PLUG POWER INC Form 424B5 December 19, 2016

Use these links to rapidly review the document <a href="TABLE OF CONTENTS">TABLE OF CONTENTS</a>

Table of Contents

Filed Pursuant to Rule 424(b)(5) Registration Statement No. 333-21473

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 19, 2016

Prospectus Supplement to Prospectus dated December 9, 2016

# Shares of Series D Convertible Preferred Stock Warrants to Purchase up to Shares of Common Stock

We are offering shares of our Series D convertible preferred stock and warrants to purchase up to shares of our common stock in this offering. This prospectus supplement also covers the shares of common stock issuable from time to time upon exercise of these warrants, and the shares of common stock issuable upon conversion or redemption of the Series D convertible preferred stock. Each share of Series D convertible preferred stock has an initial stated value of \$1,000 per share and is being sold together with 5.5-year warrants to purchase one share of common stock at an initial exercise price of \$ per share. The warrants are exercisable from and after the six-month anniversary of the issuance date. The shares of Series D convertible preferred stock and warrants will be issued separately.

Our common stock is traded on the NASDAQ Capital Market under the symbol "PLUG." The last reported sale price of our common stock on the NASDAQ Capital Market on December 16, 2016 was \$1.32 per share. There is no established trading market for the Series D convertible preferred stock or any of the warrants and we do not expect a market to develop. We do not intend to apply for a listing of any of the Series D convertible preferred stock or the warrants on any national securities exchange.

Investing in our securities involves risks. See "Risk Factors" beginning on page S-13 of this prospectus supplement.

	Per Fix	æd
	Combina	ation Total
Public offering price(1)	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to Plug Power Inc.(2)	\$	\$

- (1)
  Initial gross proceeds. If the warrants to purchase common stock are exercised in full, we will receive additional gross proceeds of \$ per fixed combination, or \$ million in the aggregate.
- (2)

  If the warrants to purchase common stock are exercised in full, net proceeds will increase to \$ per fixed combination, or \$ million in the aggregate.

We expect that the entire amount of securities offered hereby as well as the entire amount of shares and warrants being sold in the Common Offering (as defined below) will be purchased by one or more institutional investors at the public offering price thereof.

The underwriter expects to deliver the shares of preferred stock and the warrants on or about December, 2016.

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

## Oppenheimer & Co.

Prospectus Supplement dated December , 2016.

## Table of Contents

## TABLE OF CONTENTS

	Page
Prospectus Supplement	O
About This Prospectus Supplement	<u>S-1</u>
Where You Can Find Additional Information	<u>S-2</u>
Incorporation by Reference	<u>S-2</u>
Special Note Regarding Forward-Looking Statements	<u>S-4</u>
Summary	<u>S-5</u>
The Offering	<u>S-8</u>
Summary Selected Consolidated Financial Data	<u>S-11</u>
Risk Factors	<u>S-13</u>
<u>Use of Proceeds</u>	<u>S-22</u>
Ratio of Earnings to Fixed Charges and Preference Security Dividends	<u>S-23</u>
<u>Dilution</u>	<u>S-24</u>
<u>Description of Securities</u>	<u>S-26</u>
Price Range of Common Stock	<u>S-35</u>
<u>Dividend Policy</u>	<u>S-36</u>
<u>Capitalization</u>	<u>S-37</u>
<u>Underwriting</u>	<u>S-39</u>
Material U.S. Federal Income Tax Considerations for U.S. Holders	<u>S-44</u>
<u>Legal Matters</u>	<u>S-50</u>
<u>Experts</u>	<u>S-50</u>
Exhibit A: Form of Certificate of Designations for Series D Convertible Preferred Stock	<u>A-1</u>

	Page
Accompanying Prospectus	
About This Prospectus	<u>1</u>
Summary	<u>2</u>
Risk Factors	<u>6</u>
Forward-Looking Statements	<u>6</u>
Ratio of Combined Fixed Charges and Preference Dividends to Earnings	<u>8</u>
<u>Use of Proceeds</u>	<u>8</u>
<u>Plan of Distribution</u>	<u>8</u>
<u>Description of Capital Stock</u>	<u>11</u>
<u>Description of Warrants</u>	<u>18</u>
<u>Description of Our Debt Securities</u>	<u>21</u>
<u>Description of Units</u>	<u>28</u>
<u>Legal Matters</u>	<u>29</u>
Experts	<u>29</u>
Where You Can Find Additional Information	<u>29</u>
Incorporation of Certain Information by Reference	<u>30</u>
S-i	

#### Table of Contents

#### ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of the registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference, gives more general information, some of which may not apply to this offering. Generally, when we refer only to the "prospectus," we are referring to both parts combined. This prospectus supplement may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference include important information about us, the securities being offered and other information you should know before investing in our securities. You should also read and consider information in the documents we have referred you to in the section of this prospectus supplement and the accompanying prospectus entitled "Incorporation by Reference," "Incorporation of Certain Information by Reference" and "Where You Can Find Additional Information" as well as any free writing prospectus provided in connection with this offering.

You should rely only on this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering and the information incorporated or deemed to be incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering. If anyone provides you with different or inconsistent information, you should not rely on it. We are not offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus provided in connection with this offering is accurate as of any date other than as of the date of this prospectus supplement, the accompanying prospectus, or such free writing prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

All references in this prospectus supplement or the accompanying prospectus to "Plug Power," the "Company," "we," "us," or "our" mean Plug Power Inc. and our subsidiaries, unless we state otherwise or the context otherwise requires.

No action is being taken in any jurisdiction outside the United States to permit a public offering of the securities or possession or distribution of this prospectus supplement. the accompanying prospectus, or any free writing prospectus provided in connection with this offering in that jurisdiction. Persons who come into possession of this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering applicable to that jurisdiction.

#### Table of Contents

## WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the Series D convertible preferred stock and the warrants offered by this prospectus supplement and the accompanying prospectus. This prospectus supplement, filed as part of the registration statement, does not contain all the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, we refer you to the registration statement and to its exhibits and schedules.

We file annual, quarterly and current reports and other information with the SEC. You may read and copy any materials we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the Public Reference Room. The SEC also maintains an internet website at www.sec.gov that contains periodic and current reports, proxy and information statements, and other information regarding registrants that are filed electronically with the SEC.

These documents are also available, free of charge, through the Investors section of our website, which is located at www.plugpower.com. Information contained on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus and you should not consider information on our website to be part of this prospectus supplement or the accompanying prospectus.

#### INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933, as amended, with the SEC with respect to the securities being offered pursuant to this prospectus supplement and the accompanying prospectus omit certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits thereto, for further information about us and the securities being offered pursuant to this prospectus supplement and the accompanying prospectus. Statements in this prospectus supplement and the accompanying prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in "Where You Can Find More Information." The documents we are incorporating by reference are:

our Annual Report on Form 10-K for the year ended December 31, 2015, filed on March 15, 2016;

the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2015 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 15, 2016;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, filed on May 10, 2016, August 9, 2016 and November 8, 2016, respectively;

our Current Reports on Form 8-K filed on March 4, 2016 (except for information contained therein which is furnished rather than filed), May 23, 2016, June 30, 2016 (except for information contained therein which is furnished rather than filed) and December 19, 2016; and

#### **Table of Contents**

the section entitled "Description of Registrant's Securities to be Registered" contained in our Registration Statement on Form 8-A, filed pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended , or the Exchange Act, on June 24, 2009, as amended by the Amendment No. 1 to Form 8-A filed by the Company with the SEC on May 6, 2011, the Amendment No. 2 to Form 8-A filed by the Company with the SEC on March 19, 2012, the Amendment No. 3 to Form 8-A filed by the Company with the SEC on February 13, 2013, the Amendment No. 5 to Form 8-A filed by the Company with the SEC on May 20, 2013 and the Amendment No. 6 to Form 8-A filed by the Company with the SEC on

In addition, all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed in such forms that are related to such items unless such Form 8-K expressly provides to the contrary) subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this prospectus supplement and the accompanying prospectus.

Any statement contained in this prospectus supplement and the accompanying prospectus, or any free writing prospectus provided in connection with this offering or in a document incorporated or deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus will be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement and the accompanying prospectus, or any free writing prospectus provided in connection with this offering or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement and the accompanying prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to Plug Power Inc., 968 Albany-Shaker Road, Latham, New York, 12110, Attention: General Counsel, or by telephone request to (518) 782-7700.

You should rely only on information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering. We have not authorized anyone to provide you with information different from that contained in this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering or incorporated by reference in this prospectus supplement and the accompanying prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or to anyone to whom it is unlawful to make such offer or solicitation.

#### Table of Contents

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus contain and/or incorporate by reference statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These forward-looking statements contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases you can identify these statements by forward-looking words such as "anticipate," "believe," "could," "continue,' "estimate," "expect," "intend," "may," "should," "will," "would," "plan," "projected" or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Investors are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to: the risk that we continue to incur losses and might never achieve or maintain profitability; the risk that we will need to raise additional capital to fund our operations and such capital may not be available to us; the risk of dilution to our stockholders and/or a decrease in our stock price should we need to raise additional capital; the risk that our lack of extensive experience in manufacturing and marketing products may impact our ability to manufacture and market products on a profitable and large-scale commercial basis; the risk that unit orders will not ship, be installed and/or be converted to revenue, in whole or in part; the risk that a loss of one or more of our major customers could result in a material adverse effect on our financial condition; the risk that a sale of a significant number of shares of stock could depress the market price of our common stock; the risk that negative publicity related to our business or stock could result in a negative impact on our stock value and profitability; the risk of potential losses related to any product liability claims or contract disputes; the risk of loss related to an inability to maintain an effective system of internal controls; our ability to attract and maintain key personnel; the risks related to the use of flammable fuels in our products; the risk that pending orders may not convert to purchase orders, in whole or in part; the cost and timing of developing, marketing and selling our products and our ability to raise the necessary capital to fund such costs; our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers; the ability to achieve the forecasted gross margin on the sale of our products; the cost and availability of fuel and fueling infrastructures for our products; the risk of elimination of government subsidies and economic incentives for alternative energy products; market acceptance of our products and services, including GenDrive units; our ability to establish and maintain relationships with third parties with respect to product development, manufacturing, distribution and servicing and the supply of key product components; the cost and availability of components and parts for our products; our ability to develop commercially viable products; our ability to reduce product and manufacturing costs; our ability to successfully market, distribute and service our products and services internationally; our ability to improve system reliability for our products; competitive factors, such as price competition and competition from other traditional and alternative energy companies; our ability to protect our intellectual property; the cost of complying with current and future federal, state and international governmental regulations; the risks associated with potential future acquisitions; the volatility of our stock price; and other risks and uncertainties referenced under "Risk Factors" of this prospectus supplement and in the accompanying prospectus or any free writing prospectus provided in connection with this offering and any documents incorporated by reference herein or therein. Readers should not place undue reliance on our forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this prospectus supplement or the respective dates of documents incorporated herein or therein or any free writing prospectus provided in connection with this offering that include forward-looking statements.

#### Table of Contents

#### **SUMMARY**

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary may not contain all the information that you should consider before investing in our securities. You should read the entire prospectus supplement and the accompanying prospectus carefully, including "Risk Factors" contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and the financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. This prospectus supplement may add to, update or change information in the accompanying prospectus.

#### Overview

We are a leading provider of alternative energy technology focused on the design, development, commercialization and manufacture of hydrogen fuel cell systems used primarily for the material handling and stationary power market.

We are focused on proton exchange membrane, or PEM, fuel cell and fuel processing technologies, fuel cell/battery hybrid technologies, and associated hydrogen storage and dispensing infrastructure from which multiple products are available. A fuel cell is an electrochemical device that combines hydrogen and oxygen to produce electricity and heat without combustion. Hydrogen is derived from hydrocarbon fuels such as liquid petroleum gas, or LPG, natural gas, propane, methanol, ethanol, gasoline or biofuels. Plug Power develops complete hydrogen delivery, storage and refueling solutions for customer locations. Hydrogen can also be obtained from the electrolysis of water, or produced on-site at consumer locations through a process known as reformation. Currently the Company obtains hydrogen by purchasing it from fuel suppliers for resale to customers.

We provide and continue to develop fuel cell product solutions to replace lead-acid batteries in material handling vehicles and industrial trucks for some of the world's largest distribution and manufacturing businesses. We are focusing our efforts on material handling applications (forklifts) at multi-shift high volume manufacturing and high throughput distribution sites where our products and services provide a unique combination of productivity, flexibility and environmental benefits. Our current product line includes: GenDrive, our hydrogen fueled PEM fuel cell system providing power to material handling vehicles; GenFuel, our hydrogen fueling delivery system; GenCare, our ongoing maintenance program for both the GenDrive fuel cells and GenFuel products; GenSure (formerly ReliOn), our stationary fuel cell solution providing scalable, modular PEM fuel cell power to support the backup and grid-support power requirements of the telecommunications, transportation, and utility sectors; GenKey, our turn-key solution combining either GenDrive or GenSure with GenFuel and GenCare, offering complete simplicity to customers transitioning to fuel cell power; and GenFund, a collaboration with leasing organizations to provide cost efficient and seamless financing solutions to customers.

We provide our products worldwide through our direct product sales force, and by leveraging relationships with original equipment manufacturers, or OEMs, and their dealer networks.

We were organized in the State of Delaware on June 27, 1997.

Our principal executive offices are located at 968 Albany-Shaker Road, Latham, New York, 12110, and our telephone number is (518) 782-7700. Our corporate website address is www.plugpower.com. The information on our website is not part of this prospectus supplement or the accompanying prospectus.

#### **Table of Contents**

## **Recent Developments**

## Common Offering

Concurrently with this offering, we intend to conduct an underwritten offering, which we refer to as our Common Offering, of our common stock, together with warrants to purchase shares of our common stock, at a public offering price per fixed combination of \$\ \]. The warrants offered in our Common Offering are identical to the warrants offered by this offering, and will be exercisable during the period commencing on the six-month anniversary of the date of original issuance and ending five years from such six-month anniversary at an exercise price of \$\ \] per share of common stock. See the section of this prospectus supplement captioned "Description of Securities Warrants" for a summary of the terms of the warrants to purchase shares of our common stock. This offering is conditioned upon the completion of the Common Offering.

## Hercules Loan Facility

We are party to a Loan and Security Agreement with Hercules Capital, Inc., or Hercules, which provides us a secured term loan facility with an outstanding principal balance of \$25.0 million as of December 12, 2016 (the "Loan Facility"). Under the Loan Facility, we are required to comply with certain financial covenants, including maintaining a minimum level of unrestricted cash subject to an account control agreement in favor of Hercules in an amount equal to (a) 75% of our outstanding obligations under the Loan Facility plus (b) an amount equal to our outstanding accounts payable that are more than 150 days past due (if any). We failed to maintain the minimum level of unrestricted cash required by this covenant and Hercules has provided us a limited waiver, under which Hercules has waived the covenant default and modified the minimum cash covenant. We intend to use the net proceeds of this offering and the Common Offering, together with our existing cash and cash equivalents, to prepay the outstanding principal amount of our loan with Hercules and pay the fees and expenses related to such loan, which, as of the date of this prospectus supplement, totaled \$29.0 million.

#### **Debt Financing**

As part of our business strategy in the ordinary course of business, we regularly consider alternatives for financings, including debt and equity financings, on an opportunistic basis. For example, as of the date of this prospectus supplement, we are in negotiations with a debt lender for a senior secured loan in the aggregate amount of \$25.0 million, subject to the successful negotiation of definitive loan documents. There can be no assurance that such financing will be consummated.

#### Acquisitions

As part of our business strategy, we intend to consider acquisitions of companies, technologies and products that we believe could improve our ability to compete in our core markets or allow us to enter new markets. For example, as of the date of this prospectus supplement, we are in negotiations to acquire a company in Europe that develops technology to produce industrial gas supplies, which we believe, if successfully acquired and integrated into our operations, may advance our hydrogen fueling strategy. We expect that the purchase price of this acquisition will be approximately  $\in 10.0$  million. There can be no assurance that we can successfully negotiate and enter into definitive agreements for this acquisition or, even if definitive agreements are executed, that we can successfully consummate this acquisition or integrate the acquired business into our operations.

## Table of Contents

## Waivers

In connection with this offering and the Common Offering, we obtained a waiver from Air Liquide Investissements d'Avenir et de Demonstration, or Air Liquide, the sole holder of our Series C convertible preferred stock, pursuant to which Air Liquide agreed to waive their rights to purchase our securities in this offering and the Common Offering, and agreed that the issuance of the securities in this offering and the Common Offering will not result in an anti-dilution adjustment attached to the shares of our Series C convertible preferred stock. In addition, we amended our shareholder rights agreement to exempt the issuance of the securities in this offering and the Common Offering to the investor therein from triggering our shareholder rights plan.

S-7

#### **Table of Contents**

## THE OFFERING

Preferred Stock offered by us shares of Series D convertible preferred stock, par value \$0.01 per share. This prospectus supplement also relates to the offering of the shares of common stock issuable upon conversion or redemption (in accordance with the terms thereof) of the Series D convertible preferred stock. Description of Preferred Stock Each share of Series D convertible preferred stock has an initial stated value of \$1,000 per share, subject to adjustment as described herein. Shares of the Series D convertible preferred stock are convertible at a rate equal to the "Conversion Price," as further described herein. The Conversion Price initially will be \$ per share, subject to adjustment as described herein. See the section entitled "Description of Securities Series D Convertible Preferred Stock" beginning on page S-26 of this prospectus supplement for a description of the Series D convertible preferred stock. Common Stock Warrants offered by us We are offering warrants to purchase up to shares of common stock, which will be exercisable during the period commencing on the six-month anniversary of the date of original issuance and ending five years from such six-month anniversary at an exercise price of per share of common stock. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the warrants. There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange or other nationally recognized trading system. Series D convertible preferred stock to be outstanding after this offering shares Common stock to be outstanding after this offering shares

S-8

#### **Table of Contents**

No Market for Series D convertible preferred stock There is no established public trading market for the Series D convertible preferred stock or the warrants issued in this offering, and we do not intend to apply to list such Series D convertible preferred stock or warrants on any securities exchange or automated quotation system. Risk Factors See "Risk Factors" beginning on page S-13 of this prospectus supplement and other information included or incorporated into this prospectus supplement and the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to invest in our securities. Use of proceeds We estimate that the net proceeds from this offering will be approximately \$ after deducting underwriting discounts and commissions and offering expenses. We intend to use the net proceeds of this offering and the Common Offering, together with our existing cash and cash equivalents, to prepay the outstanding principal amount of our loan with Hercules and pay the fees and expenses related to such loan, which, as of the date of this prospectus supplement, totaled \$29.0 million. NASDAO Capital Market Symbol **PLUG** The number of shares of our common stock to be outstanding after the offering is based on 180,431,759 shares of common stock outstanding as of September 30, 2016, assumes no conversion or exercise of the warrants offered hereby and excludes: 14,982,570 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$2.87 per share; 1,057,877 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016; 577,376 shares of common stock in treasury;

26,667 shares of common stock issuable upon the vesting of restricted stock units;

5,554,594 shares of common stock issuable upon conversion of our Series C Redeemable Convertible Preferred Stock at a conversion price of \$0.2343 per share;

4,000,100 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.00 per share. With respect to 4,000,000 of such shares underlying such warrants, an issuance of securities by us at a price below \$4.00 per share results in the adjustment of the exercise price of such warrants to be equal to the issuance price of such securities, which, as measured in accordance with the terms of such warrants, is expected to result in an exercise price of less than \$1.00 per share, and may be significantly less than \$1.00 per share; and

## Table of Contents

shares of common stock and shares of common stock issuable upon exercise of warrants that we are simultaneously offering in our in our Common Offering. See "Summary Recent Developments" for more information.

Except as otherwise indicated, all information in this prospectus supplement is as of September 30, 2016, and gives no effect to the Common Offering.

S-10

## SUMMARY SELECTED CONSOLIDATED FINANCIAL DATA

The following tables set forth selected financial data and other operating information of the Company. The selected statements of operations and balance sheet data as of, and for the years ended, December 31, 2015, 2014, 2013, 2012 and 2011 as set forth below are derived from our audited consolidated financial statements certain of which are incorporated by reference into the accompanying prospectus from our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 15, 2016, and incorporated by reference herein. The selected statements of operations data for the nine months ended September 30, 2016 and 2015, and the selected balance sheet data as of September 30, 2016 as set forth below are derived from our unaudited interim consolidated financial statements that are incorporated by reference into the accompanying prospectus from our Quarterly Report on Form 10-Q for the nine months ended September 30, 2016, filed with the SEC on November 8, 2016. The selected balance sheet data as of September 30, 2015 as set forth below are derived from our unaudited interim consolidated financial statements not incorporated by reference into the accompanying prospectus. The unaudited consolidated financial statements have been prepared on a basis consistent with our audited consolidated financial statements incorporated by reference into this prospectus supplement and the accompanying prospectus and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to fairly state our financial position as of and our results of operations for the nine months ended September 30, 2016 and 2015. Our historical results are not necessarily indicative of the results that may be expected in the future, and our interim period results are not necessarily indicative of results to be expected for a full year or any other interim period. The information is only a summary and you should read it in conjunction with our audited consolidated financial statements, including the related notes, and other financial information and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference into this prospectus supplement and the accompanying prospectus from our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, and our Quarterly Report on Form 10-Q for the nine months ended September 30, 2016.

	Nine Months Ended September 30,					Years Ended December 31,								
	2016		2015		2015	2014		2013		2012		2011		
Statements Of Operations:						(in tho	usaı	nds, excep	t sha	are and pe	er sh	are data)		
Revenue:														
Sales of fuel cell systems and related														
infrastructure	\$ 19,992	2 \$	48,530	\$	78,002	\$ 48,306	\$	18,446	\$	20,792	\$	19,592		
Services performed on fuel cell systems			,		,	•		•				,		
and related infrastructure	15,396	ó	9,083		14,012	9,909		6,659		3,615		3,631		
Power Purchase Agreements	9,626	ó	3,600		5,718	2,137								
Fuel delivered to customers	7,557	7	3,331		5,075	1,959								
Other	779	)	313		481	1,919		1,496		1,701		4,403		
Total revenue  Cost of revenue:	53,350	)	64,857		103,288	64,230		26,601		26,108		27,626		
Sales of fuel cell systems and related infrastructure	16,182	2	42,103		67,703	43,378		20,414		25,354		22,626		
Services performed on fuel cell systems and related infrastructure	16,190	)	15,648		22,937	19,256		14,929		12,304		8,044		
Provision for loss contracts related to service	(1,071	/			10,050									
Power Purchase Agreements	10,961		3,101		5,253	1,052								
Fuel delivered to customers	9,298	3	4,107		6,695	2,204								
Other	855	5	371		540	3,202		2,506		2,805		6,232		
Total cost of revenue	52,415	5	65,330		113,178	69,092		37,849		40,463		36,902		

## Table of Contents

		Nine Months Septembe			Years Ended December 31,						
		2016	2015	2015	2014	2013	2012 ept share and per	2011			
Gross margin (loss)		935	(473)	(9,890)	(4,862)	(11,248)	(14,355)	(9,276)			
Research and development		733	(473)	(5,650)	(4,002)	(11,240)	(14,333)	(2,270)			
expense		15,032	10,457	14,948	6,469	3,121	5,434	5,656			
Selling, general and											
administrative expenses		25,485	23,952	34,164	26,601	14,596	16,883	16,868			
Gain on sale of assets								(673)			
Other (income) expense, net		(914)	(4,392)	(3,312)	50,881	34,115	(4,810)	(3,673)			
Loss before income taxes	\$	(38,668) \$	(30,490) \$	(55,690) \$	(88,813) \$	(63,080) \$	(31,862) \$	(27,454)			
Income tax benefit	φ	392	(50,490) \$	(33,090) \$	325	410	(31,002) \$	(27,434)			
income tax benefit		392			323	410					
Net loss attributable to the											
Company	\$	(38,276) \$	(30,490) \$	(55,690) \$	(88,488) \$	(62,670) \$	(31,862) \$	(27,454)			
Preferred stock dividends		, , , , , ,	, , , +	, ,, +	, , +	, ,,,,,,,	, , , +	( , , , , , ,			
declared		(78)	(78)	(105)	(156)	(121)					
Net loss attributable to											
common shareholders	\$	(38,354) \$	(30,568) \$	(55,795) \$	(88,644) \$	(62,791) \$	(31,862) \$	(27,454)			
Loss per share, basic and	Φ.	(0.24)	(0.4 <b>5</b> ) A	(0.22) A	(0.50.4	(0.00) #	(0.00) A	4.46			
diluted	\$	(0.21) \$	(0.17) \$	(0.32) \$	(0.56) \$	(0.82) \$	(0.93) \$	(1.46)			
Weighted array											
	1	180,261,449	174,724,746	176,067,231	159,228,815	76,436,408	34,376,427	18,778,066			
common shares outstanding  Balance Sheet Data:	1	180,261,449	174,724,746	176,067,231	159,228,815	76,436,408	34,376,427	18,778,066			
Balance Sheet Data: (at end of the period)	1	180,261,449	174,724,746	176,067,231	159,228,815	76,436,408	34,376,427	18,778,066			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash											
Balance Sheet Data: (at end of the period) Unrestricted cash and cash	\$	42,486 \$	174,724,746 85,009 \$	176,067,231 63,961 \$	159,228,815			18,778,066			
Weighted average number of common shares outstanding  Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents  Total assets											
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets		42,486 \$	85,009 \$	63,961 \$	146,205 \$	5,027 \$	9,380 \$	13,857			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of		42,486 \$	85,009 \$	63,961 \$	146,205 \$	5,027 \$	9,380 \$	13,857			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents  Total assets Borrowings under line of credit		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456	146,205 \$ 204,151	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456 42,706	146,205 \$ 204,151 25,707	5,027 \$ 35,356	9,380 \$ 39,460	13,857 55,656			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents  Total assets Borrowings under line of credit Current liabilities		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456	146,205 \$ 204,151	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities Finance obligations		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456 42,706	146,205 \$ 204,151 25,707	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents  Total assets Borrowings under line of credit Current liabilities Finance obligations  Long-term debt		42,486 \$ 223,985  56,436 35,258	85,009 \$ 204,618	63,961 \$ 209,456 42,706	146,205 \$ 204,151 25,707	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents  Total assets Borrowings under line of credit Current liabilities Finance obligations  Long-term debt Other noncurrent liabilities		42,486 \$ 223,985  56,436 35,258 23,541	85,009 \$ 204,618  33,580 9,650  11,588	63,961 \$ 209,456  42,706 14,809	146,205 \$ 204,151  25,707 2,426	5,027 \$ 35,356  10,874 2,492	9,380 \$ 39,460 3,381 17,039	13,857 55,656 5,405 17,043			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of		42,486 \$ 223,985  56,436 35,258 23,541 13,979	85,009 \$ 204,618  33,580 9,650	63,961 \$ 209,456  42,706 14,809	146,205 \$ 204,151  25,707 2,426	5,027 \$ 35,356  10,874 2,492  37,491 2,371	9,380 \$ 39,460 3,381 17,039	13,857 55,656 5,405 17,043			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents  Total assets Borrowings under line of credit  Current liabilities Finance obligations  Long-term debt Other noncurrent liabilities Redeemable preferred stock		42,486 \$ 223,985  56,436 35,258 23,541 13,979 1,153	85,009 \$ 204,618  33,580 9,650  11,588 1,153	63,961 \$ 209,456  42,706 14,809  26,052 1,153	146,205 \$ 204,151  25,707 2,426  16,582 1,153	5,027 \$ 35,356  10,874 2,492  37,491	9,380 \$ 39,460 3,381 17,039	13,857 55,656 5,405 17,043			

#### Table of Contents

#### RISK FACTORS

Investing in our securities involves a high degree of risk. In addition to the other information contained in this prospectus supplement to the accompanying prospectus and in the documents we incorporate by reference, you should carefully consider the risks discussed below and under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 15, 2016 before making a decision about investing in our securities. The risks and uncertainties discussed below and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our common stock could decline and you could lose part or all of your investment.

#### Risks Related to Our Business Operations

If we are unable to fund our operations with positive cash flows and cannot obtain external financing, we may not be able to sustain future operations, and we may be required to delay, reduce and/or cease our operations and /or seek bankruptcy protection.

We have experienced recurring operating losses, and as of December 31, 2015 and September 30, 2016, we had an accumulated deficit of approximately \$993.9 million and \$1.0 billion, respectively.

Our cash requirements relate primarily to working capital needed to operate and grow our business, including servicing operating lease agreements, funding operating expenses, growth in inventory to support both shipments of new units and servicing the installed base, funding the growth in our GenKey "turn-key" solution which also includes the installation of our customer's hydrogen infrastructure as well as delivery of the hydrogen fuel, and continued development and expansion of our products. Our ability to achieve profitability and meet future liquidity needs and capital requirements will depend upon numerous factors, including the timing and quantity of product orders and shipments; attaining positive gross margins; the timing and amount of our operating expenses; the timing and costs of working capital needs; the timing and costs of building a sales base; the ability of our customers to obtain financing to support commercial transactions; our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers and the terms of such agreements which may require us to pledge or restrict substantial amounts of our cash to support these financing arrangements; the timing and costs of developing marketing and distribution channels; the timing and costs of product service requirements; the timing and costs of hiring and training product staff; the extent to which our products gain market acceptance; the timing and costs of product development and introductions; the extent of our ongoing and new research and development programs; and changes in our strategy or our planned activities. If we are unable to fund our operations with positive cash flows and cannot obtain external financing, we may not be able to sustain future operations. As a result, we may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection.

We cannot assure you that any necessary additional financing will be available on terms favorable to us, or at all. We believe that it could be difficult to raise additional funds and there can be no assurance as to the availability of additional financing or the terms upon which additional financing may be available. Additionally, even if we raise sufficient capital through additional equity or debt financings, strategic alternatives or otherwise, there can be no assurance that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly

#### **Table of Contents**

issued securities, including those issued in our Common Offering, may have rights, preferences or privileges senior to those of existing stockholders. If we incur additional debt, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. The terms of any debt securities issued could also impose significant restrictions on our operations. Broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance, and may adversely impact our ability to raise additional funds. If we raise additional funds through collaborations and/or licensing arrangements, we might be required to relinquish significant rights to our technologies, or grant licenses on terms that are not favorable to us.

The reduction or elimination of government subsidies and economic incentives for alternative energy technologies, particularly the investment tax credit, could reduce demand for our products, lead to a reduction in our revenues, and adversely impact our operating results.

We believe that the near-term growth of alternative energy technologies is affected by the availability and size of government and economic incentives. Many of these government incentives expire, phase out over time, exhaust the allocated funding, or require renewal by the applicable authority. In addition, these incentive programs could be reduced or discontinued for other reasons. For example, the investment tax credit is currently scheduled to expire on December 31, 2016. The investment tax credit provides purchasers or lessees of our products with a 30% tax credit, and we believe it is a significant incentive to our customers. The reduction, elimination, or expiration of the investment tax credit or other government subsidies and economic incentives may result in the diminished economic competitiveness of our products to our customers and could materially and adversely affect the growth of alternative energy technologies, including our products, as well as our future operating results.

Our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers may affect our sales, profitability and liquidity.

Customers representing most of our revenue lease, rather than purchase, our products. These lease arrangements require us to finance the purchase of such products, either ourselves or through third-party financing sources. For example, approximately \$52.9 million of our cash is currently restricted to support such leasing arrangements, which prevents us from using such cash for other purposes. To date, we have been successful in obtaining or providing the necessary financing arrangements. There is no certainty, however, that we will be able to continue to obtain or provide adequate financing for these arrangements on acceptable terms, or at all, in the future. Failure to obtain or provide such financing may result in the loss of material customers and product sales, which could have a material adverse effect on our business, financial condition and results of operations. Further, if we are required to continue to pledge or restrict substantial amounts of our cash to support these financing arrangements, such cash will not be available to us for other purposes, which may have a material adverse effect on our liquidity and financial position.

Potential future acquisitions could be difficult to integrate, divert the attention of key personnel, disrupt our business and impair our financial results.

As part of our business strategy, we intend to consider acquisitions of companies, technologies and products that we believe could improve our ability to compete in our core markets or allow us to enter new markets. Acquisitions involve numerous risks, any of which could harm our business, including, difficulty in integrating the technologies, products, operations and existing contracts of a target company and realizing the anticipated benefits of the combined businesses; difficulty in supporting and transitioning customers, if any, of the target company; inability to achieve anticipated benefits or

#### **Table of Contents**

maintain or increase the revenue and profit of the acquired business; potential disruption of our ongoing business and distraction of management; the price we pay or other resources that we devote may exceed the value we realize; or forgoing the value we could have realized if we had allocated the purchase price or other resources to another opportunity and inability to generate sufficient revenue to offset acquisition costs. In addition, if we finance acquisitions by issuing equity securities, our existing stockholders may be diluted. As a result, if we fail to properly evaluate acquisitions or investments, we may not achieve the anticipated benefits of any such acquisitions, and we may incur costs in excess of what we anticipate.

As of the date of this prospectus supplement, we are in ongoing negotiations to acquire a company in Europe that develops technology to produce industrial gas supplies, which we believe, if successfully acquired and integrated into our operations, may advance our hydrogen fueling strategy. We expect that the purchase price for this acquisition will be approximately €10.0 million.

There can be no assurance that we will enter into definitive agreements, or consummate this transaction. Moreover, even if we consummate this acquisition, its success will depend, in part, on our ability to successfully integrate the target's business and operations and fully realize the anticipated benefits from combining our business with the target's business. However, to realize these anticipated benefits, we must successfully combine these businesses. If we are unable to achieve these objectives, the anticipated benefits of this acquisition may not be realized fully or at all or may take longer to realize than expected. Any failure to timely realize these anticipated benefits could have a material adverse effect on our revenues, expenses and operating results. Furthermore, it is possible that the integration process could result in the loss of key employees, loss of key clients, decreases in revenues and increases in operating costs, as well as the disruption of our business, any or all of which could limit our ability to achieve the anticipated benefits of the acquisition and have a material adverse effect on our revenues and operating results. Integration efforts between the two companies will also divert management attention and resources, which could also adversely affect our operating results.

#### Risks Related to the Series D Convertible Preferred Stock

## We may not have the cash necessary to redeem the Series D convertible preferred stock.

We have the obligation to make monthly redemption payments on the Series D convertible preferred stock commencing January 31, 2017, which mandatory redemption payments may each be made at our option in cash or in shares of our common stock, except that our right to make payment in shares of common stock is dependent upon our satisfying certain equity conditions. Among other things, these equity conditions include our continued listing on The NASDAQ Capital Market or another permitted exchange (as described in more detail below), and our stock maintaining certain minimum average trading volumes during the applicable measurement period. If we cannot satisfy the equity conditions, we will not be able to make our monthly mandatory redemption payments in stock, and we would be forced to make such monthly payments in cash. We may not have sufficient cash resources at the applicable time to make those cash payments, or to make such cash payments in full.

Further, any failure to pay any amounts due to the holders of the Series D convertible preferred stock, as well as certain other "triggering events," including, without limitation, our failure to timely deliver shares, our suspension of trading, our failure to keep reserved for issuance an adequate number of shares of common stock to cover conversion of the Series D convertible preferred stock, and breaches of certain representations, warranties and covenants that are not timely cured, where a cure period is permitted, would permit the holders of our Series D convertible preferred stock to compel our redemption of such Series D convertible preferred stock in cash at a price per share equal to the greater of (i) 125% of the stated value of the Series D convertible preferred stock being redeemed and accrued dividends and (ii) the market value of the number of shares into which the Series D

#### **Table of Contents**

convertible preferred stock, plus accrued dividends, could be converted by the holder at the time a notice of redemption is delivered by the holder, valued at the greatest closing sales price during the period from the date immediately before the triggering event through the date we make the redemption payment. The OTC Quotation Board is one of the alternative markets permitted under the equity conditions, meaning that if we are listed on The NASDAQ Capital Market or are suspended from trading or listing for five consecutive days but fall below the minimum listing standards of that market, we will still satisfy the equity conditions if we satisfy the minimum listing standards of the OTC Quotation Board at that time. However, if we are actually delisted from The NASDAQ Capital Market, without obtaining a listing on another national securities exchange, it would constitute a "triggering event" under the certificate of designations (and consequently, would also cause a failure of the equity conditions). Thus, if we fail to maintain trading or listing, as applicable, or if for any other reason we are required to repurchase the Series D convertible preferred stock in cash prior to maturity, no assurance can be given that we would have the cash or financial resources available to us to make such a payment, and such an acceleration could have a material adverse effect on our business and financial condition and may impair our ability to continue in business as a going concern.

The Series D Shares are a senior obligations of ours, and rank prior to our common stock with respect to dividends, distributions and payments upon liquidation.

The rights of the holders of the Series D convertible preferred stock rank senior to the obligations to our common stock holders. Upon our liquidation, the holders of Series D convertible preferred stock are entitled to receive an amount per share of Series D convertible preferred stock equal to the greater of (A) 125% of the conversion amount thereof on the date of such payment and (B) the amount per share such Holder would receive if such Holder converted such Series D convertible preferred stock into Common Stock immediately prior to the date of such payment. Further, the holders of Series D convertible preferred stock have the right to participate in any payment of dividends or other distributions made to the holders of common stock to the same extent as if they had converted the such shares of Series D convertible preferred stock. The existence of such a senior security could have an adverse effect on the value of our common stock.

#### Holders of the Series D convertible preferred stock have rights that may restrict our ability to operate our business.

Under the certificate of designations establishing the terms of the Series D convertible preferred stock, we are subject to certain covenants that limit our ability to create new series of preferred stock, other than series junior to the Series D convertible preferred stock. Such restrictions may have an adverse effect on our ability to operate our business while the shares of Series D convertible preferred stock are outstanding.

Our stockholders will experience significant dilution upon the issuance of common stock upon conversion or redemption payments under the Series D convertible preferred stock and if the shares of our common stock underlying our warrants, including those issued in this offering and the Common Offering, are exercised or converted.

The issuance of common stock as mandatory redemption payments or upon conversion of some or all of the Series D convertible preferred stock (whether by us or by the holders) will dilute the ownership interests of our existing holders of our shares of common stock. If the initial aggregate stated value of the Series D convertible preferred stock is converted into our common stock at its initial conversion price, we would issue shares of common stock upon their conversion. This excludes the effect of any exercise of the warrants issued in this offering or the Common Offering, and it excludes

#### Table of Contents

the effect of any common stock we may issue as dividends or as conversion shares, in lieu of paying monthly redemption amounts in cash, which may be made at a price lower than the initial conversion price. The initial conversion price of the Series D convertible preferred stock is adjustable based on certain events, including if we voluntarily reduce the conversion price. Our payment of stock as dividends or conversion of installment payments will not trigger such an adjustment. The conversion price of the Series D convertible preferred stock will also be adjusted if we effect a stock split, combination or similar transaction, to reflect the proportionate (adjusted) trading prices of our common stock before and after the effective date.

In addition, we have a significant number of securities convertible into, or allowing the purchase of, our common stock. Investors could be subject to increased dilution upon the conversion or exercise of these securities. The common stock warrants offered in this offering and the Common Offering have an exercise price that is adjustable if we effect a stock split, combination or similar transaction, depending on the relative trading prices before and after the combination. Also, the issuance of additional shares as a result of such conversion or purchase, or their subsequent sale, could adversely affect the price of our common stock.

## The redemption right in the Series D convertible preferred stock could discourage a potential acquirer.

The redemption rights in the Series D convertible preferred stock being sold in this offering could discourage a potential acquirer. The terms "change of control" and "fundamental transaction" refer to specific transactions and may not include other events that might adversely affect our financial condition or results of operations. Our obligation to redeem the Series D convertible preferred stock upon a change of control or fundamental transaction would not necessarily afford you protection in the event of a highly leveraged transaction, or, with respect to the change of control redemption right in the Series D convertible preferred stock, a reorganization, merger or similar transaction involving us, for example where the holders of our voting power prior to the transaction hold, after the transaction, publicly traded shares with the voting power to elect a majority of the board of directors of the surviving entity.

The premium payable on the Series D convertible preferred stock redeemed in connection with certain changes of control or a mandatory repurchase may not adequately compensate you for any lost value of your Series D convertible preferred stock as a result of such transaction.

Holders who redeem their Series D convertible preferred stock upon a "Triggering Event" or whose Series D convertible preferred stock are redeemed in connection with our decision to mandatorily redeem the Series D convertible preferred stock will be entitled to receive a premium set forth in the certificate of designation of at least 25%. Any premium or other amounts you may receive in connection with these events may not adequately compensate you for any lost value of your Series D convertible preferred stock as a result of such transaction.

### The conversion rate of the Series D convertible preferred stock may not be adjusted for all dilutive events.

The conversion rate of the Series D convertible preferred stock is subject to adjustment for certain events, including, but not limited to, subdivisions or combinations of our shares of common stock, and voluntary reductions in the conversion price by us. The conversion rate will not be adjusted for other events, such as an issuance of our shares of common stock in certain acquisition transactions, new issuances of common stock or common stock equivalents below the conversion price of the Series D convertible preferred stock or pursuant to employee stock options, that may adversely affect the trading

#### Table of Contents

price of our shares of common stock. There can be no assurance that an event will not occur that is adverse to the interests of the holders and the value of the Series D convertible preferred stock but does not result in an adjustment to the conversion rate.

## You may be deemed to receive a taxable distribution without the receipt of any cash or property.

The conversion rate of the Series D convertible preferred stock will be adjusted in certain circumstances. Certain adjustments to the conversion rate of the Series D convertible preferred stock and certain adjustments to the number of shares underlying the common stock warrants and/or exercise price of the common stock warrants, and the failure to make certain adjustments with respect to the Series D convertible preferred stock and warrants that have the effect of increasing your proportionate interest in our assets or earnings may in some circumstances result in a taxable constructive distribution to you for U.S. federal income tax purposes, notwithstanding the fact that you do not receive an actual distribution of cash or property. In addition, you may be subject to U.S. federal withholding taxes in connection with such a constructive distribution. You are urged to consult your tax advisors with respect to the U.S. federal income tax consequences resulting from an adjustment to the conversion rate of the Series D convertible preferred stock.

## Risks Related to this Offering and our Common Stock

Our stock price has been and could remain volatile, which could further adversely affect the market price of our stock, our ability to raise additional capital and/or cause us to be subject to securities class action litigation.

The market price of our common stock has historically experienced and may continue to experience significant volatility. Between January 1, 2016 and December 16, 2016, the sales price of our common stock fluctuated from a high of \$2.28 per share to a low of \$1.18, and on December 16, 2016, the closing sale price of our common stock was \$1.32 per share. Our progress in developing and commercializing our products, our quarterly operating results, announcements of new products by us or our competitors, our perceived prospects, changes in securities analysts' recommendations or earnings estimates and our ability to meet such estimates, changes in general conditions in the economy or the financial markets, adverse events related to our strategic relationships, significant sales of our common stock by existing stockholders, including one or more of our strategic partners, and other developments affecting us or our competitors could cause the market price of our common stock to fluctuate substantially. In addition, in recent years, the stock market has experienced significant price and volume fluctuations. This volatility has affected the market prices of securities issued by many companies for reasons unrelated to their operating performance and may adversely affect the price of our common stock. Such market price volatility could adversely affect our ability to raise additional capital. In addition, we may be subject to securities class action litigation as a result of volatility in the price of our common stock, which could result in substantial costs and diversion of management's attention and resources and could harm our stock price, business, prospects, results of operations and financial condition.

Because the shares of Series D convertible preferred stock are convertible into shares of our common stock, volatility or depressed prices for our common stock could have a similar effect on the value of the shares of Series D convertible preferred stock. Holders of Series D convertible preferred stock who receive our shares of common stock upon conversion of their Series D convertible preferred stock, or upon our election to pay dividends or installment amounts in common stock, will be subject to the risk of volatile market prices and wide fluctuations in the market price of our shares of common stock. Depending on the market price of our common stock during the applicable measurement periods, and our election to pay such amounts in cash or in stock, the number of shares of common stock issued to

#### Table of Contents

the holders of Series D convertible preferred stock could be very significant. In addition, many of the factors listed above are beyond our control. These factors may cause the market price of our shares of common stock to decline, regardless of our financial condition, results of operations, business or prospects. It is impossible to assure you that the market prices of our shares of common stock will not fall in the future.

The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on the NASDAQ Capital Market.

Market conditions may result in volatility in the level of, and fluctuations in, market prices of stocks generally and, in turn, our common stock and sales of substantial amounts of our common stock in the market, in each case being unrelated or disproportionate to changes in our operating performance.

Future sales of a significant number of shares of our common stock or other dilution of our equity could depress the market price of our common stock.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. Except as described under "Underwriting," we are not restricted from issuing additional shares of our common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, our common stock. The market price of our common stock could decline as a result of sales of shares of our common stock or sales of such other securities made after this offering or the perception that such sales could occur.

If securities or industry analysts do not publish, or cease publishing, research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of these analysts who may cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

## Investors in this offering will experience immediate and substantial dilution.

The public offering price of the securities offered pursuant to this prospectus supplement is substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of common stock in this offering, you will incur immediate and substantial dilution in the pro forma net tangible book value per share of common stock from the price per share that you pay for the common stock. If the holders of outstanding options or warrants exercise those options or warrants at prices below the public offering price, you will incur further dilution. See the section entitled "Dilution" below for a more detailed discussion of the dilution associated with this offering.

We have not paid cash dividends to our shareholders and currently have no plans to pay future cash dividends.

We plan to retain earnings to finance future growth and have no current plans to pay cash dividends to shareholders (except in accordance with the terms of our outstanding Series C Preferred Stock).

#### Table of Contents

Because we have not paid cash dividends, holders of our securities will experience a gain on their investment in our securities only in the case of an appreciation of value of our securities. You should neither expect to receive dividend income from investing in our securities nor an appreciation in value.

#### There is no public market for the warrants to purchase common stock being offered 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 for listing of the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited.

## Holders of our warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

Until holders of warrants acquire shares of our common stock upon exercise of the warrants, holders of warrants will have no rights with respect to the shares of our common stock underlying such warrants. Upon exercise of the warrants, the holders thereof will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

## Provisions in our charter documents and Delaware law may discourage or delay an acquisition that stockholders may consider favorable, which could decrease the value of our common stock.

Our certificate of incorporation, our bylaws, and Delaware corporate law contain provisions that could make it harder for a third party to acquire us without the consent of our board of directors. These provisions include those that: authorize the issuance of up to 5,000,000 shares of preferred stock in one or more series without a stockholder vote; limit stockholders' ability to call special meetings; establish advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings; and provide for staggered terms for our directors. We have a shareholders rights plan that may be triggered if a person or group of affiliated or associated persons acquires beneficial ownership of 15% or more of the outstanding shares of our common stock. In addition, in certain circumstances, Delaware law also imposes restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock.

## If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud, which could harm our brand and operating results.

Effective internal controls over financial reporting are necessary for us to provide reliable and accurate financial reports and effectively prevent fraud. We have devoted significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes-Oxley Act of 2002. In addition, Section 404 under the Sarbanes-Oxley Act of 2002 requires that we assess the design and operating effectiveness of our controls over financial reporting. We are currently required to have our auditors attest to the effectiveness of our internal control over financial reporting. Our compliance with the annual internal control report requirement will depend on the effectiveness of our financial reporting and data systems and controls. Inferior internal controls increase the possibility of errors and could cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock and our access to capital.

In addition, our internal control systems rely on people trained in the execution of the controls. Loss of these people or our inability to replace them with similarly skilled and trained individuals or new processes in a timely manner could adversely impact our internal control mechanisms.

## Table of Contents

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members and officers.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934 (the "Exchange Act"), the listing requirements of the NASDAQ Capital Market and other applicable securities rules and regulations. Compliance with these rules and regulations increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and operating results and maintain effective disclosure controls and procedures and internal control over financial reporting. To maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this requirement, significant resources and management oversight may be necessary.

S-21

## **Table of Contents**

## **USE OF PROCEEDS**

We expect to receive approximately \$\frac{1}{2}\text{million in net proceeds from this offering. "Net proceeds" is what we expect to receive after paying the expenses of this offering, including the underwriting discounts and commissions, as described in "Underwriting" below, and other estimated offering expenses payable by us, which include legal, accounting and printing fees.

We intend to use the net proceeds of this offering and the Common Offering, together with our existing cash and cash equivalents, to prepay the outstanding principal amount of our loan with Hercules and pay the fees and expenses related to such loan, which, as of the date of this prospectus supplement, totaled \$29.0 million.

S-22

## Table of Contents

## RATIO OF EARNINGS TO FIXED CHARGES AND PREFERENCE SECURITY DIVIDENDS

The following table sets forth our ratio of earnings to fixed charges and the ratio of our combined fixed charges and preference stock dividends to earnings on a historical basis for the periods indicated. For purposes of this calculation, "earnings" consist of net loss attributable to the Company plus fixed charges. "Fixed charges" consist of the sum of interest expense and the component of rental expense believed by management to be representative of the interest factor for those amounts. Earnings in each of the periods indicated were inadequate to cover fixed charges. The coverage deficiency for each period is specified below.

		Year Ended December 31,						
	2011	2012	2013	2014	2015	September 30, 2016		
Ratio of Earnings to Combined Fixed Charges and Preference Dividends								
Coverage Deficiency (in \$ thousands)	27,454 S-23	31,862	63,201	88,969	55,795	38,746		

#### Table of Contents

## **DILUTION**

If you invest in our Series D convertible preferred stock and warrants, your ownership interest in the common stock underlying the securities contained therein (such as by conversion of the Series D convertible preferred stock or exercise of the common stock warrants at their initial exercise price) will be diluted by the difference between the price per share you pay and the net tangible book value per share of our common stock immediately after this offering.

Our net tangible book value as of September 30, 2016, was approximately \$81.6 million, or \$0.45 per share of our common stock, based upon 180,431,759 shares of our common stock outstanding as of that date. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of September 30, 2016. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering, as described below.

The following table illustrates the dilution applicable to purchasers of common stock upon exercise of the common stock warrants included in the combination offered in this offering. For purposes of this calculation, (i) the entire purchase price for the combination is being allocated to the Series D convertible preferred stock, (ii) we assume that all common stock warrants will be exercised in cash immediately following the closing, (iii) all underwriting fees and commissions and our estimated offering expenses are allocated to the Series D convertible preferred stock and not the warrants, and (iv) we exclude both the effect of the receipt of the purchase price for the Series D convertible preferred stock and warrants in this offering and the potential effect of any conversion of our Series D convertible preferred stock into shares of our common stock, or any dividend or redemption payments with respect to the Series D convertible preferred stock that we may make in shares of our common stock. Without taking into account any other changes in our net tangible book value after September 30, 2016, other than to give effect to our receipt of the estimated proceeds from the exercise of common stock warrants covering shares of common stock at an exercise per share, our pro forma net tangible book value as of September 30, 2016, would have been approximately \$ price of \$ per share. This represents an immediate increase in the net tangible book value of \$ \$ per share to our existing stockholders, and an immediate dilution in net tangible book value of \$ per share to investors exercising warrants in this offering. The following table illustrates this per share dilution:

Exercise price per share of warrants sold in this offering:

\$

Net tangible book value per share as of September 30, 2016:

0.45

Increase in net tangible book value per share attributable to investors participating in this offering upon exercise of warrants:

As adjusted net tangible book value per share as of September 30, 2016, after giving effect to this offering:

Dilution per share to investors participating in this offering upon warrant exercise:

\$

The foregoing table and discussion are based on 180,431,759 shares of common stock outstanding as of September 30, 2016, assumes no conversion or exercise of the warrants offered hereby, and excludes:

14,982,570 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$2.87 per share;

#### Table of Contents

1,057,877 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016;

577,376 shares of common stock in treasury;

26,667 shares of common stock issuable upon the vesting of restricted stock units;

5,554,594 shares of common stock issuable upon conversion of our Series C Redeemable Convertible Preferred Stock at a conversion price of \$0.2343 per share;

4,000,100 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.00 per share. With respect to 4,000,000 of such shares underlying such warrants, an issuance of securities by us at a price below \$4.00 per share results in the adjustment of the exercise price of such warrants to be equal to issuance price of such securities, which, as measured in accordance with the terms of such warrants, is expected to result in an exercise price of less than \$1.00 per share, and may be significantly less than \$1.00 per share; and

shares of common stock and shares of common stock issuable upon exercise of warrants that we are simultaneously offering in our Common Offering. See "Summary Recent Developments" for more information.

To the extent that outstanding options or warrants (including those issued in this offering and the Common Offering) are exercised, you may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

#### Table of Contents

## **DESCRIPTION OF SECURITIES**

In this offering, we are offering shares of Series D convertible preferred stock and warrants to purchase up to shares of common stock. Each share of Series D convertible preferred stock is being sold together with 5.5-year warrants to purchase one share of common stock at an exercise price of \$ per share. The shares of common stock and warrants will be issued separately. This prospectus also relates to the offering of shares of our common stock issuable upon the conversion, if any, of the Series D convertible preferred stock and the exercise, if any, of the warrants.

The material terms and provisions of our common stock and each other class of our securities existing on or prior to the date of this prospectus supplement which may qualify or limit the rights and privileges of our common stock are described under the caption "Description of Capital Stock" starting on page 11 of the accompanying prospectus.

#### Series D Convertible Preferred Stock

*General.* We are authorized to issue up to 5,000,000 shares of preferred stock, par value \$0.01 per share, with such designations, rights and preferences as may be determined from time to time by our Board of Directors, without further stockholder approval. Our Board of Directors has created out of the authorized and unissued shares of our preferred stock a series of preferred stock designated as the Series D Convertible Preferred Stock (the "Preferred Stock"), comprising up to shares of Preferred Stock (the "Preferred Shares").

The following is a brief description of the terms of the Preferred Stock being offered in this offering. The description of the Preferred Stock contained herein does not purport to be complete and is qualified in its entirety by reference to the Certificate of Designations for the Preferred Stock, which is attached hereto as Exhibit A and which will be filed as an exhibit to a Current Report on Form 8-K to be filed with the SEC by us in connection with this offering.

Stated Value. Each share of Preferred Stock will be issued with an initial Stated Value of \$1,000 per share (the "Stated Value"). The Stated Value is subject to reduction upon voluntary or scheduled redemptions or conversions as described in more detail below.

*Maturity Date.* The maturity date of the Preferred Stock will be December , 2017, unless extended at the option of the Holder of the Preferred Shares. For a description of the extension of the maturity date, see " Mandatory Redemption at Maturity" below.

Ranking. Except for our Series C Redeemable Convertible Preferred Stock, which shall rank senior to the Preferred Stock as to dividends, distributions and payments upon our liquidation, dissolution and winding up, and subject to the issuance of capital stock that is of senior or pari-passu rank to the Preferred Shares, all shares of our capital stock, including our common stock, shall be junior in rank to all Preferred Shares with respect to dividends, distributions and payments upon our liquidation, dissolution and winding up or any capital stock that has a maturity date or other date requiring redemption or repayment prior to the maturity date of the Preferred Stock. Without the prior express written consent of the holders of a majority of the Preferred Shares then outstanding, we may not authorize or issue capital stock that is of senior or pari-passu rank to the Preferred Shares in respect of dividends, distributions and payments upon our liquidation, dissolution and winding up. In the event of our merger or consolidation with or into another corporation, the Preferred Shares shall maintain their relative powers, rights, designations, privileges and preferences.

*Dividends.* Holders of the Preferred Shares are not entitled to receive dividends except in connection with certain purchase rights and other corporate events, as described in the certificate of designations,

S-26

#### Table of Contents

or in connection with certain distributions of assets, as described in the certificate of designations, or as, when and if declared by the Board of Directors acting in its sole and absolute discretion.

Voting Rights. Holders of Preferred Shares shall have no voting rights, except on matters required by law or under the certificate of designations to be submitted to a class vote of the holders of the Preferred Shares. Except where a greater vote is required by law or by another provision of our Certificate of Incorporation, without first obtaining the affirmative vote or consent of holders of at least a majority of the Preferred Shares then outstanding, voting together as a single class, we may not: (a) amend or repeal our Certificate of Incorporation or bylaws, or file any certificate of designations or articles of amendment of any series of shares of preferred stock, if such action would adversely alter or change the preferences, rights, privileges or powers, or restrictions provided for the benefit of the Preferred Shares under the certificate of designations, regardless of whether any such action shall be by means of amendment to our Certificate of Incorporation or by merger, consolidation or otherwise; (b) other than as provided under the certificate of designations, increase or decrease (other than by conversion) the authorized number of Preferred Shares; (c) create or authorize (by reclassification or otherwise) any new class or series of preferred stock ranking senior to or pari passu with the Preferred Shares; (d) purchase, repurchase or redeem any shares of capital stock, including the common stock, ranking junior to the Preferred Shares (other than pursuant to the terms of the Company's equity incentive plans and options and other equity awards granted under such plans (that have in good faith been approved by the Board)); (e) pay dividends or make any other distribution on any shares of our capital stock, including the common stock, that rank junior to the Preferred Shares; (f) issue any Preferred Shares other than as contemplated hereby; or (g) whether or not prohibited by the terms of the Preferred Shares, circumvent a right of the Preferred Shares under the certificate of designations.

#### Covenants.

The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, engage in any material line of business substantially different from those lines of business conducted by or publicly contemplated to be conducted by the Company and each of its Subsidiaries on the Subscription Date or any business substantially related or incidental thereto.

The Company shall maintain and preserve, and cause each of its Subsidiaries to maintain and preserve, its existence, rights and privileges, and become or remain, and cause each of its Subsidiaries to become or remain, duly qualified and in good standing in each jurisdiction in which the character of the properties owned or leased by it or in which the transaction of its business makes such qualification necessary, except as could not reasonably be expected to result in a Material Adverse Effect.

The Company shall maintain and preserve, and cause each of its Subsidiaries to maintain and preserve, all of its properties which are necessary or useful in the proper conduct of its business in good working order and condition, ordinary wear and tear excepted, and comply, and cause each of its Subsidiaries to comply, at all times with the provisions of all leases to which it is a party as lessee or under which it occupies property, except as could not reasonably be expected to result in a Material Adverse Effect.

The Company will, and will cause each of its Subsidiaries to, take all action reasonably necessary or advisable to maintain all of the Intellectual Property Rights of the Company and/or any of its Subsidiaries that are necessary or material to the conduct of its business in full force and effect, except as could not reasonably be expected to result in a Material Adverse Effect.

The Company shall maintain, and cause each of its Significant Subsidiaries to maintain, insurance with responsible and reputable insurance companies or associations with respect to its properties (including all real properties leased or owned by it) and business, in such amounts and covering

#### Table of Contents

such risks as is required by any governmental authority having jurisdiction with respect thereto or as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated except as could not reasonably be expected to result in a Material Adverse Effect.

The Company shall not, directly or indirectly, without the prior written consent of the Required Holders of the Preferred Shares then outstanding, incur Indebtedness or enter into any other agreement, contract or understanding if such Indebtedness, agreement, contract or understanding prohibits the Company from making any cash redemptions of the Preferred Shares; provided that no prior consent will be required for Indebtedness the terms of which (a) permit such redemptions and payments in an aggregate amount equal to the lesser of (i) \$20,000,000 and (ii) the product of (A)1.25 multiplied by (B) the aggregate Stated Value of the Preferred Shares outstanding as of the relevant measurement so long as no default or event of default has occurred and is continuing under such Indebtedness, or (b) prohibit such redemptions or payments solely if a default or event of default has occurred and is continuing under such Indebtedness, agreement, contract or understanding (such Indebtedness described in this proviso, "Permitted Indebtedness").

Optional Installment Conversion or Redemption by the Company. Commencing on January 31, 2017 and on the last business day of each month thereafter through the maturity date (each an "Installment Date"), provided that all Equity Conditions (as defined below) have been satisfied, we will convert from the Holders of the Preferred Shares, an amount equal to the aggregate Stated Value of Preferred Shares (as such amount may be reduced by earlier conversion, redemption or otherwise, the "Installment Amount") by converting the Installment Amount into shares of our common stock (an "Installment Conversion"); provided, however, that we may instead, at our option following notice to the Holders, pay the Installment Amount by redeeming such Installment Amount for cash (an "Installment Redemption") or by any combination of an Installment Conversion and an Installment Redemption so long as we convert and/or redeem all of the outstanding applicable Installment Amount on the applicable Installment Date.

In the event of an Installment Conversion, we will convert the applicable Installment Amount of the Preferred Shares (such amount to be converted, the "Installment Conversion Amount") at the greater of (x) \$0.40 (the "Floor Price") and (y) the lowest of (i) the Conversion Price then in effect and (ii) 88% of the average volume weighted average price ("VWAP") of the Common Stock for the three (3) lowest trading days during the seven (7) consecutive trading day period immediately prior to the applicable Installment Date (the "Installment Conversion Price"). If the Equity Conditions are not satisfied at any time after notice of an Installment Conversion and prior to the applicable Installment Date, then any Holder may require us to do any one or more of the following: (A) we will redeem all or any part designated by the Holder of the applicable Installment Conversion Amount at 125% of such designated portion of the Installment Conversion Amount, and/or (B) the Installment Conversion shall be null and void with respect to all or any part designated by such Holder of the unconverted Installment Conversion Amount and such Holder shall be entitled to all the rights of a holder of the Preferred Shares with respect to such designated part of the Installment Conversion Amount; provided, however, the Conversion Price for such designated part of such unconverted Installment Conversion Amount shall thereafter be adjusted to equal the lesser of (A) the Installment Conversion Price as in effect on the date on which such Holder voided the Installment Conversion and (B) the Installment Conversion Price that would be in effect on the date on which such Holder delivers a conversion notice relating thereto as if such date was an Installment Date.

In the event of an Installment Redemption, we will redeem for cash the applicable Installment Amount (such amount to be redeemed, the "Installment Redemption Amount") on the applicable Installment Date. If we fail to redeem the Installment Redemption Amount on the applicable Installment Date by payment of the applicable redemption price, then at the greater of (x) the Floor Price and (y) the

#### Table of Contents

option of the Holder, the Holder may require us to convert all or any part of the Installment Redemption Amount or void the redemption. If the Holder elects to convert, the conversion is at the lowest of (i) the Conversion Price then in effect and (ii) 88% of the average VWAP of the Common Stock for the three (3) lowest trading days during the seven (7) consecutive trading day period immediately prior to the date that Holder provides notice of such election. If the Holder elects to void the redemption, the Additional Amount (as described in the certificate of designations) of the applicable Preferred Shares shall be increased by an amount equal to the difference between (1) the applicable redemption price minus (2) the Stated Value portion of the Conversion Amount submitted for redemption and (z) the Conversion Price of such Preferred Shares shall be automatically adjusted with respect to each conversion effected thereafter by such Holder to the lowest of (A) the Conversion Price as in effect on the date on which the applicable redemption is voided, (B) the greater of (x) the Floor Price and (y) 85% of the lowest closing bid price of the common stock during the period described in the certificate of designations and (C) the greater of (x) the Floor Price and (y) 85% of the average five (5) lowest VWAPs of the common stock during the twenty (20) consecutive trading day period specified in the certificate of designations.

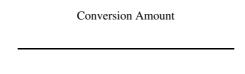
Subject to certain limitations described in the certificate of designations, each Holder will have the right to defer all or any portion of any Installment Amount to a later or earlier Installment Date, as applicable.

The term "Equity Conditions" means, with respect to any given date of determination: (i) on each day during the period beginning thirty calendar days prior to the applicable date of determination and ending on and including the applicable date of determination (the "Equity Conditions Measuring Period"), the common stock (including all shares of common stock issued or issuable upon conversion of the Preferred Shares and exercise of the Warrants) is listed or designated for quotation (as applicable) on the NASDAQ Capital Market or on one of several named alternative exchanges; (ii) during the Equity Conditions Measuring Period, we shall have delivered common stock upon conversion of the Preferred Shares on a timely basis; (iii) any shares of common stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount (as defined below) being redeemed in the event requiring this determination) may be issued in full without violating the limitation on beneficial ownership or the rules or regulations of the NASDAQ Capital Market; (iv) any shares of common stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth in the certificate of designations)) may be issued in full without violating the rules or regulations of the stock exchange on which the common stock is then listed; (v) on each day during the Equity Conditions Measuring Period, no public announcement of a pending, proposed or intended fundamental transaction (as described in the certificate of designations) shall have occurred which has not been abandoned, terminated or consummated; (vi) none of the Holders shall be in possession of any material, non-public information provided to any of them by us or any of our subsidiaries or any of our respective affiliates, employees, officers, representatives, agents or the like; (vii) on each day during the Equity Conditions Measuring Period we otherwise shall have been in compliance with each, and shall not have breached any representation or warranty in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any transaction document, including, without limitation, we shall not have failed to timely make any payment pursuant to any transaction document; (viii) during the Equity Conditions Failure Period (as described in the certificate of designations), (A) the average VWAP of the common stock fails to exceed \$0.50 (as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions involving the common stock) or (B) the average aggregate daily dollar trading volume of the common stock on the Nasdaq Capital Market fails to be more than \$200,000; (ix) on the applicable date of determination (A) no

#### Table of Contents

Authorized Share Failure (as described in the certificate of designations) shall exist or be continuing and 100% of the sum of (I) the maximum number of shares of common stock then issuable upon conversion of the Preferred Shares (without regard to any limitations on conversion) and (II) the maximum number of shares of common stock issuable upon exercise of the Warrants (without regard to any limitations on exercise) are available under our certificate of incorporation and reserved to be issued pursuant to the certificate of designations and the Warrants, as applicable, and (B) all shares of common stock to be issued in connection with the event requiring this determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) may be issued in full without resulting in an Authorized Share Failure; (x) on each day during the Equity Conditions Measuring Period, there shall not have occurred and there shall not exist a Triggering Event or an event that with the passage of time or giving of notice would constitute a Triggering Event; (xi) the Installment Conversion price is determined by the Floor Price; or (xii) the shares of common stock issuable pursuant to the event requiring the satisfaction of the Equity Conditions are duly authorized and listed and eligible for trading without restriction on the NASDAQ Capital Market or on one of several named alternative exchanges.

Optional Conversion by the Holders. At any time following the issuance of the Preferred Shares, each holder of the Preferred Shares shall be entitled to convert any whole number of Preferred Shares, into fully paid and nonassessable shares of common stock. The number of shares of common stock issuable upon conversion of each Preferred Share shall be determined according to the following formula (the "Conversion Rate"):



#### Conversion Price

The "Conversion Amount" means with respect to each Preferred Share, as of the applicable date of determination, the Stated Value, plus any declared and unpaid dividends and late charges as provided in the certificate of designations. The "Conversion Price" means \$ , with respect to each Preferred Share, as of any Conversion Date or other date of determination, subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or similar transactions involving our common stock. No fractional shares of common stock are to be issued upon the conversion of any Preferred Share, but rather the number of shares of common stock to be issued will be rounded to the nearest whole number.

The conversion of Preferred Shares is governed by the terms set out in the certificate of designations. In the event we fail to timely deliver common stock on conversion by a Holder, and after the delivery deadline such Holder purchases shares of our common stock to deliver in satisfaction of a sale by that Holder, we will be required to either pay cash to the Holder in an amount representing its total purchase price for those shares (including commissions and expenses) in lieu of delivering the shares of common stock on conversion, or (at the Holder's election) deliver shares of common stock plus an amount in cash representing the difference between the Holder's purchase price for the shares it purchased and the number of shares issued upon conversion multiplied by the VWAP of our common stock on the conversion date.

None of the above limits the right that holders of the Preferred Shares have to require us to repurchase the Preferred Shares. See "Redemption Option by the Holders Upon a Triggering Event" below.

*Mandatory Conversion.* We have the right, provided that no Equity Conditions Failure exists, to require each Holder of Preferred Shares to convert all or any number of the Preferred Shares held by such Holder (treating all Holders on a proportionate basis) at the Conversion Rate if the closing sale

S-30

#### Table of Contents

price of our common stock equals at least 200% of the Conversion Price for twenty (20) consecutive trading days.

Holder Optional Redemption after Maturity Date. At any time from and after the tenth (10) business day prior to the Maturity Date, any Holder may require us to redeem (a "Maturity Redemption") all or any number of Preferred Shares held by such Holder at a purchase price equal to 100% of the Conversion Amount of such Preferred Shares (the "Maturity Redemption Price") by delivery of written notice thereof (the "Maturity Redemption Notice") to us. The Maturity Redemption Notice must state the date that we are required to pay to such Holder such Maturity Redemption Price (the "Maturity Redemption Date"), which date may be no earlier than ten (10) business days following the date of delivery of such Maturity Redemption Notice. Such Maturity Redemptions will be conducted in accordance with the redemption provisions contained in the certificate of designations.

Redemption/Conversion Option of the Holders upon a Triggering Event. In addition to all other rights of the Holders contained in the certificate of designations, after a Triggering Event (as described below), each Holder will have the right, at such Holder's option, to require us to redeem and/or convert all or a portion of such Holder's Preferred Shares. Any such Triggering Event redemption would be at a price per Preferred Share equal to the greater of (i) 120% of the Conversion Amount and (ii) the product of (A) the Conversion Rate in effect at such time as such Holder delivers notice of the redemption multiplied by (B) 120% of the greatest closing sale price of the common stock on any trading day during the period specified in the certificate of designations. Any such Triggering Event conversion would be at a conversion rate equal to the quotient of (i) 120% of the Conversion Amount divided by (ii) the lower of (A) the applicable Conversion Price in effect on the trading day immediately preceding the notice of conversion and (B) the greater of (1) \$0.50 and (2) 85% of the lowest VWAP of the common stock on any trading day during the period specified in the certificate of designations.

If we fail to redeem the required Preferred Shares in any Triggering Event Redemption on the applicable redemption date by payment of the applicable redemption price, then at the Holder shall have the option to require us to promptly return to such Holder all or any of the Preferred Shares that were submitted for redemption and for which the applicable redemption price has not been paid. In each case (i) the Additional Amount (as described in the certificate of designations) of such Preferred Shares shall be increased by an amount equal to the difference between (1) the applicable redemption price minus (2) the Stated Value portion of the Conversion Amount submitted for redemption and (ii) the Conversion Price of such Preferred Shares shall be automatically adjusted with respect to each conversion effected thereafter by such Holder to the lowest of (A) the Conversion Price as in effect on the date on which the applicable redemption notice is voided, (B) the greater of (x) the Floor Price and (y) 85% of the lowest closing bid price of the common stock during the period described in the certificate of designations and (C) the greater of (x) the Floor Price and (y) 85% of the average of the five (5) lowest VWAPs of the common stock during the twenty (20) consecutive trading day period ending immediately prior to the applicable conversion date.

A "Triggering Event" shall be deemed to have occurred upon any of the following events, among other events described in the certificate of designations:

- (i) any of the Preferred Shares or shares of common stock issuable upon conversion of the Preferred Shares are not freely tradable under Rule 144 of the Securities Act without restriction;
- (ii) the suspension from trading or failure of the common stock to be listed on the NASDAQ Capital Market (or other eligible market as specified in the certificate of designations) for a period of five (5) consecutive trading days;
- (iii) (A) our failure on two or more occasions to timely deliver the required number of shares of common stock after any applicable conversion date or (B) our notice, written or oral, to any Holder of

#### Table of Contents

our intention not to comply, as required, with a request for conversion of any Preferred Shares into shares of common stock that is tendered;

- (iv) our failure to pay to the Holder any amounts when and as due pursuant to the certificate of designations or any other transaction document;
- (v) specified voluntary or involuntary events involving bankruptcy, insolvency, decrees or orders for relief under bankruptcy, insolvency, reorganization and similar laws, the appointment of a custodian, receiver or similar official, an order for the winding up or liquidation of our affairs, commencement by us of a voluntary case or proceeding under bankruptcy or similar laws, making an assignment for the benefit of creditors, and similar voluntary or involuntary events enumerated in the certificate of designations (in the case of involuntary events, and such events are not dismissed within 60 days); or
- (vi) we breach any representation, warranty, covenant or other term or condition of any Transaction Document, except, in the case of a breach of a covenant which is curable, only if such breach remains uncured for a period of five (5) consecutive trading days.

Redemption Right of the Holders Upon a Change of Control. In the event of a fundamental transaction, as described in the certificate of designations, generally including, among other transactions, any merger with or into another entity in which we are not the surviving entity or our stockholders immediately prior to such merger or consolidation do not own at least 50% of the outstanding voting securities of the surviving entity, or a sale of all or substantially all of our assets, each Holder will have the right, at such Holder's option, to require us to redeem all or a portion of such Holder's Preferred Shares. Any such Change of Control redemption would be at a price per Preferred Share equal to 125% of the greatest of (i) the Conversion Amount being redeemed, (ii) the product of (A) the Conversion Amount being redeemed multiplied by (B) the quotient determined by dividing (1) the greatest closing sale price of the common stock during the period specified in the certificate of designations by (2) the Conversion Price, and (iii) the product of (A) the Conversion Amount being redeemed and (B) the quotient determined by dividing (1) the aggregate cash consideration and the aggregate cash value of any non-cash consideration per share of common stock to be paid to holders of the common stock upon consummation of such Change of Control by (2) the Conversion Price.

Fundamental Transactions. We will not enter into a "fundamental transaction" unless the successor assumes our obligations under the certificate of designations and the warrants to purchase common stock issued in this offering and the successor entity or its parent is a publicly traded corporation whose common stock is quoted on or listed for trading on one of the stock exchanges described in the certificate of designations. Upon the occurrence of a fundamental transaction, the successor entity will succeed to our obligations.

Limitation on Beneficial Ownership. We will not effect any conversion of Preferred Shares, and no Holder shall have the right to convert any Preferred Shares, to the extent that after giving effect to such conversion, such Holder (together with its affiliates and certain attributable parties) would beneficially own in excess of 9.99% (the "Maximum Percentage") of the shares of our common stock outstanding immediately after giving effect to such conversion. For purposes of the foregoing, the number of shares of common stock beneficially owned by a Holder and its affiliates and attributable parties shall include the number of shares of common stock issuable upon conversion of the Preferred Shares with respect to which the determination is being made, but shall exclude the number of shares of common stock which would be issuable upon (A) conversion of the remaining, nonconverted Preferred Shares beneficially owned by such Holder or any of its affiliates or attributable parties and (B) exercise or conversion of the unexercised or unconverted portion of any other of our securities (including, without limitation, the Warrants) beneficially owned by such Holder or any of its affiliates or attributable parties subject to a limitation on conversion or exercise analogous to the limitation contained in the certificate of designations. Except as set forth in the preceding sentence, beneficial

#### Table of Contents

ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended. By written notice to us, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99%; provided that (i) any such increase will not be effective until the sixty-first (61st) day after such notice is delivered to us, and (ii) any such increase or decrease will apply only to the Holder providing such written notice and its to its affiliates and not to any other Holder.

Exchange Cap. We may not issue any shares of common stock upon conversion of any Preferred Shares or otherwise pursuant to the terms of the Series D Certificate of Designations if the issuance of such shares of common stock would, together with the shares of common stock issued in the Common Offering, exceed the aggregate number of shares of common stock which we may issue upon exercise or conversion (as the case may be) of the Preferred Shares without breaching our obligations under the rules of the Nasdaq Capital Market, unless we obtain the approval of our stockholders as required by the applicable rules of the Nasdaq Capital Market for issuances of shares of Common Stock in excess of such amount.

Reservation of Shares Issuable Upon Conversion. So long as any Preferred Shares remain outstanding, we will be required to all times reserve at least 140% of the number of shares of common stock as shall from time to time be necessary to effect the conversion of all of the Preferred Shares then outstanding (without regard to any limitations on conversions and assuming the Preferred Shares remain outstanding until the maturity date).

Liquidation Preference. In the event of either a voluntary or involuntary liquidation, dissolution or winding up of us or our subsidiaries, the assets of which constitute all or substantially all of the assets of our business and that of our subsidiaries taken as a whole, in a single transaction or series of transactions (a "liquidation event"), the Holders shall be entitled to receive in cash out of our assets, whether from capital or from earnings available for distribution to its stockholders, after any amount (including the Series C Liquidation Amount) that is required to be paid to our Series C Preferred Stock and before any amount shall be paid to the holders of any of capital stock ranking junior to the Preferred Shares, but pari passu with any capital stock then outstanding that ranks pari passu with the Preferred Shares, an amount per Preferred Share equal to the greater of (A) 125% of the Conversion Amount thereof on the date of such payment and (B) the amount per share such Holder would receive if such Holder converted such Preferred Shares into common stock immediately prior to the date of such payment.

Transfer of Shares. A Holder may transfer some or all of its Preferred Shares, except that no Preferred Shares may be sold or transferred other than to a U.S. person as described in section 7701(a)(30) of the Internal Revenue Code of 1986, as amended.

## Warrants

The following description of the warrants offered hereby is a summary. It summarizes only those aspects of the warrants that we believe will be most important to your decision to invest in the warrants. You should keep in mind, however, that it is the terms in the warrants, and not this summary that define your rights as a holder of the warrants. There may be other provisions in the warrants that are also important to you. You should read the forms of the warrants for a full description of the terms of the warrants.

Each full warrant entitles the holder thereof to purchase one share of our common stock at an exercise price equal to \$ per share. The warrants will be exercisable during the period commencing on the six-month anniversary of the date of original issuance and ending five years from such six-month anniversary, the expiration date of the warrants.

#### **Table of Contents**

The warrants may be exercised by delivering to the Company a written notice of election to exercise the warrant, appropriately completed, duly signed and delivered, and delivering to the Company cash payment of the exercise price, if applicable. Upon delivery of the written notice of election to exercise the warrant, appropriately completed and duly signed, and cash payment of the exercise price, if applicable, on and subject to the terms and conditions of the warrant, we will deliver or cause to be delivered, to or upon the written order of such holder, the number of whole shares of common stock to which the holder is entitled, which shares may be delivered in book-entry form. If a warrant is exercised for fewer than all of the shares of common stock for which such warrant may be exercised, then upon request of the holder and surrender of such warrant, we shall issue a new warrant exercisable for the remaining number of shares of common stock.

If, and only if, a registration statement relating to the issuance of the shares underlying the warrants is not then effective or available, a holder of warrants may exercise the warrants on a cashless basis, where the holder receives the net value of the warrant in shares of. However, if an effective registration statement is available for the issuance of the shares underlying the warrants, a holder may only exercise the warrants through a cash exercise. Shares issued pursuant to a cashless exercise would be issued pursuant to the exemption from registration provided by Section 3(a)(9) of the Securities Act, and thus the shares of common stock issued upon such cashless exercise would take on the characteristics of the warrants being exercised, including, for purposes of Rule 144(d) promulgated under the Securities Act, a holding period beginning from the original issuance date of the warrants.

If we fail to timely deliver shares of common stock pursuant to any warrant exercise, and such exercising holder elects to purchase shares of common stock (in an open market transaction or otherwise) to deliver in satisfaction of a sale by such holder of all or a portion of the shares of common stock for which such warrant was exercised, then we will be required to deliver, at the holder's election, either (i) an amount in cash equal to the full purchase price paid by the holder to acquire such alternative shares or (ii) (A) the shares of common stock for which the warrant was exercised and (B) an amount in cash equal to the excess (if any) by which the price paid for the alternative shares exceeds any trading price of the common stock selected by the holder in writing as in effect at any time during the period beginning on the exercise date and ending on the date such shares are delivered.

If, at any time while the warrants are outstanding, we directly or indirectly, in one or more related transactions, enter into a fundamental transaction, as described in the warrants and generally including any merger with or into another entity in which we are not the surviving entity or our stockholders immediately prior to such merger or consolidation do not own at least 50% of the outstanding voting securities of the surviving entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then each holder shall become entitled to receive the same amount and kind of securities, cash or property as such holder would have been entitled to receive upon the occurrence of such fundamental transaction if the holder had been, immediately prior to such fundamental transaction, the holder of the number of shares of common stock then issuable upon exercise of such holder's warrants. Any successor to us, surviving entity or the corporation purchasing or otherwise acquiring such assets shall assume the obligation to deliver to the holder such alternate consideration, and the other obligations, under the warrants. Additionally, following any fundamental transaction that is also a change of control, as described in the warrants, then if elected by the warrant holder via written notice delivered to us within 30 days following such change of control, we must acquire (or cause the successor entity to acquire) all of the electing holder's warrants outstanding as of the effective date of such change of control by paying to such holder, at our option, either (i) common stock (or qualifying securities of the successor entity) valued at the value of the consideration received by the shareholders in such change of control or (ii) cash, in an amount equal to the Black-Scholes valuation of the unexercised portion of such holder's warrants that remained as of the effective date of such change of control.

#### **Table of Contents**

The exercise price and the number and type of securities purchasable upon exercise of the warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of our assets and certain other events. The terms of the warrants may make it difficult for us to raise additional capital at prevailing market terms in the future.

If, at any time while the warrants are outstanding, we declare or make any dividend or other distribution of our assets to holders of shares of our common stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) or we grant, issue or sell any options, convertible securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of common stock (in each case, "Distributed Property"), then each holder of a warrant shall be entitled to acquire, with respect to the shares of common stock issuable upon exercise of such warrant, the Distributed Property that such holder would have been entitled to receive had the holder been the record holder of such number of shares of common stock issuable upon exercise of the warrant immediately prior to the record date for such Distributed Property.

So long as any of the warrants remain outstanding, we are required to maintain a number of authorized and unreserved shares of common stock equal to at least 100% of the maximum number of shares of common stock issuable upon the exercise of all of the warrants then outstanding. If we fail to maintain such a number of authorized and unreserved shares of common stock, we must take all necessary action to increase our authorized shares of common stock to an amount sufficient to allow the immediate exercise of the warrants then outstanding, in accordance with the requirements of our certificate of incorporation, bylaws and applicable law, including holding a meeting of our stockholders in order to approve an increase in the number of authorized shares of our common stock within 90 days after such failure.

No fractional shares will be issued upon exercise of the warrants. Except as set forth in the respective warrants, the warrants do not confer upon holders any voting or other rights as stockholders of the Company.

A holder (together with its affiliates) may not exercise any portion of the warrant to the extent that the holder would beneficially own more than 4.99% of our outstanding common stock after exercise. The holder may increase or decrease this beneficial ownership limitation to any other percentage not in excess of 9.99%, upon, in the case of an increase, not less than 61 days' prior written notice to us.

#### **Common Stock**

The material terms and provisions of our common stock are described under the caption "Description of Capital Stock" starting on page 11 of the accompanying prospectus.

S-35

#### Table of Contents

#### PRICE RANGE OF COMMON STOCK

Our common stock is traded on the NASDAQ Capital Market under the symbol "PLUG." The following table sets forth the high and low sale price per share of our common stock as reported by the NASDAQ Capital Market for the periods indicated:

2nd Quarter       \$ 2.28 \$ 1.6         3rd Quarter       \$ 1.95 \$ 1.3         4th Quarter (through December 16, 2016)       \$ 1.76 \$ 1.1         Year ended December 31, 2015         1st Quarter       \$ 3.38 \$ 2.4         2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6		Sales prices			
1st Quarter       \$ 2.25 \$ 1.3         2nd Quarter       \$ 2.28 \$ 1.6         3rd Quarter       \$ 1.95 \$ 1.3         4th Quarter (through December 16, 2016)       \$ 1.76 \$ 1.1         Year ended December 31, 2015         1st Quarter       \$ 3.38 \$ 2.4         2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6		High	]	Low	
2nd Quarter       \$ 2.28 \$ 1.6         3rd Quarter       \$ 1.95 \$ 1.3         4th Quarter (through December 16, 2016)       \$ 1.76 \$ 1.1         Year ended December 31, 2015         1st Quarter       \$ 3.38 \$ 2.4         2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6	Year ended December 31, 2016				
3rd Quarter       \$ 1.95 \$ 1.3         4th Quarter (through December 16, 2016)       \$ 1.76 \$ 1.1         Year ended December 31, 2015         1st Quarter       \$ 3.38 \$ 2.4         2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6	1st Quarter	\$ 2.25	\$	1.30	
4th Quarter (through December 16, 2016)       \$ 1.76       \$ 1.15         Year ended December 31, 2015       \$ 3.38       \$ 2.4         2nd Quarter       \$ 2.85       \$ 2.3         3rd Quarter       \$ 2.85       \$ 1.5         4th Quarter       \$ 2.98       \$ 1.76         Year ended December 31, 2014       \$ 11.72       \$ 1.80         1st Quarter       \$ 8.37       \$ 3.60         2nd Quarter       \$ 8.37       \$ 3.60	2nd Quarter	\$ 2.28	\$	1.60	
Year ended December 31, 2015         1st Quarter       \$ 3.38 \$ 2.4         2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6	3rd Quarter	\$ 1.95	\$	1.34	
1st Quarter       \$ 3.38 \$ 2.4         2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6	4th Quarter (through December 16, 2016)	\$ 1.76	\$	1.18	
1st Quarter       \$ 3.38 \$ 2.4         2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6					
2nd Quarter       \$ 2.85 \$ 2.3         3rd Quarter       \$ 2.85 \$ 1.5         4th Quarter       \$ 2.98 \$ 1.7         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.8         2nd Quarter       \$ 8.37 \$ 3.6	Year ended December 31, 2015				
3rd Quarter       \$ 2.85 \$ 1.50         4th Quarter       \$ 2.98 \$ 1.70         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.80         2nd Quarter       \$ 8.37 \$ 3.60	1st Quarter	\$ 3.38	\$	2.42	
4th Quarter       \$ 2.98 \$ 1.70         Year ended December 31, 2014         1st Quarter       \$ 11.72 \$ 1.80         2nd Quarter       \$ 8.37 \$ 3.60	2nd Quarter	\$ 2.85	\$	2.32	
Year ended December 31, 2014         1st Quarter       \$ 11.72       \$ 1.8°         2nd Quarter       \$ 8.37       \$ 3.6°	3rd Quarter	\$ 2.85	\$	1.56	
1st Quarter       \$ 11.72       \$ 1.80         2nd Quarter       \$ 8.37       \$ 3.60	4th Quarter	\$ 2.98	\$	1.76	
1st Quarter       \$ 11.72       \$ 1.80         2nd Quarter       \$ 8.37       \$ 3.60					
2nd Quarter \$ 8.37 \$ 3.6	Year ended December 31, 2014				
	1st Quarter	\$ 11.72	\$	1.89	
3rd Ouarter \$ 6.47 \$ 4.0	2nd Quarter	\$ 8.37	\$	3.62	
	3rd Quarter	\$ 6.47	\$	4.00	
4th Quarter \$ 5.48 \$ 2.60	4th Quarter	\$ 5.48	\$	2.60	

As of November 30, 2016, there were approximately 616 record holders of our common stock. However, management believes that a significant number of shares are held by brokers under a "nominee name" and that the number of beneficial shareholders of our common stock exceeds 100,410.

## Table of Contents

## **DIVIDEND POLICY**

We have never declared or paid cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. Any future determination as to the payment of dividends will depend upon capital requirements and limitations imposed by our credit agreements, if any, and such other factors as our board of directors may consider.

S-37

#### Table of Contents

#### **CAPITALIZATION**

The following table sets forth our unaudited cash and cash equivalents and capitalization as of September 30, 2016:

on an actual basis:

on an as-adjusted basis to give effect to our sale in this offering of shares of Series D convertible preferred stock and warrants to purchase shares of common stock at \$ per combination and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table in conjunction with "Use of Proceeds" as well as our "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements, including the related notes, incorporated by reference into the accompanying prospectus from our annual report on Form 10-K for the fiscal year ended December 31, 2015 and our subsequent quarterly reports on Form 10-Q, and incorporated by reference herein.

	As of September 30, 2016 Actual As Adjusted (unaudited)		per 30, 2016
			As Adjusted dited)
	(		cept share and per
Unrestricted each and each equivalents	\$	share 42,486	data) \$
Unrestricted cash and cash equivalents  Redeemable preferred stock:	Ф	42,480	Ф
Series C redeemable preferred stock, par value \$0.01 (aggregate involuntary liquidation preference			
\$16,664) 10,431 shares authorized, 5,231 issued and outstanding actual and as adjusted	\$	1,153	
Stockholders' equity:	Ψ	1,133	
Common Stock, par value \$0.01; 450,000,000 shares authorized; 181,009,135 shares issued and			
180,431,759 outstanding, actual; shares issued and outstanding, as adjusted	\$	1,810	
Series D Convertible Preferred Stock, par value \$0.01; 0 shares authorized; 0 shares issued and	-	2,020	
outstanding, actual; shares authorized and issued and outstanding, as adjusted			
Additional paid-in capital	\$	1,126,007	
Accumulated other comprehensive income	\$	1,115	
Accumulated deficit	\$	(1,032,230)	
Less common stock in treasury 577,376 shares	\$	(3,084)	
Total stockholders' equity	\$	93,618	
Total capitalization(1)	\$	149,481	\$

<sup>(1)</sup> Total capitalization represents the sum of total stockholders' equity, long-term debt and capital lease obligations.

The foregoing table and discussion are based on 180,431,759 shares of common stock outstanding as of September 30, 2016, assumes no conversion or exercise of the warrants offered hereby, and excludes:

14,982,570 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$2.87 per share;

1,057,877 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016;

#### Table of Contents

577,376 shares of common stock in treasury;

26,667 shares of common stock issuable upon the vesting of restricted stock units;

5,554,594 shares of common stock issuable upon conversion of our Series C Redeemable Convertible Preferred Stock at a conversion price of \$0.2343 per share;

4,000,100 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.00 per share. With respect to 4,000,000 of such shares underlying such warrants, an issuance of securities by us at a price below \$4.00 per share results in the adjustment of the exercise price of such warrants to be equal to issuance price of such securities, which, as measured in accordance with the terms of such warrants, is expected to result in an exercise price of less than \$1.00 per share, and may be significantly less than \$1.00 per share; and

shares of common stock and shares of common stock issuable upon exercise of warrants that we are simultaneously offering in our Common Offering. See "Summary Recent Developments" for more information.

S-39

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

	Six Months Ended June 30,
	2012 2011
Investment income:	
Interest and dividends	\$284 \$685
Gain/(loss) on sale or write-down of securities and other investments	(2,350) 500
	(2,066) 1,185
Gain/(loss) on derivative transactions	(1,004) 1,178
Miscellaneous — net	(2) 183
	\$(3,072) \$2,546

Note 15 – Severance and Relocation Costs:

In the first quarter of 2012, the Company announced the relocation of the technical management of its conventional International Flag crude oil tanker fleet from its Newcastle, U.K. office to its Athens, Greece office. In connection therewith, approximately 50 employees have been or will be terminated in Newcastle. In connection therewith, the Company expects to record approximately \$3,100 in costs related to severance and transfer of vessel management during 2012. As of June 30, 2012, the Company has recognized severance and relocation related costs totaling \$2,213.

Note 16 — Contingencies:

The Internal Revenue Service ("IRS") imposed penalties totaling approximately \$3,500 against certain U.S. Flag vessel owning subsidiaries of the Company due to alleged delinquent excise tax registration applications and delinquent filing of information returns. The Company has denied the applicability of the penalties in question and is vigorously contesting the matter with the IRS. As a result of certain administrative protocols, the Company had to pay the assessed penalties in order to formally file suit for a refund. The court case is scheduled for September 2013. As of June 30, 2012, the Company has paid \$3,500 in penalties and such amounts are included in other receivables in the accompanying consolidated balance sheet. The Company believes, based on the merits of the case, that the likelihood of an unfavorable judgment is more than remote but less than probable. Accordingly, no provisions have been made in the Company's financial statements for a potential loss as of June 30, 2012, as the Company does not believe there is any one amount within the range of likely losses (from \$0 to \$3,500) that is a better estimate than another.

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OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

MANAGEMENT'S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATIONS

#### General:

The Company is one of the largest independent bulk shipping companies in the world. The Company's operating fleet as of June 30, 2012, consisted of 112 vessels aggregating 10.7 million dwt and 864,800 cbm, including 45 vessels that have been chartered-in under operating leases. In addition to its operating fleet of 112 vessels, two newbuilds are scheduled for delivery in 2013, bringing the total operating and newbuild fleet to 114 vessels.

All dollar amounts are in thousands, except daily dollar amounts and per share amounts.

## **Operations:**

The Company's revenues are highly sensitive to patterns of supply and demand for vessels of the size and design configurations owned and operated by the Company and the trades in which those vessels operate. Rates for the transportation of crude oil and refined petroleum products from which the Company earns a substantial majority of its revenues are determined by market forces such as the supply and demand for oil, the distance that cargoes must be transported, and the number of vessels expected to be available at the time such cargoes need to be transported. The demand for oil shipments is significantly affected by the state of the global economy and level of OPEC exports. The number of vessels is affected by newbuilding deliveries and by the removal of existing vessels from service, principally because of storage, scrappings or conversions. The Company's revenues are also affected by the mix of charters between spot (Voyage Charter) and long-term (Time or Bareboat Charter). Because shipping revenues and voyage expenses are significantly affected by the mix between voyage charters and time charters, the Company manages its vessels based on TCE revenues. Management makes economic decisions based on anticipated TCE rates and evaluates financial performance based on TCE rates achieved.

Overview

Second quarter average spot fixture rates for crude oil tankers were higher than those in the second quarter of 2011 primarily due to an increase in worldwide crude oil inventories of about 2.1 million barrels per day ("b/d") during the second quarter of 2012 compared with an inventory drawdown of approximately 400,000 b/d in the second quarter of 2011. Spot rates for Product Carriers were, however, significantly lower than those in the second quarter of 2011 as oil demand declined in both Europe and the U.S. and led to a reduction in transatlantic movements. Additionally, shipowners in Asia, where spot rates were even lower, moved their excess tonnage into the Atlantic Basin, which resulted in an oversupply that further weighed on rates.

The sanctions against Iran that became effective on July 1, 2012 also benefitted tonne-mile demand as countries in the European Union ("EU") and Asia (South Korea, Japan, Singapore and China) either significantly reduced or eliminated their Iranian crude oil imports and began to source crude oil from more distant sources well before the effective date. Countries such as China also increased its commercial and strategic crude oil inventory reserve levels while Saudi Arabia shipped crude oil to inventory storage facilities in both Asia and Europe, adding to tonne-mile demand growth. A reduction in the Brent-Dubai price differential during the first half of 2012 compared with the same timeframe in 2011 resulted in a significant increase in the movement of crude oil from West Africa to Asia as Asian refiners found it more profitable to run light sweet crudes from the Atlantic Basin areas as opposed to crudes from the Middle East.

## OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

World oil demand in the second quarter of 2012 amounted to 88.8 million b/d, an increase of approximately 870,000 b/d, or 1.0%, over the second quarter of 2011. Oil demand increased by 1.15 million b/d in non-OECD areas but declined by 270,000 b/d in OECD countries. Transportation fuels accounted for most of the increase in non-OECD oil demand, led by increases in Asia of about 470,000 b/d followed by increases in the Middle East, the FSU and in Latin America of 200,000 b/d, 190,000 b/d and 140,000 b/d, respectively.

Reduced OECD oil demand was centered in the Atlantic Basin, as European demand declined by 480,000 b/d and North American demand fell by 230,000 b/d as ongoing economic problems persisted, especially in Europe. The weak demand in the Atlantic Basin was somewhat offset by a 440,000 b/d increase in demand in OECD Pacific areas, specifically in Japan, which imported significant volumes of low sulfur fuel oil and direct burn crudes necessary for power generation purposes as their nuclear power plants remained closed as a result of damage caused by the earthquake / tsunami in the second quarter of last year.

OPEC production during the second quarter of 2012 averaged 31.8 million b/d, about 2.4 million b/d higher than the second quarter of 2011. Production in Libya, which was shut-in during most of the second quarter of 2011 due to its civil war, increased to almost pre-civil war levels and was responsible for approximately 50% of the total increase in OPEC production. The remaining increase of 1.2 million b/d occurred in Middle East OPEC countries as reductions in Iranian production due to pending sanctions were more than offset by increases in all other Middle East OPEC countries, especially Saudi Arabia, Kuwait and Iraq.

Following a 1.3 million b/d increase in inventories during the first quarter of 2012, world inventory levels increased by about 2.1 million b/d in the second quarter of 2012. According to the International Energy Agency ("IEA"), about 15% of the second quarter inventory increase occurred in OECD areas, primarily in the U.S. where crude oil inventory levels increased by about 225,000 b/d. China also imported significantly more crude oil than its refineries required, including record crude imports of 6.0 million b/d in May. Much of this surplus crude oil was used to partially fill China's recently completed Phase 2 Strategic Petroleum Reserve that has a total capacity of 230 million barrels.

Rates for VLCC, Suezmaxes, Aframaxes and Panamaxes during the first half of 2012 were above those realized in the first half of 2011 while rates for Product Carriers were lower. First half 2012 crude tanker rates reflected an increase in inventory levels of about 1.7 million b/d compared with an inventory drawdown of about 200,000 b/d that occurred in the same timeframe in 2011. Lower product rates reflected the continued oversupply of tonnage in the Atlantic Basin combined with lower oil demand in both Europe and the U.S. that that reduced trans-Atlantic movements.

World oil demand during the first six months of 2012 averaged approximately 89.1 million b/d, an increase of 600,000 b/d, or 0.6%, over the first half of 2011 as demand growth in non-OECD areas of 1.2 million b/d was partially offset by a decline of 600,000 b/d in OECD countries. A significantly warmer winter in the U.S. in 2012 and the continuing financial / economic crisis in Europe during the first half of 2012 resulted in a decline in oil demand in Europe and North America of one million b/d compared with the same timeframe in 2011. Oil demand in OECD Pacific increased by about 430,000 b/d given the increase in oil-fired power generation required in Japan.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

OPEC crude oil production during the first six months of 2012 averaged approximately 31.6 million b/d, about 1.9 million b/d more than the first half of 2011. Saudi Arabia, which has stated that it will supply all the crude required by its customers and fill the void caused by reduced Iranian production due to sanctions, increased its first half production by about one million b/d compared with the same timeframe in 2011. Additionally, higher production in Kuwait and Iraq more than offset the 300,000 b/d reduction in Iranian output. First half 2012 Libyan production was up about 700,000 b/d compared with the first six months of 2011.

The tanker orderbook as of July 1, 2012 now stands at 13.9% of the existing fleet, based on deadweight tons, a twelve year low. The Aframax and Panamax orderbooks are at 7.4% and 8.8%, respectively, while the Suezmax orderbook is at 20%, the highest in the crude tanker sector. Limited new ordering in the crude tanker sector combined with scrapping of single hull and first generation double hull tankers has resulted in a continuous decline in the orderbook over the last few years that has improved the longer-term supply / demand outlook. The Product Carrier orderbook stands at 13.6% of the existing fleet.

The tables below show the daily TCE rates that prevailed in markets in which the Company's vessels operated for the periods indicated. It is important to note that the spot market is quoted in Worldscale rates, except U.S. Flag, which is based on the American Tanker Rate Schedule and quoted in American rates ("AR"). The conversion of Worldscale rates to the following TCE rates required the Company to make certain assumptions as to brokerage commissions, port time, port costs, speed and fuel consumption, all of which will vary in actual usage. In each case, the rates may differ from the actual TCE rates achieved by the Company in the period indicated because of the timing and length of voyages, waiting time and the portion of revenue generated from long-term charters. For example, TCE rates for VLCCs are reflected in the earnings of the Company approximately one month after such rates are reflected in the tables below, calculated on the basis of fixture dates.

#### International Flag VLCCs

Spot Market TCE Rates VLCCs in the Arabian Gulf\* Three Months Six Months Ended Ended June 30, June 30, 2012 2011 2012 2011 Average \$25,700 \$4,200 \$22,900 \$9,200 \$51,500 \$20,500 \$51,800 \$51,500 High Low \$4,300 \$(10,700) \$(700) \$(10,700)

\* Based on 60% Arabian Gulf to eastern destinations and 40% Arabian Gulf to western destinations

Rates for VLCCs trading out of the Arabian Gulf in the second quarter and first six months of 2012 averaged \$25,700 per day and \$22,900 per day, respectively, which were both more than 100% higher than rates realized in the same periods of 2011. Second quarter VLCC rates were also somewhat higher than those in the first quarter of 2012.

## OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

Long haul crude oil movements increased to both Western and Eastern destinations in the second quarter of 2012 compared with the same timeframe in 2011. Middle East crude oil movements to the U.S. Gulf Coast increased by approximately 400,000 b/d in anticipation of the startup of the Motiva 325,000 b/d refinery expansion at Port Arthur that was configured to process Saudi Arabian crude oil. This expansion was scheduled to begin during the late second quarter / early third quarter timeframe but a mechanical issue forced a shutdown in June. Repairs are now underway to resolve the issue with the full startup of the expansion now forecast to occur in early 2013.

There was also a significant increase in long-haul crude oil movements to Asia, especially to China, South Korea and Japan. Second quarter 2012 seaborne crude oil imports into China increased by 15% compared with the same timeframe in 2011 led by a 40% increase in imports from West Africa (Angola) and Latin America (Venezuela). The reduction in the Brent-Dubai price differential from over \$6 per barrel in the second quarter of 2011 to about \$2.50 per barrel in second quarter of 2012 led to an increase in West African crude shipments to Asia. The closure in February of the 350,000 b/d Hovensa refinery in the Caribbean, which processed Venezuelan crude oil, resulted in additional Venezuelan crude oil available for long- haul exports.

A change in the free trade agreement between the U.K. and South Korea resulted in the elimination of the 3% duty on crude imports from the U.K. that effectively lowered the price of North Sea crude oil imported into South Korea compared with other crudes that still incurred the tariff. North Sea crude oil exports to Korea have averaged about 100,000 b/d during both the second quarter and first six months of 2012 compared with no imports in 2011. This long haul movement benefitted large tankers over the first half of 2012.

There were also additional long haul crude oil movements into Japan from both the Middle East and West Africa. Middle East exports to Japan in the second quarter of 2012 averaged over 3.0 million b/d, an increase of approximately 300,000 b/d compared with the same timeframe in 2011. Additionally, Japan imported approximately 100,000 b/d of additional crude oil from West Africa. These additional crude imports were used for power generation purposes as Japan's nuclear power plants remained closed.

The increase in VLCC rates in the first half of 2012 compared with the same timeframe in 2011 was largely due to the increase in tonne-mile demand resulting from a rise in inventory levels and from the sourcing of alternative crudes by refiners as sanctions against Iran became effective at the end of the second quarter. China imported an average of 5.6 million b/d during the first half of 2 012, an increase of 14% over the same timeframe in 2011. These imports, combined with local production of about 4.1 million b/d, resulted in total crude available for processing of 9.7 million b/d. Refining runs in China averaged about nine million b/d over the first six months of 2012 indicating that about 600,000 b/d of crude oil went into commercial and strategic storage during the first half of 2012.

Enforcement of U.S. and European sanctions against Iran has significantly reduced Iranian crude oil exports. Europe, which imported about 700,000 b/d of Iranian crudes during 2011, began to source alternative crudes from other Middle East producers and from West Africa. India, Japan and South Korea also turned to longer-haul crudes from South America and West Africa, as they reduced their imports from Iran. Additionally, the insurance and banking sanctions have marginalized the Iranian crude fleet effectively removing it from the market and forcing Iran to utilize its own tankers for floating storage purposes.

## OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

There have been 28 VLCCs delivered during the first six months of 2012 while six have been scrapped for a net increase of 22 tankers. There was a total of 593 VLCCs (181.0 million dwt) in service as of July 1, 2012, of which 589 tankers are double hull. The VLCC orderbook totaled 95 vessels (30.1 million dwt) at July 1, 2012, equivalent to 17% of the existing total VLCC fleet, based on deadweight tons.

#### International Flag Suezmaxes

Spot Market TCE Rates Suezmaxes in the Atlantic\* Three Months Six Months Ended Ended June 30. June 30. 2012 2012 2011 2011 Average \$18,500 \$10,200 \$20,200 \$12,600 \$39,400 \$21,200 \$41,500 \$31,100 High Low \$8,800 \$3,000 \$8,800 \$2,000

Rates for Suezmaxes trading out of West Africa in the second quarter of 2012 averaged \$18,500 per day, 82% higher than rates in the second quarter of 2011 but about 16% below rates in the first quarter of 2012. Rates during the first half of 2012 averaged \$20,200 per day, approximately 60% above rates in the first half of 2011.

Rates in the second quarter of 2012 were influenced by higher Angola production, an increase in Libyan crude oil movements to China and the switching by refiners in Asia from Iranian crude to alternative sources (West Africa and Latin America) many of which were longer-haul. Production in Angola during the second quarter of 2012 was 200,000 b/d more than that produced during the same timeframe in 2011 due to the ramp-up in new production. Imports of Libyan crude oil into China increased from an average of about 25,000 b/d in the second quarter of 2011 to approximately 160,000 b/d in the second quarter of 2012, boosting demand for Suezmaxes.

For the most part, the increase in first half 2012 freight rates reflected the same factors that positively impacted rates in the second quarter. Improvement in the VLCC market and rebuilding of the world oil inventory levels were also

<sup>\*</sup> Based on West Africa to the U.S. Gulf Coast

favorable contributing factors.

There was a net growth in the Suezmax fleet of 19 tankers during the first half of 2012 as 30 deliveries were offset by 11 scrappings. The world Suezmax fleet stood at 460 vessels (71.0 million dwt) at July 1, 2012. The Suezmax orderbook was 92 vessels (14.2 million dwt) at July 1, 2012, representing 20% of the existing Suezmax fleet, based on deadweight tons.

## OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

#### International Flag Aframaxes

Spot Market TCE Rates Aframaxes in the Caribbean\* Three Months EndedSix Months Ended June 30. June 30. 2012 2012 2011 2011 Average \$13,600 \$4,800 \$15,400 \$7,300 \$21,900 \$12,500 \$26,800 \$37,500 High Low \$5,900 \$100 \$6,000 \$100

Rates for Aframaxes operating in the Caribbean during the second quarter of 2012 averaged \$13,600 per day, more than double rates in the second quarter of 2011 but 21% below rates in the first quarter of 2012. Rates in the first half of 2012 averaged \$15,400 per day approximately double average rates for the first half of 2011.

Aframax rates benefited from additional demand in the Mediterranean as well as Asia. Production in Libya in the second quarter of 2012 and the first six months of 2012 averaged 1.4 million b/d, significantly above 2011 production levels that averaged just 120,000 b/d in the second quarter and 600,000 b/d in the first half. This incremental volume from Libya provided additional opportunities for Aframax movements of crude oil to Europe.

The Aframax market in the Pacific was supported by additional demand in Japan for oil-based power generation that includes direct burn crude oil and low sulfur fuel oil. Japan's fuel oil imports increased by about 150,000 b/d in both the second quarter and first half of 2012 compared with the same periods in 2011. Due to strict regulations, most of the fuel oil was primarily imported from Korea, Malaysia and Indonesia. Direct burn crudes are required to have a sulfur content of 0.1% or less and Japanese utilities prefer to run crudes from Indonesia, Vietnam, West Africa and Australia. Crude oil imports into Japan from Southeast Asia and Australia increased by approximately 70,000 b/d in the second quarter of 2012 and 100,000 b/d in the first half of 2012 compared with the same timeframes in 2011. Crude oil imports into Japan from the Russian port of Kozmino also increased (by 50,000 b/d in the second quarter of 2012 and by about 30,000 b/d in the first half of 2012).

A new Aframax port began exporting Russian crude oil from the Baltic Sea port of Ust Luga beginning in March, 2012. Exports from the Baltic Sea area have increased by 24% since the port opened providing additional

<sup>\*</sup>Based on Caribbean to the U.S. Gulf and Atlantic Coasts

opportunities for Aframaxes and supporting rates.

Refining utilization levels in the U.S. averaged approximately 88.8% during the second quarter of 2012, an increase from the 85.8% in the second quarter of 2011. While the increase in domestic production in the U.S. from Eagle Ford and Bakken oil shale met most of this demand increase, the need for additional feedstocks in the second quarter of 2012 helped to support the Aframax market.

Somewhat offsetting these positive factors were a reduction in North Sea crude oil production. North Sea crude oil production during the second quarter of 2012 was estimated to be about 3.5 million b/d, or some 350,000 b/d below levels in the second quarter of 2011. Technical problems and unplanned maintenance at fields in both the U.K. and Norway sectors and a strike by Norway's oil workers in mid-June that shut-in about 160,000 b/d of crude oil were key factors that resulted in the lower production.

## OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

There were 28 Aframax tankers added to the fleet since the beginning of 2012 while 14 vessels were scrapped, resulting in a net increase of 14 tankers during the first half of 2012. The world Aframax fleet reached 911 vessels (97.2 million dwt) at July 1, 2012, including 18 single hull tankers. The Aframax orderbook was 65 vessels (7.15 million dwt) at July 1, 2012, representing 7% of the existing Aframax fleet, based on deadweight tons.

#### International Flag Panamaxes

**Spot Market TCE Rates** Panamaxes - Crude and Residual Oil\* Three Months Six Months Ended Ended June 30, June 30, 2012 2011 2012 2011 Average \$16,300 \$9,300 \$13,500 \$12,100 High \$24,200 \$17,100 \$24,200 \$30,000 Low \$6,800 \$1,100 \$1,000 \$-

Rates for Panamaxes that move crude and residual oils averaged \$16,300 per day during the second quarter of 2012, 75% above the corresponding quarter in 2011 and 50% higher than the first quarter of 2012. First half 2012 average rates were 12% higher than those in the first half of 2011.

The main factors contributing to these higher rates, both for the second quarter and first six months of 2012, include an increase in fuel oil exports from Brazil to the West Coast of South America, damage to a crude receiving multi buoy mooring in Chile that resulted in tanker delays and from planned maintenance activities on the Panama Canal that created a bottleneck and also caused delays. Rates were also supported by additional movements of residual feedstock from the Caribbean to the U.S. Gulf Coast. These heavy feedstocks are required as a quality balance to offset the additional volumes of light sweet oil shale, primarily from Eagle Ford, that are now being run by U.S. refiners. Somewhat offsetting these positive factors were a reduction in exports from Colombia.

<sup>\*</sup>Based on 50% Caribbean to U.S. Gulf and Atlantic Coasts and 50% Ecuador to U.S. West Coast

The world Panamax fleet at July 1, 2012 was 453 vessels (32.0 million dwt), including 14 single hull tankers. The Panamax orderbook was 38 vessels (2.8 million dwt) at July 1, 2012, representing 9% of the existing Panamax fleet, based on deadweight tons.

International Flag Handysize Product Carriers

Spot Market TCE Rates Handysize Product Carriers\* Three Months EndedSix Months Ended June 30, June 30, 2012 2012 2011 2011 Average \$4,900 \$11,300 \$8,000 \$10,600 High \$16,100 \$22,000 \$20,700 \$22,000 Low \$(6,600) \$1,100 \$(6,600) \$700

Rates for Product Carriers operating in the Caribbean and trans-Atlantic trades averaged \$4,900 per day during the second quarter of 2012, about 55% below those in both the second quarter of 2011 and the first quarter of 2012. Rates in the first half of 2012 averaged \$8,000 per day, 25% below rates in the first half of 2011.

Lower Product Carrier rates in both the second quarter and the first six months of 2012 relative to the comparable 2011 time periods were primarily due to reductions in product movements to the U.S. East Coast from both Europe and the Caribbean, as the motor gasoline arbitrage window between Europe and the U.S. East Coast effectively closed. The closure of the Hovensa refinery in St. Croix in February of 2012 reduced product imports into the U.S. East Coast by approximately 130,000 b/d in both the second quarter and first half of 2012 compared with the same periods in 2011. During this time, the Asian spot market remained very depressed, well below the weak rates available in the Atlantic Basin. This led to an influx of tonnage into the Atlantic Basin that increased competition in a region that was experiencing reductions in demand. In addition, Product markets were also in backwardation during this period, which limited trading opportunities for Product Carriers.

<sup>\*</sup>Based on 60% trans-Atlantic and 40% Caribbean to the U.S. Atlantic Coast

The U.S. Gulf Coast continued to be an important product export center as product exports in 2012 exceeded 2011 levels. Finished product exports from the U.S. Gulf Coast averaged over 2.0 million b/d in the second quarter of 2012, an increase of approximately 15% from the comparable period in 2011. Product exports from the U.S. Gulf Coast during the first half of 2012 were about 10% over the same period in 2011. The U.S. Gulf Coast is forecast to remain a key exporter of product to both Latin America and West Africa given its cost advantage of being able to use lower price natural gas to run its refineries versus international competitors who must rely on higher priced fuel oil.

The world Handysize Product Carrier fleet in the 29,000 to 53,000 dwt range (includes Product and IMO III Chemical tankers) reached 1,561 vessels (68.1 million dwt) at July 1, 2012. The Handysize orderbook amounted to 196 vessels (9.3 million dwt) at July 1, 2012, equivalent to 14% of the existing Handysize fleet, based on deadweight tons.

U.S. Flag Jones Act Product Carriers and Articulated Tug Barges ("ATBs")

	Average Spot Market TCE Rates				
	Three Mo	onths	Six Months Ended		
	Ended				
	June 30,		June 30,		
	2012	2011	2012	2011	
45,000 dwt Product Carriers	\$57,800	\$32,200	\$54,800	\$33,900	
30,000 dwt ATBs	\$36,000	\$20,300	\$33,900	\$21,500	

Rates for Jones Act Product Carriers and ATBs during the second quarter of 2012 averaged \$57,800 per day and \$36,000 per day, respectively, 79% and 77% higher than those in the second quarter of 2011, respectively, and 12% higher than first quarter 2012 rates. Rates during the first half of 2012 were approximately 60% above those in the comparable 2011 time period for both Product Carriers and ATBs.

The increase in rates in the second quarter of 2012 compared with the same quarter of 2011 reflected both an increase in demand and a reduction in U.S. Flag tanker supply. There were 54 large ocean-going vessels engaged exclusively in the coastwise trades during the second quarter of 2012 compared with 61 at the end of the second quarter of 2011. Additionally, the closures of the St. Croix Hovensa refinery eliminated a source of product supply for Florida but increased employment opportunities for U.S. Flag ATBs that move product from the U.S. Gulf Coast to Florida.

It was recently announced that two refineries on the U.S. East Coast that were either closed or on the verge of closing were to be acquired by companies that are committed to upgrading and operating these refineries. Delta Airlines has agreed to purchase ConocoPhillip's 185,000 b/d Trainer refinery (closed since September 2011) and will perform

maintenance and upgrade work that will allow it to commence fuel production by the end of 2012. The Carlyle Group has agreed to purchase the 335,000 b/d Sunoco Philadelphia refinery with the intent of upgrading the refinery and sourcing lower cost feedstock and refinery fuel from gas reserves in the U.S.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

The total Jones Act fleet of Product Carriers, ATBs and ITBs ("Integrated Tug Barges") remained at 54 vessels during the second quarter of 2012 as there were no additions to or removals from the fleet. Since the beginning of the year, there has been a decrease of one vessel through demolition with no newbuilding deliveries. There were no idle Jones Act fleet vessels at the end of the second quarter of 2012.

At June 30, 2012, the Jones Act Product Carrier orderbook consisted of five tankers and ATBs in the 160,000 to 420,000 barrel size range scheduled for delivery through 2015. These additions will be partially offset by the deletion of one vessel that is expected to be retired in accordance with OPA 90 phaseout regulations.

Outlook

According to the IEA, world oil demand in 2012 is expected to average 89.9 million b/d, an increase of 0.9%, or 800,000 b/d, over 2011. Oil demand in the third and fourth quarters is forecast to increase by 1.0% and 1.2%, respectively, from the third and fourth quarters of 2011. Oil demand in the fourth quarter of 2012 is forecast to reach a record level of 90.9 million b/d.

It is estimated that oil demand in the third quarter of 2012 will reach 90.4 million b/d, an increase of approximately 1.7 million b/d over the second quarter of 2012. Second half 2012 oil demand is forecast to increase by about 1.6 million b/d compared with demand in the first half of 2012 and by about 1.2 million b/d compared with the same timeframe in 2011.

Non-OPEC production in the third quarter of 2012 is forecast to be the same as in the second quarter of 2012. Ongoing turmoil in Syria, Yemen and Sudan is expected to continue to shut-in about 600,000 b/d of production through the end of the year. The increase in demand in the third quarter of 2012 over the second quarter of 2012 will therefore likely be met by a combination of higher OPEC production and possible inventory drawdowns.

Additions to refining capacity in the U.S. and Asia will contribute to stronger year-on-year growth in refining runs. Refining capacity and runs will increase by more than 500,000 b/d in Asia primarily as new distillation capacity comes on line, primarily in China and India. The increase in oil demand in the third quarter of 2012 will result in higher refining runs in the U.S. and Europe and the startup of refining capacity on the U.S. East Coast during the fourth quarter will boost runs. The startup of the Motiva refining expansion that is now forecast to occur in late 2012 / early 2013 will result in higher refining runs on the U.S. Gulf Coast with corresponding incremental long-haul crude

movements from the Middle East. This, in turn, will allow for an increase in products available for export. The larger Gulf Coast refinery output could also provide clean products that could be moved on U.S. Flag tankers to meet demand in Florida and other South Atlantic States that previously relied on imports from the Caribbean. Additional capacity from the startup of incremental refining capacity in India will exceed its domestic oil demand growth and allow it to export additional products to Europe, the U.S., Africa and other Asian countries.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

The impasse between the world community and Iran with regard to its nuclear program will likely continue to affect world trade in crude oil. Exports from Iran are forecast to decline by approximately one million b/d following the EU embargo that went into place on July 1, 2012 and as Asian customers reduce their imports of Iranian crud as well. Additional banking and insurance sanctions against Iran also limit its ability to export crude and utilize spot tankers to move and / or store their crude oil. It appears unlikely that sanctions will be lifted anytime soon and that tensions could continue to escalate in light of Iran's threat to close the Straits of Hormuz through which about 25% of the world's oil production moves to customers in Asia, Europe, Africa and both North and South America.

Approximately 35% of the total 2012 tanker orderbook has been delivered thus far through the first half of the year. It is likely that, in a repeat of the pattern experienced in the last couple of years, slippage will occur as tankers scheduled for delivery over the remainder of 2012 are delivered in 2013 instead while other orders could be cancelled or converted to other vessel types such as LNG Carriers.

The world fleet is expected to grow between 4% and 6% in 2012, depending on the number of single hull tankers that are scrapped and the number of scheduled deliveries that are delayed into 2013.

Freight rates remain highly sensitive to severe weather and geopolitical events. Hurricanes in the Gulf of Mexico during the second half of 2012 could have a pronounced effect on freight rates for both crude oil and product movements depending on the extent to which upstream and downstream facilities are affected. Geopolitical events, such as the tensions in African countries and the Middle East, could also cause changes in supply patterns that could significantly impact rates. The rate of economic recovery and pace of restructuring activities in Japan and decisions concerning its nuclear power plants could also influence trade flows.

#### **Update on Critical Accounting Policies:**

The Company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the U.S., which require the Company to make estimates in the application of its accounting policies based on the best assumptions, judgments and opinions of management. For a description of all of the Company's material accounting policies, see Note 1 to the Company's consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2011.

## **Results from Vessel Operations:**

During the second quarter of 2012, results from vessel operations decreased by \$6,393 to a loss of \$30,439 from a loss of \$24,046 in the second quarter of 2011. During the first six months of 2012, results from vessel operations decreased by \$4,194 to a loss of \$54,081 from a loss of \$49,887 in the first six months of 2011. These decreases primarily resulted from period-over-period increases in depreciation expense relating to eight newbuild vessel deliveries in 2011 and early 2012, partially offset by growth in TCE revenues and reductions in charter hire expense period-over-period. Decreases in charter hire expense in each of the 2012 periods are primarily related to the redelivery of loss making chartered-in VLCCs and Aframaxes discussed below.

During the second quarter of 2012, TCE revenues increased by \$2,670, or 1%, to \$210,001 from \$207,331 in the second quarter of 2011 primarily due to (i) the strengthening of the overall Jones Act market, which resulted in the U.S. segment's Jones Act ATBs and Product Carriers providing improved results and (ii) increased average spot rates earned in the VLCC and Suezmax fleets. These positive factors were partially offset by decreases in the average blended rates earned by International Flag Aframaxes and Handysize Product Carriers.

## OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

During the first six months of 2012, TCE revenues increased by \$10,137, or 2%, to \$424,030 from \$413,893 in the first six months of 2011. This increase reflected the strengthening U.S. Flag market discussed above, along with deliveries of a newbuild Jones Act Shuttle Tanker and a newbuild Jones Act Product Carrier, which are employed on time charters at attractive rates. The growth in the U.S. Flag segment was partially offset by a decrease in TCE revenues in the International Crude Tankers segment, which resulted from substantial idle time for the Company's ULCC as well as a decline in average daily TCE rates for the smaller Crude vessel classes (Aframaxes and Panamaxes).

See Note 4 to the condensed financial statements for additional information on the Company's segments, including equity in income of affiliated companies and reconciliations of (i) time charter equivalent revenues to shipping revenues and (ii) loss from vessel operations for the segments to loss before income taxes, as reported in the consolidated statements of operations. Information with respect to the Company's proportionate share of revenue days for vessels operating in companies accounted for using the equity method is shown below in the discussion of "Equity in Income of Affiliated Companies."

Thurs Months Ended Cir. Months Ended

#### International Crude Tankers

	Three Months Ended Six		Six Month	Six Months Ended	
	June 30,		June 30,		
	2012	2011	2012	2011	
TCE revenues	\$79,006	\$76,233	\$154,506	\$165,042	
Vessel expenses	(23,635)	(23,135)	(47,826)	(48,285)	
Charter hire expenses	(40,913)	(44,935)	(80,465)	(88,201)	
Depreciation and amortization	(20,400)	(17,948)	(40,771)	(35,636)	
Loss from vessel operations (a)	\$(5,942)	\$(9,785)	\$(14,556)	\$(7,080)	
Average daily TCE rate	\$17,746	\$17,197	\$17,978	\$18,881	
Average number of owned vessels (b)	28.0	26.0	28.0	26.0	
Average number of vessels chartered-in under operating leases	23.0	23.1	21.0	22.8	
Number of revenue days <sup>(c)</sup>	4,451	4,433	8,594	8,741	
Number of ship-operating days:(d)					
Owned vessels	2,548	2,366	5,088	4,706	
Vessels bareboat chartered-in under operating leases	364	364	728	752	
Vessels time chartered-in under operating leases	1,246	1,535	2,492	3,026	
Vessels spot chartered-in under operating leases	486	207	602	352	

Income/(loss) from vessel operations by segment is before general and administrative expenses, severance and relocation costs and gain/(loss) on disposal of vessels and impairment charges.

<sup>(</sup>b) The average is calculated to reflect the addition and disposal of vessels during the period.

(c) Revenue days represent ship-operating days less days that vessels were not available for employment due to repairs, drydock or lay-up. Revenue days are weighted to reflect the Company's interest in chartered-in vessels.

Ship-operating days represent calendar days.

## OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

The following tables provide a breakdown of TCE rates achieved for the three and six months ended June 30, 2012 and 2011, between spot and fixed earnings and the related revenue days. The information in these tables is based, in part, on information provided by the pools or commercial joint ventures in which the segment's vessels participate.

#### Three Months Ended June 30,

	2012 Spot Earnings	Fixed Earnings	2011 Spot Earnings	Fixed Earnings
VLCCs:*				
Average rate	\$27,451	\$ -	\$20,400	\$ -
Revenue days	1,091	-	1,230	-
Suezmaxes:				
Average rate	\$19,309	\$ -	\$13,630	\$-
Revenue days	570	-	456	-
Aframaxes:				
Average rate	\$14,617	\$14,884	\$14,840	\$20,588
Revenue days	1,972	39	1,681	156
Panamaxes:				
Average rate	\$17,199	\$13,619	\$17,905	\$17,226
Revenue days	384	304	455	364

# Six Months Ended June 30,

	2012		2011	
	Spot	Fixed	Spot	Fixed
	Earnings	Earnings	Earnings	Earnings
VLCCs:*				
Average rate	\$25,701	\$-	\$22,296	\$-
Revenue days	2,297	-	2,502	-
Suezmaxes:				
Average rate	\$21,999	\$-	\$14,673	\$-
Revenue days	1,087	-	780	-
Aframaxes:				
Average rate	\$15,056	\$15,031	\$16,476	\$20,946
Revenue days	3,323	212	3,317	332
Panamaxes:				

Average rate \$15,993 \$13,480 \$19,305 \$17,271 Revenue days 825 668 905 724

Effective as of the end of the second quarter of 2012, the Tankers International Pool commenced reporting the earnings of its VLCC fleet in two groups: VLCCs under 15 years, and VLCCs aged 15 years and older. The average rates reported in the above tables for VLCCs commencing with the second quarter of 2012 represent VLCCs under 15 years of age. Average rates for prior quarters have not been adjusted. The average TCE rates earned by Company's VLCCs on an overall basis during the three and six months ended June 30, 2012 were \$26,731 and \$25,460 respectively.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

During the second quarter of 2012, TCE revenues for the International Crude Tankers segment increased by \$2,773, or 4%, to \$79,006 from \$76,233 in the second quarter of 2011 reflecting increases in average spot rates earned in the VLCC and Suezmax fleets. This growth in segment revenues during the quarter was reduced somewhat by the results of the Company's ULCC, which experienced idle time during the quarter, as well as a 131 day increase in drydock days for the Panamax crude fleet. The increase in revenue days of 18 reflects an increase in Suezmaxes that were chartered-in at current market levels on a short-term basis, a greater number of vessels spot chartered-in by the OSG Lightering business, and the delivery of two newbuild VLCCs, one in the third quarter of 2011 and a second in early January 2012. Partially offsetting these increases were the sale in June 2011 of one double-sided Aframax, which had been chartered-in by the OSG Lightering business and had generated poor returns since the second quarter of 2010, and 313 fewer chartered-in days in the VLCC fleet. The return of the VLCC charters-in had a positive impact on results from vessel operations since such charters-in were fixed at levels above those currently achievable in the market. Several Aframaxes with high charter rates were also returned and replaced with charters-in that are more in-line with current market conditions.

Vessel expenses increased by \$500 to \$23,635 in the second quarter of 2012 from \$23,135 in the second quarter of 2011. The increase was principally attributable to a 182 day increase in owned and bareboat chartered-in days during the quarter, which reflects the newbuild VLCC deliveries noted above. This increase was partially offset by a decrease in average daily expenses of \$430 per day. This decrease in average daily expenses resulted principally from the timing of deliveries of lubricating oils, stores and spares and lower crew and repair costs. Charter hire expenses decreased by \$4,022 to \$40,913 in the second quarter of 2012 from \$44,935 in the second quarter of 2011, principally as a result of the changes in the chartered-in fleet referred to above. The decrease in charter hire expense also reflects a \$5,000 per day reduction in daily time charter-in rates for two VLCCs and two Aframaxes. Depreciation expense increased by \$2,452 to \$20,400 in the second quarter of 2012 from \$17,948 in the second quarter of 2011, as a result of the two newbuild VLCCs referred to above.

During the first six months of 2012, TCE revenues for the International Crude Tankers segment decreased by \$10,536, or 6%, to \$154,506 from \$165,042 in the first six months of 2011 primarily as a result of lower average blended rates for the Aframax and Panamax sectors along with substantial idle time for the Company's ULCC during the first six months of 2012. In addition, the OSG Lightering business experienced a 24% reduction in the number of lighterings performed in the first six months of 2012 compared with the same period in 2011. When combined with a weakening in rates achieved, the results from vessel operations were \$2,758 lower in the 2012 period.

Charter hire expenses decreased by \$7,736 to \$80,465 in the first six months of 2012 from \$88,201 in the first six months of 2011, primarily resulting from a decrease of 308 chartered-in days in the current period. Chartered-in VLCCs declined by 523 days, while Aframaxes decreased by 94 days. These decreases offset an increase in chartered-in days for Suezmaxes . This change in mix, however, reduced charter-in expense since the charters for the VLCCs and Aframaxes were entered into before rates came under pressure whereas the short-term charters on the Suezmaxes commenced at current market rates. Depreciation expense increased by \$5,135 to \$40,771 in the first six

months of 2012 from \$35,636 in the first six months of 2011, as a result of the delivery of the two newbuild VLCCs referred to above.

# OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

#### International Product Carriers

	Three Months Ended		Six Month	s Ended
	June 30,		June 30,	
	2012	2011	2012	2011
TCE revenues	\$44,169	\$51,193	\$96,067	\$96,464
Vessel expenses	(17,416)	(16,830)	(35,525)	(33,787)
Charter hire expenses	(31,010)	(29,227)	(61,939)	(58,114)
Depreciation and amortization	(12,127)	(9,547)	(24,282)	(18,591)
Loss from vessel operations	\$(16,384)	\$(4,411)	\$(25,679)	\$(14,028)
Average daily TCE rate	\$11,398	\$15,061	\$12,396	\$14,295
Average number of owned vessels	20.0	16.6	20.0	16.3
Average number of vessels chartered-in under operating leases	22.8	21.8	22.9	21.7
Number of revenue days	3,874	3,399	7,750	6,748
Number of ship-operating days:				
Owned vessels	1,820	1,508	3,637	2,948
Vessels bareboat chartered-in under operating leases	728	728	1,456	1,476
Vessels time chartered-in under operating leases	1,351	1,257	2,704	2,445

The following tables provide a breakdown of TCE rates achieved for the three and six months ended June 30, 2012 and 2011, between spot and fixed earnings and the related revenue days. The information is based, in part, on information provided by the commercial joint ventures in which certain of the segment's vessels participate.

## Three Months Ended June 30,

	2012		2011	
	Spot	Fixed	Spot	Fixed
	Earnings	Earnings	Earnings	Earnings
Panamax Product Carriers:				
Average rate	\$16,010	\$12,314	\$15,214	\$-
Revenue days	404	142	398	-
Handysize Product Carriers:				
Average rate	\$10,534	\$14,976	\$15,153	\$13,950
Revenue days	3,033	295	2,803	198

Six Months Ended June 30,

2012 2011

	Spot Earnings	Fixed Earnings	Spot Earnings	Fixed Earnings
Panamax Product Carriers:	_			_
Average rate	\$13,229	\$13,054	\$17,096	\$-
Revenue days	829	263	741	-
Handysize Product Carriers:				
Average rate	\$12,149	\$15,043	\$14,006	\$14,170
Revenue days	6,090	568	5,427	553

Page 43

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

During the second quarter of 2012, TCE revenues for the International Product Carriers segment decreased by \$7,024 to \$44,169 from \$51,193 in the second quarter of 2011. This decrease in TCE revenues reflected significantly lower average blended rates for the Company's Handysize Product Carriers, which operated primarily in the spot market in both periods. Offsetting this decrease in rates was a 475 day increase in revenue days in the current period. This increase resulted from the expansion of the Handysize and Panamax Product Carrier sectors through the delivery of two owned and one time chartered-in Handysize Product Carrier since June 2011 and two owned Panamax Product Carriers since May 2011.

Vessel expenses increased by \$586 to \$17,416 in the second quarter of 2012 from \$16,830 in the second quarter of 2011, principally due to a 312 day increase in owned and bareboat chartered-in days which resulted from the fleet expansion discussed above. This increase was partially offset by a decrease in average daily vessel expenses of \$691 per day. This decrease in average daily vessel expenses resulted principally from lower crew and drydock deviation costs. Charter hire expenses increased by \$1,783 to \$31,010 in the second quarter of 2012 from \$29,227 in the second quarter of 2011, which reflects a 94 day increase in time chartered-in days for the Handysize Product Carriers in the current quarter. Depreciation and amortization increased by \$2,580 to \$12,127 in the second quarter of 2012 from \$9,547 in the second quarter of 2011 principally due to the four newbuild vessels deliveries discussed above.

During the first six months of 2012, TCE revenues for the International Product Carriers segment decreased marginally by \$397 to \$96,067 from \$96,464 in the first six months of 2011. This decrease in TCE revenues resulted primarily from a period-over-period reduction in average daily blended rates earned by both the Handysize and Panamax Product Carriers. Partially offsetting the decrease was a 1,002 day increase in revenue days driven by the additions to the fleet referred to above, as well as two additional time chartered-in Handysize Product Carriers, which delivered in February 2011 and March 2011.

Vessel expenses increased by \$1,738 to \$35,525 in the first six months of 2012 from \$33,787 in the first six months of 2011. This change principally reflects an increase of 669 owned and bareboat chartered-in days. This increase was partially offset by a decrease in average daily vessel expenses of \$661 per day. Consistent with the above discussion relative to the quarter-over-quarter change, this decrease resulted principally from lower crew and drydock deviation costs. Charter hire expenses increased by \$3,825 to \$61,939 in the first six months of 2012 from \$58,114 in the first six months of 2011 due to a 239 day increase for chartered-in Handysize Product Carriers in the current year. Depreciation and amortization increased by \$5,691 to \$24,282 in the first six months of 2012 from \$18,591 in the first six months of 2011, primarily due to the four newbuild vessel deliveries discussed above.

In 2005 the Company reflagged two Handysize Product Carriers (the Overseas Maremar and the Overseas Luxmar) under the U.S. Flag and entered them in the U.S. Maritime Security Program (the "Program"). Each of the vessel owning companies receives an annual subsidy, which was \$2,900 for 2011 and increased to \$3,100 in 2012, that is

intended to offset the increased cost incurred by such vessels from operating under the U.S. Flag. Since these vessels trade primarily in the international market, they continue to be reflected in the International Product Carrier segment. In June 2012, a significant COA on the Company's vessels that participate in the Program was extended for four years beginning in January 2013. In connection with this extension, the Company intends to replace the vessels named above with the Overseas Santorini and the Overseas Mykonos, which will be reflagged prior to the commencement of the extended COA.

# OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

#### Other International

	Three Mo	nths Ended	Six Months Ended		
	June 30,		June 30,		
	2012	2011	2012	2011	
TCE revenues	\$3,059	\$4,090	\$6,199	\$8,127	
Vessel expenses	(539	(621	(1,043)	(1,293)	
Charter hire expenses	(1,652)	(2,025)	(3,303)	(4,050)	
Depreciation and amortization	(1,592)	(1,398)	(3,081)	(2,848)	
(Loss)/income from vessel operations	\$ (724	\$46	\$(1,228)	\$(64)	
Average daily TCE rate	\$16,813	\$22,473	\$17,033	\$22,450	
Average number of owned vessels	1.0	1.0	1.0	1.0	
Average number of vessels chartered in under operating leases	1.0	1.0	1.0	1.0	
Number of revenue days	182	182	364	362	
Number of ship-operating days:					
Owned vessels	91	91	182	181	
Vessels time chartered-in under operating leases	91	91	182	181	

As of June 30, 2012, the Company operated two other International Flag vessels, a Pure Car Carrier and a Chemical Tanker. On June 28, 2012, the Company entered into an agreement for the sale of its Car Carrier, the Overseas Joyce, which is currently employed on a long-term charter through the expected date of sale. The vessel is expected to deliver to buyers by the end of October 2012. At that time the Company expects to recognize a gain on such sale. The Chemical Tanker has been time chartered-in by the Company for five years, commencing upon the vessel's delivery from the shipyard, which occurred at the end of September 2011. The Chemical Tanker is currently employed on a one year time charter.

#### U.S. Segment

	Three Months Ended		Six Month	s Ended
	June 30,		June 30,	
	2012	2011	2012	2011
TCE revenues	\$83,767	\$75,815	\$167,258	\$144,260
Vessel expenses	(27,330)	(27,960)	(55,223)	(54,590)
Charter hire expenses	(23,489)	(22,945)	(47,128)	(44,117)
Depreciation and amortization	(16,232)	(13,827)	(31,479)	(27,953)
Income from vessel operations	\$16,716	\$11,083	\$33,428	\$17,600
Average daily TCE rate	\$43,046	\$40,673	\$42,909	\$39,862
Average number of owned vessels	12.0	13.0	12.0	13.4
Average number of vessels chartered in under operating leases	10.0	9.7	10.0	9.4
Number of revenue days	1,946	1,864	3,898	3,619
Number of ship-operating days:				

Owned vessels	1,092	1,183	2,184	2,434
Vessels bareboat chartered-in under operating leases	910	883	1,820	1,693

The following tables provide a breakdown of TCE rates achieved for the three and six months ended June 30, 2012 and 2011, between spot and fixed earnings and the related revenue days.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

Three Months Ended June 30,

	2012		2011	
	Spot	Fixed	Spot	Fixed
	Earnings	Earnings	Earnings	Earnings
Handysize Product Carriers:				
Average rate	\$-	\$51,629	\$32,346	\$50,895
Revenue days	-	1,061	69	987
ATBs:				
Average rate	\$27,750	\$25,683	\$21,412	\$ -
Revenue days	568	44	470	-
Lightering:				
Average rate	\$44,957	\$-	\$39,328	\$ -
Revenue days	273	-	338	-

#### Six Months Ended June 30,

	2012		2011	
	Spot	Fixed	Spot	Fixed
	Earnings	Earnings	Earnings	Earnings
Handysize Product Carriers:				
Average rate	\$48,426	\$51,694	\$22,234	\$50,434
Revenue days	34	2,091	141	1,880
ATBs:				
Average rate	\$27,342	\$25,683	\$22,885	\$ -
Revenue days	1,202	44	1,002	-
Lightering:				
Average rate	\$44,664	\$-	\$39,206	\$ -
Revenue days	526	-	596	-

During the second quarter of 2012, TCE revenues for the U.S. segment increased by \$7,952, or 10%, to \$83,767 from \$75,815 in the second quarter of 2011. This increase reflects changes in the fleet as well as improved fundamentals in the U.S. Flag sector as evidenced by the quarter-over-quarter improvement in rates earned by the ATBs, which operated nearly exclusively in the spot (short-term) market. Time charters on the Handysize Product Carriers that expired since the first quarter of 2011 have been replaced at or above expiring rates. In October 2011, the Company sold a 1981-built ATB (OSG Constitution/OSG 400) that was engaged in lightering. The Company broke out one ATB (OSG Enterprise/OSG 214) from lay-up in the third quarter of 2011 as supply/demand fundamentals in the U.S. market improved and took delivery of one bareboat chartered-in Product Carrier subsequent to March 2011 (the Overseas Tampa). The Overseas Tampa commenced a one year time charter shortly after its delivery in late-April 2011. In the second quarter of 2011, one vessel was laid-up for a total of 83 days, while in the current quarter there were no lay-up days in the fleet. The increase in TCE revenues was mitigated to some extent by a decrease in Delaware Bay lightering volumes, which transported an average of 230,000 barrels per day during the quarter,

representing a 28% decrease over the prior year period. This decrease reflects a decline in lightering volumes servicing Sunoco's Delaware Bay refineries.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

In September 2011, Sunoco, a core customer of the Company's Delaware Bay lightering business, announced that it will make its Marcus Hook and Philadelphia refineries available for sale. Subsequently, in December 2011, Sunoco announced that it would begin idling the Marcus Hook facility immediately while it continued to seek a buyer and also pursue options with third parties for alternate uses of the facility. Sunoco also announced that it intended to continue to operate the Philadelphia refinery as long as market conditions warranted. However, if a suitable transaction could not be implemented, Sunoco would permanently idle the main processing units at the Philadelphia refinery no later than August 2012. On July 2, 2012, Sunoco announced it had entered into a joint venture agreement with a third party to take over the operations of the Philadelphia refinery. On July 3, 2012, Sunoco tendered a six-month notice of reduction of minimum volumes under its long-term lightering contract with the Company. The lightering contract provides for rights and obligations of the parties when a notice of reduction is tendered. The Company is currently in discussions with Sunoco regarding the notice and the terms of the reduction. The announced plans of the Delaware Bay refineries, which includes Delta's announced intention to acquire ConocoPhillips' Trainer refinery, to source increased volumes of crude oil from North America (versus imported crude) coupled with the amendment of the lightering contract could result in the Company's redeployment of one or both of the two new ATBs to other locations with possible reductions in revenues earned.

Vessel expenses decreased by \$630 to \$27,330 in the second quarter of 2012 from \$27,960 in the second quarter of 2011, due to a decrease of 64 owned and bareboat-chartered in days in the current quarter. The decline relates to the changes in the operating fleet discussed above. Charter hire expenses increased by \$544 to \$23,489 in the second quarter of 2012 from \$22,945 in the second quarter of 2011, reflecting the delivery of the one bareboat chartered-in Jones Act Product Carriers referred to above. Depreciation and amortization increased by \$2,405 to \$16,232 from \$13,827, reflecting the 2011 deliveries of two tug boats (OSG Courageous and OSG Endurance) and increased drydock costs for the U.S. Flag ATB fleet, partially offset by the vessel disposal discussed above.

During the first six months of 2012, TCE revenues for the U.S. segment increased by \$22,998, or 16%, to \$167,258 from \$144,260 in the first six months of 2011. The increase was attributable to the changes in the operating fleet discussed above, with the additional positive impact of the Overseas Chinook, which commenced a multi-year time charter at favorable rates upon the completion of its conversion to a shuttle tanker in March 2011. In the first six months of 2011, three vessels, including two single hull tankers that were sold in the first quarter of 2011 were in lay-up for a total of 279 days.

Vessel expenses increased by \$633 to \$55,223 in the first six months of 2012 from \$54,590 in the first six months of 2011, principally due to the additions to the operating fleet discussed above. Charter hire expenses increased by \$3,011 to \$47,128 in the first six months of 2012 from \$44,117 in the first six months of 2011, principally due to the delivery of the chartered-in Jones Act Product Carrier referred to above. Depreciation and amortization increased by \$3,526 to \$31,479 from \$27,953, reflecting the deliveries subsequent to mid-March 2011 of the Overseas Chinook and OSG Horizon/OSG 351, partially offset by the impact of the vessel disposals discussed above.

# General and Administrative Expenses

During the second quarter of 2012, general and administrative expenses increased by \$654 to \$23,088 from \$22,434 in the second quarter of 2011 principally due to the following:

retention bonuses paid to two senior level executives totaling \$3,000; and higher legal and consulting expenses of \$559.

Form 10-Q

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

These increases were offset by:

- a decrease in compensation and benefits paid to shore-based staff of approximately \$2,591, driven by headcount reductions and a decrease in incentive compensation accruals; and
- ·a reduction in travel and entertainment of \$397.

For the six months ended June 30, 2012, general administrative expenses decreased by \$2,678 to \$44,224 from \$46,902 for the same period in 2011 principally due to the following:

- a decrease in compensation and benefits paid to shore-based staff of approximately \$5,576, driven by headcount reductions and a decrease in incentive compensation accruals;
- favorable changes in foreign exchange rates and the impact of foreign currency derivative contracts that decreased expenses by \$621; and
- ·a reduction in travel and entertainment of \$519.

These decreases were partially offset by:

- retention bonuses paid to two senior level executives totaling \$3,000; and
- ·higher legal and consulting expenses of \$1,383.

The Company maintains an unfunded, nonqualified savings plan covering highly compensated U.S. shore-based employees where the investment choices are directed by the employees. In addition, under OSG's Non-Employee Director Deferred Compensation Plan, participating directors can elect to invest deferred fees in phantom shares of the Company's stock. The Company recognized a decrease in general and administrative expenses of \$458 for the second quarter of 2012 and an increase of \$610 for the six months ended June 2012, because of changes in the overall stock market and OSG stock in particular (with increases in stock values resulting in increases in the respective liabilities). This compares with a decrease in general and administrative expenses of \$56 for the second quarter of 2011 and an increase of \$257 for the six months ended June 2011.

**Equity in Income of Affiliated Companies:** 

During the second quarter of 2012, equity in income of affiliated companies increased by \$1,608 to \$5,538 from \$3,930 in the second quarter of 2011. During the six months ended of 2012, equity in income of affiliated companies increased by \$3,046 to \$12,618 from \$9,572 in the six months ended June 30, 2011. The increases resulted primarily from a reduction in vessel operating expenses period-over-period incurred by the LNG and FSO joint ventures, as well as the lower current period losses from the changes in the mark-to-market valuation of the interest rate swap covering the FSO Africa's debt. The Company's share of such charges recognized in equity in income from affiliated companies for the three months ended June 30, 2012 and 2011 was \$994 and \$2,308, respectively, and for the six months ended June 30, 2012 and 2011 was \$1,091 and \$2,373, respectively.

Additionally, the Company has a 37.5% interest in ATC, a company that operates U.S. Flag tankers to transport Alaskan crude oil for BP. ATC earns additional income (in the form of incentive hire paid by BP) based on meeting certain predetermined performance standards. Such income is included in the U.S. segment.

# OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

The following tables summarize OSG's proportionate share of the revenue days for the respective vessels held in its vessel owning equity method investments, excluding ATC. Revenue days are adjusted for OSG's percentage ownership in order to state the revenue days on a basis comparable to that of a wholly-owned vessel. The ownership percentages reflected below are the Company's actual ownership percentages as of June 30, 2012 and 2011.

Three Months Ended June 30,

	2012		2011			
	Reven@of			Reven@e of		
	Days Ownership		Days	Ownersh	nip	
LNG Carriers operating on long-term charters	173	49.9	%	179	49.9	%
FSOs operating on long-term charter	91	50.0	%	91	50.0	%
	264			270		

Six Months Ended June 30,

	2012			2011		
	Reven@of			Reven@of		
	Days	Ownersh	iip	Days	Ownersh	nip
LNG Carriers operating on long-term charters	355	49.9	%	358	49.9	%
FSOs operating on long-term charter	182	50.0	%	181	50.0	%
	537			539		

# **Interest Expense:**

The components of interest expense are as follows:

	Three Mor	nths Ended	Six Mont	hs Ended
	June 30,		June 30,	
	2012	2011	2012	2011
Interest before impact of swaps and capitalized interest	\$20,646	\$18,693	\$41,714	\$35,984
Impact of swaps	1,680	2,498	3,926	5,537
Capitalized interest	(242)	(2,057)	(546)	(4,648)
Interest expense	\$22,084	\$19,134	\$45,094	\$36,873

Interest expense increased by \$2,950 to \$22,084 in the second quarter of 2012 from \$19,134 in the second quarter of 2011 as a result of an increase in the average amount of variable debt outstanding of \$190,000, the impact of commitment fees incurred on the unsecured forward start revolving credit facility entered in May 2011 and a decline in capitalized interest as several newbuilds delivered subsequent to June 30, 2011. These increases were partially offset by the expiration of 3.2% fixed rate interest rate swaps covering notional amounts aggregating \$90,000.

Interest expense increased by \$8,221 to \$45,094 in the first six months of 2012 from \$36,873 in the first six months of 2011 as a result of increases in the average amount of variable debt outstanding of \$194,000, the impact of commitment fees on the forward start facility and a decline in capitalized interest. These increases were partially offset by a decrease in expenses from interest rate swaps due to the expiry of the two interest rate swap agreements.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

#### **Income Taxes:**

The income tax provisions for the three and six months ended June 30, 2012 and the income tax benefits for the three and six months ended June 30, 2011 were based on the pre-tax results of the Company's U.S. subsidiaries, adjusted to include non-shipping income of the Company's foreign subsidiaries and reflect the reversal of previously established deferred tax liabilities. The income tax provision for the three months ended June 30, 2012 reflects an increase in the estimated loss for tax purposes of the Company's U.S. subsidiaries. This resulted in a decline in the proportion of the expected tax benefit for 2012 recognized through June 30, 2012. In addition, the Company recorded a \$915 reduction in the estimated balance of its federal income taxes recoverable.

Significant judgment is required in determining the provision for income taxes. In the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. OSG is regularly under audit by tax authorities and the tax years ended 2003 through 2009 are currently being audited by the Internal Revenue Service. Although management believes that its tax estimates are reasonable, the final determination of tax audits could be materially different from the historical income tax provisions and accruals. The results of an audit could, therefore, have a material effect on the Company's financial statements in the period or periods for which that determination is made.

# EBITDA:

EBITDA represents operating earnings before interest expense and income taxes and depreciation and amortization expense. EBITDA is presented to provide investors with meaningful additional information that management uses to monitor ongoing operating results and evaluate trends over comparative periods. EBITDA should not be considered a substitute for net income/(loss) attributable to the Company or cash flow from operating activities prepared in accordance with accounting principles generally accepted in the United States or as a measure of profitability or liquidity. While EBITDA is frequently used as a measure of operating results and performance, it is not necessarily comparable to other similarly titled captions of other companies due to differences in methods of calculation. The following table reconciles net loss, as reflected in the condensed consolidated statements of operations, to EBITDA:

	Three Mon	ths Ended	Six Months Ended		
	June 30,		June 30,		
	2012	2011	2012	2011	
Net loss	\$(55,326)	\$(37,308)	\$(90,139)	\$(71,866)	
Income tax provision/(benefit)	1,857	(1,220)	510	(2,776)	

Interest expense	22,084	19,134	45,094	36,873
Depreciation and amortization	50,351	42,720	99,613	85,028
EBITDA	\$18,966	\$23,326	\$55,078	\$47,259

# Liquidity and Sources of Capital:

Working capital at June 30, 2012 was approximately \$65,000 compared with \$202,000 at December 31, 2011. Current assets are highly liquid, consisting principally of cash, interest-bearing deposits, receivables and short-term investments. Approximately 22% of cash on hand at June 30, 2012 is held by the Company's foreign subsidiaries.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

Net cash provided by operating activities in the six months ended of 2012 was \$19,596 (which is not necessarily indicative of the cash to be provided by operating activities for the year ending December 31, 2012) compared with \$6,580 provided by operating activities in the six months ended of 2011. Current financial resources coupled with the execution of one or more of the liquidity raising options discussed below are expected to be adequate to meet operating requirements in the 12 months ending June 30, 2013, although the continuation of depressed spot rates in the International Flag segments in the near term will have an adverse effect on the Company's operating cash flows and performance.

The Company's reliance on the spot market contributes to fluctuations in cash flows from operating activities historically as a result of the exposure to highly cyclical tanker rates and more recently as a result of the impact of the downturn in the shipping markets, as described in more detail under "Operations" above. Spot (voyage) charter rates have been at depressed levels since 2009 and opportunities to enter longer term time charters at satisfactory rates have been very limited. Therefore, expiring time charters and synthetic time charters (utilizing FFAs and bunker swaps) have been replaced at significantly lower TCE rates.

Because of the continued tight financial and credit markets and the depressed shipping markets there is greater focus on maintaining cash balances and liquidity. On February 9, 2012, the Board of Directors suspended the payment of regular quarterly dividends until further notice. The dividend suspension was not required in order to maintain compliance with any financial debt covenant applicable to the Company, but rather to preserve liquidity and maintain financial flexibility in a difficult economic environment.

On January 18, 2012, the Company prepaid secured term loans due through 2016, covering two Aframaxes, with an outstanding balance of \$49,000. The loans were prepaid with borrowings from the unsecured revolving credit facility.

On February 13, 2012, the Company filed a Form S-3 shelf registration with the SEC that will allow it to issue common stock, preferred stock, debt securities, warrants or units (as defined) up to an aggregate of \$500,000, from time to time as market conditions permit.

The Company has a seven-year unsecured revolving credit agreement maturing in February 2013 with a group of banks. Borrowings under this facility bear interest at a rate based on LIBOR. The availability under the unsecured revolving credit agreement decreased by \$150,000 on February 9, 2012. Accordingly, as of June 30, 2012, OSG had \$1,500,000 of unsecured credit availability, of which approximately \$1,146,000 had been borrowed and an additional \$10,146 had been used for letters of credit. In July 2012, the Company borrowed an additional \$343,000 under the facility for general corporate purposes.

In an effort to proactively manage refinancing risk in the tight credit markets and partially replace the borrowing capacity under the existing unsecured revolving credit facility, the Company entered into a \$900,000 unsecured forward start revolving credit agreement with a bank lending group on May 26, 2011. This forward start facility matures on December 31, 2016. Under the terms of the agreement, OSG may begin borrowing under the forward start facility on February 8, 2013, the date on which OSG's existing unsecured revolving credit facility expires.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

The Company continues to evaluate how best to increase liquidity and how to bridge the estimated \$100 million gap between the amounts that it anticipates may be outstanding under the existing unsecured revolving credit facility as of February 8, 2013 and the amounts that will be available under the forward start credit facility. These options include increasing the borrowing capacity of the forward start credit facility; obtaining incremental bank financing; raising debt or equity capital using the Form S-3 shelf registration that was filed on February 13, 2012; selling or entering into sale and leaseback transactions for one or more vessels; or a combination of these or other options, some of which may be difficult to execute. The Company intends to market in the third quarter of 2012 one or more ships for sale or sale and leaseback and is also currently in discussions with its main banks while pursuing each of the other options listed above. The Company believes that it will be able to execute one or more liquidity raising options. If market conditions, however, continue to remain weak, OSG may be unable to enter into suitable vessel sale or leaseback transactions, raise additional equity capital or obtain debt financing on acceptable terms which could have a material adverse impact on the Company's business, operations, financial condition and liquidity.

The earnings from shipping operations of the Company's foreign subsidiaries, which account for a significant amount of the Company's consolidated retained earnings, are not subject to U.S. income taxation as long as such earnings are not repatriated to the U.S. The Company currently intends to permanently reinvest these earnings, as well as its share of the undistributed earnings of its less than 50%-owned foreign shipping joint ventures, in foreign operations. Should OSG in the future, however, require more capital in the U.S. than is generated by its operations domestically or be required to secure a domestic borrowing by pledging International Flag vessels as collateral, the Company could be required to repatriate earnings from foreign jurisdictions either through actual cash distributions or deemed distributions. These alternatives could result in higher future effective tax rates and non compliance with financial covenants should the Company no longer be able to sustain its assertion that earnings from shipping operations of its foreign subsidiaries are permanently reinvested offshore.

Earnings from the Company's foreign subsidiaries were negative during the six months ended June 30, 2012. Management does not expect that it would be required to make an actual or deemed repatriation of foreign earnings that would require OSG to reassess its intent and ability to permanently reinvest earnings from foreign shipping operations accumulated through June 30, 2012 in such operations.

In January 2012, Standard & Poor's downgraded the Company's long-term corporate credit rating and the rating on the Company's senior unsecured debt from B to B- with a negative outlook. In December 2011, Moody's Investors Service downgraded the Company's long-term corporate credit rating and the rating on the Company's senior unsecured debt from B1 to B3 and from B2 to Caa1, respectively, and changed its ratings outlook from stable to negative. Both agencies attributed the downgrades to significant declines in the Company's revenue and earnings from vessel operations resulting from the prolonged weakness in the tanker markets and increases in the Company's leverage. Further increases in debt, whether from share repurchases, acquisitions or additional charter-in commitments could result in additional downgrades as could a continuation of the protracted downturn in freight rates. In July 2012, Standard & Poor's further downgraded the Company's long-term corporate credit rating and the rating on the

Company's senior unsecured debt from B- to CCC+ and maintained its negative outlook. The agency attributed the downgrade to increased concerns about the Company's ability to address its liquidity challenges. The downgrades do not impact any of the existing financial covenants contained in the Company's debt agreements, which do not contain ratings triggers, nor do they increase the Company's current cost of funds, but could increase the cost of future borrowings it seeks to negotiate.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

The Company's financing agreements impose operating restrictions and establish minimum financial covenants. The financial covenants contained in the \$900,000 forward start facility, which are more restrictive than those contained in the current unsecured credit facility (due principally to differences in definitions between the two agreements), do not become effective prior to December 31, 2012. Failure to comply with any of the covenants in the financing agreements could result in a default under those agreements and under other agreements containing cross-default provisions. A default would permit lenders to accelerate the maturity of the debt under these agreements and to foreclose upon any collateral securing that debt. The Company was in compliance with all of the financial covenants under all of its debt agreements as of June 30, 2012. Average spot rates achieved in the Company's International Flag segments in the third and fourth quarters of 2011 were the lowest they have been during the industry's cyclical downturn, which commenced in the fourth quarter of 2008. Such rates have resulted in thirteen consecutive quarters of losses through the second quarter of 2012 and negative cash flows from operating activities for the years ended December 31, 2011 and 2010. These results together with an assumption that the current weak markets are likely to continue in the near term significantly reduce the headroom that the Company expected to have under the financial covenants of the \$900,000 forward start facility. Continued depression of spot rates of vessels in the International Flag segments in the near term would have an adverse effect on the operating performance of the Company. This, coupled with a continued depression of market values in the International Flag segments in the near term, could significantly increase pressure on maintaining financial covenant compliance. The Company believes, however, that it will continue to maintain compliance with all of its financial covenants and cover any refinancing shortfall over the twelve months ending June 30, 2013, including under the \$900,000 forward start facility commencing as of December 31, 2012, through the use of cash on hand and the execution of one or more of the liquidity raising options discussed above.

While the Company is primarily an unsecured borrower, two debt agreements with an aggregate outstanding balance of \$592,162 as of June 30, 2012 contain loan-to-value clauses that require the charter-free market value of the vessels pledged as collateral under each of the secured facilities to be no less than a specified percentage of the borrowings outstanding. For covenant compliance purposes, the market values of the vessels are determined on the basis of a "willing seller and willing buyer" by independent third party ship brokers approved by the Company and the lenders. Such valuations are not necessarily equivalent to the amounts that the Company would receive upon sale of any of these vessels, which may be more or less. In the event that the aggregate market value of the vessels that secure the Company's obligations under any of the secured facilities falls below the minimum required percentage and the lenders request or require compliance, the Company has the option to either repay a portion of the borrowings under the facility or pledge additional collateral consisting of cash, cash equivalents or vessels of a similar size, class and age that are acceptable to the lenders. There are a number of vessels in the Company's fleet that it believes would be acceptable to the lenders as additional collateral. Accordingly, the Company expects that it will continue to be in compliance with the loan-to-value covenants in these secured debt agreements over the 12 months ending June 30, 2013. More details on compliance with the loan-to-value clauses in the two secured term loans are provided below.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

(i) *Term loans maturing in 2020* – This facility, with an outstanding balance of \$268,451 as of June 30, 2012, provides secured term loans originally covering seven MR Product Carriers, one Aframax and one VLCC. The facility provides that the market values of the vessels pledged as collateral be compared with the outstanding loan balance semi-annually. In December 2011, the facility was amended to among other things reduce the minimum required loan-to-value ratio from 110% to 100% through January 2013. In connection with the planned exchange of the MR Product Carriers currently servicing the U.S. Maritime Security Program, as discussed in the Results from Vessel Operations section above, the Company intends to reflag two of the seven MR Product Carriers originally pledged as collateral under the above term loans. Accordingly, in June 2012, the lenders under this facility agreed to accept replacing the two MR Product Carriers with two Panamax Product Carriers. As of June 30, 2012, the Company was in compliance with the loan-to-value covenant as well as all other financial covenants under this facility and the estimated charter-free market value of the vessels that secure this facility was 102%.

(ii) *Term loans maturing in 2023* – Borrowings under the facility, with an outstanding balance of \$323,711 as of June 30, 2012, financed the construction of three VLCCs and two Aframaxes in China, the last of which delivered in January 2012. The facility provides that the market values of the vessels pledged as collateral be compared with the outstanding loan balance annually. In December 2011, the Company entered into an amendment of the loan agreement that among other things reduced the minimum required loan-to-value ratio from 125% to 105% through January 2013. As of December 31, 2011, the Company was in compliance with the loan-to-value covenant as well as all other financial covenants under this facility and the estimated charter-free market value of the vessels that secure this facility was 110%, including the Overseas Kilimanjaro, which delivered in January 2012.

In conjunction with the amendments discussed above, the Company also prepaid \$37,665 in principal installments otherwise due in 2012 and 2013 in December 2011.

*Off-Balance Sheet Arrangements* 

As of June 30, 2012, the affiliated companies in which OSG held an equity interest had total bank debt outstanding of \$1,070,373 of which \$799,594 was nonrecourse to the Company.

MOQ has awarded two service contracts to a joint venture between OSG and Euronav NV to provide two vessels, the FSO Asia and the FSO Africa, to perform FSO services in the Al Shaheen field off shore Qatar. The Company has a 50% interest in this joint venture. The joint venture financed the purchase of the vessels from each of Euronav NV and OSG and their conversion costs through partner loans and long-term bank financing, which was secured by the service contracts. Approximately \$270,779 was outstanding under this facility as of June 30, 2012, with the outstanding

amount of this facility being subject to acceleration, in whole or in part, on termination of one or both of such service contracts. In connection with the secured bank financing, the partners severally issued 50% guaranties. The joint venture entered into floating-to-fixed interest rate swaps with major financial institutions covering notional amounts aggregating \$374,796 as of June 30, 2012, pursuant to which it pays fixed rates of 3.9% and receives floating rates based on LIBOR. These agreements have maturity dates ranging from July to September 2017.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

In November 2004, the Company formed a joint venture with Qatar Gas Transport Company Limited (Nakilat) whereby companies in which OSG holds a 49.9% interest ordered four 216,000 cbm LNG Carriers. Upon delivery in 2007 and 2008, these vessels commenced 25-year time charters to Qatar Liquefied Gas Company Limited (II). The aggregate construction cost for such newbuildings was financed by the joint venture through long-term bank financing that is non recourse to the partners and partner contributions. The joint venture has entered into floating-to-fixed interest rate swaps with a group of major financial institutions covering notional amounts aggregating approximately \$775,717 as of June 30, 2012, pursuant to which it pays fixed rates of approximately 4.9% and receives a floating rate based on LIBOR. These agreements have maturity dates ranging from July to November 2022.

#### Aggregate Contractual Obligations

rate of 4.3%.

A summary of the Company's long-term contractual obligations, excluding operating lease obligations for office space, as of June 30, 2012 follows:

	Balance of					Beyond	
	2012	2013	2014	2015	2016	2016	Total
Debt <sup>(1)</sup>	\$ 50,408	\$450,438	\$138,604	\$120,002	\$1,012,993	\$976,112	\$2,748,557
Operating lease obligations <sup>(2)</sup>							
Bareboat Charter-ins	76,770	152,102	144,032	87,108	52,729	146,814	659,555
Time Charter-ins <sup>(3)</sup>	75,566	116,686	91,074	72,446	56,375	62,279	474,426
Construction contracts <sup>(4)</sup>	16,819	29,633	0	0	0	0	46,452
Total	\$219,563	\$748,859	\$373,710	\$279,556	\$1,122,097	\$1,185,205	\$3,928,990

Amounts shown include contractual interest obligations. The interest obligations for floating rate debt of \$1,716,950 as of June 30, 2012 have been estimated based on the fixed rates stated in related floating-to-fixed interest rate swaps, where applicable, or the LIBOR rate at June 30, 2012 of 0.46%. The Company is a party to floating-to-fixed interest rate swaps covering notional amounts aggregating \$220,412 at June 30, 2012 that effectively convert the Company's interest rate exposure from a floating rate based on LIBOR to an average fixed

- As of June 30, 2012, the Company had charter-in commitments for 45 vessels on leases that are accounted for as operating leases. Certain of these leases provide the Company with various renewal and purchase options. The future minimum commitments for time charters-in have been reduced to reflect estimated days that the vessels will not be available for employment due to drydock.
- (3) The Company estimates that its obligations under these time charter-in contracts expressed on a bareboat charter-in equivalent basis would be reduced to \$43,663 (2012), \$65,024 (2013), \$52,952 (2014), \$42,424 (2015), \$32,167 (2016) and \$34,986 (2017 and thereafter), an aggregate reduction of \$203,210. The Company estimated the bareboat equivalent charter-in obligations, by adjusting the applicable daily time charter-in rate by the daily

average vessel operating expenses for the Company's different vessel classes in 2011.

(4) Represents remaining commitments under shipyard construction contracts, excluding capitalized interest and other construction costs.

OSG has used interest rate swaps to convert a portion of its debt from a floating rate to a fixed rate based on management's interest rate outlook at various times. These agreements contain no leverage features and have various final maturity dates from December 2012 to August 2014.

OSG expects to finance vessel commitments from working capital, cash anticipated to be generated from operations, existing long-term credit facilities and additional long-term debt, as required. The amounts of working capital and cash generated from operations that may, in the future, be utilized to finance vessel commitments are dependent on the rates at which the Company can charter its vessels. Such charter rates are volatile.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

#### Risk Management:

The Company is exposed to market risk from changes in interest rates, which could impact its results of operations and financial condition. The Company manages this exposure to market risk through its regular operating and financing activities and, when deemed appropriate, through the use of derivative financial instruments. The Company manages its ratio of fixed-to-floating rate debt with the objective of achieving a mix that reflects management's interest rate outlook at various times. To manage this mix in a cost-effective manner, the Company, from time-to-time, enters into interest rate swap agreements, in which it agrees to exchange various combinations of fixed and variable interest rates based on agreed upon notional amounts. The Company uses such derivative financial instruments as risk management tools and not for speculative or trading purposes. In addition, derivative financial instruments are entered into with a diversified group of major financial institutions in order to manage exposure to nonperformance on such instruments by the counterparties.

The Company seeks to reduce its exposure to fluctuations in foreign exchange rates through the use of foreign currency forward contracts and through the purchase of bulk quantities of currencies at rates that management considers favorable. As of June 30, 2012, the Company had six foreign currency forward contracts outstanding with an aggregate notional value of CAD\$2,400 and has recorded an asset of \$7 related to their fair value. The contracts, which are not accounted for as a cash flow hedges, settle monthly between July and December 2012 and cover approximately CAD\$400 per month.

OSG's management regularly reviews the strategic decision with respect to the appropriate ratio of spot charter revenues to fixed rate charter revenues taking into account its expectations about spot and time charter forward rates. Decisions to modify fixed rate coverage are implemented in either the physical markets through changes in time charters or in the FFA markets, thus managing the desired strategic position while maintaining flexibility of ship availability to customers. OSG enters into Forward Freight Agreements and bunker swaps with an objective of economically hedging risk. The Company enters into FFAs and bunker swaps as economic hedges, some of which qualify as cash flow hedges for accounting purposes, seeking to reduce its exposure to changes in the spot market rates earned by some of its vessels in the normal course of its shipping business. By using FFAs and bunker swaps, OSG manages the financial risk associated with fluctuating market conditions. FFAs and bunker swaps generally cover periods ranging from one month to one year and involve contracts entered into at various rates with the intention of offsetting the variability of the TCE earnings from certain of the pools in which it participates. The Company may from time to time enter into FFAs and bunker swaps for trading purposes to take advantage of short term fluctuations in the market. FFAs and bunker swaps are executed predominantly through NOS ASA, a Norwegian clearing house, or LCH, London Clearing House. NOS ASA and LCH require the posting of collateral by all participants. The use of a clearing house reduces the Company's exposure to counterparty credit risk.

A significant percentage of the Company's International Crude Tankers are deployed and earn revenue through commercial pools that operate on multiple routes on voyages of varying durations, which differ from the standard routes associated with the related hedging instruments. Therefore, the FFA and bunker hedges that qualify as cash flow hedges for accounting purposes have basis risk. The TCE rates for the pools are computed from the results of actual voyages performed during the period whereas the rates used for settling FFA and bunker hedges are calculated as simple averages of the daily rates for standard routes reported with each daily rate weighted equally. High volatility tends to weaken the statistical relationship between pool performance and the FFA market results.

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

The Company also seeks to reduce its exposure to future increases in fuel prices in the normal course of its International Crude Tankers lightering business, which includes a number of fixed rate Contracts of Affreightment, by entering into stand alone bunker swaps. In January 2011, the Company entered into two agreements with a counterparty to purchase 400 metric tons per month of fuel for \$511 and \$522 per metric ton, respectively, through September 2012. Also, in September 2011, the Company entered into two additional agreements to purchase 500 metric tons per month of fuel for \$607 and \$580 per metric ton through September 2013. In May 2012, the Company entered into an additional agreement to purchase 325 metric tons per month of fuel for \$607 through March 2014. These contracts settle on a net basis at the end of each calendar month, based on the average daily closing prices, as quoted by the Baltic Exchange, of the commodity during each month. As of June 30, 2012, the Company has recorded a liability of \$1,410 related to the fair value of these contracts.

The shipping industry's functional currency is the U.S. dollar. All of the Company's revenues and most of its operating costs are in U.S. dollars.

#### **Available Information**

The Company makes available free of charge through its internet website, <a href="www.osg.com">www.osg.com</a>, its Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the Securities and Exchange Commission.

The Company also makes available on its website, its corporate governance guidelines, its code of business conduct and ethics, insider trading policy, anti-bribery and corruption policy and charters of the Audit Committee, Compensation Committee and Corporate Governance and Nominating Committee of the Board of Directors.

#### **Controls and Procedures**

As of the end of the period covered by this Quarterly Report on Form 10-Q, an evaluation was performed under the supervision and with the participation of the Company's management, including the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the

"Exchange Act"). Based on that evaluation, the Company's management, including the CEO and CFO, concluded that the Company's current disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in the reports the Company files or submits under the Exchange Act is (i) recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to the Company's management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosure. There have been no changes in the Company's internal control over financial reporting during the period covered by this Quarterly Report which have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Form 10-Q
OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES
PART II – OTHER INFORMATION
Item 1A. Risk Factors
There have been no material changes in the Company's risk factors from those disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2011.
Item 4. Mine Safety Disclosures
Not applicable.
Item 6. Exhibits
See Exhibit Index on page 60.
Page 58

# OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

#### **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

# OVERSEAS SHIPHOLDING GROUP, INC.

(Registrant)

Date: August 7, 2012 /s/ Morten Arntzen

Morten Arntzen

Chief Executive Officer and President

Date: August 7, 2012 /s/ Myles R. Itkin

Myles R. Itkin

Executive Vice President, Chief Financial Officer

and Treasurer

#### OVERSEAS SHIPHOLDING GROUP, INC. AND SUBSIDIARIES

# **EXHIBIT INDEX**

- 12.1 Statement Regarding Computation of Ratios of Earnings to Fixed Charges
  - Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and
- 31.1 15d-14(a), as amended.
  - Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and
- 31.2 15d-14(a), as amended.
- Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Instruments authorizing long-term debt of the Registrant and its subsidiaries, where the amounts authorized NOTE: thereunder do not exceed 10% of total assets of the Registrant on a consolidated basis, are not being filed herewith. The Registrant agrees to furnish a copy of each such instrument to the Commission upon request.