

LIGHTBRIDGE Corp
Form 424B5
October 22, 2013

PROSPECTUS SUPPLEMENT
(To Prospectus dated May 1, 2013)

Filed pursuant to Rule 424(b)(5)
No. 333-187659

2,500,000 Shares of Common Stock
Warrants to Purchase up to 1,250,000 Shares of Common Stock

Lightbridge Corporation

This prospectus supplement and the accompanying prospectus relate to the offering of 2,500,000 shares of our common stock, par value \$0.001 per share, and warrants to purchase up to 1,250,000 shares of common stock at an exercise price of \$2.30 per share. The securities will be sold in multiples of a fixed combination consisting of one share of common stock and a warrant to purchase 0.5 shares of common stock. Each fixed combination will be sold at a price of \$1.75 per fixed combination. The warrants will be exercisable on or after the date that is six months and one day after the date the warrants are issued and will expire ninety (90) months following the date the warrants are issued. In this prospectus supplement, we refer to the shares and warrants collectively as the securities. The shares of common stock and warrants will be issued separately.

Our common stock is listed on the NASDAQ Capital Market under the symbol LTBR. On October 21, 2013, the last reported per share sale price of our common stock was \$2.03. We do not intend to apply for listing of the warrants on any national securities exchange or for inclusion of the warrants in any automated quotation system.

We have retained William Blair & Company to act as our exclusive placement agent in connection with this offering. See Plan of Distribution beginning on page S-14 of this prospectus supplement for more information regarding these arrangements. You should carefully consider the risk factors beginning on page S-9 of this prospectus supplement and set forth in the documents incorporated by reference herein before making any decision to invest in our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus or any prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Fixed Combination	Total
Public offering price	\$1.75	\$4,375,000

Placement agent fee	\$0.1225	\$306,250
Proceeds, before expenses, to us	\$1.6275	\$4,068,750

William Blair & Company, L.L.C. is acting as the exclusive placement agent in connection with this offering. The placement agent is not purchasing or selling any of the securities pursuant to this prospectus supplement or the accompanying prospectus. We estimate the total expenses of this offering, excluding the placement agent fee, will be approximately \$200,000. Because there is no minimum offering amount required as a condition to closing in this offering, the actual public offering amount, placement agent fee and net proceeds to us, if any, in this offering are not presently determinable and may be substantially less than the total maximum offering amounts set forth above. We are not required to sell any specific number or dollar amount of the securities offered in this offering, but the placement agent will use its best efforts to sell the securities offered. It is anticipated that the shares of common stock and the warrants will be delivered against payment thereon on or before October 25, 2013.

William Blair

The date of this prospectus supplement is October 22, 2013

TABLE OF CONTENTS

Prospectus Supplement

	<u>Page</u>
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	<u>S-1</u>
<u>FORWARD-LOOKING STATEMENTS</u>	<u>S-1</u>
<u>PROSPECTUS SUMMARY</u>	<u>S-3</u>
<u>THE OFFERING</u>	<u>S-7</u>
<u>RISK FACTORS</u>	<u>S-8</u>
<u>USE OF PROCEEDS</u>	<u>S-9</u>
<u>DILUTION</u>	<u>S-9</u>
<u>PRICE RANGE OF COMMON STOCK</u>	<u>S-10</u>
<u>DIVIDEND POLICY</u>	<u>S-10</u>
<u>CAPITALIZATION</u>	<u>S-11</u>
<u>DESCRIPTION OF SECURITIES WE ARE OFFERING</u>	<u>S-11</u>
<u>PLAN OF DISTRIBUTION</u>	<u>S-13</u>
<u>LEGAL MATTERS</u>	<u>S-15</u>
<u>EXPERTS</u>	<u>S-15</u>
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	<u>S-15</u>
Prospectus	

	<u>Page</u>
<u>ABOUT THIS PROSPECTUS</u>	<u>1</u>
<u>USE OF TERMS</u>	<u>1</u>
<u>LIGHTBRIDGE CORPORATION</u>	<u>1</u>
<u>RISK FACTORS</u>	<u>2</u>
<u>FORWARD-LOOKING STATEMENTS</u>	<u>2</u>
<u>USE OF PROCEEDS</u>	<u>3</u>
<u>DESCRIPTION OF CAPITAL STOCK</u>	<u>3</u>
<u>DESCRIPTION OF WARRANTS</u>	<u>5</u>
<u>DESCRIPTION OF DEBT SECURITIES</u>	<u>7</u>
<u>DESCRIPTION OF UNITS</u>	<u>15</u>
<u>PLAN OF DISTRIBUTION</u>	<u>15</u>
<u>LEGAL MATTERS</u>	<u>16</u>
<u>EXPERTS</u>	<u>17</u>
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	<u>17</u>
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	<u>17</u>

This prospectus supplement and the accompanying prospectus, dated May 1, 2013, are part of a registration statement on Form S-3 (File No. 333-187659) that we filed with the Securities and Exchange Commission using a shelf registration process. Under this shelf registration process, we may from time to time sell any combination of securities described in the accompanying prospectus in one or more offerings. In this prospectus supplement, we provide you with specific information about the terms of this offering.

As permitted under the rules of the SEC, this prospectus incorporates by reference important information about us that is contained in documents that we file with the SEC, but that are not attached to or delivered with this prospectus. You may obtain copies of these documents, without charge, from the website maintained by the SEC at www.sec.gov, as well as other sources. See **Incorporation of Certain Information by Reference** for further information.

ABOUT THIS PROSPECTUS SUPPLEMENT

This document comprises two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of common stock and warrants and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the prospectus. The second part, the accompanying prospectus, gives more general information, some of which may not apply to this offering. If the description of the offering or the specific terms of the securities offered varies between this prospectus supplement and the accompanying prospectus, you should rely on the information contained in this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus to which it relates and any free writing prospectus that we may authorize to be provided to you. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus. You must not rely on any unauthorized information or representations. The information contained in this prospectus supplement and contained, or incorporated by reference, in the accompanying prospectus is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of securities hereunder. This prospectus is an offer to sell only the shares and warrants offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, any applicable free writing prospectus, and the documents that we have filed with the SEC that are included or incorporated by reference in this prospectus supplement and the accompanying prospectus contain forward-looking statements within the meaning of such term in Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. In addition, other written or oral statements that constitute forward-looking statements are based on current expectations, estimates and projections about the industry and markets in which we operate and statements may be made by or on our behalf. Words such as should, could, may, expect, anticipate, intend, believe, seek, estimate, variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. There are a number of important factors that could cause our actual results to differ materially from those indicated by such forward-looking statements.

We describe material risks, uncertainties and assumptions that could affect our business, including our financial condition and results of operations, under Risk Factors in this prospectus supplement and the accompanying prospectus and may update our descriptions of such risks, uncertainties and assumptions in any prospectus supplement or in any report incorporated by reference in this prospectus supplement and the accompanying prospectus. We base our forward-looking statements on our management's beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that actual outcomes and results may differ materially from what is expressed, implied or forecast by our forward-looking statements. Accordingly, you should be careful about relying on any forward-looking statements. Reference is made in particular to forward-looking statements regarding growth strategies, financial results, product and service development, competitive strengths, intellectual property rights, future market acceptance of our products, financing activities, ongoing contractual obligations and business development and marketing and sales efforts. Except as required under the federal securities laws and the rules and regulations of the SEC, we do not have any intention or obligation to update publicly any forward-looking statements after the distribution of this prospectus, whether as a result of new information, future events, changes in assumptions, or otherwise.

Additional disclosures regarding factors that could cause our results and performance to differ from historical or anticipated results or performance are discussed in this prospectus supplement, the accompanying prospectus, any applicable free writing prospectus, or in the reports incorporated by reference into this prospectus supplement and accompanying prospectus. You are urged to carefully review and consider the various disclosures made by us in those documents before making any investment decision. The forward-looking statements speak only as of the date made and we disclaim any obligation to provide updates, revisions or amendments to any forward-looking statements to reflect changes in our expectations or future events.

S-2

PROSPECTUS SUMMARY

This summary highlights information about us and the offering contained elsewhere in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus. It is not complete and may not contain all the information that may be important to you. You should carefully read the entire prospectus supplement, the accompanying prospectus, any applicable free writing prospectus, as well as the information incorporated by reference, before making an investment decision, especially the information presented under the heading Risk Factors beginning on page S-9 of this prospectus supplement, Management's Discussion and Analysis of Financial Condition and Results of Operations in our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q for the quarterly period ended June 30, 2013, and our consolidated financial statements which are incorporated by reference.

Overview

We are a leading nuclear fuel technology company, and participate in the nuclear power industry in the U.S. and internationally. Our business operations can be categorized into two segments: (i) we are a developer of next generation nuclear fuel technology that has the potential to significantly uprate the power output of reactors, reducing the per-megawatt-hourly cost of generating nuclear energy, and reducing nuclear waste and proliferation, and (ii) we are a provider of nuclear power consulting and strategic advisory services to commercial and governmental entities worldwide.

Our Nuclear Fuel Technology Business Segment

We are developing innovative, proprietary nuclear fuel designs that can significantly enhance the nuclear power industry's economics and increase power output by: (1) Providing an increase in power output of up to 10% while simultaneously extending the operating cycle length from 18 to 24 months in existing pressurized water reactors (which are currently limited to an 18-month operating cycle); alternatively, the power can be increased up to 17% while retaining an 18-month operating cycle; (2) Enabling increased reactor power output (up to 30% increase) without changing the core size in new build PWRs; and (3) Reducing the volume of used fuel per kilowatt-hour as well as enhancing proliferation resistance of spent fuel. In addition, as a result of the significantly lower temperature during operation, our metallic nuclear fuel rods are expected to have improved safety margins during anticipated off-normal events. Preliminary analytical modeling shows that under a large break loss-of-coolant (LOCA) scenario, unlike conventional uranium dioxide fuel, the cladding of the Lightbridge-designed metallic fuel rods stays at least 200 degrees below 850-900 degrees Celsius which is the temperature at which steam begins to react with zirconium in the cladding generating hydrogen gas.

For uprates up to 10%, only relatively minor reactor system modifications would be required. Accordingly, we believe that nuclear utilities with existing reactor fleets may find it economically attractive to initially start with a 10% power uprate fuel variant and switch to a 17% power uprate fuel variant at the time when steam generators and other expensive plant equipment reach their lifetime limit and have to be replaced. In that case, nuclear utilities would only have to incur the incremental capital cost above and beyond the cost of standard plant equipment being replaced to accommodate a 17% power uprate in their existing PWR plants.

We believe that a major opportunity for us is the possibility that our advanced nuclear fuel designs, which are currently in the research and development stage, will be used in many existing and new light water nuclear reactors. Light water reactors are the dominant reactor type currently used in the world, and fuels for such reactors constitute the majority of the commercial market for nuclear fuel.

In response to specific feedback from Lightbridge's Nuclear Utility Fuel Advisory Board comprised of senior fuel managers from four of the larger U.S. nuclear utilities (Exelon, Duke, Dominion, and Southern Company), we have enhanced our metallic fuel assembly design for existing PWRs, eliminating the outer blanket row of oxide fuel rods

and making our entire fuel assembly metallic.

S-3

As a result, nuclear utilities using our metallic fuel in existing PWRs can realize improved safety, plant economics, and operating benefits (i.e., power uprate and longer fuel cycle) without the fuel performance constraints imposed by introducing oxide fuel rods into an assembly.

Consulting Business Segment

We are primarily engaged in the business of assisting commercial and governmental entities with developing and expanding their nuclear industry capabilities and infrastructure. We 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 and regulatory affairs. 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, substantially all of our revenues are derived from our consulting and strategic advisory services business segment, which primarily provides nuclear consulting services to entities within the United Arab Emirates, our first significant consulting and strategic advisory client. In April 2010 and December 2010, we began to provide consulting services in additional countries, including the member states of the Gulf Cooperation Council (the GCC, a political and economic union that comprises the Gulf states of the Kingdom of Bahrain, State of Kuwait, Sultanate of Oman, State of Qatar, Kingdom of Saudi Arabia and United Arab Emirates) and Kuwait. We have also provided nuclear safety consulting advice to U.S. nuclear utilities.

Corporate Structure

The following chart reflects our current corporate organizational structure:

S-4

Summary Consolidated Financial Information

The following tables set forth our summary consolidated financial data as of and for the years ended December 31, 2012 and 2011, as well as summary consolidated financial data as of and for the six months ended June 30, 2013 and 2012. The summary consolidated financial data set forth below has been derived from our audited consolidated financial statements and related notes thereto where applicable for the respective fiscal years, which are incorporated by reference in this prospectus supplement and the related prospectus. The summary consolidated financial data as of and for the six months ended June 30, 2013 and 2012, were derived from our unaudited condensed consolidated financial statements and related notes thereto. The summary consolidated financial data should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations as well as our consolidated financial statements and notes thereto contained in our Annual Report on Form 10-K for the year ended December 31, 2012 and our Quarterly Report on Form 10-Q for the six months ended June 30, 2013 which are incorporated by reference herein. These historical results are not necessarily indicative of the results to be expected in any subsequent fiscal quarters or for the year ended December 31, 2013.

	For the Six Months Ended June 30,		For the Years Ended December 31,	
	<u>2013</u>	<u>2012</u>	<u>2012</u>	<u>2011</u>
	(unaudited)			
Statements of Income Data				
(in thousands, except per share data):				
Consulting revenue	\$ 1,174,809	\$ 2,238,537	\$ 3,677,596	\$ 6,356,424
Cost of consulting services provided	650,041	1,377,465	2,266,815	3,992,153
Gross margin	524,768	861,072	1,410,781	2,364,271
Operating expenses				
General and administrative expenses	1,553,862	2,191,595	3,841,486	6,342,673
Research and development expenses	1,258,554	1,015,068	2,064,568	2,349,749
Total operating expenses	2,812,416	3,206,663	5,906,054	8,692,422
Operating loss	(2,287,648)	(2,345,591)	(4,495,273)	(6,328,151)
Other income and (expenses)				
Investment income	(11,753)	233,068	433,636	465,162
Other income (expenses)	(3,365)	1,053	4,562	(6,018)
Total other income and (expenses)	(15,118)	234,121	438,198	459,144
Net loss before income taxes	(2,302,766)	(2,111,470)	(4,057,075)	(5,869,007)
Income taxes	-	-	-	-
Net loss	(2,302,766)	(2,111,470)	(4,057,075)	(5,869,007)
Net loss per common share, basic and diluted	\$ (0.18)	\$ (0.17)	\$ (0.32)	\$ (0.47)
Weighted average number of shares outstanding for the period used to compute per share data - (prior reporting periods restated to reflect 1 for 30 reverse stock split)	12,542,174	12,462,182	12,491,106	12,376,548
Statements of Cash Flow Data (in thousands):				
Net cash used in operating activities	\$ (2,004,584)	\$ (2,960,437)	\$ (5,053,398)	\$ (4,050,098)
Net cash provided by investing activities	393,815	218,059	3,681,921	5,247,375
Net cash provided by (used in) financing activities	(770)	766	(66)	(1,600)

	As of June 30, 2013	2012	As of December 31, 2011
Balance Sheet Data (in thousands):			
Cash and cash equivalents	\$ 586,016	\$ 2,197,555	\$ 3,569,098
Marketable securities	1,085,039	1,598,209	5,146,823
Restricted cash	554,452	553,682	551,883
Accounts receivable - project revenue and reimbursable project costs	663,229	601,803	277,211
Prepaid expenses & other current assets	521,745	574,590	269,697
Total current assets	3,410,481	5,525,839	9,814,712
Property plant and equipment net	4,831	17,221	46,514
Total other assets	673,950	600,596	657,561
Total assets	4,089,262	6,143,656	10,518,787
Total liabilities	422,942	385,223	1,680,433
Total stockholders equity	3,666,320	5,758,433	8,838,354
Total liabilities and stockholders equity	\$ 4,089,262	\$ 6,143,656	\$ 10,518,787

S-6

THE OFFERING

Common stock offered by us	2,500,000 shares
Warrants offered by us	Warrants to purchase up to 1,250,000 shares of common stock, exercisable at \$2.30 per share following the sixth (6 th) month anniversary of this offering. The warrants will expire ninety (90) months after the date of issuance of the warrants.
Common stock to be outstanding after this offering	15,056,400 shares (not including warrant shares) (1)
Use of proceeds	We will use the net proceeds we receive from the sale of the shares of common stock and warrants offered hereby for research and development of our nuclear fuel designs and general working capital purposes. See Use of Proceeds.
Lock-Up Agreements	We and each of our directors and executive officers have agreed, subject to certain exceptions, not to sell, transfer or dispose of any shares of our common stock for a period of 60 days from the date of this prospectus supplement. See Plan of Distribution.
NASDAQ Capital Market Symbol	LTBR
(1) Based on 12,556,400 shares of common stock outstanding prior to the closing of this offering as of October 21, 2013 and excludes any (1) unexercised options and warrants, (2) convertible securities that have not yet been converted, and (3) other securities of the Company that are exercisable or exchangeable for, or convertible into, common stock of the Company that have not yet been so exercised, exchanged or converted.	

S-7

RISK FACTORS

Before you invest in our common stock, you should carefully consider the risk factors specified below, those risk factors set forth in the accompanying prospectus, our annual report on Form 10-K for the year ended December 31, 2012 and our quarterly reports on Form 10-Q for the quarters ended March 31, 2013 and June 30, 2013, together with all of the other information and documents included or incorporated by reference in this prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein or therein, in evaluating an investment in our common stock. If any of the risks discussed below, in the accompanying prospectus, our annual report on Form 10-K for the year ended December 31, 2012 and our quarterly reports on Form 10-Q for the quarters ended March 31, 2013 and June 30, 2013, or in any document incorporated by reference into this prospectus supplement or the accompanying prospectus, were actually to occur, our business, financial condition, results of operations, or cash flow could be materially adversely affected. In that case, the trading price of our common stock could decline and you could lose all or part of your investment

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

We have not designated the amount of net proceeds from this offering to be used for any particular purpose. Accordingly, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of this offering. Our shareholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not increase our profitability or market value.

You will experience immediate dilution in the book value per share of the common stock you purchase.

Because the price per share of our common stock being offered is substantially higher than the book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of \$1.75 per share and the net tangible book value of the common stock of \$0.46 per share as of June 30, 2013, if you purchase shares of common stock in this offering, you will suffer dilution of \$1.29 per share in the net tangible book value of the common stock. Purchasers in this offering will suffer additional dilution in the event they exercise the warrants offered hereby.

A large number of shares may be sold in the market following this offering, which may depress the market price of our common stock.

All of the shares of our common stock sold in the offering, including shares issuable upon exercise of the warrants, will be freely tradable without restriction or further registration under the Securities Act. As a result, a substantial number of shares of our common stock may be sold in the public market following this offering, which may cause the market price of our common stock to decline. If there are more shares of common stock offered for sale than buyers are willing to purchase, then the market price of our common stock may decline to a market price at which buyers are willing to purchase the offered shares of common stock and sellers remain willing to sell the shares.

There is no public market for the warrants to purchase common stock in this offering.

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the securities we are offering will be approximately \$3.9 million, assuming that we sell all of the securities we are offering, after deducting the placement agent's fees and estimated offering expenses payable by us. This amount does not include the proceeds that we may receive in connection with any exercise of the warrants issued in this offering.

We will use the majority of the net proceeds we receive from the sale of the shares of common stock and warrants offered by this prospectus supplement and the accompanying prospectus for research and development of our nuclear fuel designs and general working capital purposes.

Although we have identified some potential uses of the net proceeds to be received upon completion of this offering, we cannot specify these uses with certainty. Our management will have broad discretion in the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not result in our being profitable or increase our market value.

Until we use the net proceeds of this offering, we intend to invest the funds in short-term, investment grade, interest-bearing securities.

DILUTION

Purchasers of shares of our common stock in this offering will suffer an immediate and substantial dilution in net tangible book value per share. Net tangible book value per share is total tangible assets, reduced by total liabilities, divided by the total number of outstanding shares of common stock. Our net tangible book value as of June 30, 2013 was approximately \$3.0 million, or approximately \$0.24 per outstanding share of common stock.

After giving effect to the sale of the securities and the application of the net proceeds therefrom at a public offering price of \$1.75 per fixed combination of securities (and excluding shares of common stock issued and any proceeds received upon exercise of the warrants), our adjusted net tangible book value as of June 30, 2013 would have been approximately \$6.9 million, or approximately \$0.46 per share. This represents an immediate increase in net tangible book value of \$0.22 per share to our existing stockholders and an immediate dilution of \$1.29 per share to new investors. The following table illustrates this calculation on a per share basis, assuming that we sell all of the securities we are offering:

Public offering price per fixed combination	\$ 1.75
Net tangible book value per share as of June 30, 2013	\$ 0.24
Increase in net tangible book value per share attributable to new investors	\$ 0.22
Adjusted net tangible book value per share as of June 30, 2013 after giving effect to this offering	\$ 0.46
Dilution per share to new investors	\$ 1.29

Investors that acquire additional shares of common stock through the exercise of the warrants offered hereby may experience additional dilution depending on our net tangible book value at the time of exercise.

The amounts above are based on 12,556,400 shares of common stock outstanding as of June 30, 2013, and assume no exercise of outstanding options or warrants since that date. The number of shares of common stock anticipated to be outstanding after this offering excludes:

- 1,638,175 shares of our common stock issuable upon the exercise of outstanding stock options under our 2006 Stock Plan, having a weighted average exercise price of \$11.46 per share;

- 15,136 total unvested shares of restricted stock;
- 1,034,996 shares of common stock issuable upon the exercise of warrants to be issued in our July 2010 offering; and
- 1,250,000 shares of common stock issuable upon the exercise of warrants to be issued in this offering.

To the extent that any of our outstanding options or warrants are exercised, we grant additional options under our stock option plans or issue additional warrants, or we issue additional shares of common stock in the future, there may be further dilution to new investors.

PRICE RANGE OF COMMON STOCK

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

The following table sets forth, for the periods indicated, the high and low reported sales prices of our common stock.

	Sales Prices ⁽¹⁾	
	High	Low
Year ended December 31, 2013		
Fourth Quarter (through October 21, 2013)	\$ 2.05	\$ 1.77
Third Quarter	3.28	1.50
Second Quarter	1.85	1.35
First Quarter	2.50	1.29
Year ended December 31, 2012		
Fourth Quarter	\$ 2.13	\$ 1.05
Third Quarter	2.74	2.00
Second Quarter	3.27	1.91
First Quarter	4.18	1.95
Year ended December 31, 2011		
Fourth Quarter	\$ 3.24	\$ 1.92
Third Quarter	3.70	1.72
Second Quarter	5.80	3.53
First Quarter	7.22	5.10

- (1) The last reported sales price of our common stock on the Nasdaq Capital Market on October 21, 2013 was \$2.03. As of October 21, 2013, there were approximately 144 stockholders of record of our common stock. Certain of our shares are held in nominee or street name; accordingly, we believe the number of beneficial owners is greater than the foregoing number.

DIVIDEND POLICY

We have never declared or paid cash dividends. Any future decisions regarding dividends will be made by our Board of Directors. We currently intend to retain and use any future earnings for the development and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future.

Our Board of Directors has complete discretion on whether to pay dividends, subject to the approval of our shareholders. Even if our Board of Directors decides to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the Board of Directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of June 30, 2013, both on an actual basis and as adjusted to give effect to the sale of 2,500,000 shares of common stock and warrants to purchase up to 1,250,000 shares of common stock by us in this offering at a public offering price of \$1.75 per fixed combination, after deducting estimated placement agent fees and estimated offering expenses payable by us assuming no exercise of the warrants.

This table should be read in conjunction with *Use of Proceeds* and our unaudited consolidated financial statements, including the related notes, included or incorporated by reference in this prospectus supplement.

	As of June 30, 2013	
	Actual	As Adjusted
	(dollars in thousands)	
Cash and cash equivalents	\$ 586	4,455
Current Liabilities		
Accounts payable and accrued liabilities	423	423
Total Current Liabilities	423	423
Stockholder s Equity		
Preferred stock, \$0.001 par value; 50,000,000 authorized shares, no shares issued and outstanding	-	-
Common stock, \$0.001 par value; 500,000,000 authorized, shares issued and outstanding at June 30, 2013: 12,556,400 shares, actual, 15,056,400 as adjusted for this offering	13	15
Additional paid-in capital - stock and stock equivalents	72,169	76,064
Accumulated Deficit	(68,516)	(68,516)
Common stock reserved for issuance, 0 share at June 30, 2013	-	-
Total Stockholders Equity	3,666	7,563
Total Capitalization	3,666	7,563

DESCRIPTION OF SECURITIES WE ARE OFFERING

In this offering, we are offering a maximum of up to 2,500,000 shares of our common stock and warrants to purchase up to an additional 1,250,000 shares of our common stock. The securities will be sold in multiples of a fixed combination consisting of one share of common stock and a warrant to purchase 0.5 shares of common stock, at an initial exercise price of \$2.30. We are offering the fixed combination at a negotiated price of \$1.75 per fixed combination.

Common Stock

The following description of our common stock is a summary. It is not complete and is subject to and qualified in its entirety by our Articles of Incorporation, as amended, and Amended and Restated Bylaws, as amended, a copy of each of which has been incorporated as an exhibit to the registration statement of which this prospectus supplement forms a part.

As of the date of this prospectus supplement, our articles of incorporation authorizes us to issue 500,000,000 shares of common stock, par value \$0.001 per share, and 50,000,000 shares of preferred stock, par value \$0.001 per share. As of October 21, 2013, 12,556,400 shares of common stock were outstanding and no shares of preferred stock were outstanding.

The material terms and provisions of our common stock are described under the caption Description of Capital Stock starting on page 5 of the accompanying prospectus.

S-11

Warrants

The material terms and provisions of the warrants being offered pursuant to this prospectus supplement and the accompanying prospectus are summarized below. The summary is subject to, and qualified in its entirety by, the form of warrant which will be provided to each purchaser in this offering and will be filed as an exhibit to a Current Report on Form 8-K with the SEC in connection with this offering.

Each purchaser will receive, for each fixed combination purchased, one share of our common stock and a warrant representing the right to purchase 0.5 shares of common stock at an initial exercise price of \$2.30 per share of common stock. The warrants will be exercisable on or after the date that is six months and one day after the date the warrants are issued and will terminate ninety (90) months following the date the warrants are issued. The exercise price and the number of shares for which each warrant may be exercised is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price of warrants held by a purchaser (or such purchaser's direct or indirect transferee) is subject to appropriate adjustment in the event of cash dividends or other distributions to holders of shares of our common stock.

There is no established public trading market for the warrants, and we do not expect a market to develop. We do not intend to apply to list the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited. In addition, in the event our common stock price does not exceed the per share exercise price of the warrants during the period when the warrants are exercisable, the warrants will not have any value.

Holders of the warrants may exercise their warrants to purchase shares of our common stock by delivering an exercise notice, appropriately completed and duly signed. Payment of the exercise price for the number of shares for which the warrant is being exercised is required to be delivered within one trading day after exercise of the warrant. In the event that the registration statement relating to the warrant shares is not effective, a holder of warrants will have the right to exercise its warrants for a net number of warrant shares pursuant to the cashless exercise procedures specified in the warrants. Warrants may be exercised in whole or in part, and any portion of a warrant not exercised prior to the termination date shall be and become void and of no value. The absence of an effective registration statement or applicable exemption from registration does not alleviate our obligation to deliver common stock issuable upon exercise of a warrant. Upon the holder's exercise of a warrant, we will issue the shares of common stock issuable upon exercise of the warrant within three trading days of our receipt of notice of exercise.

The shares of common stock issuable on exercise of the warrants will be, when issued in accordance with the warrants, duly and validly authorized, issued and fully paid and non-assessable. We will authorize and reserve at least that number of shares of common stock equal to the number of shares of common stock issuable upon exercise of all outstanding warrants.

If, at any time warrants are outstanding, we consummate any fundamental transaction, as described in the warrants and generally including any consolidation or merger into another corporation, the consummation of a transaction whereby another entity acquires more than 50% of our outstanding voting stock, or the sale of all or substantially all of our assets, the holder of any warrants will thereafter receive upon exercise of the warrants, the securities or other consideration to which a holder of the number of shares of common stock then deliverable upon the exercise of such warrants would have been entitled upon such consolidation or merger or other transaction. Furthermore, we cannot enter into a fundamental transaction unless the successor entity assumes in writing all of our obligations to the warrant holders. Additionally, in the event of a fundamental transaction, each warrant holder will have the right to require us, or our successor, to repurchase its warrant for an amount of cash equal to the Black-Scholes value of the remaining unexercised portion of the warrant on the date of the consummation of such fundamental transaction.

The exercisability of the warrants may be limited in certain circumstances if, upon exercise, certain holders or any of their affiliates would beneficially own more than 4.99% of our common stock. This limit may be increased to up to 9.99% upon no fewer than 60 days' notice.

PLAN OF DISTRIBUTION

Placement Agency Agreement and Subscription Agreements

William Blair & Company, L.L.C., which we refer to as the placement agent, has agreed to act as the exclusive placement agent in connection with this offering subject to the terms and conditions of a placement agency agreement dated as of October 21, 2013. The placement agent is not purchasing or selling any shares of common stock or warrants offered by this prospectus supplement, nor is it required to arrange the purchase or sale of any specific number or dollar amount of the shares and warrants, but the placement agent has agreed to use its reasonable efforts to arrange for the sale of all of the shares and warrants offered hereby. Therefore, we will enter into subscription agreements directly with investors in connection with this offering and we may not sell the entire amount of shares and warrants offered pursuant to this prospectus supplement.

The placement agency agreement provides that the obligations of the placement agent is subject to certain conditions precedent, including, among other things, the absence of any material adverse change in our change in our business and the receipt of customary opinions, letters and closing certificates.

The placement agent proposes to arrange for the sale to one or more purchasers of the shares and warrants offered pursuant to this prospectus supplement through the subscription agreements between the purchasers and us. We negotiated the price for the shares offered in this offering with the purchasers. The factors considered in determining the price included the recent market price of our common stock, the general condition of the securities market at the time of this offering, the history of, and the prospects, for the industry in which we compete, our past and present operations, and our prospects for future revenues.

We have agreed to indemnify the placement agent against liabilities under the Securities Act of 1933, as amended, and against breaches of our representations and warranties and covenants in the placement agency agreement. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

We have agreed, subject to limited exceptions, for a period of 60 days after the date of this prospectus supplement, not to, without the prior written consent of the placement agent, directly or indirectly,

- offer to sell, hypothecate, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of, directly or indirectly, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Exchange Act, with respect to, any shares of common stock, or any securities convertible into or exercisable or exchangeable for shares of common stock,
- file or cause to become effective a registration statement under the Securities Act relating to the offer and sale of any shares of common stock or securities convertible into or exercisable or exchangeable for shares of common stock, or
- enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock,

other than the issuance of stock options or shares of restricted stock to employees, directors and consultants pursuant to our stock benefit plans, issuances of shares of common stock upon the exercise of options disclosed in the accompanying prospectus or upon the conversion or exchange of convertible or exchangeable securities disclosed as outstanding in the accompanying prospectus (provided that each recipient of such shares agrees that all such shares remain subject to these transfer restrictions), or the purchase or sale of our securities pursuant to a plan, contract or instruction that satisfies all of the requirements of Rule 10b5-1(c)(1)(i)(B) that was in effect prior to the date of this prospectus supplement.

In addition, our officers and directors have agreed, subject to limited exceptions, for a period of 60 days after the date of this prospectus supplement, not to, without the prior written consent of the placement agent:

- sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, to file (or participate in the filing of) a registration statement with the SEC in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position with respect to, any common stock or any other securities substantially similar to the common stock or securities convertible or exchangeable into, or exercisable for, common stock; or
- enter into any swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any common stock.

The 60-day lock-up periods will be extended if (1) we release earnings results or material news or a material event relating to our company occurs during the last 17 days of the lock-up period, or (2) prior to the expiration of the lock-up period, we announce that we will release earnings results during the 16-day period beginning on the last day of the lock-up period. In either case, the lock-up period will be extended for 18 days after the date of the release of the earnings results or the occurrence of the material news or material event unless the placement agents waive such extension.

Fees

The placement agent will be entitled to a cash fee of 7% of the gross proceeds paid to us for the shares of common stock which we sell in this offering. We will also reimburse the placement agents for all reasonable out-of-pocket expenses incurred by the placement agents in this offering.

The following table shows the per fixed combination and total placement agency fees we will pay to the placement agents in connection with the sale of the shares and warrants offered pursuant to this prospectus supplement assuming the purchase of all of the shares of common stock and warrants offered hereby:

Placement agent fees per fixed combination of shares of common stock and warrants to purchase 0.5 shares of common stock	\$ 0.1225
Total	\$ 306,250

Because there is no minimum offering amount required as a condition to closing in this offering, the actual total placement agency fees, if any, are not presently determinable and may be substantially less than the maximum amount set forth above.

Our obligation to issue and sell common stock to the purchasers is subject to the conditions set forth in the subscription agreements entered into with the purchasers, which may be waived by us at our discretion. A purchaser's obligation to purchase shares is subject to the conditions set forth in the applicable subscription agreement as well, which may be waived by the purchaser.

We currently anticipate that the sale of up to 2,500,000 shares of common stock and warrants to purchase 1,250,000 shares of common stock will be completed on or about October 25, 2013. We estimate the total offering expenses of this offering that will be payable by us, excluding the placement agency fees, will be approximately \$200,000, which include legal and printing costs, various other fees and reimbursement of the placement agents' expenses.

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, or the Securities Act, and any fees or commissions received by them and any profit realized on the resale of securities sold by them while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the

Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares of common stock by the placement agents. Under these rules and regulations, the placement agent:

S-14

- may not engage in any stabilization activity in connection with our securities; and
- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution

From time to time in the ordinary course of their respective businesses, the placement agent or its affiliates have in the past or may in the future engage in investment banking and/or other services with us and our affiliates for which they have or may in the future receive customary fees and expenses.

The foregoing does not purport to be a complete statement of the terms and conditions of the placement agency agreement and subscription agreements. Copies of the placement agency agreement and the subscription agreements will be included as exhibits to our current report on Form 8-K that will be filed with the SEC and incorporated by reference into the Registration Statement of which this prospectus supplement forms a part. See **Where You Can Find Additional Information** on page 21 of the prospectus.

The transfer agent for our common stock is Computershare Trust Company.

Our common stock is traded on the NASDAQ Capital Market under the symbol **LTBR**.

LEGAL MATTERS

Gary R. Henrie, 8275 S. Eastern Ave., Suite 200, Las Vegas, NV 89123, will issue a legal opinion as to the validity of the issuance of the securities offered under this prospectus. Certain legal matters with respect to the warrants offered under this prospectus will be passed upon for us by Pillsbury Winthrop Shaw Pittman LLP, 2300 N Street, NW, Washington, D.C. 20037-1122. Goodwin Procter LLP, 620 Eighth Avenue, New York, NY 10018, has served as counsel for the placement agent.

EXPERTS

The consolidated financial statements of the Company as of December 31, 2012 and 2011 and for the years ended December 31, 2012 and 2011 incorporated in this prospectus supplement by reference have been audited by the accounting firm of Anderson Bradshaw, PLLC, an independent registered public accounting firm, as indicated in their report thereon dated February 22, 2013, which is incorporated by reference herein in reliance upon such firm's authority as experts in auditing and accounting.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus supplement certain information that we file with the SEC, which means that we can disclose important information to you by referring you to those documents. Any information that we file with the SEC after the date of this prospectus supplement will automatically update this prospectus supplement. We incorporate by reference into this prospectus supplement the documents listed below, which are considered to be a part of this prospectus supplement:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, filed March 1, 2013;
- Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2013, filed on May 8, 2013;

Edgar Filing: LIGHTBRIDGE Corp - Form 424B5

- Our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2013, filed on August 1, 2013;
- Our Current Report on Form 8-K, filed with the SEC on April 24, 2013
- Our Current Report on Form 8-K, filed with the SEC on October 10, 2013; and
- The description of our common stock, \$0.001 par value per share, contained in our Registration Statement on Form 8-A, filed on October 8, 2009 pursuant to Section 12(b) of the Exchange Act.

All documents that we file with the SEC after the date of this prospectus supplement pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, prior to the termination of this offering, are incorporated by reference into this prospectus supplement and will automatically update information in this prospectus supplement; provided, however, that notwithstanding the forgoing, unless specifically stated to the contrary, none of the information that we disclose under Items 2.02 or 7.01 of any Current Report on Form 8-K that we may from time to time furnish to the SEC will be incorporated by reference into, or otherwise included in, this prospectus supplement. The information contained in any such filing will be deemed to be a part of this prospectus supplement, commencing on the date on which the document is filed.

You may request a copy of these reports, which we will provide to you at no cost, by writing or calling us at our mailing address and telephone number: Lightbridge Corporation, 1600 Tysons Boulevard, Suite 550, McLean, Virginia 22102, Attn: Investor Relations, telephone: (571) 730-1213.

S-16

PROSPECTUS

\$50,000,000

LIGHTBRIDGE CORPORATION

**Common Stock
Preferred Stock
Debt Securities
Warrants
Units**

We may offer, issue and sell from time to time our common stock, preferred stock, debt securities, warrants or units up to \$50,000,000 or its equivalent in any other currency, currency units, or composite currency or currencies in one or more issuances. We may offer and sell the securities separately, together or as units, in separate classes or series, in amounts, at prices and on terms to be determined at the time of sale. This prospectus provides a general description of offerings of these securities that we may undertake.

Each time we sell our securities pursuant to this prospectus, we will provide the specific terms of such offering in a supplement to this prospectus. The prospectus supplement may also add, update, or change information contained in this prospectus. You should read this prospectus and the accompanying prospectus supplement, together with additional information described under the heading **Where You Can Find More Information** and **Information Incorporated by Reference**, before you make your investment decision.

This prospectus may not be used to offer or sell our securities unless accompanied by a prospectus supplement. The information contained or incorporated in this prospectus or in any prospectus supplement is accurate only as of the date of this prospectus, or such prospectus supplement, as applicable, regardless of the time of delivery of this prospectus or any sale of our securities.

Our common stock is listed on the NASDAQ Capital Market under the symbol **LTBR**. On March 28, 2013, the last reported per share sale price of our common stock was \$1.74.

The aggregate market value of our outstanding common stock held by non-affiliates is \$20,208,252 based on 12,548,935 shares of outstanding common stock, of which 11,613,938 are held by non-affiliates, and a per share price of \$1.74 based on the closing sale price of our common stock on March 28, 2013. We have not offered any securities pursuant to General Instruction I.B.6. of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus.

We may offer securities through underwriting syndicates managed or co-managed by one or more underwriters, through agents, or directly to purchasers. The prospectus supplement for each offering of securities will describe the plan of distribution for that offering. For general information about the distribution of securities offered, please see **Plan of Distribution** in this prospectus.

See the Risk Factors section of our filings with the SEC and the applicable prospectus supplement for certain risks that you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus or any prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 1, 2013

TABLE OF CONTENTS

	<u>Page</u>
<u>ABOUT THIS PROSPECTUS</u>	<u>1</u>
<u>USE OF TERMS</u>	<u>1</u>
<u>LIGHTBRIDGE CORPORATION</u>	<u>1</u>
<u>RISK FACTORS</u>	<u>2</u>
<u>FORWARD-LOOKING STATEMENTS</u>	<u>2</u>
<u>USE OF PROCEEDS</u>	<u>3</u>
<u>DESCRIPTION OF CAPITAL STOCK</u>	<u>3</u>
<u>DESCRIPTION OF WARRANTS</u>	<u>5</u>
<u>DESCRIPTION OF DEBT SECURITIES</u>	<u>7</u>
<u>DESCRIPTION OF UNITS</u>	<u>15</u>
<u>PLAN OF DISTRIBUTION</u>	<u>15</u>
<u>LEGAL MATTERS</u>	<u>16</u>
<u>EXPERTS</u>	<u>17</u>
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	<u>17</u>
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	<u>17</u>

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a shelf registration process. Under this shelf registration process, we may sell our securities described in this prospectus in one or more offerings up to a total dollar amount of \$50,000,000. Each time we offer our securities, we will provide you with a supplement to this prospectus that will describe the specific amounts, prices and terms of the securities we offer. The prospectus supplement may also add, update or change information contained in this prospectus. This prospectus, together with applicable prospectus supplements and the documents incorporated by reference in this prospectus and any prospectus supplements, includes all material information relating to this offering. Please read carefully both this prospectus and any prospectus supplement together with additional information described below under **Where You Can Find More Information** and **Information Incorporated by Reference**.

You should rely only on the information contained in or incorporated by reference in this prospectus and any applicable prospectus supplement. We have not authorized anyone to provide you with different or additional information. If anyone provides you with different or inconsistent information, you should not rely on it. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of securities described in this prospectus. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or any prospectus supplement, as well as information we have previously filed with the SEC and incorporated by reference, is accurate as of the date on the front of those documents only. Our business, financial condition, results of operations and prospects may have changed since those dates. **This prospectus may not be used to consummate a sale of our securities unless it is accompanied by a prospectus supplement.**

USE OF TERMS

Except as otherwise indicated by the context, all references in this prospectus to (i) Lightbridge, we, us, our, Company, or the Company are to Lightbridge Corporation, a Nevada corporation, and its consolidated subsidiaries; (ii) Securities Act are to the Securities Act of 1933, as amended; and (iii) Exchange Act means the Securities Exchange Act of 1934, as amended.

LIGHTBRIDGE CORPORATION

Our Business

We are a leading nuclear fuel technology company, and participate in the nuclear power industry in the U.S. and internationally. Our business operations can be categorized into two segments: (i) we are a developer of next generation nuclear fuel technology that has the potential to significantly uprate the power output of reactors, reducing the per-megawatt-hourly cost of generating nuclear energy, and reducing nuclear waste and proliferation, and (ii) we are a provider of nuclear power consulting and strategic advisory services to commercial and governmental entities worldwide.

Our Nuclear Fuel Technology Business Segment

We are developing innovative, proprietary nuclear fuel designs that can significantly enhance the nuclear power industry's economics and increase power output by: (1) Extending the fuel cycle length to 24 months while simultaneously providing an increase in power output of up to 10% in existing pressurized water reactors (including Westinghouse 4-loop reactors, which are currently limited to an 18-month fuel cycle) or up to a 17% power uprate with an 18-month fuel cycle; (2) Enabling increased reactor power output (up to 30% increase) without changing the core size in new build PWRs; and (3) Reducing the volume of used fuel per kilowatt-hour as well as enhancing proliferation resistance of spent fuel.

For uprates up to 10%, only relatively minor reactor system modifications would be required. Accordingly, we believe that nuclear utilities with existing reactor fleets may find it economically attractive to initially start with a 10% power uprate fuel variant and switch to a 17% power uprate fuel variant at the time when steam generators and other expensive plant equipment reach their lifetime limit and have to be replaced. In that case, nuclear utilities would only have to incur the incremental capital cost beyond and above the cost of standard plant equipment being replaced to accommodate a 17% power uprate in their existing PWR plants.

We believe that a major opportunity for us is the possibility that our advanced nuclear fuel designs, which are currently in the research and development stage, will be used in many existing and new light water nuclear reactors. Light water reactors are the dominant reactor type currently used in the world, and fuels for such reactors constitute the majority of the commercial market for nuclear fuel.

Consulting Business Segment

We are primarily engaged in the business of assisting commercial and governmental entities with developing and expanding their nuclear industry capabilities and infrastructure. We 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 and regulatory affairs. 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, substantially all of our revenues are derived from our consulting and strategic advisory services business segment, which primarily provides nuclear consulting services to entities within the United Arab Emirates, our first significant consulting and strategic advisory client. In April 2010 and December 2010, we began to provide consulting services in additional countries, including the member states of the Gulf Cooperation Council (the GCC, a political and economic union that comprises the Gulf states of the Kingdom of Bahrain, State of Kuwait, Sultanate of Oman, State of Qatar, Kingdom of Saudi Arabia and United Arab Emirates) and Kuwait. We have also provided nuclear safety consulting advice to U.S. nuclear utilities.

Our Corporate History

We were incorporated under the laws of the State of Nevada on February 2, 1999. During the period from inception until October 6, 2006, we were engaged in businesses other than our current business. On October 6, 2006, we acquired our wholly-owned subsidiary Thorium Power, Inc. in a merger transaction and changed our name to Thorium Power, Ltd. Thorium Power, Inc. was incorporated on January 8, 1992.. On September 21, 2009, we changed our name from Thorium Power Ltd. to Lightbridge Corporation to more accurately reflect the varied nature of our business operations. Thorium Power, Inc. remains a wholly-owned subsidiary of Lightbridge Corporation.

Office Location

The address of our principal executive office is 1600 Tysons Boulevard, Suite 550, McLean, Virginia, 22102, and our telephone number is (571) 730-1200. We maintain a website at www.ltbridge.com that contains information about our Company, though no information contained on our website is part of this prospectus.

RISK FACTORS

An investment in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the specific risk factors discussed in the sections entitled Risk Factors contained in our most recent Annual Report on Form 10-K filed on March 1, 2013, and in any applicable prospectus supplement and our other filings with the SEC and incorporated by reference in this prospectus, together with all of the other information contained in this prospectus, or any applicable prospectus supplement. Additional risks and uncertainties not presently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any prospectus supplement or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our securities could decline and you might lose all or part of your investment.

FORWARD-LOOKING STATEMENTS

This prospectus contains or incorporates forward-looking statements within the meaning of section 27A of the Securities Act and section 21E of the Exchange Act. These forward-looking statements are management's beliefs and assumptions. In addition, other written or oral statements that constitute forward-looking statements are based on current expectations, estimates and projections about the industry and markets in which we operate and statements may be made by or on our behalf. Words such as should, could, may, expect, anticipate, intend, plan, estimate, variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. There are a number of important factors that could cause our actual results to differ materially from those indicated by such forward-looking statements.

We describe material risks, uncertainties and assumptions that could affect our business, including our financial condition and results of operations, under **Risk Factors** and may update our descriptions of such risks, uncertainties and assumptions in any prospectus supplement. We base our forward-looking statements on our management's beliefs and assumptions based on information available to our management at the time the statements are made. We caution you that actual outcomes and results may differ materially from what is expressed, implied or forecast by our forward-looking statements. Accordingly, you should be careful about relying on any forward-looking statements. Reference is made in particular to forward-looking statements regarding growth strategies, financial results, product and service development, competitive strengths, intellectual property rights, litigation, mergers and acquisitions, market acceptance or continued acceptance of our products and services, accounting estimates, financing activities, ongoing contractual obligations and sales efforts. Except as required under the federal securities laws and the rules and regulations of the SEC, we do not have any intention or obligation to update publicly any forward-looking statements after the distribution of this prospectus, whether as a result of new information, future events, changes in assumptions, or otherwise.

USE OF PROCEEDS

Unless specified otherwise in the applicable prospectus supplement, we expect to use the net proceeds we receive from the sale of the securities offered by this prospectus and the accompanying prospectus supplement for general corporate purposes, which may include, among other things:

- acquisitions;
- working capital;
- capital expenditures;
- repayment of debt;
- research and development expenditures; and
- investments.

The precise amount and timing of the application of such proceeds will depend upon our funding requirements and the availability and cost of other capital. Pending any specific application, we may initially invest funds in short-term marketable securities or apply them to the reduction of short-term indebtedness. Additional information on the use of net proceeds from the sale of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

DESCRIPTION OF CAPITAL STOCK

Common Stock

We are authorized to issue up to 500,000,000 shares of common stock, par value \$0.001 per share. Each outstanding share of common stock entitles the holder thereof to one vote per share on all matters. Our bylaws provide that elections for directors shall be by a plurality of votes. Stockholders do not have preemptive rights to purchase shares in any future issuance of our common stock. Upon our liquidation, dissolution or winding up, and after payment of creditors and preferred stockholders, if any, our assets will be divided pro-rata on a share-for-share basis among the holders of the shares of common stock.

The holders of shares of our common stock are entitled to dividends out of funds legally available when and as declared by our board of directors. Our board of directors has never declared a dividend and does not anticipate declaring a dividend in the foreseeable future. Should we decide in the future to pay dividends, as a holding company, our ability to do so and meet other obligations depends upon the receipt of dividends or other payments from our operating subsidiary and other holdings and investments. In addition, our operating subsidiary, from time to time, may be subject to restrictions on its ability to make distributions to us, including as a result of restrictive covenants in loan agreements, restrictions on the conversion of local currency into U.S. dollars or other hard currency and other

regulatory restrictions. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to receive, ratably, the net assets available to stockholders after payment of all creditors.

All of the issued and outstanding shares of our common stock are duly authorized, validly issued, fully paid and non-assessable. To the extent that additional shares of our common stock are issued, the relative interests of existing stockholders will be diluted.

As of March 28, 2013, there were 12,548,935 shares of our common stock outstanding.

Preferred Stock

We are authorized to issue up to 50,000,000 shares of preferred stock, par value \$0.001 per share, in one or more classes or series within a class as may be determined by our board of directors, who may establish, from time to time, the number of shares to be included in each class or series, may fix the designation, powers, preferences and rights of the shares of each such class or series and any qualifications, limitations or restrictions thereof. Any preferred stock so issued by the board of directors may rank senior to the common stock with respect to the payment of dividends or amounts upon liquidation, dissolution or winding up of us, or both. Moreover, under certain circumstances, the issuance of preferred stock or the existence of the unissued preferred stock might tend to discourage or render more difficult a merger or other change of control.

As of March 28, 2013, there were no shares of our preferred stock outstanding.

Anti-takeover Effects of Our Articles of Incorporation and Bylaws

Our articles of incorporation and bylaws contain certain provisions that may have anti-takeover effects, making it more difficult for or preventing a third party from acquiring control of the Company or changing its board of directors and management. According to our bylaws and articles of incorporation, neither the holders of our common stock nor the holders of our preferred stock have cumulative voting rights in the election of our directors. The combination of the present ownership by a few stockholders of a significant portion of our issued and outstanding common stock and lack of cumulative voting makes it more difficult for other stockholders to replace our board of directors or for a third party to obtain control of the Company by replacing its board of directors.

Anti-takeover Effects of Nevada Law

Business Combinations

The business combination provisions of Sections 78.411 to 78.444, inclusive, of the Nevada Revised Statutes, or NRS, generally prohibit a Nevada corporation with at least 200 stockholders from engaging in various combination transactions with any interested stockholder for a period of two years after the date of the transaction in which the person became an interested stockholder, unless the transaction is approved by the board of directors prior to the date the interested stockholder obtained such status or the combination is approved by the board of directors and thereafter is approved at a meeting of the stockholders by the affirmative vote of stockholders representing at least 60% of the outstanding voting power held by disinterested stockholders, and extends beyond the expiration of the two-year period, unless:

- the combination was approved by the board of directors prior to the person becoming an interested stockholder or the transaction by which the person first became an interested stockholder was approved by the board of directors before the person became an interested stockholder or the combination is later approved by a majority of the voting power held by disinterested stockholders, or
- if the consideration to be paid by the interested stockholder is at least equal to the highest of: (a) the highest price per share paid by the interested stockholder within the two years immediately preceding the date of the announcement of the combination or in the transaction in which it became an interested stockholder, whichever is higher, (b) the market value per share of common stock on the date of announcement of the combination and the date the interested stockholder acquired the shares, whichever is higher, or (c) for holders

of preferred stock, the highest liquidation value of the preferred stock, if it is higher.

A combination is generally defined to include mergers or consolidations or any sale, lease exchange, mortgage, pledge, transfer, or other disposition, in one transaction or a series of transactions, with an "interested stockholder" having: (a) an aggregate market value equal to 5% or more of the aggregate market value of the assets of the corporation, (b) an aggregate market value equal to 5% or more of the aggregate market value of all outstanding shares of the corporation, (c) 10% or more of the earning power or net income of the corporation, and (d) certain other transactions with an interested stockholder or an affiliate or associate of an interested stockholder.

In general, an interested stockholder is a person who, together with affiliates and associates, owns (or within two years, did own) 10% or more of a corporation's voting stock. The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire our company even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

Our Articles of Incorporation state that we have elected not to be governed by the business combination provisions, therefore such provisions currently do not apply to us.

Control Share Acquisitions

The control share provisions of Sections 78.378 to 78.3793, inclusive, of the NRS apply to issuing corporations that are Nevada corporations with at least 200 stockholders, including at least 100 stockholders of record who are Nevada residents, and that conduct business directly or indirectly in Nevada. The control share statute prohibits an acquirer, under certain circumstances, from voting its shares of a target corporation's stock after crossing certain ownership threshold percentages, unless the acquirer obtains approval of the target corporation's disinterested stockholders. The statute specifies three thresholds: one-fifth or more but less than one-third, one-third but less than a majority, and a majority or more, of the outstanding voting power. Generally, once an acquirer crosses one of the above thresholds, those shares in an offer or acquisition and acquired within 90 days thereof become control shares and such control shares are deprived of the right to vote until disinterested stockholders restore the right. These provisions also provide that if control shares are accorded full voting rights and the acquiring person has acquired a majority or more of all voting power, all other stockholders who do not vote in favor of authorizing voting rights to the control shares are entitled to demand payment for the fair value of their shares in accordance with statutory procedures established for dissenters' rights.

A corporation may elect to not be governed by, or opt out of, the control share provisions by making an election in its articles of incorporation or bylaws, provided that the opt-out election must be in place on the 10th day following the date an acquiring person has acquired a controlling interest, that is, crossing any of the three thresholds described above. We have not opted out of the control share statutes, and will be subject to these statutes if we are an issuing corporation as defined in such statutes.

The effect of the Nevada control share statutes is that the acquiring person, and those acting in association with the acquiring person, will obtain only such voting rights in the control shares as are conferred by a resolution of the stockholders at an annual or special meeting. The Nevada control share law, if applicable, could have the effect of discouraging takeovers of our company.

Transfer Agent and Registrar

Our independent stock transfer agent is Computershare Trust Company, located at 350 Indiana Street, Golden Colorado, 80401. Their phone number is 303.262.0600.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or traded separate and apart from these securities. Each series of warrants will be issued under a warrant agreement all as set forth in the prospectus supplement. A copy of the form of warrant agreement, including any form of warrant certificates representing the warrants, reflecting the provisions to be included in the warrant agreements and/or warrant certificates that will be entered into with respect to particular offerings of warrants, will be filed as an exhibit to a Form 8-K to be incorporated into the registration statement of which this prospectus constitutes a part prior to the issuance of any warrants.

The applicable prospectus supplement or term sheet will describe the terms of the warrants offered thereby, any warrant agreement relating to such warrants and the warrant certificates, including but not limited to the following:

- the offering price or prices;
- the aggregate amount of securities that may be purchased upon exercise of such warrants and minimum number of warrants that are exercisable;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the number of securities, if any, with which such warrants are being offered and the number of such warrants being offered with each security;
- the date on and after which such warrants and the related securities, if any, will be transferable separately;
- the amount of securities purchasable upon exercise of each warrant and the price at which the securities may be purchased upon such exercise, and events or conditions under which the amount of securities may be subject to adjustment;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
- the circumstances, if any, which will cause the warrants to be deemed to be automatically exercised;
- any material risk factors, if any, relating to such warrants;
- the identity of any warrant agent; and
- any other terms of such warrants (which shall not be inconsistent with the provisions of the warrant agreement).

Each warrant will entitle the holder to purchase a principal amount of common stock, preferred stock and/or debt securities at an exercise price as shall in each case be set forth in, or calculable from, the prospectus supplement relating to those warrants. Warrants may be exercised at the times set forth in the prospectus supplement relating to such warrants. After the close of business on the expiration date (or any later date to which the expiration date may be extended by us), unexercised warrants will become void. Subject to any restrictions and additional requirements that may be set forth in the prospectus supplement relating thereto, warrants may be exercised by delivery to the Company or its warrant agent of the certificate evidencing the warrants properly completed and duly executed and of payment as provided in the prospectus supplement of the amount required to purchase the debt securities or shares of common stock, shares of preferred stock, or depositary shares purchasable upon such exercise. The exercise price will be the price applicable on the date of payment in full, as set forth in the prospectus supplement relating to the warrants. Upon receipt of the payment and the certificate representing the warrants to be exercised properly completed, duly executed and properly delivered as indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the debt securities or shares of common stock, shares of preferred stock, or depositary shares purchasable upon such exercise. If fewer than all of the warrants represented by that certificate are exercised, a new certificate will be issued for the remaining amount of warrants.

Prior to the exercise of any warrants, holders of such warrants will not have any rights of holders of the securities purchasable upon such exercise, including the right to receive payments of dividends, if any, on the securities purchasable upon such exercise, statutory appraisal rights or the right to vote such underlying securities.

Prospective purchasers of warrants should be aware that material U.S. federal income tax, accounting and other considerations may be applicable to instruments such as warrants.

DESCRIPTION OF DEBT SECURITIES

The following is a summary of the general terms of the debt securities that we may issue. We will file a prospectus supplement that may contain additional terms when we issue debt securities. The terms presented here, together with the terms in a related prospectus supplement, will be a description of the material terms of the debt securities. You should also read the indenture under which the debt securities are to be issued. We have filed a form of indenture governing different types of debt securities with the SEC as an exhibit to the registration statement of which this prospectus is a part. All capitalized terms have the meanings specified in the indenture.

We may issue, from time to time, debt securities, in one or more series, that will consist of senior debt, senior subordinated debt or subordinated debt. We refer to the subordinated debt securities and the senior subordinated debt securities together as the subordinated securities. The debt securities that we may offer will be issued under an indenture between us and an entity, identified in the applicable prospectus supplement, as trustee. Debt securities, whether senior, senior subordinated or subordinated, may be issued as convertible debt securities or exchangeable debt securities. The following is a summary of the material provisions of the indenture filed as an exhibit to the registration statement of which this prospectus is a part.

As you read this section, please remember that for each series of debt securities, the specific terms of your debt security as described in the applicable prospectus supplement will supplement and, if applicable, may modify or replace the general terms described in the summary below. The statement we make in this section may not apply to your debt security.

General Terms of the Indenture

The indenture does not limit the amount of debt securities that we may issue. It provides that we may issue debt securities up to the principal amount that we may authorize and may be in any currency or currency unit that we may designate. We may, without the consent of the holders of any series, increase the principal amount of securities in that series in the future, on the same terms and conditions and with the same CUSIP numbers as that series. Except for the limitations on consolidation, merger and sale of all or substantially all of our assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in our operations, financial condition or transactions involving us.

We may issue the debt securities issued under the indenture as discount securities, which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with original issue discount, or OID, for U.S. federal income tax purposes because of interest payment and other characteristics. Material U.S. federal income tax considerations applicable to debt securities issued with original issue discount will be described in more detail in any applicable prospectus supplement.

The applicable prospectus supplement for a series of debt securities that we issue will describe, among other things, the following terms of the offered debt securities:

- the title and authorized denominations of the series of debt securities;
- any limit on the aggregate principal amount of the series of debt securities;
- whether such debt securities will be issued in fully registered form without coupons or in a form registered as to principal only with coupons or in bearer form with coupons;
- whether issued in the form of one or more global securities and whether all or a portion of the principal amount of the debt securities is represented thereby;
- the price or prices at which the debt securities will be issued;
- the date or dates on which principal is payable;
- the place or places where and the manner in which principal, premium or interest, if any, will be payable and the place or places where the debt securities may be presented for transfer and, if applicable, conversion or

exchange;

- interest rates, and the dates from which interest, if any, will accrue, and the dates when interest is payable and the maturity;
- the right, if any, to extend the interest payment periods and the duration of the extensions;
- our rights or obligations to redeem or purchase the debt securities;
- any sinking fund or other provisions that would obligate us to repurchase or otherwise redeem some or all of the debt securities;
- conversion or exchange provisions, if any, including conversion or exchange prices or rates and adjustments thereto;
- the currency or currencies of payment of principal or interest;
- the terms applicable to any debt securities issued at a discount from their stated principal amount;
- the terms, if any, under which any debt securities will rank junior to any of our other debt;
- whether and upon what terms the debt securities may be defeased, if different from the provisions set forth in the indenture;
- if the amount of payments of principal or interest is to be determined by reference to an index or formula, or based on a coin or currency other than that in which the debt securities are stated to be payable, the manner in which these amounts are determined and the calculation agent, if any, with respect thereto;
- the provisions, if any, relating to any collateral provided for the debt securities;
- if other than the entire principal amount of the debt securities when issued, the portion of the principal amount payable upon acceleration of maturity as a result of a default on our obligations;
- the events of default and covenants relating to the debt securities that are in addition to, modify or delete those described in this prospectus;
- the nature and terms of any security for any secured debt securities; and
- any other specific terms of any debt securities.

The applicable prospectus supplement will present material U.S. federal income tax considerations for holders of any debt securities and the securities exchange or quotation system on which any debt securities are to be listed or quoted.

Senior Debt Securities

Payment of the principal of, premium and interest, if any, on senior debt securities will rank on a parity with all of our other secured/unsecured and unsubordinated debt.

Senior Subordinated Debt Securities

Payment of the principal of, premium and interest, if any, on senior subordinated debt securities will be junior in right of payment to the prior payment in full of all of our unsubordinated debt, including senior debt securities and any credit facility. We will state in the applicable prospectus supplement relating to any senior subordinated debt securities the subordination terms of the securities as well as the aggregate amount of outstanding debt, as of the most recent practicable date, that by its terms would be senior to the senior subordinated debt securities. We will also state in such prospectus supplement limitations, if any, on issuance of additional senior debt.

Subordinated Debt Securities

Payment of the principal of, premium and interest, if any, on subordinated debt securities will be subordinated and junior in right of payment to the prior payment in full of all of our senior debt, including our senior debt securities and senior subordinated debt securities. We will state in the applicable prospectus supplement relating to any subordinated debt securities the subordination terms of the securities as well as the aggregate amount of outstanding indebtedness, as of the most recent practicable date, that by its terms would be senior to the subordinated debt securities. We will also state in such prospectus supplement limitations, if any, on issuance of additional senior indebtedness.

Conversion or Exchange Rights

Debt securities may be convertible into or exchangeable for other securities, including, for example, shares of our equity securities. The terms and conditions of conversion or exchange will be stated in the applicable prospectus supplement. The terms will include, among others, the following:

- the conversion or exchange price;
- the conversion or exchange period;
- provisions regarding the ability of us or the holder to convert or exchange the debt securities;
- events requiring adjustment to the conversion or exchange price; and
- provisions affecting conversion or exchange in the event of our redemption of the debt securities.

Consolidation, Merger or Sale

We cannot consolidate or merge with or into, or transfer or lease all or substantially all of our assets to, any person, and we cannot permit any other person to consolidate with or merge into us, unless (1) we will be the continuing corporation or (2) the successor corporation or person to which our assets are transferred or leased is a corporation organized under the laws of the United States, any state of the United States or the District of Columbia and it expressly assumes our obligations under the debt securities and the indenture. In addition, we cannot complete such a transaction unless immediately after completing the transaction, no event of default under the indenture, and no event which, after notice or lapse of time or both, would become an event of default under the indenture, shall have occurred and be continuing. When the person to whom our assets are transferred or leased has assumed our obligations under the debt securities and the indenture, we shall be discharged from all our obligations under the debt securities and the indenture except in limited circumstances.

This covenant would not apply to any recapitalization transaction, a change of control of us or a highly leveraged transaction, unless the transaction or change of control were structured to include a merger or consolidation or transfer or lease of all or substantially all of our assets.

Events of Default

The term "Event of Default," when used in the indenture, unless otherwise indicated, means any of the following:

- failure to pay interest for 30 days after the date payment is due and payable;
- failure to pay principal or premium, if any, on any debt security when due, either at maturity, upon any redemption, by declaration or otherwise;
- failure to make sinking fund payments when due;
- failure to perform other covenants for 60 days after notice that performance was required;
- events in bankruptcy, insolvency or reorganization relating to us; or
- any other Event of Default provided in the applicable officer's certificate, resolution of our board of directors or the supplemental indenture under which we issue a series of debt securities.

An Event of Default for a particular series of debt securities does not necessarily constitute an Event of Default for any other series of debt securities issued under the indenture.

If an Event of Default with respect to any series of senior debt securities occurs and is continuing, then either the trustee for such series or the holders of a majority in aggregate principal amount of the outstanding debt securities of such series, by notice in writing, may declare the principal amount of and interest on all of the debt securities of such series to be due and payable immediately; provided, however, unless otherwise provided in the applicable prospectus supplement, if such an Event of Default occurs and is continuing with respect to more than one series of senior debt securities under the indenture, the trustee for such series or the holders of a majority in aggregate principal amount of

the outstanding debt securities of all such series of senior debt securities of equal ranking (or, if any of such senior debt securities are discount securities, such portion of the principal amount as may be specified in the terms of that series), voting as one class, may make such declaration of acceleration as to all series of such equal ranking and not the holders of the debt securities of any one of such series of senior debt securities.

If an Event of Default with respect to any series of subordinated securities occurs and is continuing, then either the trustee for such series or the holders of a majority in aggregate principal amount of the outstanding debt securities of such series, by notice in writing, may declare the principal amount of and interest on all of the debt securities of such series to be due and payable immediately; provided, however, unless otherwise provided in the applicable prospectus supplement, if such an Event of Default occurs and is continuing with respect to more than one series of subordinated securities under the indenture, the trustee for such series or the holders of a majority in aggregate principal amount of the outstanding debt securities of all such series of subordinated securities of equal ranking (or, if any of such subordinated securities are discount securities, such portion of the principal amount as may be specified in the terms of that series), voting as one class, may make such declaration of acceleration as to all series of equal ranking and not the holders of the debt securities of any one of such series of subordinated securities.

The holders of not less than a majority in aggregate principal amount of the debt securities of all affected series of equal ranking may, after satisfying certain conditions, rescind and annul any of the above-described declarations and consequences involving such series.

If an Event of Default relating to events in bankruptcy, insolvency or reorganization of us occurs and is continuing, then the principal amount of all of the debt securities outstanding, and any accrued interest, will automatically become due and payable immediately, without any declaration or other act by the trustee or any holder.

The indenture imposes limitations on suits brought by holders of debt securities against us. Except for actions for payment of overdue principal or interest, no holder of debt securities of any series may institute any action against us under the indenture unless:

- the holder has previously given to the trustee written notice of default and continuance of such default;
- the holders of not less than a majority in principal amount of the outstanding debt securities of the affected series of equal ranking have requested that the trustee institute the action;
- the requesting holders have offered the trustee reasonable indemnity for expenses and liabilities that may be incurred by bringing the action;
- the trustee has not instituted the action within 60 days of the request; and
- the trustee has not received inconsistent direction by the holders of a majority in principal amount of the outstanding debt securities of the affected series of equal ranking.

We will be required to file annually with the trustee a certificate, signed by one of our officers, stating whether or not the officer knows of any default by us in the performance, observance or fulfillment of any condition or covenant of the indenture.

Registered Global Securities and Book Entry System

The debt securities of a series may be issued in whole or in part in book-entry form and may be represented by one or more fully registered global securities or in unregistered form with or without coupons. We will deposit any registered global securities with a depositary or with a nominee for a depositary identified in the applicable prospectus supplement and registered in the name of such depositary or nominee. In such case, we will issue one or more registered global securities denominated in an amount equal to the aggregate principal amount of all of the debt securities of the series to be issued and represented by such registered global security or securities. This means that we will not issue certificates to each holder.

Unless and until it is exchanged in whole or in part for debt securities in definitive registered form, a registered global security may not be transferred except as a whole:

- by the depositary for such registered global security to its nominee;
- by a nominee of the depositary to the depositary or another nominee of the depositary; or

- by the depositary or its nominee to a successor of the depositary or a nominee of the successor.

The prospectus supplement relating to a series of debt securities will describe the specific terms of the depositary arrangement involving any portion of the series represented by a registered global security. We anticipate that the following provisions will apply to all depositary arrangements for registered debt securities:

- ownership of beneficial interests in a registered global security will be limited to persons that have accounts with the depositary for such registered global security, these persons being referred to as participants, or persons that may hold interests through participants;
- upon the issuance of a registered global security, the depositary for the registered global security will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the debt securities represented by the registered global security beneficially owned by the participants;
- any dealers, underwriters, or agents participating in the distribution of the debt securities represented by a registered global security will designate the accounts to be credited; and
- ownership of beneficial interest in such registered global security will be shown on, and the transfer of such ownership interest will be effected only through, records maintained by the depositary for such registered global security for interests of participants, and on the records of participants for interests of persons holding through participants.

The laws of some states may require that specified purchasers of securities take physical delivery of the securities in definitive form. These laws may limit the ability of those persons to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary for a registered global security, or its nominee, is the registered owner of such registered global security, the depositary or such nominee, as the case may be, will be considered the sole owner or holder of the debt securities represented by the registered global security for all purposes under the indenture. Except as stated below, owners of beneficial interests in a registered global security:

- will not be entitled to have the debt securities represented by a registered global security registered in their names;
- will not receive or be entitled to receive physical delivery of the debt securities in the definitive form; and
- will not be considered the owners or holders of the debt securities under the relevant indenture.

Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depositary for the registered global security and, if the person is not a participant, on the procedures of a participant through which the person owns its interest, to exercise any rights of a holder under the indenture.

We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the indenture, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take the action, and the participants would authorize beneficial owners owning through the participants to give or take the action or would otherwise act upon the instructions of beneficial owners holding through them.

We will make payments of principal and premium, if any, and interest, if any, on debt securities represented by a registered global security registered in the name of a depositary or its nominee to the depositary or its nominee, as the case may be, as the registered owners of the registered global security. None of us, the trustee or any other agent of ours or the trustee will be responsible or liable for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to the beneficial ownership interests.

We expect that the depositary for any debt securities represented by a registered global security, upon receipt of any payments of principal and premium, if any, and interest, if any, in respect of the registered global security, will immediately credit participants' accounts with payments in amounts proportionate to their respective beneficial interests in the registered global security as shown on the records of the depositary. We also expect that standing customer instructions and customary practices will govern payments by participants to owners of beneficial interests in the registered global security held through the participants, as is now the case with the securities held for the accounts of customers in bearer form or registered in street name. We also expect that any of these payments will be the responsibility of the participants.

If the depositary for any debt securities represented by a registered global security is at any time unwilling or unable to continue as depositary or stops being a clearing agency registered under the Exchange Act, we will appoint an eligible successor depositary. If we fail to appoint an eligible successor depositary within 90 days, we will issue the debt securities in definitive form in exchange for the registered global security. In addition, we may at any time and in our sole discretion decide not to have any of the debt securities of a series represented by one or more registered global securities. In that event, we will issue debt securities of the series in a definitive form in exchange for all of the registered global securities representing the debt securities. The trustee will register any debt securities issued in definitive form in exchange for a registered global security in the name or names as the depositary, based upon instructions from its participants, shall instruct the trustee.

We may also issue bearer debt securities of a series in the form of one or more global securities, referred to as bearer global securities. The prospectus supplement relating to a series of debt securities represented by a bearer global security will describe the applicable terms and procedures. These will include the specific terms of the depositary arrangement and any specific procedures for the issuance of debt securities in definitive form in exchange for a bearer global security, in proportion to the series represented by a bearer global security.

Discharge, Defeasance and Covenant Defeasance

We can discharge or decrease our obligations under the indenture as stated below.

We may discharge obligations to holders of any series of debt securities that have not already been delivered to the trustee for cancellation and that have either become due and payable or are by their terms to become due and payable, or are scheduled for redemption, within sixty (60) days. We may effect a discharge by irrevocably depositing with the trustee cash or U.S. government obligations, as trust funds, in an amount certified to be enough to pay when due, whether at maturity, upon redemption or otherwise, the principal of, premium and interest, if any, on the debt securities and any mandatory sinking fund payments.

Unless otherwise provided in the applicable prospectus supplement, we may also discharge any and all of our obligations to holders of any series of debt securities at any time, which we refer to as defeasance. We may also be released from the obligations imposed by any covenants of any outstanding series of debt securities and provisions of the indenture, and we may omit to comply with those covenants without creating an event of default under the trust declaration, which we refer to as covenant defeasance. We may effect defeasance and covenant defeasance only if, among other things:

- we irrevocably deposit with the trustee cash or U.S. government obligations, as trust funds, in an amount certified to be enough to pay at maturity, or upon redemption, the principal, premium and interest, if any, on all outstanding debt securities of the series;
- we deliver to the trustee an opinion of counsel from a nationally recognized law firm to the effect that the holders of the series of debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the defeasance or covenant defeasance and that defeasance or covenant defeasance will not otherwise alter the holders' U.S. federal income tax treatment of principal, premium and interest, if any, payments on the series of debt securities; and
- in the case of subordinated debt securities, no event or condition shall exist that, based on the subordination provisions applicable to the series, would prevent us from making payments of principal of, premium and interest, if any, on any of the applicable subordinated debt securities at the date of the irrevocable deposit referred to above or at any time during the period ending on the 91st day after the deposit date.

In the case of a defeasance by us, the opinion we deliver must be based on a ruling of the Internal Revenue Service issued, or a change in U.S. federal income tax law occurring, after the date of the indenture, since such a result would not occur under the U.S. federal income tax laws in effect on such date.

Although we may discharge or decrease our obligations under the indenture as described in the two preceding paragraphs, we may not avoid, among other things, our duty to register the transfer or exchange of any series of debt securities, to replace any temporary, mutilated, destroyed, lost or stolen series of debt securities or to maintain an office or agency in respect of any series of debt securities.

Modification of the Indenture

The indenture provides that we and the trustee may enter into supplemental indentures without the consent of the holders of debt securities to:

- secure any debt securities and provide the terms and conditions for the release or substitution of the security;
- evidence the assumption by a successor corporation of our obligations;
- add covenants for the protection of the holders of debt securities;
- add any additional events of default;
- cure any ambiguity or correct any inconsistency or defect in the indenture;
- add to, change or eliminate any of the provisions of the indenture in a manner that will become effective only when there is no outstanding debt security which is entitled to the benefit of the provision as to which the modification would apply;
- establish the forms or terms of debt securities of any series;
- eliminate any conflict between the terms of the indenture and the Trust Indenture Act of 1939;
- evidence and provide for the acceptance of appointment by a successor trustee and add to or change any of the provisions of the indenture as is necessary for the administration of the trusts by more than one trustee; and
- make any other provisions with respect to matters or questions arising under the indenture that will not be inconsistent with any provision of the indenture as long as the new provisions do not adversely affect the interests of the holders of any outstanding debt securities of any series created prior to the modification.

The indenture also provides that we and the trustee may, with the consent of the holders of not less than a majority in aggregate principal amount of debt securities of all series of senior debt securities or of Subordinated Securities of equal ranking, as the case may be, then outstanding and affected, voting as one class, add any provisions to, or change in any manner, eliminate or modify in any way the provisions of, the indenture or modify in any manner the rights of the holders of the debt securities. We and the trustee may not, however, without the consent of the holder of each outstanding debt security affected thereby:

- extend the final maturity of any debt security;
- reduce the principal amount or premium, if any;
- reduce the rate or extend the time of payment of interest;
- reduce any amount payable on redemption or impair or affect any right of redemption at the option of the holder of the debt security;
- change the currency in which the principal, premium or interest, if any, is payable;
- reduce the amount of the principal of any debt security issued with an original issue discount that is payable upon acceleration or provable in bankruptcy;
- alter provisions of the relevant indenture relating to the debt securities not denominated in U.S. dollars;
- impair the right to institute suit for the enforcement of any payment on any debt security when due;
- if applicable, adversely affect the right of a holder to convert or exchange a debt security; or
- reduce the percentage of holders of debt securities of any series whose consent is required for any modification of the indenture.

The indenture provides that the holders of not less than a majority in aggregate principal amount of the then outstanding debt securities of any and all affected series of equal ranking, by notice to the relevant trustee, may on behalf of the holders of the debt securities of any and all such series of equal ranking waive any default and its consequences under the indenture except:

- a continuing default in the payment of interest on, premium, if any, or principal of, any such debt security held by a non-consenting holder; or
- a default in respect of a covenant or provision of the indenture that cannot be modified or amended without the consent of the holder of each outstanding debt security of each series affected.

Concerning the Trustee

The indenture provides that there may be more than one trustee under the indenture, each for one or more series of debt securities. If there are different trustees for different series of debt securities, each trustee will be a trustee of a trust under the indenture separate and apart from the trust administered by any other trustee under that indenture.

Except as otherwise indicated in this prospectus or any prospectus supplement, any action permitted to be taken by a trustee may be taken by such trustee only on the one or more series of debt securities for which it is the trustee under the indenture. Any trustee under the indenture may resign or be removed from one or more series of debt securities. All payments of principal of, premium and interest, if any, on, and all registration, transfer, exchange, authentication and delivery of, the debt securities of a series will be effected by the trustee for that series at an office designated by the trustee.

If the trustee becomes a creditor of ours, the indenture places limitations on the right of the trustee to obtain payment of claims or to realize on property received in respect of any such claim as security or otherwise. The trustee may engage in other transactions. If it acquires any conflicting interest relating to any duties concerning the debt securities, however, it must eliminate the conflict or resign as trustee.

The holders of a majority in aggregate principal amount of any and all affected series of debt securities of equal ranking then outstanding will have the right to direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee concerning the applicable series of debt securities, provided that the direction:

- would not conflict with any rule of law or with the relevant indenture;
- would not be unduly prejudicial to the rights of another holder of the debt securities;
- and would not involve any trustee in personal liability.

The indenture provides that in case an Event of Default shall occur, not be cured and be known to any trustee, the trustee must use the same degree of care as a prudent person would use in the conduct of his or her own affairs in the exercise of the trustee's power. The trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they shall have offered to the trustee security and indemnity satisfactory to the trustee.

No Individual Liability of Incorporators, Stockholders, Officers or Directors

The indenture provides that no incorporator and no past, present or future stockholder, officer or director of ours or any successor corporation in their capacity as such shall have any individual liability for any of our obligations, covenants or agreements under the debt securities or the indenture.

Governing Law

The indenture and the debt securities will be governed by, and construed in accordance with, the laws of the State of New York.

DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The applicable prospectus supplement may describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any additional terms of the governing unit agreement.

The applicable prospectus supplement will describe the terms of any units.

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus in any one or more of the following ways from time to time:

- directly to investors, including through a specific bidding, auction or other process;
- to investors through agents;
- directly to agents;
- to or through brokers or dealers;
- to the public through underwriting syndicates led by one or more managing underwriters;
- to one or more underwriters acting alone for resale to investors or to the public; and
- through a combination of any such methods of sale.

We may also sell and distribute the securities offered by this prospectus from time to time in one or more transactions, including in at the market offerings within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise. We may sell our securities through a rights offering, forward contracts or similar arrangements.

The accompanying prospectus supplement will set forth the terms of the offering and the method of distribution and will identify any firms acting as underwriters, dealers or agents in connection with the offering, including:

- the name or names of any underwriters, dealers or agents;
- the purchase price of the securities and the proceeds to us from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any underwriting discounts and other items constituting compensation to underwriters, dealers or agents;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities offered in the prospectus supplement may be listed.

Only those underwriters identified in such prospectus supplement are deemed to be underwriters in connection with the securities offered in the prospectus supplement. Any underwritten offering may be on a best efforts or a firm commitment basis.

The distribution of the securities may be effected from time to time in one or more transactions at a fixed price or prices, which may be changed, at varying prices determined at the time of sale, or at prices determined as the applicable prospectus supplement specifies. The securities may be sold through a rights offering, forward contracts or similar arrangements. In any distribution of subscription rights to stockholders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to sell the unsubscribed securities to third parties.

In connection with the sale of the securities, underwriters, dealers or agents may be deemed to have received compensation from us in the form of underwriting discounts or commissions and also may receive commissions from securities purchasers for whom they may act as agent. Underwriters may sell the securities to or through dealers, and the dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agent.

We will provide in the applicable prospectus supplement information regarding any underwriting discounts or other compensation that we pay to underwriters or agents in connection with the securities offering, and any discounts, concessions or commissions which underwriters allow to dealers. Underwriters, dealers and agents participating in the securities distribution may be deemed to be underwriters, and any discounts and commissions they receive and any profit they realize on the resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act. Underwriters and their controlling persons, dealers and agents may be entitled, under agreements entered into with us, to indemnification against and contribution toward specific civil liabilities, including liabilities under the Securities Act.

Unless otherwise specified in the related prospectus supplement, each series of securities will be a new issue with no established trading market, other than shares of common stock, which are listed on the Nasdaq Capital Market. Any common stock sold pursuant to a prospectus supplement will be listed on the Nasdaq Capital Market, subject to official notice of issuance. We may elect to list any series of debt securities or preferred stock, on an exchange, but we are not obligated to do so. It is possible that one or more underwriters may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. No assurance can be given as to the liquidity of, or the trading market for, any offered securities.

In connection with an offering, the underwriters may purchase and sell securities in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in an offering. Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of the securities while an offering is in progress. The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased securities sold by or for the account of that underwriter in stabilizing or short-covering transactions. These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the securities. As a result, the price of the securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. Underwriters may engage in over-allotment. If any underwriters create a short position in the securities in an offering in which they sell more securities than are set forth on the cover page of the applicable prospectus supplement, the underwriters may reduce that short position by purchasing the securities in the open market.

Underwriters, dealers or agents that participate in the offer of securities, or their affiliates or associates, may have engaged or engage in transactions with and perform services for, us or our affiliates in the ordinary course of business for which they may have received or receive customary fees and reimbursement of expenses.

LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon for us by Gary R. Henrie, Esq., 8275 S. Eastern Ave., Suite 200, Las Vegas, Nevada.

EXPERTS

The consolidated financial statements of the Company for the years ended December 31, 2012 and 2011 incorporated in this prospectus by reference have been audited by Anderson Bradshaw PLLC, an independent registered public accounting firm, and are incorporated in reliance upon their report dated February 22, 2013, given upon such firm's authority as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered in this offering. This prospectus does not contain all of the information set forth in the registration statement. For further information with respect to us and the securities offered in this offering, we refer you to the registration statement and to the attached exhibits. With respect to each such document filed as an exhibit to the registration statement, we refer you to the exhibit for a more complete description of the matters involved.

You may inspect our registration statement and the attached exhibits and schedules without charge at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. You may obtain copies of all or any part of our registration statement from the SEC upon payment of prescribed fees. You may obtain information on the operation of the public reference room by calling the SEC at 1-800-SEC-0330.

Our SEC filings, including the registration statement and the exhibits filed with the registration statement, are also available from the SEC's website at www.sec.gov, which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference in this prospectus certain of the information we file with the SEC. This means we can disclose important information to you by referring you to another document that has been filed separately with the SEC. The information incorporated by reference is considered to be part of this prospectus, and will modify and supersede the information included in this prospectus to the extent that the information included as incorporated by reference modifies or supersedes the existing information. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus. We incorporate by reference the documents listed below and all additional documents that we file with the SEC under the terms of Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, that are made after the initial filing date of the registration statement of which this prospectus is a part and before the termination of any offering of securities offered by this prospectus.

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, filed March 1, 2013; and
- The description of our common stock, \$0.001 par value per share, contained in our Registration Statement on Form 8-A, filed on July 18, 2006 pursuant to Section 12(b) of the Exchange Act, as amended.

Any statement made in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual document. You may obtain a copy of any document summarized in this prospectus and any or all of the information that has been incorporated by reference in this prospectus at no cost by writing or calling us at our mailing address and telephone number: Lightbridge Corporation, 1600 Tysons Boulevard, Suite 550, McLean, Virginia, 22102; telephone number: (571) 730-1200. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

You may read and copy all materials that we have filed with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Additionally, all reports and documents that we have filed with the SEC can be

obtained from the SEC's Internet Site at <http://www.sec.gov>, or by visiting our website at www.ltbridge.com.

2,500,000 Shares of Common Stock
Warrants to Purchase up to 1,250,000 Shares of Common Stock

LIGHTBRIDGE CORPORATION

Prospectus Supplement
October 22, 2013

William Blair
