below are the patents which we consider material to our business based on our current plans, all of which we have licensed to Enfission:

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Country	Application Date	Registration Date	Title	Case Status
Fabrication method using the casting route				
United States of America	2/20/2018		FUEL ASSEMBLY	Pending
Belgium	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Bulgaria	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Czech Republic	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
European Patent Office	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Hungary	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
United Kingdom	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
China	5/11/2011		FUEL ASSEMBLY	Pending
Japan	5/11/2011		FUEL ASSEMBLY	Pending
Republic of Korea	5/11/2011		FUEL ASSEMBLY	Pending
Fabrication method using the powder metallurge route				
United States of America	5/11/2011		FUEL ASSEMBLY	Pending
United States of America	2/20/2018		FUEL ASSEMBLY	Pending
Australia	5/11/2011	7/2/2015	FUEL ASSEMBLY	Registered
Belgium	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Bulgaria	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Czech Republic	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
European Patent Office	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Hungary	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
United Kingdom	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Bulgaria	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Czech Republic	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
European Patent Office	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Finland	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
France	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Germany	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Hungary	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Sweden	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Turkey	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
China	5/11/2011	5/18/2016	FUEL ASSEMBLY	Registered
Japan	5/11/2011	9/9/2016	FUEL ASSEMBLY	Registered
Republic of Korea	5/11/2011	8/30/2017	FUEL ASSEMBLY	Registered
Australia	5/11/2011		FUEL ASSEMBLY	Pending
Canada	5/11/2011		FUEL ASSEMBLY	Pending
China	5/11/2011		FUEL ASSEMBLY	Pending
India	5/11/2011		FUEL ASSEMBLY	Pending

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All-metal fuel assembly design and a mixed grid pattern of metallic fuel rods				
United States of America	11/15/2013		FUEL ASSEMBLY	Pending
Belgium	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Bulgaria	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Czech Republic	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
European Patent Office	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Finland	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
France	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Germany	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Hungary	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Spain	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Sweden	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
Turkey	5/1/2014	1/31/2018	FUEL ASSEMBLY	Registered
China	5/1/2014	11/24/2017	FUEL ASSEMBLY	Registered
Australia	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
Canada	5/1/2014		FUEL ASSEMBLY	Pending
Canada	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
China	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
Eurasian Patent Organization	5/1/2014		FUEL ASSEMBLY	Pending
Eurasian Patent Organization	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
European Patent Office	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
Japan	5/1/2014		FUEL ASSEMBLY	Pending
Japan	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
Republic of Korea	5/1/2014		FUEL ASSEMBLY	Pending
Republic of Korea	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
India	5/1/2014		FUEL ASSEMBLY	Pending
All-metal fuel assembly design (i.e., no oxide rods in the outer row)				
United States of America	5/11/2011		FUEL ASSEMBLY	Pending
United States of America	11/15/2013		FUEL ASSEMBLY	Pending
Australia	5/11/2011	7/2/2015	FUEL ASSEMBLY	Registered
Canada	12/26/2007	4/26/2016	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
India	12/26/2007		NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Pending

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Multi-lobe metallic fuel rod design

United States of America	12/25/2008	5/31/2016	LIGHT-WATER REACTOR FUEL ASSEMBLY (ALTERNATIVES), A LIGHT-WATER REACTOR, AND A FUEL ELEMENT OF FUEL ASSEMBLY	Registered
United States of America	12/26/2007	2/18/2014	NUCLEAR REACTOR (ALTERNATIVES), FUEL ASSEMBLY OF SEED-BLANKET SUBASSEMBLIES FOR NUCLEAR REACTOR (ALTERNATIVES), AND FUEL ELEMENT FOR FUEL ASSEMBLY	Registered
United States of America	5/11/2011		FUEL ASSEMBLY	Pending
United States of America	11/15/2013		FUEL ASSEMBLY	Pending
United States of America	9/16/2015		FUEL ASSEMBLY	Pending
United States of America	2/20/2018		FUEL ASSEMBLY	Pending
Australia	5/11/2011	7/2/2015	FUEL ASSEMBLY	Registered
Australia	12/25/2008	9/3/2015	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Australia	12/26/2007	8/4/2016	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
Australia	12/26/2007	5/24/2014	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
Belgium	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Bulgaria	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Czech Republic	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
European Patent Office	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Finland	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
France	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Germany	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Hungary	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Sweden	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered

Turkey	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
United Kingdom	12/26/2007	5/18/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Belgium	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Bulgaria	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Czech Republic	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
European Patent Office	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Finland	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
France	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Germany	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Hungary	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Spain	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered

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Sweden	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Turkey	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
United Kingdom	12/23/2008	9/21/2016	A FUEL ELEMENT, A FUEL ASSEMBLY AND A METHOD OF USING A FUEL ASSEMBLY	Registered
Belgium	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Bulgaria	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Czech Republic	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
European Patent Office	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Hungary	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
United Kingdom	5/11/2011	10/25/2017	FUEL ASSEMBLY	Registered
Bulgaria	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Czech Republic	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
European Patent Office	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Finland	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
France	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Germany	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Hungary	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Sweden	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Turkey	5/11/2011	4/6/2016	FUEL ASSEMBLY	Registered
Bulgaria	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Czech Republic	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
European Patent Office	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Finland	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
France	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Germany	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered

Hungary	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Sweden	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Turkey	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
United Kingdom	12/25/2008	4/13/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered

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Canada	12/25/2008	11/29/2016	A LIGHT-WATER REACTOR FUEL ASSEMBLY (ALTERNATIVES), A LIGHT-WATER REACTOR, AND A FUEL ELEMENT OF FUEL ASSEMBLY	Registered
Canada	12/26/2007	4/26/2016	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
China	5/11/2011	5/18/2016	FUEL ASSEMBLY	Registered
China	12/25/2008	6/29/2016	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
China	12/26/2007	6/23/2017	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
Japan	5/11/2011	9/9/2016	FUEL ASSEMBLY	Registered
Japan	5/11/2011	9/9/2016	FUEL ASSEMBLY	Registered
Japan	12/25/2008	6/5/2015	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Japan	12/26/2007	4/22/2016	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
Republic of Korea	5/11/2011	8/30/2017	FUEL ASSEMBLY	Registered
Republic of Korea	12/25/2008	8/18/2015	FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Registered
Republic of Korea	12/26/2007	4/20/2015	NUCLEAR REACTOR(ALTERNATIVES), FUEL ASSEMBLY OF SEED-BLANKET SUBASSEMBLIES FOR NUCLEAR REACTOR(ALTERNATIVES), AND FUEL ELEMENT FOR FUEL ASSEMBLY	Registered
Republic of Korea	12/26/2007	12/15/2014	NUCLEAR REATION (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
Australia	5/1/2014		FUEL ASSEMBLY	Pending
Australia	5/11/2011		FUEL ASSEMBLY	Pending
Australia	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
Canada	12/25/2008		A LIGHT-WATER REACTOR FUEL ASSEMBLY AND FUEL ELEMENT THEREOF	Pending
Canada	5/1/2014		FUEL ASSEMBLY	Pending
Canada	5/11/2011		FUEL ASSEMBLY	Pending
Canada	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending

China	9/16/2015	NUCLEAR FUEL ASSEMBLY	Pending
Eurasian Patent Organization	5/1/2014	FUEL ASSEMBLY	Pending

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Eurasian Patent Organization	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
European Patent Office	12/25/2008		FUEL ASSEMBLY FOR A LIGHT-WATER NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Pending
European Patent Office	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
Japan	5/1/2014		FUEL ASSEMBLY	Pending
Japan	5/11/2011		FUEL ASSEMBLY	Pending
Japan	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
Republic of Korea	5/11/2011		FUEL ASSEMBLY	Pending
Republic of Korea	5/1/2014		FUEL ASSEMBLY	Pending
Republic of Korea	9/16/2015		NUCLEAR FUEL ASSEMBLY	Pending
China	12/26/2007	2/12/2014	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
Japan	12/26/2007	8/1/2014	NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Registered
India	5/11/2011		FUEL ASSEMBLY	Pending
India	5/1/2014		FUEL ASSEMBLY	Pending
India	12/25/2008		FUEL ASSEMBLY FOR A LIGHT-WATER, NUCLEAR REACTOR (EMBODIMENTS), LIGHT-WATER NUCLEAR REACTOR AND FUEL ELEMENT OF THE FUEL ASSEMBLY	Pending
India	12/26/2007		NUCLEAR REACTOR (VARIANTS), FUEL ASSEMBLY CONSISTING OF DRIVER-BREEDING MODULES FOR A NUCLEAR REACTOR (VARIANTS) AND A FUEL CELL FOR A FUEL ASSEMBLY	Pending
None of the above				
United States of America	12/22/2008	2/14/2012	NUCLEAR REACTOR (ALTERNATIVES), FUEL ASSEMBLY OF SEED-BLANKET SUBASSEMBLIES FOR NUCLEAR REACTOR (ALTERNATIVES), AND FUEL ELEMENT FOR FUEL ASSEMBLY	Registered

We also own a number of US and international patents associated with fuel assembly designs for all-uranium seed and blanket fuel for existing plants and new build reactors and thorium-based seed and blanket fuel for both existing and new build reactors, which we do not consider material, individually or collectively, based on our current business plan. In addition to our patent portfolio, we also own trademarks to Lightbridge and Thorium Power corporate names and the Lightbridge logo.

We are continually executing a strategy aimed at further expanding our intellectual property portfolio. We spent approximately $2.3 million and $2.7 million for research and development during the years ended December 31, 2017 and 2016, respectively.

Our Consulting Business

In addition to our nuclear fuel technology business, we also opportunistically provide nuclear power consulting and strategic advisory services to commercial and governmental entities worldwide. Our consulting segment is primarily engaged in the business of assisting commercial and governmental entities globally with developing and expanding their nuclear industry capabilities and infrastructure. We can provide integrated strategic advice across a range of expertise areas including, for example, regulatory development, nuclear reactor site selection, procurement and deployment, reactor and fuel technology, international relations, program management and infrastructure development.

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We only engage with commercial entities and governments that are dedicated to non-proliferative and transparent nuclear programs.

Our consulting services are expert and relationship based, with particular emphasis on key decision makers in senior positions within governments or companies, as well as focus on overall management of nuclear energy programs. To date, nearly all of our revenues have been derived from our consulting and strategic advisory services business segment, which primarily provided nuclear consulting services to entities within the United Arab Emirates, our first significant consulting and strategic advisory client. We have also provided nuclear safety consulting advice to US nuclear utilities and others. We currently do not have any consulting contracts.

In general, the market for nuclear industry consulting services is competitive, fragmented and subject to rapid change. Some of our competitors are global in scope and have greater personnel, financial, technical, and marketing resources than we do. Domestic and international political pressure and public opposition to nuclear power may hinder our efforts to provide nuclear energy consulting services. We believe that our independence, experience, expertise, reputation and segment focus enable us to compete effectively as a strategic advisor for governments wishing to develop a new civil nuclear program.

Our major challenge in pursuing our business is that the decision-making process for nuclear power programs typically involves careful consideration by many parties and therefore requires significant time. Many of the potential clients that could benefit from our services are in regions of the world where tensions surrounding nuclear energy are high, or in countries where public opinion plays an important role.

Financial information about our nuclear fuel technology and consulting segments is incorporated by reference from Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations*, and Note 11 of the notes to the consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K.

Employees

Our business model is to limit the number of our full-time employees and to rely on individual independent contractors, outside agencies and technical facilities with specific skills to assist with various business functions including, but not limited to, corporate overhead, personnel, research and development, and government relations. This model limits overhead costs and allows us to draw upon resources that are specifically tailored to our internal and external (client) needs. As of December 31, 2017, we had six full-time employees and one part-time employee. We utilize a network of independent contractors available for deployment for specialized consulting assignments. We believe that our relationship with our employees and contractors is satisfactory.

Available Information

Our internet address is *www.ltbridge.com*. We make available free of charge on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, including exhibits, and amendments to those reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the Securities and Exchange Commission (SEC). Copies of these reports may also be obtained free of charge by sending written requests to Investor Relations, Lightbridge Corporation, 11710 Plaza America Drive, Suite 2000, Reston, Virginia 20190 USA. You may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. You can get information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC at *www.sec.gov*. The information posted on our website is not incorporated into this Annual Report on Form 10-K, and any reference to our website is intended to be inactive textual references only.

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ITEM 1A. RISK FACTORS

Risks Related to the Company

We will need to raise significant additional capital in the future to expand our operations and continue our research and development and we may be unable to raise such funds when needed and on acceptable terms.

As of December 31, 2017, we had $4.5 million in cash and equivalents, and as of March 14, 2018, we had approximately $27 million in cash and equivalents. We will need to raise significant additional capital in order to continue our research and development activities and fund our operations through commercialization of our nuclear fuel technology, including funding Enfission for 2019 and beyond. Our current plan is to seek external funding from third party sources to support a large portion of the remaining development, testing and demonstration activities relating to our metallic nuclear fuel technology. We entered into an At-the-Market Issuance Sales Agreement with B. Riley FBR, Inc. (the "New ATM") on July 12, 2017 and raised in 2018 approximately $20 million in net proceeds under the New ATM as of the date of this 10-K filing. Even with such sales of our common stock under the New ATM, we will still need additional capital to fully implement our business, operating and development plans over the coming years.

When we elect to raise additional funds or additional funds are required, we may raise such funds from time to time through public or private equity offerings, debt financings or other financing alternatives. Additional equity or debt financing or other alternative sources of capital may not be available to us on acceptable terms, if at all. In addition, if we are unable to demonstrate meaningful progress in our Enfission joint venture with Framatome to further the development of our fuel products, it may be difficult for us to raise additional capital on terms acceptable to us or at all.

If we raise additional funds by issuing equity securities, our stockholders will experience dilution. Sales of substantial amounts of our common stock may cause the trading price of our common stock to decline in the future. Debt financing, if available, would result in substantial fixed payment obligations and may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. Any debt financing or additional equity that we raise may contain terms, such as liquidation and other preferences, which are not favorable to us or our stockholders. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may not be able to fully develop our nuclear fuel designs, our future operations will be limited, and our ability to generate revenues and achieve or sustain future profitability will be substantially harmed.

We are dependent upon a joint venture for substantially all of our anticipated future income.

In January 2018, we entered into the Enfission joint venture with Framatome. We anticipate that distributions from Enfission and licensing revenue from nuclear fuel sold by Enfission will constitute substantially all of our income in the future. We are dependent upon the success or failure of Enfission, and if Enfission is not successful or Enfission does not perform its research and development activities as expected, our future financial performance will be negatively impacted.

Our Enfission joint venture could be adversely affected by our lack of sole decision-making authority, any disputes that may arise between us and our joint venture partner and our exposure to potential losses from the joint venture.

Joint ventures involve risks not present in investments or operations in which a third party is not involved, including the possibility that a joint venture partner may at any time have other business interests and investments other than the joint venture with us, may have economic or business goals different from ours, and may be in a position to take actions contrary to our policies or objectives. A joint venture partner may also become bankrupt or fail to fund its required capital contributions. Consequently, actions by or disputes with a joint venture partner might result in subjecting our business to additional risk.

Under the Enfission operating arrangement, neither we nor Enfission are in a position to unilaterally control the joint venture, and deadlocks may occur. Such deadlocks could adversely impact the operations and profitability of Enfission, including delaying the commercialization of nuclear fuel incorporating our technology. Disputes between us and Framatome may result in litigation or arbitration that would increase our expenses and prevent our officers and directors from focusing their time and effort on our business.

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In addition, the Enfission joint venture may result in other difficulties including, among other things, diversion of our management's attention from other business concerns and managing regulatory compliance and corporate governance matters.

Our interest in Enfission exposes us to risks related to the manufacturing of nuclear fuel.

Historically, we anticipated licensing our nuclear fuel technology to third parties that would undertake the manufacturing and sale of nuclear fuel incorporating our technology. With our entry into the Enfission joint venture, we will be indirectly exposed to certain risks in connection with the manufacturing of nuclear fuel, including regulatory, environmental and litigation risks. If such risks or other anticipated or unanticipated liabilities were to materialize, any desired benefits of our entry into the joint venture may not be fully realized, if at all, and our future financial performance may be negatively impacted.

There may be volatility in our stock price, which could negatively affect investments, and stockholders may not be able to resell their shares at or above the value they originally purchased such shares.

The market price of our common stock may fluctuate significantly in response to a number of factors, some of which are beyond our control, including:

- quarterly variations in operating results

The stock market may experience extreme volatility that is often unrelated to the performance of particular companies. These market fluctuations may cause our stock price to fall regardless of its performance.

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If the price of non-nuclear energy sources falls, there could be an adverse impact on new build nuclear reactor activities in certain markets, which would have a material adverse effect on our operations.

In certain markets with a diversified energy base, decisions on new build power plants are largely affected by the economics of various energy sources. If prices of non-nuclear energy sources fall, it could limit the deployment of new build nuclear power plants in such markets. This could reduce the size of the potential markets for both our fuel technology and our consulting services.

We may be adversely affected by uncertainty in the global financial markets and worldwide economic downturn.

Our future results may be adversely affected by the worldwide economic downturn, continued volatility or further deterioration in the debt and equity capital markets, inflation, deflation, or other adverse economic conditions that may negatively affect us. At present, it is likely that we will require additional capital in the near future in order to fund our operations. Due to the above listed factors, we cannot be certain that additional funding will be available on terms that are acceptable to us, or at all.

Our limited operating history with our joint venture with Framatome makes it difficult to judge our prospects.

Prior to 2008, we were a development stage company. We have commenced the provision of nuclear consulting services but currently have no consulting clients as of the date of this filing. Similarly, our fuel design patents and technology have not been commercially used and we have not received any royalty or sales revenue from this area of our business. We are subject to the risks, expenses and problems frequently encountered by companies in the early stages of development.

We rely upon certain members of our senior management, including Seth Grae and Andrey Mushakov, and the loss of either Mr. Grae or Mr. Mushakov or any of our senior management would have an adverse effect on the Company.

Our success depends upon certain members of our senior management, including Seth Grae, our Chief Executive Officer and Mr. Andrey Mushakov, our Executive Vice President - International Nuclear Operations. Mr. Grae's and Mr. Mushakov's knowledge of the nuclear power industry, their network of key contacts within that industry and in governments and, in particular, their expertise in the potential markets for our technologies, are critical to the implementation of our business model. Mr. Grae and Mr. Mushakov are likely to be significant factors in our future

growth and success. The loss of services by either Mr. Grae or Mr. Mushakov would likely have a material adverse effect on us.

Competition for highly skilled professionals could have a material adverse effect on our success.

We rely heavily on our contractor staff and management team. Our success depends, in large part, on our ability to hire, retain, develop, and motivate highly skilled professionals. Competition for these skilled professionals is intense and our inability to hire, retain and motivate adequate numbers of consultants and managers could adversely affect our ability to meet client needs and to continue the development of our fuel designs. A loss of a significant number of our employees could have a significant negative effect on us. Any significant volatility or sustained decline in the market price of our common stock could impair our ability to use equity-based compensation to attract, retain, and motivate key employees and consultants.

Successful execution of our business model is dependent upon public support for nuclear power and overcoming public opposition to nuclear energy as a result of the major nuclear accident at Fukushima.

Successful execution of our business model is dependent upon public support for nuclear power in the United States and other countries. Nuclear power faces strong opposition from certain competitive energy sources, individuals, and organizations. The major nuclear accident that occurred at the Fukushima nuclear power plant in Japan beginning on March 11, 2011 increased public opposition to nuclear power in some countries, resulting in a slowdown in, or, in some cases, a complete halt to, new construction of nuclear power plants, an early shut down of existing power plants, or a dampening of the favorable regulatory climate needed to introduce new nuclear technologies. In addition, the Fukushima accident appears to have shrunk the projected size of the global nuclear power market in 2025-2030 as reflected in the most recent reference case projections published by the World Nuclear Association. As a result of the Fukushima accident, some countries that were considering launching new domestic nuclear power programs have delayed or cancelled preparatory activities they were planning to undertake as part of such programs. This has diminished the number of consulting opportunities that we could compete on globally, at least in the near-term. Furthermore, nuclear fuel fabrication and the use of new nuclear fuels in reactors must be licensed by the US Nuclear Regulatory Commission and equivalent governmental authorities around the world. In many countries, the licensing process includes public hearings in which opponents of the use of nuclear power might be able to cause the issuance of required licenses to be delayed or denied.

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We may not be able to receive or retain authorizations that may be required for us to sell our services or license our technology internationally.

The sales and marketing of our services and technology internationally may be subject to US export control regulations and the export control laws of other countries. Governmental authorizations may be required before we can export our services or technology. If authorizations are required and not granted, our international business plans could be materially affected. The export authorization process is often time consuming. Violation of export control regulations could subject us to fines and other penalties, such as losing the ability to export for a period of years, which would limit our revenue growth opportunities and significantly hinder our attempts to expand our business internationally.

Risks Related to Our Fuel Technology Business

Our fuel designs have never been tested in an existing commercial reactor and actual fuel performance, as well as the willingness of commercial reactor operators and fuel fabricators to adopt a new design, is uncertain.

Nuclear power research and development entails significant technological risk. New designs must undergo extensive development and testing necessary for regulatory approval. Our fuel designs are still in the research and development stage and while certain testing on our fuel technologies has been completed, further testing and experiments will be required in test facilities. For example, our proposed metallic fuel uses a helical cruciform form to increase its surface area and shorten the distance for heat generated in the fuel rod to reach water and improve the coolability of the fuel. However, this proposed shape may also result in non-uniform distribution of azimuthal heat flux that may have an adverse impact on the critical heat flux and limit power uprate capabilities of our metallic fuel resulting from an increased surface area of the cruciform fuel rod compared to a conventional cylindrical fuel rod. Additional testing and development may result in changes to the design of our proposed metallic fuel, which could decrease its realizable benefits and impair the ability of nuclear utilities to utilize nuclear fuel incorporating our technology.

Furthermore, the fuel technology has yet to be demonstrated in operating conditions equivalent to those found in an existing commercial reactor. Until we are able to successfully demonstrate operation of our fuel designs in commercial reactor conditions, we cannot confirm the ability of our fuel to perform as expected, including its ability to enable a power uprate or a longer operating cycle. In addition, there is also a risk that suitable testing facilities may not be available to us on a timely basis or at a reasonable cost, which could cause development program schedule delays.

If our fuel designs do not perform as anticipated in commercial reactor conditions, we will not realize revenues from licensing or other use of our fuel designs.

Development of our nuclear fuel technology is dependent upon the availability of a test reactor.

Our fuel designs are still in the research and development stage and further testing and experiments will be required in test facilities. We currently intend to conduct further testing of our fuel designs at the Halden research reactor located in Halden, Norway. However, the Halden research reactor, which became operative in 1958, may close and may not be available for further testing of our fuel designs. If the Halden research reactor is not available to test our fuel designs, we may not be able to locate another reactor in which to test our fuel designs, and commercialization of our nuclear fuel technology may be delayed, perhaps indefinitely, which would adversely affect our business, financial condition and results of operations.

Potential competitors could limit opportunities to license our technology.

Other fuel fabricators may potentially develop new nuclear fuel designs that can be used in the same types of reactors as those that we target. Existing fuel fabricators also have established commercial connections to nuclear power facilities that we do not have. If these types of companies were to compete with our nuclear fuel design technology, opportunities to license our technology would be limited.

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Moreover, many of these other fuel fabricators have substantially greater financial, technological, managerial and research and development resources and experience than we do. These larger companies may be better able to handle the corresponding long-term financial requirements.

We serve the nuclear power industry, which is highly regulated. Our fuel designs differ from fuels currently licensed and used by commercial nuclear power plants. The regulatory licensing and approval process for nuclear power plants to use our fuels may be delayed and made more costly, and industry acceptance of our fuels may be hampered.

The nuclear power industry is a highly regulated industry. All entities that operate nuclear facilities and transport nuclear materials are subject to the jurisdiction of the US Nuclear Regulatory Commission, or its counterparts around the world.

Our fuel designs differ significantly in some aspects from the fuel used today by commercial nuclear power plants. These differences will likely result in more prolonged and extensive review by the US Nuclear Regulatory Commission or its counterparts around the world that could cause development program schedule delays. Entities within the nuclear industry may be hesitant to be the first to use our fuel, which has little or no history of successful commercial use. Furthermore, our fuel development timeline relies on the relevant nuclear regulator to accept and approve technical information and documentation about our fuel that is generated during the research and development program. There is a risk that regulators may require additional information regarding the fuel's behavior or performance that necessitates additional, unplanned analytical and/or experimental work which could cause program schedule delays and require more research and development funding.

Existing commercial nuclear infrastructure in many countries is limited to uranium material enrichments up to 5%. Our metallic fuel is enriched to higher levels which would require modifications to existing commercial nuclear infrastructure and could impede commercialization of our technology.

Existing commercial nuclear infrastructure, including conversion facilities, enrichment facilities, fabrication facilities, fuel storage facilities, fuel handling procedures, fuel operation at reactor sites, used fuel storage facilities and shipping containers, were designed and are currently licensed to handle uranium enrichment up to 5%. Our fuel designs are expected to have enrichment levels up to 19.7% and would therefore require certain modifications to existing commercial nuclear infrastructure to enable commercial nuclear facilities to handle our fuels. Those nuclear facilities will need to go through a regulatory licensing process and obtain regulatory approvals to be able to handle uranium with enrichment levels up to 19.7% and operate commercial reactors using our fuel. There is a risk that some relevant entities within the nuclear power industry may be slow in making any required facility infrastructure modifications or obtaining required licenses or approvals to handle our fuel or operate commercial reactors using our fuel. There is also a risk associated with possible negative perception of uranium enrichment greater than 5% that could potentially delay

or hinder regulatory approval of our nuclear fuel designs.

Our nuclear fuel designs rely on fabrication technologies that in certain material ways are different from the fabrication techniques presently utilized by existing commercial fuel fabricators. In particular, our metallic fuel rods must be produced using a co-extrusion fabrication process. Presently, most commercial nuclear fuel is produced using a pellet fabrication technology, whereby uranium oxide is packed into small pellets that are stacked and sealed inside metallic tubes. Our co-extrusion fabrication technology involves extrusion of a single-piece solid fuel rod from a metallic matrix containing uranium and zirconium alloy. Fabrication of full-length (approximately 3.5 to 4.5 meters) PWR metallic fuel rods has yet to be demonstrated. There is a risk that the fuel fabrication process utilized to produce one meter long metallic fuel rods may not be adaptable to the fabrication of full-length metallic fuel rods used in commercial reactors.

If the US Department of Energy ("DOE") were to successfully assert that an invention claimed within our 2007 or 2008 Patent Cooperation Treaty, or PCT, patent applications was first conceived or actually reduced to practice under a contract with the DOE, then our intellectual property rights in that invention could become compromised and our business model could become significantly impeded.

Work on finite aspects and/or testing of some subject matter disclosed in our 2007 and 2008 Russian PCT patent applications was done under a government contract with the DOE. If the DOE asserted that an invention claimed in the 2007 and/or 2008 Russian PCT applications was first conceived or actually reduced to practice under such a contract, and a US court agreed, the DOE could gain an ownership interest in such an invention outside of the Russian Federation and our intellectual property rights in that claimed invention could become compromised and our business model may then be significantly impeded.

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If we are unable to obtain or maintain intellectual property rights relating to our technology, the commercial value of our technology may be adversely affected, which could in turn adversely affect our business, financial condition and results of operations.

Our success and ability to compete depends in part upon our ability to obtain protection in the United States and other countries for our nuclear fuel designs by establishing and maintaining intellectual property rights relating to or incorporated into our fuel technologies and products. We own a variety of patents and patent applications in the United States, as well as corresponding patents and patent applications in several other jurisdictions. We have not obtained patent protection in each market in which we plan to compete. We do not know how successful we would be should we choose to assert our patents against suspected infringers. Our pending and future patent applications may not issue as patents or, if issued, may not issue in a form that will be advantageous to us. Even if issued, patents may be challenged, narrowed, invalidated, or circumvented, which could limit our ability to stop competitors from marketing similar products or limit the length of term of patent protection we may have for our products. Changes in either patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property or narrow the scope of our patent protection, which could in turn adversely affect our business, financial condition and results of operations.

If we infringe or are alleged to infringe intellectual property rights of third parties, our business, financial condition and results of operations could be adversely affected.

Our nuclear fuel designs may infringe, or be claimed to infringe, patents or patent applications under which we do not hold licenses or other rights. Third parties may own or control these patents and patent applications in the United States and elsewhere. Third parties could bring claims against us that would cause us to incur substantial expenses and, if successfully asserted against us, could cause us to pay substantial damages. If a patent infringement suit were brought against us, we could be forced to stop or delay commercialization of the fuel design or a component thereof that is the subject of the suit. As a result of patent infringement claims, or in order to avoid potential claims, we may choose or be required to seek a license from the third party and be required to pay license fees, royalties, or both. These licenses may not be available on acceptable terms, or at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be forced to cease some aspect of our business operations if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. This could significantly and adversely affect our business, financial condition, and results of operations. In addition to infringement claims against us, we may become a party to other types of patent litigation and other proceedings, including interference proceedings declared by the United States Patent and Trademark Office regarding intellectual property rights with respect to our nuclear fuel designs. The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

Our nuclear fuel process is dependent on outside suppliers of nuclear and other materials and any difficulty by a fuel fabricator in obtaining these materials could be detrimental to our ability to eventually market our fuel through a fuel fabricator.

Production of fuel assemblies using our nuclear fuel designs is dependent on the ability of fuel fabricators to obtain supplies of nuclear material utilized in our fuel assembly design. Fabricators will also need to obtain metal for components, particularly zirconium or its alloys. These materials are regulated and can be difficult to obtain or may have unfavorable pricing terms. Any difficulties in obtaining these materials by fuel fabricators could have a material adverse effect on their ability to market fuel based on our technology.

Applicable Russian intellectual property law may be inadequate to protect some of our intellectual property, which could have a material adverse effect on our business.

Intellectual property rights are evolving in Russia, and are trending towards international norms, but are by no means fully developed. We have worked closely with employees in Russia and other Russian contractors and entities to develop some of our material intellectual property. Some of our earlier intellectual property rights originate from our patent filings in Russia. Our worldwide rights in some of this intellectual property, therefore, may be affected by Russian intellectual property laws. If the application of Russian laws to some of our intellectual property rights proves inadequate, then we may not be able to fully avail ourselves of all of our intellectual property, and our business model may be impeded.

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ITEM 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 2. PROPERTIES

Starting December 22, 2015 our office space is located at 11710 Plaza America Drive, Suite 2000 Reston, VA 20190 USA. The term of the lease for our new offices has been extended through December 31, 2018. We are obligated to pay approximately $6,500 per month for office rent and approximately another $300 per month for other fees for this rented office space. This space is used by our executives, employees, and contractors for administrative purposes, consulting work and research and development activities. Our joint venture company Enfission has a virtual office at the same address.

On January 1, 2015 we entered into a lease for our prior office space for a 38-month term, with a monthly rent payment of approximately $32,000 per month plus additional charges with no rent charged for the initial 2 months of the lease term. On December 17, 2015 we entered into a sublease agreement for this prior office space with a third party with a lease term starting January 1, 2016 to February 28, 2018. The Company does not have any lease obligations for its prior office space after February 28, 2018. For a more detailed description of this sublease, see the information set forth under “Operating Leases” in Note 7, “Commitments and Contingencies,” of the Notes to our consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 3. LEGAL PROCEEDINGS

From time to time, we may become involved in various lawsuits and legal proceedings which arise in the ordinary course of business. However, litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm our business. For a description of legal proceedings involving the Company, see the information set forth under “Litigation” in Note 7, “Commitments and Contingencies,” of the Notes to our consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is quoted on the Nasdaq Capital Market under the symbol "LTBR".

The following table sets forth the highest and lowest intraday sales prices of our common stock on the Nasdaq Capital Market during each quarter of the two most recent years.

Fiscal Year	Quarter Ending	High	Low
2017	December 31	$ 2.07	$ 0.94
	September 30	$ 1.79	$ 0.95
	June 30	$ 2.41	$ 1.14
	March 31	$ 1.47	$ 0.86
2016	December 31	$ 2.36	$ 1.04
	September 30	$ 3.65	$ 1.67
	June 30	$ 3.00	$ 1.75
	March 31	$ 5.15	$ 2.55

Effective July 20, 2016, we conducted a one-for-five reverse stock split of our issued and outstanding common stock. The high and low sale prices for our common stock presented in the foregoing table give effect to the reverse stock split.

Holders

As of March 8, 2018, our common stock was held by approximately 88 stockholders of record, including Cede & Co., the nominee for the Depository Trust & Clearing Corporation and consequently that number does not include beneficial owners of our common stock who hold their stock in “street name” through their brokers.

Dividends

We have never paid dividends. While any future dividends will be determined by our directors after consideration of the earnings and financial condition of the Company and other relevant factors, it is currently expected that available cash resources will be utilized in connection with our ongoing operations for the foreseeable future.

Transfer Agent

Our transfer agent and registrar for our common stock is Computershare Trust Company, 8742 Lucent Blvd., Suite 225, Highlands Ranch, Colorado, 80129. Its telephone number is 800-962-4284 and facsimile is 303-262-0604.

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Recent Sales of Unregistered Securities

We did not sell any securities without registration under the Securities Act during the fiscal year ended December 31, 2017 other than as previously disclosed in the Company's quarterly reports on Form 10-Q and current reports on Form 8-K.

ITEM 6. SELECTED FINANCIAL INFORMATION.

Not applicable

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management's Discussion and Analysis of Financial Condition and Results of Operations, or MD&A, is intended to help the reader understand Lightbridge Corporation, our operations and our present business environment. MD&A is provided as a supplement to, and should be read in conjunction with, our consolidated financial statements and the accompanying Notes thereto which are contained in "Item 8. Financial Statements and Supplementary Data" of this report. This MD&A consists of the following sections:

- *Overview of Our Business and recent developments*— a general overview of our two business segments and update;

As discussed in more detail at the beginning of this Annual Report, the following discussion contains forward-looking statements that involve risks, uncertainties, and assumptions such as statements of our plans, objectives, expectations, and intentions. Our actual results may differ materially from those discussed in these forward-looking statements because of the risks and uncertainties inherent in future events.

Overview of Our Business

Lightbridge is a leading nuclear fuel technology company. Our primary focus is the development and commercialization of next generation nuclear fuel that will significantly improve the economics and safety of existing and new reactors, with a meaningful impact on preventing climate change. We believe our nuclear fuel technology has the potential to enhance reactor safety and the proliferation resistance of spent fuel and increase the power output of commercial reactors, reducing the cost of generating electricity and the amount of nuclear waste on a per-megawatt-hour basis.

We conduct our business principally through Enfission, our 50/50 joint venture with Framatome formed January 24, 2018 for the development, regulatory licensing, fabrication, and sale of nuclear fuel assemblies based on Lightbridge-designed metallic fuel technology and other advanced nuclear fuel intellectual property. Enfission serves as our exclusive vehicle for the development of manufacturing processes and fuel assembly designs for pressurized water reactors, boiling water reactors, small modular reactors and research reactors, which constitute the most widely used reactor types in the world. In addition to our nuclear fuel technology segment, we also opportunistically provide nuclear power consulting and strategic advisory services to commercial and governmental entities worldwide.

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We were incorporated under the laws of the State of Nevada on February 2, 1999. Our principal executive offices are located at 11710 Plaza America Drive, Suite 2000, Reston, Virginia 20190.

Refer to Part I, Item 1, Business, for additional information. Financial information about our business segments is included in Note 11 Business Segment Results, of the Notes to the Consolidated Financial Statements, included in Part II Item 8, Financial Statements of this Annual Report on Form 10-K.

Operations Review

Business Segments and Periods Presented

Set forth below is a discussion of our results of operations on a consolidated basis and certain detailed segment information for each of our business segments for the years ended December 31, 2017 and 2016. We have organized our operations into two principal segments: Consulting and Nuclear Fuel Technology. We present our segment information along the same lines that our chief executives review our operating results in assessing performance and allocating resources.

BUSINESS SEGMENT RESULTS - YEARS ENDED DECEMBER 31, 2017 AND 2016

	Consulting Business		Technology Business		Corporate		Total	
	2017	2016	2017	2016	2017	2016	2017	2016
Revenue	$ 175,446	$ 760,577	$ -	$ -	$ -	$ -	$ 175,446	$ 760,577
Segment Loss – Pre- Tax	$ (78,513)	$ (288,119)	$ (2,282,938)	$ (2,748,337)	$ (4,743,446)	$ (3,308,720)	$ (7,104,897)	$ (6,345,176)
Total Assets	$ 10,400	$ 388,434	$ 1,367,692	$ 1,160,465	$ 5,567,901	$ 5,253,476	$ 6,945,993	$ 6,802,375
Interest Expense	$ -	$ -	$ -	$ -	$ 16,095	$ 29,386	$ 16,095	$ 29,386

Technology Business

Over the next 12 to 15 months, we expect to incur approximately $10 million to $12 million in research and development expenses related to the development of our proprietary nuclear fuel designs, including funding to the Enfission joint venture with Framatome. We spent approximately $2.3 million and $2.7 million for research and development during the years ended December 31, 2017 and 2016, respectively.

Over the next two to three years, our research and development activities through Enfission will increase and will be primarily focused on testing and demonstration of our metallic fuel technology for Western-type water-cooled reactors. The main objective of this research and development phase is to prepare for full-scale demonstration of our fuel technology in an operating commercial power reactor.

Consulting Services Business

All of our revenue for the years ended December 31, 2017 and 2016 is from our consulting services business segment. The fee type and structure that we offer for each client engagement is dependent on a number of variables, including the complexity of the services, the level of the opportunity for us to improve the client's electricity generation capabilities using nuclear power plants, and other factors. We presently do not have any consulting clients as of the date of this filing.

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Consolidated Results of Operations

The following table presents our historical operating results as a percentage of revenues for the years indicated:

	Year Ended December 31,		Changes 2017 vs 2016	
	2017	**2016**	$	%
Consulting Revenues	$ 175,446	$ 760,577	$ (585,131)	(77)
Cost of services provided				
Consulting expenses	$ 107,091	$ 456,565	$ (349,474)	(77)
% of total revenues	61%	60%		
Gross profit	$ 68,355	$ 304,012	$ (235,657)	(78)
% of total revenues	39%	40%		
Operating Expenses				
General and administrative	$ 4,383,066	$ 5,190,549	$ (807,483)	(16)
% of total revenues	2498%	682%		
Research and development expenses	$ 2,282,938	$ 2,748,337	$ (465,399)	(17)
% of total revenues	1301%	361%		
Total Costs and Expenses	$ 6,666,004	$ 7,938,886	$ (1,272,882)	(16)
% of total revenues	3799%	1044%		
Total Operating Loss	$ (6,597,649)	$ (7,634,874)	$ (1,037,225)	(14)
% of total revenues	(3761)%	(1004)%		
Other Income and (Expenses)	$ (507,248)	$ 1,289,698	$ (1,796,946)	(139)
% of total revenues	(289)%	170%		
Net loss - before income taxes	$ (7,104,897)	$ (6,345,176)	$ (759,721)	12
% of total revenues	(4,050)%	(834)%		

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Revenue

The following table presents our revenues, by business segment, for the years presented (rounded in millions):

	Year Ended December 31,		Changes 2017 vs 2016	
	2017	**2016**	**$**	**%**
Consulting Segment Revenues:				
ENEC and FANR (UAE)	$ 0.2	$ 0.4	$ (0.2)	(50)
Other (other countries)	-	0.4	(0.4)	(100)
Total	$ 0.2	$ 0.8	$ (0.6)	(75)

The decrease in our revenues from 2016 to 2017 of $0.6 million resulted from a decrease in the work performed for our FANR project of approximately $0.4 million and a decrease in revenue of approximately $0.2 million from work performed for a consulting contract that terminated in 2016.

The market for nuclear industry consulting services is competitive, fragmented, and subject to rapid change. We believe that our independence, experience, expertise, reputation and segment focus enable us to compete effectively in this marketplace. We presently do not have any consulting contracts as of the date of this filing and therefore anticipate a reduction in consulting revenue for 2018.

See Note 1 and Note 3 of the Notes to our Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K for additional information about our revenue.

Costs and Expenses

The following table presents our cost of services provided, by business segment, for the years presented (rounded in millions):

Year Ended December 31,		Changes 2017 vs 2016	
2017	**2016**	**$**	**%**

Consulting	$	0.1	$	0.5	$	(0.4)	(80)
Technology		-		-			
Total	$	0.1	$	0.5	$	(0.4)	(80)

The decrease in our cost of services provided for the years ended December 31, 2017 and 2016 resulted from less revenue earned therefore resulting in less allocated labor and stock-based compensation expenses in 2017. Cost of services provided is comprised of expenses related to the consulting, professional, administrative, and other support costs and stock-based compensation allocated to our consulting projects labor, which were incurred to perform and support the work done for our consulting projects. The billing rates to us from our consultants who provide services under our consulting contracts predominantly remained the same in 2017 and 2016. If consulting revenues continue and increase in future periods, we expect cost of services provided will increase in dollar amount and may increase as a percentage of revenues due to increased pricing competition for consulting contracts.

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Total reported gross profit margin for the years ended December 31, 2017 was 39% compared to 40% for the years ended December 31, 2016, Total stock-based compensation included in costs of services provided was approximately $0.02 million and $0.1 million for the years ended December 31, 2017 and 2016, respectively, due to stock-based compensation from the issuance of stock options.

See Note 1 and Note 3 of the Notes to our Consolidated Financial Statements included in Part II Item 8 of this Annual Report on Form 10-K for additional information about our cost of services provided.

Research and Development

The following table presents our research and development expenses, (rounded in millions):

	December 31,		Changes	
	2017	2016	2017 vs 2016	
			$	%
Research and development expenses	$ 2.3	$ 2.7	$ (0.4)	(17)

Research and development expenses consist mostly of outside vendor work, compensation and related overhead costs for personnel responsible for the research and development of our fuel and the negotiation and formation of our joint venture company Enfission. Total research and development decreased due to the net decrease in outside vendor research and development work on our fuel of approximately $0.4 million, due to our focus of negotiating our joint venture with Framatome; decrease in quality assurance consulting fees for our internal research and development documentation of $0.1 million; decrease in professional fees of $0.1 million and decrease in total stock-based compensation included in research and development expenses of $0.1 million. These decreases were offset by an increase in work performed by Framatome of approximately $0.3 million.

Total stock-based compensation included in research and development expenses was approximately $0.5 million and $0.6 million for the years ended December 31, 2017 and 2016, respectively, due to stock-based compensation recorded from the issuance of stock options to employees and a consultant.

All of our reported research and development activities were conducted in the United States, France, Germany, Norway, and Russia. We expense all research and development costs as they are incurred. Research and development expenses will increase in dollar amount and will increase as a percentage of revenues in future periods because we expect to invest $10 million to $12 million in the development of our nuclear fuel products including our work

through Enfission over the next 12-15 months.

See Note 8 of the Notes to our Consolidated Financial Statements included in Part II Item 8 of this Annual Report Form on 10-K for additional information about our research and development costs.

General and Administrative Expenses

The following table presents our general and administrative expenses, (rounded in millions):

	Year Ended December 31,		Changes 2017 vs 2016	
	2017	2016	$	%
General and administrative expenses	$ 4.4	$ 5.2	$ (0.8)	(16)

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General and administrative expenses consist mostly of compensation and related costs for general and administrative personnel and facilities, stock-based compensation, finance, human resources, information technology, and fees for consulting and other professional services. Professional services are principally comprised of outside legal, audit, strategic advisory services, investor and public relations and outsourcing services. Total general and administrative expenses decreased primarily due to a decrease in insurance expense of $0.1 million, decrease in payroll and payroll related benefits of $0.3 million due to a reduction in full time employees; a decrease in total stock-based compensation allocated to our general and administrative expenses of approximately $0.6 million due to prior year stock option grants in May 2014 that fully vested in May 2017 and prior year stock option grants in November 2016 that immediately vested in November 2016. These decreases were offset by an increase in professional fees due to an increase in legal fees spent on working on the Framatome agreements for the formation of Enfission LLC and an increase in corporation promotion expense due to the engagement of a new consultant in 2017, both total approximately $0.2 million. Total stock-based compensation allocated to our general and administrative expenses totaled approximately $0.7 million and $1.3 million for the years ended December 31, 2017 and 2016, respectively. Stock-based compensation expense will increase in 2018 due the accelerated vesting of performance-based stock options that occurred in January 25, 2018 (see Note 13 of the Notes to our Consolidated Financial Statements included in this Annual Report).

See Note 10 of the Notes to our Consolidated Financial Statements included in this Annual Report on Form 10-K for more information regarding our stock-based compensation.

Other Income (Expense)

The following table presents our other Income (expenses), (rounded in millions):

	Year Ended December 31,		Changes 2017 vs 2016	
	2017	2016	$	%
Warrant revaluation	$ -	$ 1.7	$ (1.7)	(100)
Warrant modification expense	-	(0.2)	0.2	100
Financing costs	(0.5)	(0.2)	(0.3)	150
Total Other Income and (Expenses)	$ (0.5)	$ 1.3	$ (1.8)	(138)

Other income and expenses for the year ended December 31, 2017, as compared to the year ended December 31, 2016, net other income (expense) decreased by approximately $1.8 million. The non-cash warrant income decreased by approximately $1.7 million due to the classification of the derivative warrant liability in 2016 to equity; the warrant modification expense decreased by approximately $0.2 million due to the settlement with our warrant holders of our 2014 and 2013 warrant liabilities in 2016 and the increase in financing costs due to the amortization of deferred

financing costs from our option agreements with Aspire Capital was approximately $0.3 million. This option agreement with Aspire Capital was effectively terminated with the terms and conditions set forth in the Series B Preferred Stock offering.

Provision for Income Taxes

The following table presents our provision for income taxes. Our effective tax rate for the periods presented is 38%.

	Year Ended December 31,		Changes 2017 vs 2016	
	2017	2016	$	%
Provision for income taxes	$ -	$ -	$ -	-

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We incurred a pre-tax net loss for both 2017 and 2016. We reviewed all sources of income for purposes of recognizing the deferred tax assets and concluded a full valuation allowance for 2017 and 2016 was necessary. Therefore, we did not have a provision for taxes for both years ended December 31, 2017 and 2016.

See Note 9 of the Notes to our Consolidated Financial Statements included in this Annual Report on Form 10-K for information regarding our Income Taxes.

Liquidity, Capital Resources and Financial Position

As of the date of this filing, equity sales in 2018 from our New ATM agreement and the sale of our Series B Preferred Stock has provided significant cash flow to cover both our research and development expenses and corporate overhead expenses for the next 12 months. Our cash balance at December 31, 2017 totaled $4.5 million and our working capital totaled $3.9 million. As of March 14, 2018, our cash and cash equivalents balance was approximately $27 million.

From January 24, 2018 to March 2, 2018, the Company filed prospectus supplements to register additional sales under the New ATM in the aggregate amount of $22.6 million. We raised approximately $20 million under the New ATM from January 1, 2018 through the date of this 10-K filing.

On January 30, 2018, we closed on our offering of approximate $4 million of our Convertible Series B Preferred Stock.

The sales of Series B Preferred Stock and common stock under the New ATM have significantly improved our cash and working capital position to meet our cash requirements for the next 12 months from the date of this filing. We anticipate that we will need to raise additional capital to meet our working capital requirements and research and development goals in 2019.

The current primary future potential sources of cash available to us in 2018 are equity investments through our New ATM agreement, potential funding from other equity investors and potential funding from the Department of Energy, in which we intend to apply for later this year. We anticipate that our financing through the New ATM agreement in 2018 and other third parties will help us meet the U.S. Department of Energy's (DOE) minimum cost-sharing requirements that typically range from 20% to 50% of the total project cost (i.e., a 25% to 100% match in Company's cost-sharing contributions is required for each dollar of DOE funding) or even higher in some cases. This may enable us to apply for DOE funding that can be used toward development and/or regulatory licensing of our nuclear fuel. We

have no debt or debt credit lines and we have financed our operations to date through our prior years' consulting revenue and the sale of our common stock. Management believes that the funding amount from the New ATM agreement will be available as needed by the Company and that adverse market conditions in the Company's common stock price and trading volume will not substantially impair the Company's ability to raise capital through the New ATM if needed in the future.

Our current projected average monthly cash flow requirements for corporate overhead expenses, excluding our funding for research and development expenses which includes funding to our joint venture company Enfission, is anticipated to average in the range of approximately $400,000 to $500,000 per month for the next 12 months from the date of the filing of this report. We will be spending additional amounts for our research and development activities, including our work through Enfission, in the range of $10 million to $12 million (current funding commitment to Enfission at December 31, 2017 was approximately $3.3 million) for the next 12 months from the date of the filing of this report. We have the ability to delay incurring certain corporate overhead and research and development expenses in the next 12 months, which could reduce our cash flow requirements, if needed.

Short-Term and Long-Term Liquidity Sources

In addition to the New ATM financing and other potential funding discussed above, we may seek new financing or additional sources of capital, depending on the capital market conditions, over the next 12 months. There can be no assurance that some of these additional sources of capital will be made available to us. The primary potential sources of cash available to us are as follows:

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1. Equity investment from investors; and

2. Strategic investment or cost-sharing contributions through funding from the Department of Energy, and/or other strategic parties, to support the remaining research and development activities required to further enhance and complete the development of our fuel products to a commercial stage.

In support of our long-term business plan with respect to our fuel technology business, we endeavor to create strategic alliances with other strategic parties during the next three years, to support the remaining research and development activities through Enfission, that is required to further enhance and complete the development of our fuel products to a commercial stage. We may be unable to form such strategic alliances on terms acceptable to us or at all.

We anticipate that we will need to raise additional capital, which may involve offerings of equity or debt securities, securing financing through one or more banks, entering into strategic alliances with other parties, and seeking potential funding from the Department of Energy, that we anticipate applying for later this year.

See Note 10 of the Notes to our financial statements included in Part II Item 8 of this Annual Report on Form 10-K for information regarding our New ATM financing.

The following table provides detailed information about our net cash flows for the years ended December 31, 2017 and 2016.

Cash Flow (in millions)

	Year Ended December 31,	
	2017	**2016**
Net cash used in operating activities	$ (5.0)	$ (6.0)
Net cash used in investing activities	$ (0.2)	$ (0.2)
Net cash provided by financing activities	$ 6.1	$ 9.2
Net cash inflow	$ 0.9	$ 3.0

Operating Activities

The decrease in our cash used in operating activities in 2017 of $1.0 million was primarily due to the decrease in our revenue and operating expenses and the change in working capital items as explained below.

Cash used in operating activities in the year ended December 31, 2017, consisted of net loss adjusted for non-cash (income) expense items such as stock-based compensation, amortization of deferred financing costs and others, as well as the effect of changes in working capital. Cash used in operating activities in the year ended December 31, 2017 consisted of a net loss of $7.1 million and net adjustments to net loss for non-cash income items or a negative cash flow offset (decrease to cash flow used in operating activities) totaling $1.7 million, consisting of non-cash adjustments for stock-based compensation of $1.2 million and amortization of deferred financing cost of $0.5 million. Total cash used in operating working capital totaled $0.4 million. The cash used in operating working capital was due primarily to the decrease in deferred lease abandonment liability of $0.2 million; offset primarily by the decrease in accounts receivable of $0.4 million and the increase in accounts payable and accrued expenses of $0.2 million and due to the decrease in revenue.

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Cash used in operating activities in the year ended December 31, 2016, consisted of net loss adjusted for non-cash (income) expense items such as stock-based compensation, depreciation and amortization and warrant revaluation, as well as the effect of changes in working capital. Cash used in operating activities in the year ended December 31, 2016, consisted of a net loss of $6.3 million and net adjustments to net loss for non-cash income items or a negative cash flow offset (decrease to cash flow used in operating activities) totaling $0.6 million, consisting of non-cash adjustments for stock-based compensation of $2.0 million and amortization of deferred financing cost of $0.2 million and warrant modification expense of $0.2 million and a non-cash adjustment (increase in cash flow used in operating activities) for the non-cash warrant revaluation income of $1.7 million. Total cash used in operating working capital totaled $0.3 million. The cash used in operating working capital was due primarily to an increase in accounts receivable and prepaid and other current assets of $0.1 million, due to an increase in the accounts receivable aging; decrease in deferred lease abandonment liability of $0.3 million for the rent paid on the office space being sub-leased; offset primarily by the increase in accounts payable and accrued expenses of $0.1 million.

Investing Activities

Net cash used by our investing activities for the year ended December 31, 2017, as compared to net cash used by our investing activities in 2016 was primarily the same due to our spending for patent application costs. These applications are filed for the new developments resulting from our research and development activities in our technology business segment. We anticipate these patent costs to increase in the future periods due to the continuing research and development work we plan to perform on our all-metal fuel design.

Financing Activities

Net cash provided by our financing activities for the year ended December 31, 2017, as compared to net cash provided by our financing activities for the year ended December 31, 2016 was a decrease of $3.1 million.

The decrease in our cash provided by our financing activities in 2017 of $3.1 million was primarily due to the decrease in the proceeds from the issuance of our Series A Preferred Stock of $2.8 million, a decrease in the proceeds from the issuance of our common stock through our equity purchase agreements with Aspire Capital and our ATM agreements of approximately $0.2 million and a decrease in the transfer of our restricted cash to our operating cash account of approximately $0.1 million.

Critical Accounting Policies and Estimates

The SEC issued Financial Reporting Release No. 60, “Cautionary Advice Regarding Disclosure About Critical Accounting Policies” suggesting that companies provide additional disclosure and commentary on their most critical accounting policies. In Financial Reporting Release No. 60, the SEC has defined the most critical accounting policies as the ones that are most important to the portrayal of a company’s financial condition and operating results and require management to make its most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, we have identified the following significant policies as critical to the understanding of our financial statements.

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make a variety of estimates and assumptions that affect (i) the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and (ii) the reported amounts of revenues and expenses during the reporting periods covered by the financial statements.

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Our management expects to make judgments and estimates about the effect of matters that are inherently uncertain. As the number of variables and assumptions affecting the future resolution of the uncertainties increase, these judgments become even more subjective and complex. Although we believe that our estimates and assumptions are reasonable, actual results may differ significantly from these estimates. Changes in estimates and assumptions based upon actual results may have a material impact on our results of operation and/or financial condition. We have identified certain accounting policies that we believe are most important to the understanding of our current financial condition and results of operations.

Accounting for Stock Based Compensation, Stock Options and Stock Granted to Employees and Non-employees

We adopted the requirements for stock-based compensation, where all forms of share-based payments to employees or non-employees, including stock options and stock purchase plans, are treated the same as any other form of compensation by recognizing the related cost in the statement of operations.

Under these requirements, stock-based compensation expense for employees is measured at the grant date based on the fair value of the award, and the expense is recognized ratably over the award's vesting period.

The stock-based compensation expense incurred by Lightbridge in connection with its employees is based on the employee model of ASC 718. Under ASC 718 employee is defined as "An individual over whom the grantor of a share-based compensation award exercises or has the right to exercise sufficient control to establish an employer-employee relationship based on common law as illustrated in case law and currently under US tax regulations." Our consultants do not meet the employer-employee relationship as defined by the IRS and therefore stock-based compensation to them is accounted for under ASC 505-50. Under these requirements, stock-based compensation expense for non-employees is based on the fair value of the award on the measurement date which is the earlier of the date at which a commitment for performance by the counterparty to earn the equity instruments is reached (a performance commitment), or the date at which the counterparty's performance is complete. For all service-based grants made, we recognize compensation cost under the straight-line method.

We measure the fair value of service-based stock options on the measurement date using the Black-Scholes option-pricing model which requires the use of several estimates, including:

- the volatility of our stock price;
- the expected life of the option;
- risk free interest rates; and

- expected dividend yield.

We use the historical volatility of our stock price over the number of years that matches the expected life of our stock option grants or we use the historical volatility of our stock price since January 5, 2006, the date we announced that we were becoming a public company, to estimate the future volatility of our stock. At this time, we do not believe that there is a better objective method to predict the future volatility of our stock. The expected life of options is based on internal studies of historical experience and projected exercise behavior. We estimate expected forfeitures of stock-based awards at the grant date and recognize compensation cost only for those awards expected to vest. The forfeiture assumption is ultimately adjusted to the actual forfeiture rate. Estimated forfeitures are reassessed in subsequent periods and may change based on new facts and circumstances. We utilize a risk-free interest rate, which is based on the yield of US treasury securities with a maturity equal to the expected life of the options. We have not and do not expect to pay dividends on our common shares for the foreseeable future.

We use the Monte Carlo valuation model to determine the fair value of market-based and performance-based stock options at the date of grant, which requires us to make assumptions for the expected term, volatility, dividend yield, risk-free interest rate and forfeiture rates. These assumptions are based on historical information and judgment regarding market factors and trends. If actual results differ from our assumptions and judgments used in estimating these factors, future adjustments to these estimates may be required.

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Intangibles

As presented on the accompanying balance sheet, we had patents with a net book value of approximately $1.4 million and $1.2 million as of December 31, 2017 and December 31, 2016, respectively. There are many assumptions and estimates that may directly impact the results of impairment testing, including an estimate of future expected revenues, earnings and cash flows, and discount rates applied to such expected cash flows in order to estimate fair value. We have the ability to influence the outcome and ultimate results based on the assumptions and estimates we choose for testing. To mitigate undue influence, we set criteria that are reviewed and approved by various levels of management. The determination of whether or not intangible assets have become impaired involves a significant level of judgment in the assumptions.

Changes in our strategy or market conditions could significantly impact these judgments and require adjustments to recorded amounts of intangible assets.

Warrant Financing Costs

On August 10, 2016 the Company entered into an option agreement with Aspire Capital whereby the Company had the right, at any time prior to December 31, 2019, to require Aspire Capital to enter into with the Company, up to two common stock purchase agreements each with a three-year term, with an aggregate amount under both purchase agreements combined not to exceed $20,000,000. The Company issued 500,000 warrants in connection with this option agreement and incurred a financing cost of approximately $1.6 million upon issuance. This financing cost, was valued using the Black-Scholes valuation method and was recorded as an asset, amortized over the three-year term.

The Company accounts for common stock warrants as either equity instruments or derivative liabilities depending on the specific terms of the warrant agreement. Common stock warrants are accounted for as a derivative in accordance with Accounting Standards Codification 815, Derivatives and Hedging (“ASC 815”) if the stock warrants contain terms that could potentially require “net cash settlement” and therefore, do not meet the scope exception for treatment as a derivative. Warrant instruments that could potentially require “net cash settlement” in the absence of express language precluding such settlement are initially classified as derivative liabilities at their estimated fair values, regardless of the likelihood that such instruments will ever be settled in cash.

Recent Accounting Standards and Pronouncements

Refer to Note 1 of the Notes to our Consolidated Financial Statements for a discussion of recent accounting standards and pronouncements.

Off Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity or capital expenditures or capital resources that is material to an investor in our securities.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Not applicable.

ITEM 8. FINANCIAL STATEMENTS

The full text of our audited consolidated financial statements as of and for the years ended December 31, 2017 and 2016 begins on page 61 of this Report.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

There have been no disagreements regarding accounting and financial disclosure matters with our independent certified public accountants.

ITEM 9A. CONTROLS AND PROCEDURES EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

As of the end of the period covered by this report, our management, under the supervision and with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our

disclosure controls and procedures were effective at the reasonable assurance level as of December 31, 2017 to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is (a) recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and (b) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

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Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in the *Internal Control — Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2017. Based on this assessment, management, with the participation of our Chief Executive Officer and Chief Financial Officer, determined that as of December 31, 2017, the Company's internal control over financial reporting was effective.

This Annual Report on Form 10-K does not include an attestation report of the Company's independent public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's independent public accounting firm pursuant to rules of the Securities and Exchange Commission that permit the Company to provide only management's report in this Annual Report on Form 10-K.

Changes in Internal Controls

There were no changes in the Company’s internal control over financial reporting during the fourth quarter of 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

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PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Directors and Executive Officers

Set forth below are the names of our current directors, executive officers and significant employees, their ages, all positions and offices that they hold with us, the period during which they have served as such, and their business experience during at least the last five years.

Name	Age	Position with the Lightbridge	Director Since
Seth Grae	55	President, CEO and Director	April 2006
Thomas Graham, Jr.	84	Chairman and Corporate Secretary	April 2006
Xingping Hou	57	Co-Chairman	August 2016
Victor E. Alessi	78	Director	August 2006
Kathleen Kennedy Townsend	66	Director	October 2013
Daniel B. Magraw	71	Director	October 2006
Linda Zwobota	67	Chief Financial Officer	-
Andrey Mushakov	41	Executive Vice President – International Nuclear Operations	-

Name **Position with the Company and Principal Occupations**

Seth Grae Mr. Grae was named the Chief Executive Officer and President of the Company on March 17, 2006 and, effective April 2, 2006, became a director of the Company. Seth Grae has led the development and implementation of Lightbridge's business efforts to develop and deploy advanced nuclear fuel technologies and to provide comprehensive advisory services based on safety, non-proliferation, and transparency for emerging commercial nuclear power programs.

Mr. Grae is a member of the Civil Nuclear Trade Advisory Committee to the U.S. Secretary of Commerce, the Nuclear Energy Institute's Suppliers Advisory Committee, and the Dean's Advisory Council at the Washington College of Law at American University. Mr. Grae has served as Vice Chair of the Governing Board of the Bulletin of the Atomic Scientists, as Co-Chair of the American Bar Association's Arms Control and Disarmament Committee, and as a member of the Board of

Directors of the Lawyers Alliance for World Security.

Thomas Graham, Jr. Ambassador Graham became a director of the Company on April 2, 2006, and chairman of the Board on April 4, 2006. Ambassador Graham served as a member of the board of directors of Thorium Power, Inc., from 1997 until the merger with the Company. He is one of the world's leading experts on nuclear non-proliferation and has served as a senior U.S. diplomat involved in the negotiation of every major international arms control and non-proliferation agreement involving the United States during the period from 1970 to 1997, including the Strategic Arms Limitations Talks (the Interim Agreement on Strategic Offensive Arms, the Anti- Ballistic Missile Treaty, and the Salt II Treaty), the Strategic Arms Reduction Talks (the Start I Treaty and the Start II Treaty), the Intermediate Nuclear Forces Treaty, the Nuclear Non- Proliferation Treaty Extension, the Conventional Armed Forces in Europe Treaty, and the Comprehensive Test Ban Treaty. In 1993, Ambassador Graham served as the Acting Director of the U.S. Arms Control and Disarmament Agency (ACDA), and for seven months in 1994 served as the Acting Deputy Director. From 1994 through 1997, he served as the Special Representative of the President of the United States for Arms Control, Non-Proliferation and Disarmament with the rank of Ambassador, and in this capacity successfully led U.S. government efforts to achieve the permanent extension of the Nuclear Non-Proliferation Treaty in 1995. He also served for 15 years as the general counsel of ACDA.

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	Ambassador Graham worked on the negotiation of the Chemical Weapons Convention and the Biological Weapons Convention. He drafted the implementing legislation for the Biological Weapons Convention and managed the Senate approval of the ratification of the Geneva Protocol banning the use in war of chemical and biological weapons. In 2009, Mr. Graham was appointed as a member of the International Advisory Board for the nuclear program of the United Arab Emirates. He is also Chairman of the Board of CanAlaska Uranium Ltd. of Vancouver, Canada (TSX: CVV), a uranium exploration company. Ambassador Graham received an A.B. in 1955 from Princeton University and a J.D. in 1961 from Harvard Law School. He is a member of the Kentucky, the District of Columbia and the New York Bar Associations and is a member of the Council on Foreign Relations. He chaired the Committee on Arms Control and Disarmament of the American Bar Association from 1986-1994. Ambassador Graham received the Trainor Award for Distinction in Diplomacy from Georgetown University in 1995 and the World Order Under Law award from the International Law Section of the American Bar Association in 2007. He has taught at a number of universities as an adjunct professor including the University of Virginia Law School, Georgetown University Law Center, Georgetown University School of Foreign Service, the University of Washington, the University of Tennessee, Stanford University, and Oregon State University. He has published seven books, the most recent non-fiction book being *Unending Crisis* in 2012 as well as an historical novel, *Sapphire, A Tale of the Cold War*, in 2014. Ambassador Graham plans to publish two books in the fall of 2017, “The Alternate route: Nuclear Weapon Free Zones”, and “Seeing the light, the Case for Nuclear Power in the 21st Century”.
Xingping Hou	Mr. Xingping Hou joined the Company’s Board of Directors as co-Chairman on August 2, 2016. Mr. Hou is the founder and has served as Chairman of the Board, Chief Executive Officer and President of General Agriculture Corporation, one of China’s largest orange producers, since July 2012. Mr. Hou has also served as the Chairman of the Board for each of General Red Industry Group Co., Ltd. and Shaanxi General Red Agricultural Development Co., Ltd. since May 2010 and October 2010, respectively. Mr. Hou has also served as a director of Hua Mei Investments Limited and Han Glory International Limited since April 2011. Mr. Hou brings international expertise and experience to the Board.
Victor E. Alessi	Dr. Alessi became a director of the Company on August 23, 2006. Dr. Alessi, who holds a Ph.D. in nuclear physics, is President Emeritus of the United States Industry Coalition (“USIC”), an organization dedicated to facilitating the commercialization of technologies of the New Independent States (“NIS”) of the former Soviet Union through cooperation with its members. He has held such position since August 1, 2006. Prior to becoming President Emeritus, Dr. Alessi held the positions of CEO and President of USIC since 1999. Previously, he was President of DynMeridian, a subsidiary of DynCorp, specializing in arms control, non-proliferation, and international security affairs. Before joining DynMeridian in early 1996, Dr. Alessi was the Executive Assistant to the Director, U.S. Arms Control and Disarmament Agency (“ACDA”). At ACDA he resolved inter-bureau disputes and advised the director on all arms control and non-proliferation issues. Dr. Alessi served as

	Director of the Office of Arms Control and Non-proliferation in the Department of Energy ("DOE") prior to his work at ACDA, overseeing all DOE arms control and non-proliferation activities. As a senior DOE representative, Dr. Alessi participated in U.S. efforts that led to successful conclusion of the Intermediate Nuclear Forces (INF), Conventional Forces in Europe, Threshold Test Ban, Peaceful Nuclear Explosions, Open Skies, Strategic Arms Reductions Talks Treaties and the Chemical Weapons Convention. In this role, he was instrumental in implementing the U.S. unilateral nuclear initiative in 1991 and was a member of the U.S. delegation discussing nuclear disarmament with Russia and other states of the former Soviet Union. He was in charge of DOE's support to the U.N. Special Commission on Iraq, to the Nunn-Lugar Initiative, and represented DOE in discussions on the Comprehensive Test Ban ("CTB") with the other nuclear weapons states before the CTB negotiations began in Geneva in 1994. Dr. Alessi served as the U.S. board member to the International Science and Technology Center in Moscow since its founding in 1992 until 2011. He is also the former U.S. board member to the Science and Technology Center in Ukraine. Dr. Alessi is a 1963 graduate of Fordham University, where he also earned a licentiate in Philosophy (Ph.L.) in 1964. He studied nuclear physics at Georgetown University, receiving his M.S. in 1968 and Ph.D. in 1969.
Kathleen Kennedy Townsend	Ms. Townsend became a director of the Company in October 2013. Ms. Townsend has a long history of accomplishment in the public arena, and for the last decade in the private sector. She has been a Managing Director at the Rock Creek Group, an investment management company, since 2007. Ms. Townsend also serves on the board of directors for the Pension Rights Center (a nonprofit consumer advocacy organization), NewTower Trust Company (a non-depository trust company that provides fiduciary and trustee services to the Multi-Employer Property Trust (MEPT), an open-end commingled real estate equity fund), and CanAlaska Uranium Ltd. (TSX: CVV) (a Canadian uranium exploration company).

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As the State of Maryland's first woman Lt. Governor, Ms. Townsend was in charge of a multimillion dollar budget and had oversight of major cabinet departments, including Economic Development and Transportation, State Police, Public Safety and Correction and Juvenile Justice. Prior to being elected Lt. Governor, Ms. Townsend served as Deputy Assistant Attorney General of the United States. In that role, she led the planning to put 100,000 police officers into the community and she ignited the Police Corps, a program to give college scholarships to young people who pledge to work as police officers for four years after graduation.

Prior to serving at the Department of Justice, Ms. Townsend spent seven years as the founder and director of the Maryland Student Service Alliance where she led the fight to make Maryland the first-and only-state to make service a graduation requirement.

She has been appointed Special Advisor at the Department of State, and a Research Professor at the McCourt School of Public Policy at Georgetown University, where she focuses on retirement security. She is a Woodrow Wilson Fellow. She taught foreign policy at the University of Pennsylvania and the University of Maryland, Baltimore County and has been a visiting Fellow at the Kennedy School of Government at Harvard. In the mid-1980s, she founded the Robert F. Kennedy Human Rights Award.

She chairs the Center for Popular Democracy which builds the strength and capacity of democratic organizations. Ms. Townsend is also a member of the Council of Foreign Relations and the Inter-American Dialogue. For the last eight years she has been Vice-Chair of the Future of Science conference held in Venice Italy and for the last four years Vice-Chair of Science for Peace held in Milan.

Ms. Townsend has chaired the Institute of Human Virology founded by Dr. Robert Gallo, which treats over 700,000 patients in Africa as part of the PEPFAR program, has chaired the Robert Kennedy Memorial and has been on the Board of Directors of the John F Kennedy Library Foundation. Previously, she served on a number of boards including the Export-Import Bank, Johns Hopkins School of Advanced International Studies (SAIS), the Wilderness Society, the Points of Light Foundation, the National Catholic Reporter and the Institute for Women's Policy Research, and the Baltimore Urban League.

An honors graduate of Harvard University, Ms. Townsend received her law degree from the University of New Mexico where she was a member of the law review. She has received fourteen honorary degrees. A member of the bar in Maryland, Connecticut and Massachusetts, she is also a certified broker-dealer.

Ms. Townsend's book, *Failing America's Faithful: How Today's Churches Mixed God with Politics and Lost Their Way* was published by Warner Books in March 2007.

Daniel B. Magraw

Mr. Magraw became a director of the Company on October 23, 2006. Mr. Magraw is a leading expert on international environmental law and policy, as well as on international human rights. Mr. Magraw is a Senior Fellow and Professorial Lecturer at the Foreign Policy Institute at Johns Hopkins School of Advanced International Studies (SAIS) and President Emeritus of the Center for International Environmental Law (CIEL). Mr. Magraw was the President and CEO of CIEL from 2002- 2010. From 1992-2001, he was Director of the International Environmental Law Office of the U.S. Environmental Protection Agency, during which time he also served at the White House (2000-2001) and as Acting Assistant Administrator of the EPA's Office of International Activities. He was a member of the Trade and Environment Policy Advisory Committee to the Office of the U.S. Trade Representative (TEPAC) from 2002-2010, chairs the American Bar Association (ABA) Section of International Law's Task Force on Carta de Foresta, serves as a consultant to the United Nations, was a member of the U.S. Department of State Study Group on International Business Transactions, and was Chair of the 15,000-member Section of International Law and Practice of the ABA. He practiced international law, constitutional law, and bankruptcy law at Covington & Burling in Washington, DC from 1978-1983. Mr. Magraw is a widely-published author in the field of international law and has received many awards. He graduated from Harvard University with High Honors in Economics, where he was student body president, and from the University of California, Berkeley Law School, where he was Editor-in-Chief of the Law Review. While working as an economist for the Peace Corps in India from 1968 to 1972, Mr. Magraw helped develop and managed the largest and most successful cooperative of its type (wholesale, retail, furniture manufacturing and food processing) in India. In 1996, Mr. Magraw became a member of the board of directors of Thorium Power, Inc., which is now a wholly-owned subsidiary of the Company.

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Linda Zwobota Ms. Zwobota was appointed the Chief Financial Officer of the Company on March 25, 2015, after having served as interim Chief Financial Officer since November 2014. Prior to that appointment, Ms. Zwobota served as the Company's Controller, a position she held since October 2009, when she joined the Company.

From May 2000 until October 2009, Ms. Zwobota held the position of Associate at Resources Global Professionals ("RGP"), a consulting firm, where she provided RGP clients with a broad range of services, including accounting, regulatory reporting, internal audit, and IT system support. Prior to joining RGP, from 1999 to May 2000, Ms. Zwobota held the position of Senior Internal Auditor for BAA, USA, Inc., a subsidiary of BAA plc, a developer and manager of retail, food and beverage concessions at airports. Ms. Zwobota performed high-level, risk-based audits of BAA plc's investments in North America, including World Duty Free Americas, World Duty Free Inflight, airport and retail operations, and development activities. Prior to joining BAA, USA, Inc., from 1997 through 1999, Ms. Zwobota was the Revenue Accounting Manager for World Duty Free, another BAA plc company with global operations, sales of $43 million denominated in 54 different currencies worldwide, servicing 23 airline concessions, at 31 stations in 18 countries. From 1992-1997, Ms. Zwobota worked at a subsidiary of Wartsila, a global power solutions company, as a Senior Accountant and as the Assistant Treasurer. Ms. Zwobota earned a Bachelor's Degree from the University of Maryland, College Park. She has been a certified public accountant since November 1991 and a Certified Internal Auditor (CIA®) since May 1999.

Andrey Mushakov Dr. Mushakov oversees the nuclear fuel technology division of Lightbridge Corporation and is an expert in cost modeling and the economics of the nuclear fuel cycle. He has been with Lightbridge since 2000, and in 2006 he was named executive vice president for international nuclear operations.

In 2009, Dr. Mushakov led Lightbridge's efforts to establish its Russian Branch Office in Moscow and oversaw its successful operation from 2009 to 2014 when Lightbridge made a decision to move its critical path fuel development and demonstration activities out of Russia due to increased political risk. In 2014-2015, Dr. Mushakov spearheaded an effort within Lightbridge to establish cooperation agreements with Canadian Nuclear Laboratories in Canada, BWXT in the United States, and the Institute for Energy Technology in Norway.

In 2016-2017, Dr. Mushakov led a successful negotiating team effort to establish Lightbridge's first commercial arrangement with a major nuclear fuel vendor via formation of a 50-50 US-based joint venture company, Enfission LLC, between Lightbridge and Framatome, Inc.

Dr. Mushakov has been a featured speaker at international conferences and panels on nuclear fuel technology, including the Wharton Energy Conference and the World Nuclear Fuel Cycle Conference.

He earned a Ph.D. in economics from St. Petersburg State University of Economics and Finance, an M.S. degree in management from Hult International Business School, and a B.S. degree in banking and finance from the Financial University under the Government of the Russian Federation.

There are no agreements or understandings for any of our executive officers or director to resign at the request of another person and no officer or director is acting on behalf of nor will any of them act at the direction of any other person.

Directors are elected until their successors are duly elected and qualified.

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Family Relationships

There are no family relationships among our directors or officers.

Involvement in Certain Legal Proceedings

To the best of our knowledge, there is no involvement in legal proceedings during the past ten years that is required to be disclosed pursuant to Regulation S-K 401(f).

Promoters and Certain Control Persons

We did not have any promoters at any time during the past five fiscal years.

Director Qualifications

Directors are responsible for overseeing the Company’s business consistent with their fiduciary duty to stockholders. This significant responsibility requires highly-skilled individuals with various qualities, attributes and professional experience. The Board believes that there are general requirements for service on the Board that are applicable to all directors and that there are other skills and experience that should be represented on the Board as a whole but not necessarily by each director. The Board and the Governance and Nominating Committee of the Board consider the qualifications of directors and director candidates individually and in the broader context of the Board's overall composition and the Company's current and future needs.

Qualifications for All Directors

In its assessment of each potential candidate, including those recommended by stockholders, the Governance and Nominating Committee considers the nominee’s judgment, integrity, experience, independence, understanding of the Company’s business or other related industries and such other factors the Governance and Nominating Committee determines are pertinent in light of the current needs of the Board. The Governance and Nominating Committee also

takes into account the ability of a director to devote the time and effort necessary to fulfill his or her responsibilities to the Company.

The Board and the Governance and Nominating Committee require that each director be a recognized person of high integrity with a proven record of success in his or her field. Each director must demonstrate innovative thinking, familiarity with and respect for corporate governance requirements and practices, an appreciation of multiple cultures and a commitment to sustainability and to dealing responsibly with social issues. In addition to the qualifications required of all directors, the Board assesses intangible qualities including the individual's ability to ask difficult questions and, simultaneously, to work collegially.

The Board does not have a specific diversity policy, but considers diversity of race, ethnicity, gender, age, cultural background and professional experiences in evaluating candidates for Board membership. Diversity is important because a variety of points of view contribute to a more effective decision-making process.

Qualifications, Attributes, Skills and Experience to be Represented on the Board as a Whole

The Board has identified particular qualifications, attributes, skills and experience that are important to be represented on the Board as a whole, in light of the Company's current needs and business priorities. The Company's services are performed in various countries around the world and significant areas of future growth are located outside of the United States. The Company's business is truly global and multicultural. Therefore, the Board believes that international experience or specific knowledge of key geographic growth areas and diversity of professional experiences should be represented on the Board. The Company's business is multifaceted and involves complex financial transactions in various countries. Therefore, the Board believes that the Board should include some directors with a high level of financial literacy and some directors who possess relevant business experience as a chief executive officer or president. Our business involves complex technologies in a highly specialized industry. Therefore, the Board believes that extensive knowledge of the Company's business and the nuclear industry should be represented on the Board. The Company's business also requires compliance with a variety of regulatory requirements across a number of countries and relationships with various governmental entities. Therefore, the Board believes that governmental, political or diplomatic expertise should be represented on the Board.

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Summary of Qualifications of Directors

Set forth below are the specific qualifications, attributes, skills and experiences of our directors.

Seth Grae

Mr. Grae's service as the Company's President and Chief Executive Officer and his extensive experience in the nuclear industry provide valuable insight to the Board about the Company and the nuclear industry more generally.

Thomas Graham, Jr.

Mr. Graham's service as the Company's chairman of the board, his experience as chairman of the board of several other companies, his extensive experience and knowledge related to nuclear non-proliferation, his knowledge of international law, and his experience as a senior US diplomat provide valuable insight to the Board about the Company, and about nuclear policy and international law more generally.

Xingping Hou

Mr. Hou's significant experience in complex international enterprises provides valuable insight to the Board about international operations and financial and strategic planning.

Victor E. Alessi

Dr. Alessi's service as a director of the Company since August 2006, his expertise in nuclear physics, his experience as the president of a large organization, his technological experience, his work on nuclear non-proliferation and policy, his experience with government entities both within the US and internationally, and his experience working as a senior DOE official provide valuable insight to the Board about the Company, and about nuclear policy, organizational strategy and compliance more generally.

Kathleen Kennedy Townsend

Ms. Townsend brings a long history of accomplishments in the public and private sectors that demonstrate her high level of financial literacy, her experience as a director, her risk oversight and management expertise, as well as her experience in the political arena which provide valuable insights to the board related to financial performance, the understanding of financial statements, and compliance provide valuable insight to the Board about the Company, and

about financial performance and controls more generally.

Daniel B. Magraw

Mr. Magraw's experience as a director of the Company since October 2006, his expertise on international environmental law and policy and international business law, as well as his long history of leadership roles provide valuable insight to the Board about the Company, and about nuclear policy and international law more generally.

CORPORATE GOVERNANCE

Our current corporate governance practices and policies are designed to promote stockholder value. We are committed to the highest standards of corporate ethics and diligent compliance with financial accounting and reporting rules. Our Board provides independent leadership in the exercise of its responsibilities. Our management oversees a system of internal controls and compliance with corporate policies and applicable laws and regulations, and our employees operate in a climate of responsibility, candor and integrity.

Corporate Governance Guidelines

We and our Board are committed to high standards of corporate governance as an important component in building and maintaining stockholder value. To this end, we regularly review our corporate governance policies and practices to ensure that they are consistent with the high standards of other companies. We also closely monitor guidance issued or proposed by the SEC and the provisions of the Sarbanes-Oxley Act, as well as the emerging best practices of other companies. The current corporate governance guidelines are available on the Company's website www.ltbridge.com. Printed copies of our corporate governance guidelines may be obtained, without charge, by contacting the Corporate Secretary, Lightbridge Corporation, 11710 Plaza America Drive, Suite 2000, Reston, VA 20190 USA.

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The Board and Committees of the Board

The Company is governed by the Board that currently consists of six members: Seth Grae, Thomas Graham, Xingping Hou, Victor Alessi, Kathleen Kennedy Townsend and Daniel Magraw. The Board has established four Committees: the Audit Committee, the Compensation Committee, the Nominating and Governance Committee and the Executive Committee. Each of the Audit Committee, Compensation Committee and Nominating and Governance Committee are comprised entirely of independent directors. From time to time, the Board may establish other committees. The Board met five times in 2017. The Board has adopted a written charter for each of its committees which are available on the Company's website www.ltbridge.com. Printed copies of these charters may be obtained, without charge, by contacting the Corporate Secretary, Lightbridge Corporation, 11710 Plaza America Drive, Suite 2000, Reston, VA 20190 USA. Each director attended at least 75% of all meetings of the Board of Directors and each committee on which he or she served during 2017, other than Mr. Hou, who did not attend board meetings in 2017.

Governance Structure

The Company has chosen to separate the roles of the Chairman of the Board and the Chief Executive Officer, though our current Chairman, Thomas Graham, Jr., is a member of the Company's executive management. We have chosen to implement such a governance structure to allow our Chief Executive Officer the ability to focus the majority of his time and efforts on the day-to-day operations of the Company. We believe that this governance structure has served the Company's stockholders well over the years. In addition, beginning in August 2016, the Board appointed Mr. Hou as co-Chairman of the Board.

We encourage our stockholders to learn more about our Company's governance practices at our website, www.ltbridge.com.

The Board's Role in Risk Oversight

The Board oversees that the assets of the Company are properly safeguarded, that the appropriate financial and other controls are maintained, and that the Company's business is conducted wisely and in compliance with applicable laws and regulations and proper governance. Included in these responsibilities is the Board's oversight of the various risks facing the Company. In this regard, the Board seeks to understand and oversee critical business risks. The Board does not view risk in isolation. Risks are considered in virtually every business decision and as part of the Company's business strategy. The Board recognizes that it is neither possible nor prudent to eliminate all risk. Indeed, purposeful and appropriate risk-taking is essential for the Company to be competitive on a global basis and to achieve its objectives.

While the Board oversees risk management, Company management is charged with managing risk. The Company has robust internal processes and a strong internal control environment to identify and manage risks and to communicate with the Board. The Board and the Audit Committee monitor and evaluate the effectiveness of the internal controls and the risk management program at least annually. Management communicates routinely with the Board, Board committees and individual directors on the significant risks identified and how they are being managed. Directors are free to, and indeed often do, communicate directly with senior management.

The Board implements its risk oversight function both as a whole and through committees. Much of the work is delegated to various committees, which meet regularly and report back to the full Board. All committees play significant roles in carrying out the risk oversight function. In particular:

- Τηε Αυδιτ Χομμιττεε οϖερσεεσ ρισκσ ρελατεδ το τηε Χομπανψ σ φινανχιαλ στατεμεντσ, τηε φινανχιαλ ρεπορτινγ προχεσσ, αχχουντινγ ανδ λεγαλ ματτερσ. Τηε Αυδιτ Χομμιττεε οϖερσεεσ τηε ιντερναλ αυδιτ φυνχτιον ανδ τηε Χομπανψ σ ετηιχσ προγραμσ, ινχλυδινγ τηε Χοδε οφ Βυσινεσσ Χονδυχτ ανδ Ετηιχσ. Τηε Αυδιτ Χομμιττεε μεμβερσ μεετ σεπαρατελψ ωιτη ρεπρεσεντατιϖεσ οφ τηε ινδεπενδεντ αυδιτινγ φιρμ.

Ταβλε οφ Χοντεντσ

Audit Committee

Our Audit Committee consists of Mr. Alessi, Mr. Magraw and Ms. Townsend, each of whom is "independent" as that term is defined under the Nasdaq listing standards. The Audit Committee oversees our accounting and financial reporting processes and the audits of the financial statements of the Company. Ms. Townsend is chair of the Audit Committee and a financial expert as that term is defined by the applicable SEC rules. The Audit Committee is responsible for, among other things:

- selecting our independent auditors and pre-approving all auditing and non-auditing services permitted to be performed by our independent auditors;
- reviewing with our independent auditors any audit problems or difficulties and management's response;

The Audit Committee met five times during 2017.

Compensation Committee

Our Compensation Committee consists of Mr. Alessi, Mr. Magraw and Ms. Townsend, each of whom is "independent" as that term is defined under the Nasdaq listing standards. Our Compensation Committee assists the Board in reviewing and approving the compensation structure of our directors and executive officers, including all forms of compensation to be provided to our directors and executive officers. Our Chief Executive Officer and Chief Financial Officer may not be present at any committee meeting during which his or her compensation is deliberated. The Compensation Committee is responsible for, among other things:

- approving and overseeing the compensation package for our executive officers;

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Under its charter, the Compensation Committee has sole authority to retain and terminate outside counsel, compensation consultants retained to assist the Compensation Committee in determining the compensation of the Chief Executive Officer or senior executive officers, or other experts or consultants, as it deems appropriate, including sole authority to approve the firms' fees and other retention terms. The Compensation Committee may also form and delegate authority to subcommittees and may delegate authority to one or more designated members of the Compensation Committee. The Compensation Committee may from time to time seek recommendations from the executive officers of the Company regarding matters under the purview of the Compensation Committee, though the authority to act on such recommendations rests solely with the Compensation Committee.

The Compensation Committee met four times during 2017.

Governance and Nominating Committee

Our Governance and Nominating Committee consists of Mr. Alessi, Mr. Magraw and Ms. Townsend, each of whom is "independent" as that term is defined under the Nasdaq listing standards. The Governance and Nominating Committee assists the Board of Directors in identifying individuals qualified to become our directors and in determining the composition of the Board and its committees. The Governance and Nominating Committee is responsible for, among other things:

- ιδεντιφψινγ ανδ ρεχομμενδινγ το τηε Βοαρδ νομινεεσ φορ ελεχτιον ορ ρε–ελεχτιον το τηε Βοαρδ, ορ φορ απποιντμεντ το φιλλ ανψ ϖαχανχψ;

Our Governance and Nominating Committee does not have a specific policy with regard to the consideration of candidates recommended by stockholders, however any nominees proposed by our stockholders will be considered on the same basis as nominees proposed by the Board. If you or another stockholder want to submit a candidate for consideration to the Board, you may submit your proposal to our Corporate Secretary:

by sending a written request by mail to:

Lightbridge Corporation

11710 Plaza America Drive, Suite 2000

Reston, VA 20190

Attention: Corporate Secretary

by calling our Corporate Secretary, at 571-730-1200.

The Governance and Nominating Committee met two times during 2017.

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Executive Committee

Our Executive Committee consists of Messrs. Alessi, Grae and Graham. The Executive Committee of the Company exercises the power of the Board between regular meetings of the Board and when timing is critical. The Executive Committee also assists the Board in fulfilling its oversight responsibility with respect to management-level staff, outside service providers and third-party vendors.

Code of Ethics

The Board has adopted a Code of Business Conduct and Ethics that applies to the Company's directors, officers and employees. A copy of this policy is available via our website at http://ir.ltbridge.com/corporate-governance.cfm. Printed copies of our Code of Business Conduct and Ethics may be obtained, without charge, by contacting the Corporate Secretary, Lightbridge Corporation, 11710 Plaza America Drive, Suite 2000, Reston, VA 20190 USA. During the fiscal year ended December 31, 2016, there were no waivers of our Code of Business Conduct and Ethics.

Stockholder Communication with the Board of Directors

Stockholders may communicate with the Board, including non-management directors, by sending a letter to our Board, c/o Corporate Secretary, Lightbridge Corporation, 11710 Plaza America Drive, Suite 2000, Reston, VA 20190 USA for submission to the Board or committee or to any specific director to whom the correspondence is directed. Stockholders communicating through this means should include with the correspondence evidence, such as documentation from a brokerage firm, that the sender is a current record or beneficial stockholder of the Company. All communications received as set forth above will be opened by the Corporate Secretary or his designee for the sole purpose of determining whether the contents contain a message to one or more of our directors. Any contents that are not advertising materials, promotions of a product or service, patently offensive materials or matters deemed, using reasonable judgment, inappropriate for the Board will be forwarded promptly to the chairman of the Board, the appropriate committee or the specific director, as applicable.

Section 16(a) Beneficial Ownership Reporting Compliance

Under U.S. securities laws, directors, executive officers and persons beneficially owning more than 10% of our common stock must report their initial ownership of our common stock, and any changes in that ownership, to the SEC. The SEC has designated specific due dates for these reports. Based solely on our review of copies of such

reports filed with the SEC and written representations of our directors and executive officers, we believe that all persons subject to such reporting requirements filed all required reports on a timely basis in 2017, except for Form 4 filings for Messrs. Mushakov, Grae, Alessi, Magraw and Graham and Mses. Zwobota and Townsend, which was each due on October 30, 2017 but was each filed on November 2, 2017.

ITEM 11. EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

In this section, we discuss our compensation philosophy and describe the compensation program for our senior executives. We also explain how the Compensation Committee determines compensation for our senior executives and its rationale for specific 2017 decisions. In addition, we discuss numerous changes the Committee has made to our program over the past several years to advance its fundamental objective: aligning our executive compensation with the long-term interests of our stockholders.

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The Compensation Discussion and Analysis describes the compensation of the following named executive officers ("NEOs"):

Name	Title
Seth Grae	Chief Executive Officer, President and Director
Andrey Mushakov	Executive Vice President for International Nuclear Operations
Linda Zwobota	Chief Financial Officer

Executive Summary

Our executive compensation program is designed to attract and retain qualified management personnel, to align our management's interests with that of our stockholders, and to reward exceptional organizational and individual performance. Performance of our executives is evaluated based on financial and non-financial goals that balance achievement of short-terms goals related to the continued development of the Company's fuel technology and business and long-term goals that seek to maximize stockholder value.

2017 Compensation Highlights

Following our 2017 say-on-pay vote:

- We have expanded disclosure concerning our executive compensation decisions, including by including this Compensation Discussion and Analysis in the proxy statement. While the Company is not required to include this disclosure so long as it qualifies as a "smaller reporting company" under SEC rules, we believe expanding our disclosure is important for our stockholders to better understand the basis for our compensation decisions.

2017 Accomplishments

The Company achieved significant strategic goals during 2017 including, without limitation:

- Framatome Joint Venture. In January 2018, Lightbridge Corporation and Framatome Inc. (formerly AREVA) finalized and launched Enfission LLC, a 50-50 joint venture company to develop, license and sell nuclear fuel assemblies based on Lightbridge-designed metallic fuel technology and other advanced nuclear fuel intellectual property. The joint venture Enfission LLC is a Delaware-based limited liability company that was formed on January 24, 2018. The Company has a 50% interest in Enfission LLC and it will be accounted for using the equity method of accounting due to both joint venture partners having shared power to direct the activities of this variable interest entity that most significantly impact the entity's economic performance.

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Philosophy and Objectives of Our Compensation Program

Our compensation program is centered around a philosophy that focuses on management retention, alignment of interests between management and the stockholders and pay-for-performance compensation. We believe this philosophy allows us to compensate our NEOs competitively, while simultaneously ensuring continued development and achievement of key business strategy goals. The Compensation Committee firmly believes that our pay-for-performance philosophy should recognize both short- and long-term performance and should include both cash and equity compensation arrangements that are supported by strong corporate governance, including active and effective oversight by the Compensation Committee.

To that end, we have implemented the following policies and practices:

- Significant "At-Risk" Compensation. A significant portion of NEO compensation is based on each NEO's individual performance and the performance of the Company. Approximately 40% of NEO compensation in 2016 was performance-based, as well as approximately 45% of 2017 compensation.

Philosophy and Objectives of Our Compensation Plan

The Compensation Committee has outlined the following objectives for compensation of our NEOs and considers such objectives in making compensation decisions:

Objective	Description
Attraction and Retention	We provide competitive compensation to our NEOs and tie a significant portion of compensation to time-based vesting requirements, helping to ensure that we can continue to attract key management personnel and retain such personnel.
Pay for Performance	A significant portion of each NEO's compensation is "at-risk" or variable, based on our performance and stock price.
Pay Mix	We use a variety of fixed-pay and incentive compensation forms, including cash, stock and options.
Competitive Packages	We evaluate our compensation program in an effort to provide a competitive compensation package to each NEO that takes into account their responsibilities,

performance and organization.

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How Executive Compensation is Determined

Role of the Compensation Committee

The Compensation Committee of the Board oversees the Company's executive compensation programs. Additionally, the Compensation Committee is charged with the review and approval of all annual compensation decisions relating to the NEOs and the Company's other officers.

The Compensation Committee is composed entirely of independent, non-management members of the Board. Each member of the Compensation Committee is both a "non-employee director" within the meaning of Rule 16b-3 of the Exchange Act, and an "outside director" within the meaning of Section 162(m) of the Internal Revenue Code. No Compensation Committee member participates in any of the Company's employee compensation programs. Each year the Company reviews any and all relationships that each director has with the Company, and the Board of Directors subsequently reviews these findings. The responsibilities of the Compensation Committee, as stated in its charter, include the following:

- review and make such recommendations to the Board of Directors as the Compensation Committee deems advisable with regard to all incentive-based compensation plans and equity-based plans;

Role of Compensation Consultant

Pursuant to its charter, the Compensation Committee is authorized to engage, retain and terminate any consultant, as well as approve the consultant's fees, scope of work and other terms of retention. For both 2016 and 2017, the Committee retained Pay Governance LLC as its independent advisor. Pay Governance advises and consults with the Committee on compensation issues and the composition of the Company's peer group, and keeps the Committee apprised of competitive practices related to executive compensation. Pay Governance assisted the Committee in the design, structure and implementation of the current annual executive compensation program, and, at the direction of the Committee, compensation levels, trends and practices. Pay Governance does not determine the exact amount or form of executive compensation for any executive officers. Pay Governance reports directly to the Committee, and a representative of Pay Governance, when requested, attends meetings of the Committee, is available to participate in executive sessions and communicates directly with the Committee Chair or its members outside of meetings. Pay Governance does no other work for the Company.

Role of Management

The Compensation Committee considers input from the CEO when making executive compensation decisions for the other officers and employees of the Company. The CEO's input is useful because the CEO reviews and observes the performance of the officers and employees at the Company. The Compensation Committee and Board of Directors determine the compensation of the CEO without any management input.

Performance Goals

The Compensation Committee believes that a significant portion of each NEO's compensation should be tied to the Company's performance. The Company measures performance based on certain operational and financial objectives. Performance goals have changed from time to time and will continue to change as the condition of the Company and its fuel technology evolve.

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Peer Group Analysis

The Company has historically evaluated its compensation program against the programs at other companies in order to ensure its compensation program is competitive. With the assistance of Pay Governance, the peer companies were selected based on (i) revenue scope within a reasonable range, (ii) market capitalization within a reasonable range of the Company's market capitalization, and (iii) companies focused on technologies and services with potential environmental applications. In 2016, the peer group consisted of:

Arrowhead Research	Ecology and Environment
Maxwell Technologies	Perma-Fix Environmental Services
Research Frontiers	Sooner Holdings
Spherix Inc.	TRC Companies
US Ecology	Gevo
PharmAthene	GSE Systems, Inc.
Superconductor Technologies	

The Company traditionally targeted all elements of its compensation programs to provide a competitive compensation opportunity at the median range of companies whose compensation is used in our peer group.

Executive Compensation Elements

Overview and Compensation Mix

The following table illustrates the principal elements of the Company's executive compensation program, each of which is evaluated and update on an annual basis by the Compensation Committee:

Pay Element	**Characteristics**	**Primary Objective**

Base Salary	Annual fixed cash compensation	Attract and retain qualified and high performing executives
Short-Term Incentive Compensation	Annual performance-based bonus payable in cash or equity awards	Incentivize our NEOs to achieve short-term goals
Long-Term Incentive Compensation	Stock options	Retain our NEOs and align their interests with the interests of our stockholders

In addition to the above-mentioned elements, the Company also provides a retirement, health and welfare benefit component to the executive compensation program.

The 2016 and 2017 compensation mix for the Company's NEOs demonstrates the Company's philosophy regarding significant long-term and performance-based compensation. The following is a summary of the components of the compensation policy for the Company's NEOs.

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Fixed Compensation

Base Salary. The Compensation Committee establishes base salaries for our executives based on the scope of their responsibilities and takes into account competitive market compensation paid by comparable companies. The Company believes that a competitive compensation program will enhance its ability to attract and retain senior executives. In each case, the Compensation Committee takes into account each officer's (i) current and prior compensation, (ii) scope of responsibilities, (iii) experience, (iv) comparable market salaries and (v) the Company's achievement of performance goals (both financial and non-financial). The Compensation Committee also (i) has the opportunity to meet with the officers at various times during the year, which allows the Compensation Committee to form its own assessment of each individual's performance and (ii) reviews reports of the CEO presented to the Compensation Committee, evaluating each of the other officers, including a review of their contributions and performance over the past year, strengths, weaknesses, development plans and succession potential.

In November 2017, after taking into account the above-mentioned factors, historical base salaries, the performance of the NEOs and the Company's need to preserve capital, the Compensation Committee approved a 3% increase in the base salaries of Mr. Grae and Mr. Mushakov and a 6% increase in the base salary of Ms. Zwobota, as follows:

		2017	2018
Name	**Title**	**Base Salary**	**Base Salary**
Seth Grae	Chief Executive Officer, President and Director	$ 445,891	$ 459,268
Linda Zwobota	Chief Financial Officer	$ 197,006	$ 208,826
Andrey Mushakov	Executive Vice President – International Nuclear Operations	$ 278,100	$ 286,443

For more information about the 2017 base salaries for each of our NEOs, please see the 2017 Summary Compensation Table below.

Retirement, Health and Welfare Benefits

The Company offers a variety of health and welfare and retirement programs to all eligible employees. The NEOs generally are eligible for the same benefit programs on the same basis as the rest of the Company's employees. The Company's health and welfare programs include medical, dental and vision. In addition to the foregoing, the NEOs are eligible to participate in a defined contribution profit sharing plan (the "401(k)") that is administered by a committee of trustees appointed by the Company. Substantially all employees are eligible to participate in the 401(k) plan. The

Company did not make matching contributions in 2016 or 2017.

Perquisites

We do not provide any perquisites, whether cash or otherwise, to our NEOs. We feel that our executive compensation program, particularly given the Company's capital needs, provides our NEOs with competitive compensation such that we do not need to provide any perquisites to achieve the goals of our executive compensation program.

Short-Term Incentive Compensation

The Compensation Committee has established a short-term incentive (STI) program pursuant to which each of the NEOs could earn a cash or stock-based bonus on the achievement of individualized or Company-wide performance expectations. The target value of the award was established at 50% of base salary in the case of Mr. Grae, 40% of base salary in the case of Ms. Zwobota and 50% of base salary in the case of Mr. Mushakov.

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"Say-on-Pay" Stockholder Vote

In 2017, as in prior years, we sought an advisory vote from our stockholders regarding our executive compensation program and received approximately 79% support.

Target Total Direct Compensation for Fiscal 2018

No substantial changes to the Company's compensation programs are currently envisioned for 2018. The target compensation packages for our NEOs will continue to be comprised of base salary and, subject to Compensation Committee approval, a performance-based annual incentive plan pursuant to the STI program and stock options under the LTI program. Base salaries have been positioned to reflect job content and competitive pay practices, as discussed above.

Employment Agreements and Other Arrangements

Seth Grae. On February 14, 2006, the Company entered into an employment agreement with Seth Grae. Mr. Grae received a base salary under the agreement, which is currently set at $459,268 annually. Mr. Grae is also eligible to receive raises and discretionary bonuses, as well as stock based compensation over the term of the agreement. Upon termination by the Company other than for cause, Mr. Grae will receive severance payments equal to his base salary at the time of termination for twelve months, payable in installments in accordance with the Company's normal payroll practices.

Linda Zwobota. On November 26, 2014, Ms. Zwobota agreed to assume the role of interim Chief Financial Officer of the Company. Prior to that appointment, Ms. Zwobota served as the Company's Controller, a position she held since October 2009, when she joined the Company. In 2015, the Board appointed Ms. Zwobota as Chief Financial Officer of the Company. Ms. Zwobota does not have an employment agreement with the Company and is employed at-will. She currently receives annual base compensation of $208,826.

Andrey Mushakov. On July 27, 2006, the Company entered into an employment agreement with Mr. Mushakov. Mr. Mushakov received a base salary under the agreement, which is current set at $286,443 annually. Mr. Mushakov is also eligible to receive raises and discretionary bonuses, as well as stock based compensation over the term of the agreement. Upon termination by the Company, Mr. Mushakov will receive severance payments equal to his base salary at the time of termination for six months, payable in installments in accordance with the Company's normal

payroll practices.

Report of the Compensation Committee

The Compensation Committee has reviewed and discussed the foregoing Compensation Discussion and Analysis with management, and based on review and discussions, the Compensation Committee recommended to the Board the Compensation Discussion and Analysis be included in this proxy statement.

Members of the Compensation Committee:

Victor E. Alessi
Daniel B. Magraw
Kathleen Kennedy Townsend

2017 Summary Compensation Table

The following table sets forth information concerning all cash and non-cash compensation awarded to, earned by or paid to our NEOs for services rendered in all capacities during the noted periods.

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Name and Principal Position	Year	Salary ($)	Bonus ($)[1]	Option Awards ($)[2]	Total ($)
Seth Grae	2017	449,235	111,473	372,932	933,640
CEO, President and Director	2016	435,069	189,396	227,275	851,740
Linda Zwobota	2017	199,961	39,401	156,025	395,387
CFO	2016	189,188	56,287	67,545	313,020
Andrey Mushakov	2017	280,186	69,525	232,596	582,307
Executive Vice President for International Nuclear Operations	2016	271,350	118,125	141,750	531,225

(1) Bonuses were paid in January 2018.

(2) 64% and 70% of the fair market value of options granted to Linda Zwobota, and to Seth Grae and Andrey Mushakov, respectively, were granted subject to performance conditions that were achieved in 2018. 54% of the fair market value of these performance-based options is subject to stockholder approval of an increase in the number of underlying shares in the 2015 Equity Incentive Plan.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth all outstanding equity awards to our named executive officers as of December 31, 2017.

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Seth Grae	22,574	—	28.50	7/14/2019
	13,328	—	43.25	3/11/2020
	8,521	—	27.65	3/19/2021
	31,062	—	12.75	5/5/2019
	65,780	9,847	6.30	4/8/2025(1)
	8,317	935	6.30	8/12/2025
	165,702	43,440	4.60	11/20/2025

	218,377	—	1.54	11/9/2026
	182,629	300,147	1.05	10/26/2027(2)
Linda Zwobota	3,872		12.75	5/5/2019
	19,172	4,487	6.30	4/9/2025(3)
	3,904	729	6.30	8/12/2025
	42,936	15,061	4.60	11/20/2025
	64,900		1.54	11/9/2026
	64,552	136,475	1.05	10/26/2027(2)
Andrey Mushakov	2,703	—	28.50	7/13/2019
	1,710	—	43.25	3/11/2010
	1,847	—	27.10	4/11/2021
	12,125	—	12.75	5/5/2019
	32,329	4,487	6.30	4/8/2015(1)
	7,056	729	6.30	8/12/2025
	93,701	27,093	4.60	11/20/2025
	136,200	—	1.54	11/9/2026
	113,905	187,200	1.05	10/26/2027(2)

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(1) These stock options will vest on April 8, 2018.

(2) These stock options are contingent upon stockholder approval of an increase in the number of underlying shares in the 2015 Equity Incentive Plan or vested in January 2018.

(3) These stock options will vest on April 9, 2018.

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Potential Payments upon Termination or Change in Control

Employment Agreements

As noted above under "-Employment Agreements and Other Arrangements," Mr. Grae and Mr. Mushakov each has entered into an employment agreement with the Company. Upon Mr. Grae's death or disability, or upon his termination by the Company without cause (as defined in the employment agreement) or by Mr. Grae for good reason (as defined in the employment agreement), Mr. Grae will receive severance payments equal to his base salary at the time of termination for twelve months, payable in installments in accordance with the Company's normal payroll practices. Mr. Grae will also be entitled to continued benefits under group health, dental and life insurance plans for a period of twelve months following his termination. Upon Mr. Mushakov's death or disability, or upon his termination by the Company without cause (as defined in the employment agreement) or by Mr. Mushakov for good reason (as defined in the employment agreement), Mr. Mushakov will receive severance payments equal to his base salary at the time of termination for six months, payable in installments in accordance with the Company's normal payroll practices. Mr. Mushakov will also be entitled to continued benefits under group health, dental and life insurance plans for a period of six months following his termination.

Ms. Zwobota does not have an employment agreement with the Company.

Equity Incentive Plans

Under the Company's 2006 Stock Plan and 2015 Equity Incentive Plan, each as amended, the Board or the Compensation Committee may accelerate the vesting of awards outstanding thereunder upon a change in control of the Company. The Board or the Compensation Committee may also provide for the payment of the cash value of the awards in connection with a change in control under circumstances specified in the Plans. In addition, certain awards under the 2006 Stock Plan, including stock options granted to Mr. Grae, vest immediately upon a change in control (as defined in Mr. Grae's employment agreement) of the Company.

Director Compensation

The following table sets forth certain information concerning the compensation paid to our directors for services rendered to us during the fiscal 2017. None of Messrs. Grae, Graham or Hou was compensated for his service as a director in 2017. Beginning October 26, 2017, Ms. Townsend is paid $35,646 annually, up from $34,608 annually;

Mr. Alessi and Mr. Magraw are each paid $33,864 annually, up from $32,878 annually.

Name	Fees Earned or Paid in Cash ($)	Option Awards ($)	Total ($)
Victor Alessi	$ 33,124	$ 32,888	66,012
Xingping Hou	-		-
Daniel Magraw	$ 33,124	$ 32,888	66,012
Kathleen Kennedy Townsend	$ 34,868	$ 34,618	69,486

Except for Mr. Alessi, Mr. Hou, Mr. Magraw and Ms. Townsend, all of our current directors are also our officers and are compensated for the services that they provide to us in their capacity as officers. Other than Mr. Alessi, Mr. Magraw and Ms. Townsend, our current directors do not receive any additional compensation for the services they provide to us as directors. Directors are reimbursed for out of pocket expenses incurred as a result of their participation on our Board.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The following tables set forth information known to us with respect to the beneficial ownership of our common stock as of March 1, 2018 for: (i) each person known by us to beneficially own more than 5% of our voting securities, (ii) each named executive officer, (iii) each of our directors and nominees, and (iv) all of our current executive officers and directors as a group. The address of each executive officer, director and nominee is care of Lightbridge Corporation, 11710 Plaza America Drive, Suite 2000, Reston, VA 20190 USA. Except as explained in the footnotes to the following table, each person listed, and the members of the group, had sole voting power and sole investment power with respect to the shares shown.

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Name and Address of Beneficial Owner (1)	Title	Amount and Nature of Beneficial Ownership (1) (2)	Percent of Common Stock (3)
	Officers and Directors		
Seth Grae	President, CEO and Director	977,575	4.62%
Thomas Graham, Jr.	Chairman and Corporate Secretary	52,397	*
Xingping Hou	Co-Chairman	1,120,753	5.07%
Linda Zwobota	Chief Financial Officer	273,130	1.24%
Andrey Mushakov	Executive VP – International Nuclear Operations	523,424	2.37%
Dan Magraw	Director	39,761	*
Victor Alessi	Director	32,890	*
Kathleen Kennedy Townsend	Director	34,178	*
Directors and Officers as a Group (eight people)		3,054,109	13.82%

* Denotes less than 1% of the outstanding shares of Common Stock.

(1) The number of shares beneficially owned is determined under SEC rules, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under those rules, beneficial ownership includes any shares as to which the individual has sole or shared voting power or investment power, and also any shares which the individual has the right to acquire within 60 days of March 1, 2018, through the exercise or conversion of any stock option, convertible security, warrant or other right (a “Presently Exercisable” security). Including those shares in the table does not, however, constitute an admission that the named shareholder is a direct or indirect beneficial owner of those shares.

(2) Unless otherwise indicated, each person or entity named in the table has sole voting power and investment power (or shares that power with that person’s spouse) with respect to all shares of common stock listed as owned by that person or entity.

(3) A total of 22,101,443 shares of the Company’s common stock were considered to be outstanding pursuant to Rule 13d-3(d)(1) under the Securities Exchange Act of 1934 as of March 1, 2018. For each beneficial owner above, any options exercisable within 60 days have been included in the denominator.

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Equity Incentive Plans

Under the Company's 2006 Stock Plan and 2015 Equity Incentive Plan, each as amended, the Board or the Compensation Committee may accelerate the vesting of awards outstanding thereunder upon a change in control of the Company. The Board or the Compensation Committee may also provide for the payment of the cash value of the awards in connection with a change in control under circumstances specified in the Plans. In addition, certain awards under the 2006 Stock Plan, including stock options granted to Mr. Grae, vest immediately upon a change in control (as defined in Mr. Grae's employment agreement) of the Company.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table sets forth certain information about the securities authorized for issuance under our 2006 Second Amended and Restated Stock Plan as of December 31, 2017. Options exercisable for all of the securities shown in column (a) below were granted under our Stock Option Plan.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	**Weighted-average exercise price of outstanding options, warrants and rights**	**Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))**
	(a)	**(b)**	**(c)**
Equity compensation plans approved by security holders	3,318,167	$ 4.08	—
Equity compensation plans not approved by security holders	658,717	1.05	—
Total	3,976,884	$ 3.58	—

(1) Includes shares forfeited from the preceding 2006 Thorium Ltd. Plan and becoming eligible for issuance under the 2015 Equity Incentive Plan.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Transactions with Related Persons

None of our directors, director nominees, executive officers, 5% stockholders, or immediate family members of such persons has been involved in any transactions with us which are required to be disclosed pursuant to Item 404 of Regulation S-K.

Independent Directors

In considering and making decisions as to the independence of each of the directors of the Company, the Board considered transactions and relationships between the Company (and its subsidiaries) and each director (and each member of such director’s immediate family and any entity with which the director or family member has an affiliation such that the director or family member may have a material indirect interest in a transaction or relationship with such entity). The Board has determined that Mr. Alessi, Mr. Hou, Mr. Magraw and Ms. Townsend are independent as defined in applicable SEC and Nasdaq rules and regulations, and that each constitutes an “Independent Director” as defined in Nasdaq Listing Rule 5605. Such members constitute a majority of the entire Board.

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ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES.

The following table sets forth the fees billed to us by BDO during the fiscal years ended December 31, 2017 and 2016.

	2017	2016
Audit Fees	$ 158,876	$ 181,228
Audit Related Fees	-	-
Tax Fees	-	-
All Other Fees	-	-
Total	$ 158,876	$ 181,228

Audit Fees consist of the aggregate fees billed for professional services rendered for the audit of our annual financial statements and the reviews of the financial statements included in our Forms 10-Q and for any other services that were normally provided by BDO in connection with our statutory and regulatory filings or engagements.

Audit Related Fees consist of the aggregate fees billed for professional services rendered for assurance and related services that were reasonably related to the performance of the audit or review of our financial statements and were not otherwise included in Audit Fees.

Tax Fees consist of the aggregate fees billed for professional services rendered for tax compliance, tax advice and tax planning. Included in such Tax Fees were fees for preparation of our tax returns and consultancy and advice on other tax planning matters.

All Other Fees consist of the aggregate fees billed for products and services provided by BDO and not otherwise included in Audit Fees, Audit Related Fees or Tax Fees. Included in such Other Fees were fees for services rendered by BDO in connection with our private and public offerings conducted during such periods.

Our Audit Committee has considered whether the provision of the non-audit services described above is compatible with maintaining auditor independence and determined that such services are appropriate. Before auditors are engaged to provide us audit or non-audit services, such engagement is (without exception, required to be) approved by the Audit Committee of our Board.

Pre-Approval Policies and Procedures

Under the Sarbanes-Oxley Act of 2002, all audit and non-audit services performed by our auditors must be approved in advance by our Board to assure that such services do not impair the auditors' independence from us. In accordance with its policies and procedures, our Board pre-approved the service performed by the Company's independent registered public account firm, BDO, for our consolidated financial statements as of and for the year ended December

31, 2017.

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PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Documents filed as part of this report.

(1) The following financial statements of Lightbridge Corporation, supplemental information and report of independent registered public accounting firm are included in this Form 10-K:

- Consolidated Balance Sheets at December 31, 2017 and 2016

(2) All schedules have been omitted because they are not required, not applicable or the information is otherwise included.

(3) Exhibits.

Exhibit Number	Description
1.1	At-the-Market Issuance Sales Agreement, dated July 12, 2017, between the Company and B. Riley FBR, Inc. (as successor to FBR Capital Markets & Co. and MLV & Co. LLC.) (incorporated by reference to Exhibit 1.1 to the Form 8-K filed by the Company on July 13, 2017).
3.1	Articles of Incorporation of the Company, as amended (incorporated by reference to Exhibit 3.1 to the Form 10-K filed by the Company on March 15, 2016).
3.2	Certificate of Change filed with the Nevada Secretary of State on July 14, 2016 (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Company on July 20, 2016).
3.3	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Company on August 29, 2016).
3.4	Certificate of Designation of Non-Voting Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Company on August 3, 2016).
3.5	Certificate of Amendment to the Certificate of Designation of Non-Voting Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.2 to the Form 8-K filed by the Company on January 30, 2018).

3.6	Certificate of Designation of Non-Voting Series B Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Company on January 30, 2018).
4.1	Form of Common Stock Purchase Warrant (incorporated by reference to Exhibit 4.1 to the Form 8-K filed by the Company on October 22, 2013).
4.2	Form of Common Stock Purchase Warrant, as amended (incorporated by reference to Exhibit 4.1 to the Form 8-K filed by the Company on July 7, 2016).

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10.1‡	R&D Services Agreement between the Company and Framatome Inc. (as successor to AREVA NP SAS), dated November 14, 2017 (incorporated by reference to Exhibit 10.1 to the Form 8-K/A filed by the Company on March 5, 2018).
10.2‡	Co-ownership Agreement between the Company and Framatome Inc. (as successor to AREVA NP SAS), dated November 14, 2017 (incorporated by reference to Exhibit 10.2 to the Form 8-K/A filed by the Company on March 5, 2018).
10.3	Intellectual Property Annex between the Company and Framatome Inc. (as successor to AREVA NP SAS), dated November 14, 2017 (incorporated by reference to Exhibit 10.3 to the Form 8-K/A filed by the Company on March 5, 2018).
10.4‡	Operating Agreement of Enfission, LLC, dated January 25, 2018 (incorporated by reference to Exhibit 10.1 to the Form 8-K/A filed by the Company on March 5, 2018).
10.5	Investors Rights Agreement, dated August 2, 2016, between the Company and General International Holdings, Inc. (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by the Company on August 3, 2016).
10.6	Investors Rights Agreement, dated January 30, 2018, between the Company and investors identified therein (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by the Company on January 30, 2018).
10.7	Securities Purchase Agreement, dated as of January 18, 2018, between the Company and purchasers identified therein (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by the Company on January 18, 2018).
10.8**	Lightbridge Corporation 2006 Stock Plan (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by the Company on February 21, 2006).
10.9**	Lightbridge Corporation 2015 Equity Incentive Plan, as amended (incorporated by reference to Appendix A to the definitive proxy statement filed on April 17, 2017, File No. 001-34487).
10.10**	Form of Incentive Stock Option Agreement for Employees under the 2015 Equity Incentive Plan (incorporated by reference to Exhibit 99.2 to the Company's Registration Statement on Form S-8, File No. 333-218796, filed on June 16, 2017).
10.11**	Form of Non-Qualified Stock Option Agreement for Employees under the 2015 Equity Incentive Plan (incorporated by reference to Exhibit 99.3 to the Company's Registration Statement on Form S-8, File No. 333-218796, filed on June 16, 2017).
10.12**	Form of Non-Qualified Stock Option Agreement for Non-Employee Directors under the 2015 Equity Incentive Plan (incorporated by reference to Exhibit 99.4 to the Company's Registration Statement on Form S-8, File No. 333-218796, filed on June 16, 2017).
10.13**	Form of Performance Share Unit Agreement under the 2015 Equity Incentive Plan (incorporated by reference to Exhibit 99.5 to the Company's Registration Statement on Form S-8, File No. 333-218796, filed on June 16, 2017).
10.14**	Form of Restricted Stock Award Agreement for Employees under the 2015 Equity Incentive Plan (incorporated by reference to Exhibit 99.6 to the Company's Registration Statement on Form S-8, File No. 333-218796, filed on June 16, 2017).
10.15**	Form of Restricted Stock Award Agreement for Non-Employee Directors under the 2015 Equity Incentive Plan (incorporated by reference to Exhibit 99.7 to the Company's Registration Statement on Form S-8, File No. 333-218796, filed on June 16, 2017).
10.16**	Stock Option Agreement, dated July 14, 2009, between the Company and Seth Grae (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by the Company on July 20, 2009).
10.17**	

	Independent Director Contract, dated August 21, 2006, between the Company and Victor Alessi (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by the Company on August 25, 2006).
10.18**	Independent Director Contract, dated October 10, 2013, between the Company and Kathleen Kennedy Townsend (incorporated by referenced to Exhibit 10.5 to the Form 10-K filed by the Company on March 27, 2014).
10.19**	Independent Director Contract, dated October 23, 2006, between the Company and Daniel B. Magraw (incorporated by reference to Exhibit 10.2 to the Form 8-K filed by the Company on October 23, 2006).
10.20**	Employment Agreement, dated as of February 14, 2006, between the Company and Seth Grae (incorporated by reference to Exhibit 10.2 of the current report on Form 8-K filed by the Company on February 21, 2006).
10.21**	Employment Agreement, dated July 27, 2006, between the Company and Andrey Mushakov (incorporated by reference to Exhibit 10.1 of the current report on Form 8-K filed by the Company on August 4, 2006).

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21.1	Subsidiaries of the Company (incorporated by reference to Exhibit 21.1 to the Form 10-K filed by the Company on March 15, 2016).
23.1*	Consent of BDO USA, LLP.
31.1*	Rule 13a-14(a)/15d-14(a) Certification — Principal Executive Officer.
31.2*	Rule 13a-14(a)/15d-14(a) Certification — Principal Financial Officer and Principal Accounting Officer.
32*	Section 1350 Certifications.
101*	The following materials from Lightbridge Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, formatted in eXtensible Business Reporting Language (XBRL): (i) the Consolidated Balance Sheets; (ii) Consolidated Statement of Operations; (iii) Consolidated Statement of Cash Flows; (iv) Consolidated Statement of Changes in Stockholders' Equity; and (v) Notes to Consolidated Financial Statements.

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* Filed or furnished herewith
** Indicates management contract or compensatory plan or arrangement.
‡ Certain portions of this exhibit have been omitted be redacting a portion of text (indicated by asterisks in the text). This exhibit has been filed separately with the U.S. Securities and Exchange Commission pursuant to a request for confidential treatment.

ITEM 16. FORM 10-K SUMMARY