As filed with the Securities and Exchange Commission on April 17, 2014

Registration No. 333-193823

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Amendment No. 1
to

Form S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Tecogen Inc.

(Exact name of registrant as specified in its charter)

Delaware	**3585**	**04-3536131**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

Tecogen Inc.
45 First Avenue
Waltham, MA 02451
(781) 622-1120
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

John N. Hatsopoulos
Chief Executive Officer
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45 First Avenue
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(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date hereof.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box. ☐

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. Large accelerated filer☐ Accelerated filer☐ Non-accelerated filer☐ Smaller reporting company:☒

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price[1]	Amount of Registration Fee[2]
Common Stock, par value $0.001 per share	$ 11,500,000	$ 1,485

[1] Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.

[2] Of this amount, $644 was paid in connection with the original filing of the registration statement.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state or other jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED APRIL 17, 2014

PRELIMINARY PROSPECTUS

2,000,000 shares of Common Stock

Tecogen Inc. is offering 2,000,000 shares of its common stock.

Prior to this offering, there has not been a public market for our common stock. We expect that the public offering price will be between $4.75 and $5.75 per share. We have applied to list our common stock on the NASDAQ Capital Market under the symbol "TGEN".

The Company has retained Scarsdale Equities LLC, or the Placement Agent, to act as the exclusive placement agent for the offering. The Placement Agent has agreed to use its commercially reasonable efforts to solicit offers to purchase shares of Common Stock. The Placement Agent is not purchasing or selling any shares of Common Stock pursuant to this offering, nor are we requiring any minimum purchase of any specific number of shares. Because there is no minimum offering amount required as a condition to the closing of the offering, the actual public offering amount, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the amounts set forth below. See "Plan of Distribution" beginning on page 81 of this prospectus for more information regarding these arrangements.

We are an "emerging growth company," as that term is used in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and, as such, have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary — Implications of Being an Emerging Growth Company."

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 8 of this prospectus for a discussion of information that should be considered in connection with an investment in our common stock.

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

Maximum Offering	Per Share	Total
Public offering price	$	$
Placement agent fees	$	$
Proceeds to us (before expenses)(1)	$	$

(1) We have agreed to reimburse the Placement Agent for certain expenses. See "Plan of Distribution."

We expect that delivery of the Common Stock sold in the offering will be made on or about , 2014.

SCARSDALE EQUITIES

The date of this prospectus is , 2014.

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You should rely only on the information contained in this prospectus and any free writing prospectus prepared by or on behalf of us or to which we have referred you. Neither we nor the Placement Agent have authorized anyone to provide you with information that is different. We are offering to sell our common stock, and seeking offers to buy our common stock, only in jurisdictions where offers and sales are permitted.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to the registration statement of which this prospectus forms a part were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

For investors outside of the United States: Neither we nor the Placement Agent have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

In this prospectus, unless the context otherwise requires, "Tecogen," the "Company," "we," "us," or "our" refer to Tecogen Inc. and its subsidiary.

This prospectus includes statistical, market and industry data and forecasts that we obtained from publicly available information and independent industry publications and reports that we believe to be reliable sources. These publicly available industry publications and reports generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy or completeness of the information. Although we believe that these sources are reliable, we have not independently verified the information contained in such publications.

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus. It is not complete and does not contain all of the information that you should consider before investing in our common stock. You should read the entire prospectus carefully, especially the risks of investing in our common stock discussed under "Risk Factors" and our consolidated financial statements and accompanying notes. In this prospectus, unless the context otherwise requires, "Tecogen," "Company," "we," "us," or "our," refer to Tecogen Inc. and its subsidiaries.

Company Overview

Tecogen designs, manufactures, sells, and services systems that produce electricity, hot water, and air conditioning for commercial installations and buildings and industrial processes. Our systems, powered by natural gas engines, drive electricity generators or compressors, which reduce the amount of electricity purchased from local utilities. Because our systems are designed to capture waste engine heat, they tend to be more energy efficient since otherwise-wasted energy can be used for water heating, space heating and/or air conditioning. The relative costs of natural gas and electricity at a proposed system site determine whether a system is economically efficient as well as energy efficient. This type of cogeneration technology is referred to as combined heat and power, or CHP.

Tecogen manufactures three types of CHP products:

- Cogeneration units that supply electricity and hot water;
- Chillers that provide air-conditioning and hot water; and
- High-efficiency water heaters.

All of our products are standardized, modular, small-scale CHP products that reduce energy costs, carbon emissions, and dependence on the electric grid. Market drivers include the price of natural gas, local electricity costs, and governmental energy policies, as well as customers' desire to become more socially responsible. Traditional customers for our cogeneration and chiller systems include hospitals and nursing homes, colleges and universities, health clubs and spas, hotels and motels, office and retail buildings, food and beverage processors, multi-unit residential buildings, laundries, ice rinks, swimming pools, factories, municipal buildings, and military installations; however, the economic feasibility of using our systems is not limited to these customer types. We have shipped approximately 2,000 units, some of which have been operating for almost 25 years. We have 69 full-time employees and three part-time employees, including six sales and marketing personnel and 40 service personnel.

Our Technology

Our CHP technology uses low-cost, mass-produced engines manufactured by General Motors Company, or GM, or Ford Motor Company, or Ford, which we modify to run on natural gas. Because our systems are fueled by natural gas, they typically produce lower levels of "criteria" air pollutants (those that are regulated by the Environmental Protection Agency, or EPA, because they can harm human health and the environment) compared with systems fueled by propane, gasoline, distillates, or residual fuel oil. We offer our new advanced emission system, *Ultra*, as an option in our CHP systems. With *Ultra,* our CHP products have achieved emission levels that qualify under strict existing and proposed California emission standards. Other emerging technologies, such as fuel cells, may also meet those standards, but we are not aware that any appear economically viable at this time.

Our products are designed as compact modular units that are intended to be applied in multiples when utilized for larger CHP plants. Approximately 68% of our CHP modules are installed in multi-unit sites ranging up to 12 units. This approach has significant advantages over utilizing single, larger units, such as building placement in constrained urban settings and redundancy during service outages. Redundancy is particularly relevant in regions where the electric utility has formulated tariff structures that have high "peak demand" charges. Such tariffs are common in many areas of the United States, and are applied by such utilities as Southern California Edison, Pacific Gas and Electric, Consolidated Edison of New York, and National Grid of Massachusetts. Because these tariffs assess customers' peak monthly demand charge over a very short interval (typically only 15 minutes), a brief service outage for a system comprised of a single unit is highly detrimental to the monthly savings of the system. For multiple unit sites, a full system outage is less likely and consequently these customers have a greater probability of capturing peak demand savings.

Our in-licensed microgrid technology enables our *InVerde* CHP product to provide backup power in the event of power outages that may be experienced by local, regional, or national grids.

Our 65.0%-owned subsidiary Ilios, Inc., which does business under the name Ilios Dynamics in Massachusetts, or Ilios, has developed and distributes a line of high-efficiency water heaters. Ilios technology is designed to capture available energy in the environment due to ambient temperature differences. The physical laws of thermodynamics determine the portion of this available energy that can be theoretically captured. If the cost of capturing a portion of that available energy is less than the value of that energy, additional system efficiencies may be obtained. Thus, Ilios systems in certain cases may be more efficient than conventional boilers in commercial installations and industrial processes.

Markets, Customers, and Suppliers

Our CHP products are sold directly to customers by our in-house marketing team and by established sales agents and representatives, including American DG Energy Inc., or American DG Energy, and EuroSite Power Inc., or EuroSite Power, which are affiliated companies. Our principal engine supplier is GM, and the other principal components of our CHP systems are also mass-produced. Other than service revenue, our products generally do not produce recurring revenue as they typically constitute a one-time capital expenditure by a customer. We do not consider ourselves dependent on one or a few customers, including our affiliated customers, American DG Energy and EuroSite Power. We strive to obtain long-term service contracts for the products we manufacture through our factory-owned service centers in California, the Midwest, and the Northeast United States. Between 2007 and 2012, approximately 68% of our installations also included service contracts.

Strategy

While we believe that our products and services provide efficient solutions to customers throughout the United States and around the world, our strategy for increased revenue and profitability is to expand our operations in our existing territories where we perceive the demand for our products and services is strongest, and where our products have particular advantages over our competition. Specifically, our CHP systems provide energy-efficient power with technically superior emissions control, while also serving as backup power that may allow customers in some areas to provide surplus power to an electrical grid. Our sales and technical staff operate from our existing service centers in California and the Northeast. These regions have strict emissions regulations, which favor our products equipped with our *Ultra* low-emission technology. Also, these regions have high peak demand rates, which favor utilization of our modular units in groups so as to assure redundancy and peak demand savings, as discussed above. Some of these regions also have generous rebates that improve the economic viability of our systems. We will also focus on customers that value our microgrid technology that enables the CHP plant to serve the facility to provide backup power during outages. Our sales staff will support our existing sales channels, but will also focus on selling complete design and installation services for customers in these regions. We believe that these design and build services, or turnkey services, will expand our sales significantly because they increase revenue per unit sale substantially, as they include the portion of the sale related to installation. We believe that turnkey installation services will improve our service contract retention from its current rate of 68% between 2007 and 2012, to a near universal proportion. Moreover, we see the turnkey model as a vehicle to expand our service offering to customers to include portions of the system outside of our factory produced module that may improve the long-term operation of the CHP plant. Such items might include ancillary pumps, controls, and heat exchangers, among other components.

Our business model of establishing satellite service, sales, and installation centers will be our strategy in emerging domestic markets such as the mid-Atlantic region and areas in the Midwest. For our overseas markets we will continue to develop regional allies for sales and service, such as EuroSite Power in the United Kingdom, and our analogous allies in other international markets such as Mexico and Australia.

In markets we have identified to focus our attention, we will continue our strategy of engaging the consulting engineering community through direct contact and also through engineering societies and trade shows. Our sales staff will engage building owners and their management companies to explain the energy-efficient products and solutions we offer with the goal of providing comprehensive turnkey installations.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the "Risk Factors" section of this prospectus immediately following this prospectus summary. These risks include, but are not limited to, the following:

History of Operating Losses. For each of our last five fiscal years and prior thereto, we have incurred annual operating losses. We expect this trend to continue until such time that we can sell a sufficient number of systems and achieve a cost structure to become profitable, which may be several years. We may not have adequate cash resources to reach the point of profitability, and we may never become profitable. Even if we do achieve profitability, we may be unable to increase our sales and sustain or increase our profitability in the future.

Dependence on Key Suppliers. We rely on a small number of key suppliers, and the loss one of them could materially and adversely affect our business. Further, from time to time, shipments to us of key system components can be delayed because of industry-wide or other shortages, and the components we receive may not meet our quality or cost requirements.

Dependence on Technology Development. Our products incorporate proprietary technology, and our future success will depend upon our ability to continue to develop and provide innovative products and product enhancements. The introduction of products embodying new technologies, and the shifting of customer demands or changing industry standards, could render our existing products obsolete and unmarketable.

Changes in governmental regulation could adversely affect us. We operate in a highly regulated business environment, and changes in regulation could impose significant costs on us or could make our products less economical.

The economic viability of our projects depends on the price spread between fuel and electricity. Variability of the price spread between fuel and electricity creates a risk that our projects will not be economically viable and that potential customers will avoid such energy price risks.

There has been a material weakness in our disclosure controls and procedures and in our internal control over financial reporting. Although we consider the size of our accounting staff sufficient to meet our business needs, a need for improved controls and procedures surrounding technical accounting practices, information technology, and financial reporting currently exists.

Our chief executive officer and chief financial officer have responsibilities to affiliated companies. Our key executives spend a significant portion of their time performing management functions for one or more of our affiliated companies. John N. Hatsopoulos is the Company's Chief Executive Officer and is also the Chief Executive Officer of American DG Energy. In the past Mr. Hatsopoulos has spent approximately 50% of his business time on the affairs of the Company. Although such amount varies widely depending on the needs of the business, he has actively fulfilled all his duties as the Company's CEO and feels confident that he will be able to continue fulfilling such duties in the future. Bonnie Brown is the Company's Chief Financial Officer and is also Chief Financial Officer of Ilios, the Company's majority-owned subsidiary.

Recent Developments

The U.S. Patent and Trademark Office, or the U.S. PTO, has issued our patent relating to the assembly and method for reducing nitrogen oxides and hydrocarbons in exhausts of internal combustion engines, which is the underlying process used in our *Ultra* low-emissions technology. The claims describe a method of operating an engine exhaust treatment system that reduces certain “criteria” pollutants, the common air pollutants determined to be hazardous to human health and regulated under the Environmental Protection Agency’s National Ambient Air Quality Standards, to extremely low values by converting most of the toxic compounds in the engine exhaust to benign compounds.

In order to satisfy our contractual obligations, on February 6, 2014, we filed a registration statement on Form S-1 with the Securities and Exchange Commission, or SEC, seeking to register 2,028,145 shares of our common stock for resale or other disposition by the selling stockholders named therein. The offering by the selling stockholders is referred to in this prospectus as the secondary offering. Unless otherwise explicitly stated, the information in this prospectus does not give effect to the secondary offering.

Implications of Being an Emerging Growth Company

We are an “emerging growth company,” as that term is used in the JOBS Act and, for as long as we continue to be an “emerging growth company,” we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to “emerging growth companies,” including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an “emerging growth company” for up to five years, or until the earliest of (i) the last day of the fiscal year during which our total annual gross revenues equal or exceed $1 billion (subject to adjustment for inflation), (ii) the last day of the fiscal year following the fifth anniversary of our public offering, (iii) the date on which we have, during the previous three-year period, issued more than $1 billion in non-convertible debt, or (iv) the date on which we are deemed a large accelerated filer under the Securities Exchange Act of 1934, or the Exchange Act. We have chosen to “opt out” of the extended transition periods available under the JOBS Act for complying with new or revised accounting standards, and intend to take advantage of the other exemptions.

Corporate History

Tecogen began in the early 1960s as a research division of Thermo Electron Corporation, now Thermo Fisher Scientific Inc., which is a publicly traded company listed on the NYSE under the symbol TMO. In 2000, Tecogen was sold to private investors including Thermo Electron’s original founders, Dr. George N. Hatsopoulos and John N. Hatsopoulos.

We were incorporated in the State of Delaware on September 15, 2000. Our offices are located at 45 First Avenue, Waltham, Massachusetts 02451. Our telephone number is 781-466-6400. Our Internet address is *http://www.tecogen.com.* The information on, or that may be accessed through, our website is not incorporated by reference into this prospectus and should not be considered a part of this prospectus.

THE OFFERING

Common Stock being offered:	2,000,000 shares(1)
Common Stock to be outstanding after this offering:	17,155,200 shares(1)(2)
Use of proceeds:	We estimate that we will receive net proceeds of up to $9,341,000 from the sale of the shares of Common Stock offered hereby, after deducting the estimated placement agent fees and estimated offering expenses payable by us. We intend to use the net proceeds of this offering for working capital and general corporate purposes, including expanding our turnkey business, constructing a dedicated manufacturing facility for Ilios, expanding our low emission technology to other markets, and continuing product development. A $0.25 increase (decrease) in the assumed public offering price of $5.25 per share would increase (decrease) the net proceeds of this offering by approximately $466,000, assuming that the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, after deducting the estimated placement agent fees and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 100,000 shares in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering by approximately $490,000, assuming that the assumed public offering price remains the same, and after deducting the estimated placement agent fees and estimated offering expenses payable by us.
Proposed NASDAQ Capital Market symbol:	TGEN

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(1) The number of shares that we sell assumes that we sell $10,500,000 of our common stock at a public offering price of $5.25 per share, the midpoint of the price range set forth on the cover page of this prospectus.

(2) Unless we indicate otherwise, Common Stock outstanding after this offering is based on 15,155,200 shares of our common stock outstanding as of December 31, 2013, assumes the sale of 2,000,000 shares in this offering; and excludes as of that date the following:

- 1,148,000 shares of Common Stock issuable upon the exercise of stock options outstanding prior to this offering under our stock incentive plan, at a weighted average exercise price of $2.13 per share;
- 58,683 shares of Common Stock available for future grants under our stock incentive plan;
- 555,556 shares of Common Stock issuable pursuant to convertible debentures with an outstanding principal amount of $3,000,000 and a conversion price of $5.40 per share.

Except as otherwise noted, all information in this prospectus gives retroactive effect to a one-for-four reverse split of our common stock effected on July 22, 2013.

SUMMARY CONSOLIDATED FINANCIAL DATA

The summary consolidated statements of operations data for each of the years ended December 31, 2013 and 2012 and the summary consolidated balance sheet data as of December 31, 2013 and 2012, have been derived from our audited consolidated financial statements that are included elsewhere in this prospectus.

You should read this information together with the consolidated financial statements and related notes and other information under "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

Consolidated Statement of Operations Data:	Year Ended December 31, 2013	Year Ended December 31, 2012
Revenues	$ 15,849,869	$ 15,253,972
Cost of sales	10,819,741	9,388,898
Gross profit	5,030,128	5,865,074
Operating expenses		
General and administrative	7,018,133	6,643,120
Selling	1,423,587	1,225,580
Aborted public offering costs	258,512	—
	8,700,232	7,868,700
Loss from operations	(3,670,104)	(2,003,626)
Other income (expense)		
Interest and other income	3,958	48,397
Interest expense	(141,065)	(71,208)
	(137,107)	(22,811)
Loss before income taxes	(3,807,211)	(2,026,437)
Consolidated net loss	(3,807,211)	(2,026,437)
Less: Loss attributable to the noncontrolling interest	357,722	389,480
Net loss attributable to Tecogen Inc.	$ (3,449,489)	$ (1,636,957)
Net loss per share – basic and diluted	$ (0.26)	$ (0.12)
Weighted average shares outstanding – basic and diluted	13,385,155	13,135,071

Consolidated Balance Sheet Data:	As of December 31, 2012 Actual	As of December 31, 2013 Actual	Pro Forma(1)	Pro Forma As Adjusted(2)
Cash and cash equivalents	$ 1,572,785	$ 7,713,899	$ 4,575,541	$ 13,916,541
Short-term investments (restricted)	181,859	—	—	—
Working capital	4,078,704	5,565,789	5,578,089	14,919,089
Total assets	9,117,249	17,630,069	14,491,711	23,832,711
Total liabilities	4,334,214	10,564,176	7,814,834	7,814,834
Total stockholders' equity	$ 4,783,035	$ 7,065,893	$ 7,078,193	$ 16,419,193

(1) The pro forma consolidated balance sheet data in the table above gives effect to the private placement of 1,400 shares of common stock at $4.50 per share from January 1 to January 17, 2014, the exercise of 5,000 options at $1.20 on February 18, 2014 and the repayment of debt to the Company's CEO on January 6, 2014 consisting of principal of $2,950,000 and accrued interest of $200,658.

(2) The pro forma as adjusted consolidated balance sheet data in the table above gives effect to the sale of 2,000,000 shares of common stock in this offering at an assumed public offering price of $5.25 per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting estimated placement agent fees and estimated offering expenses payable by us. A $0.25 increase (decrease) in the assumed public offering price of $5.25 per share would increase (decrease) each of cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $466,000, assuming the number of shares we are offering, as set forth on the cover page of the prospectus, remains the same, after deducting the estimated placement agent fees and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 100,000 shares in the number of shares we are offering would increase (decrease) each of cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $490,000, assuming the assumed public offering price remains the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual public offering price, number of shares offered and other terms of this offering determined at pricing.

RISK FACTORS

The shares of Common Stock offered hereby are highly speculative and should be purchased only by persons who can afford to lose their entire investment. You should carefully consider the following risk factors and other information in this prospectus before deciding to purchase our common stock. If any of the following risks actually occur, our business and financial results could be negatively affected to a significant extent.

Risks Relating to Our Business

Our business faces many risks. The risks described below may not be the only risks we face. Additional risks that we do not yet know of, or that we currently think are immaterial, may also impair our business operations or financial results. If any of the events or circumstances described in the following risks occurs, our business, financial condition or results of operations could suffer and the trading price of our common stock could decline. Investors and prospective investors should consider the following risks and the information contained under the heading "Cautionary Note Concerning Forward-Looking Statements" before deciding whether to invest in our securities.

Our operating history is characterized by net losses. We anticipate incurring further losses, and we may never become profitable.

For each of our last five fiscal years and prior thereto, we have incurred annual operating losses. We expect this trend to continue until such time that we can sell a sufficient number of systems and achieve a cost structure to become profitable. We may not have adequate cash resources to reach the point of profitability, and we may never become profitable. Even if we do achieve profitability, we may be unable to increase our sales and sustain or increase our profitability in the future.

We experience significant fluctuations in revenues from quarter to quarter due to a preponderance of one-time sales.

We have low volume, high dollar sales for projects that are generally non-recurring, and therefore our sales have fluctuated significantly from period to period. For example, when compared to the previous quarter, our revenues in 2010 decreased during the first, second and fourth quarters and increased during the third quarter. In 2011, our revenue decreased during the first and fourth quarters and increased during the second and third quarters. In 2012, our revenues increased during the first, second and fourth quarters and decreased during the third quarter. In 2013, our revenues increased in the first, third and fourth quarters and decreased in the second quarter. Fluctuations cannot be predicted because they are affected by the purchasing decisions and timing requirements of our customers, which are unpredictable.

We may be unable to fund our future operating requirements, which could force us to curtail our operations.

To the extent that our funds are insufficient to fund our future operating requirements, we would need to raise additional funds through further public or private equity or debt financings depending upon prevailing market conditions. These financings may not be available to us, or if available, may be on terms that are not favorable to us and could result in significant dilution to our stockholders and reduction of the trading price of our stock (if then publicly traded). The state of worldwide capital markets could also impede our ability to raise additional capital on favorable terms or at all. If adequate capital were not available to us, we likely would be required to significantly curtail our operations or possibly even cease our operations.

We believe that our existing resources, including cash and cash equivalents, future cash flows from operations and the expected net proceeds from this offering are sufficient to meet the working capital requirements of our existing business for at least the next twelve months. After that our cash requirements may increase.

If we experience a period of significant growth or expansion, it could place a substantial strain on our resources.

If our cogeneration and chiller products penetrate the market rapidly, we would be required to deliver even larger volumes of technically complex products or components to our customers on a timely basis and at a reasonable costs to us. We have never ramped up our manufacturing capabilities to meet large-scale production requirements. If we were to commit to deliver large volumes of products, we may not be able to satisfy these commitments on a timely and cost-effective basis.

The execution of our growth strategy is dependent upon the continued availability of third-party financing arrangements for our customers and is affected by general economic conditions.

The recent recession, current unstable economic conditions and limited availability of credit and liquidity could materially and adversely affect our business and results of operations because purchasers of our systems often require third party financing. Purchasers may be unable or unwilling to finance the cost to purchase our products or may be forced to cancel previously submitted orders or delay taking shipment until suitable credit is again available. Collecting payment from customers facing liquidity challenges is also difficult.

We are dependent on a limited number of third-party suppliers for the supply of key components for our products.

We use third-party suppliers for components in many of our products. Our engine supplier is GM. Our generator supplier for our cogeneration products, other than the InVerde, is Marathon Electric. To produce air conditioning, our engines drive a compressor purchased from J&E Hall International. The loss of one of our suppliers could materially and adversely affect our business, if we are unable to replace them. While alternate suppliers for the manufacture of our engine, generator and compressor have been identified, should the need arise, there can be no assurance that alternate suppliers will be available and able to manufacture our engine, generator or compressor on acceptable terms.

From time to time, shipments can be delayed because of industry-wide or other shortages of necessary materials and components from third-party suppliers. A supplier's failure to supply components in a timely manner, or to supply components that meet our quality, quantity, or cost requirements, or our inability to obtain substitute sources of these components on a timely basis or on terms acceptable to us, could impair our ability to deliver our products in accordance with contractual obligations.

We expect significant competition for our products and services.

Competition for our products is currently limited (see “Competitive Position and Business Conditions” in the “Business” section of this prospectus. Many of our competitors and potential competitors are well established and have substantially greater financial, research and development, technical, manufacturing and marketing resources than we do. If these larger competitors decide to focus on the development of distributed power or cogeneration, they have the manufacturing, marketing and sales capabilities to complete research, development and commercialization of these products more quickly and effectively than we can. There can also be no assurance that current and future competitors will not develop new or enhanced technologies or more cost-effective systems, and therefore, there can be no assurance that we will be successful in this competitive environment.

The Executive Order to accelerate investments in industrial energy efficiency may lead to increased competition.

An Executive Order to accelerate investments in industrial energy efficiency, including CHP, was promulgated in August 2012. The goal of the Executive Order is to supply 40 gigawatts of energy by 2020 from greater efficiency sources such as CHP systems. With this Executive Order, it is expected that a number of barriers to CHP development will be removed with effective programs, policies, and financing opportunities resulting in significant new capital investment in CHP. This initiative by the U.S. government may lead to increased competition in the CHP market.

If we are unable to maintain our technological expertise in design and manufacturing processes, we will not be able to successfully compete.

We believe that our future success will depend upon our ability to continue to develop and provide innovative products and product enhancements that meet the increasingly sophisticated needs of our customers.

However, this requires that we successfully anticipate and respond to technological changes in design and manufacturing processes in a cost-effective and timely manner. The development of new, technologically advanced products and enhancements is a complex and uncertain process requiring high levels of innovation, as well as the accurate anticipation of technological and market trends. There can be no assurance that we will successfully identify new product opportunities, develop and bring new or enhanced products to market in a timely manner, successfully lower costs, and achieve market acceptance of our products, or that products and technologies developed by others will not render our products or technologies obsolete or noncompetitive.

The introduction of products embodying new technologies, and the shifting of customer demands or changing industry standards, could render our existing products obsolete and unmarketable. We may experience delays in releasing new products and product enhancements in the future. Material delays in introducing new products or product enhancements may cause customers to forego purchases of our products and purchase those of our competitors.

Our intellectual property may not be adequately protected.

We seek to protect our intellectual property rights through patents, trademarks, copyrights, trade secret laws, confidentiality agreements, and licensing arrangements, but we cannot ensure that we will be able to adequately protect our technology from misappropriation or infringement. We cannot ensure that our existing intellectual property rights will not be invalidated, circumvented, challenged, or rendered unenforceable.

We have applied for and obtained patents on certain key components used in our products. Specifically, the Company holds three patents, all of which are utilized in our products. The first patent, from 2007, protects the incorporation of an inverter into an engine-driven CHP module and applies to our *InVerde* model. The second patent, also from 2007, pertains to algorithms used for combustion control in our engines. Our third patent, issued October 2013 in the United States, is for our *Ultra* low-emissions technology. This *Ultra* technology applies to all of our gas engine-driven products and may have licensing application to other natural gas engines. In addition, we have rights to a 2006 University of Wisconsin patent enabling us to use that patent's microgrid control algorithms for our specific use: engine-based power generation fueled by natural gas and diesel for engines less than 500 kW in electric power output.

We have also filed for patents for our *Ultra* low-emissions technology in Europe, Australia, Brazil, Canada, China, Costa Rica, the Dominican Republic, India, Israel, Japan, Mexico, New Zealand, Nicaragua, Republic of Korea, Singapore, and South Africa. As discussed under Recent Developments, the U.S. PTO has issued our patent. There is no assurance, however, that the *Ultra* low-emissions patent applications will be approved in any other countries.

Our competitors may successfully challenge the validity of our patents, design non-infringing products, or deliberately infringe our patents. There can be no assurance that other companies are not investigating or developing other similar technologies. In addition, our intellectual property rights may not provide a competitive advantage to us or ensure that our products and technology will be adequately covered by our patents and other intellectual property. Any of these factors or the expiration, termination, or invalidity of one or more of our patents may have a material adverse effect on our business.

Our control software is protected by copyright laws or under an exclusive license agreement. Further, we rely on treatment of our technology as trade secrets through confidentiality agreements, which our employees and vendors are required to sign. We also rely on non-disclosure agreements with others that have or may have access to confidential information to protect our trade secrets and proprietary knowledge. These agreements may be breached, and we may not have adequate remedies for any breach. Our trade secrets may also be or become known without breach of these agreements or may be independently developed by competitors. Failure to maintain the proprietary nature of our technology and information could harm our results of operations and financial condition.

Others may assert that our technology infringes their intellectual property rights.

We may be subject to infringement claims in the future. The defense of any claims of infringement made against us by third parties could involve significant legal costs and require our management to divert time from our business operations. If we are unsuccessful in defending any claims of infringement, we may be forced to obtain licenses or to pay additional royalties to continue to use our technology. We may not be able to obtain any necessary licenses on commercially reasonable terms or at all. If we fail to obtain necessary licenses or other rights, or if these licenses are costly, our operating results would suffer either from reductions in revenues through our inability to serve customers or from increases in costs to license third-party technologies.

Our success is dependent upon attracting and retaining highly qualified personnel and the loss of key personnel could significantly hurt our business.

To achieve success, we must attract and retain highly qualified technical, operational and executive employees. The loss of the services of key employees or an inability to attract, train and retain qualified and skilled employees, specifically engineering, operations, and business development personnel, could result in the loss of business or could otherwise negatively impact our ability to operate and grow our business successfully.

Our business is subject to product liability and warranty claims.

Our business exposes us to potential product liability claims, which are inherent in the manufacturing, marketing and sale of our products, and we may face substantial liability for damages resulting from the faulty design or manufacture of products or improper use of products by end users. We currently maintain a moderate level of product liability insurance, but there can be no assurance that this insurance will provide sufficient coverage in the event of a claim. Also, we cannot predict whether we will be able to maintain such coverage on acceptable terms, if at all, or that a product liability claim would not harm our business or financial condition. In addition, negative publicity in connection with the faulty design or manufacture of our products would adversely affect our ability to market and sell our products.

We sell our products with warranties. There can be no assurance that the provision in our financial statements for estimated product warranty expense will be sufficient. We cannot ensure that our efforts to reduce our risk through warranty disclaimers will effectively limit our liability. Any significant occurrence of warranty expense in excess of estimates could have a material adverse effect on our operating results, financial condition and cash flow. Further, we have at times undertaken programs to enhance the performance of units previously sold. These enhancements have at times been provided at no cost or below our cost. If we choose to offer such programs again in the future, such actions could result in significant costs.

Certain businesses and consumers might not consider cogeneration solutions as a means for obtaining their electricity and power needs.

Generating electricity and heat at the customers' building (on-site CHP) is an established technology, but it is more complex than buying electricity from the utility and using a furnace for heat. Customers have been slow to accept on-site CHP in part because of this complexity. In addition, the development of a larger market for our products will be impacted by many factors that are out of our control, including cost competitiveness, regulatory requirements, and the emergence of newer and potentially better technologies and products. If a larger market for cogeneration technology in general and our products in particular fails to grow substantially, we may be unable to continue our business.

We operate in a highly regulated business environment, and changes in regulation could impose significant costs on us or could make our products less economical, thereby affecting demand for our products.

Several kinds of government regulations – at federal, state, and local levels and in other countries affect our current and future business (see "Government Regulation and Its Effect on Our Business" in the "Business" section of this prospectus. Our products must comply with various local building codes and must undergo inspection by local authorities. Our products are also certified by a third party to conform to specific standards. These certifications require continuous verification by a company that monitors our processes and design every three months. Our InVerde product is also certified to Europe's standard CE mark (European Conformity), which is mandatory for products imported into the European Union for commercial sale. If our products ceased to meet the criteria necessary for the applicable certifications, we may lose the ability to sell our products in certain jurisdictions, which may materially and adversely affect our business.

Regulatory agencies may further impose special requirements for the implementation and operation of our products that could significantly affect or even eliminate some of our target markets. We also may incur material costs or liabilities in complying with future government regulations. Furthermore, our potential utility customers must themselves comply with numerous laws and regulations, which may be complicated by further deregulation of the utility industry. We cannot determine how such deregulation may ultimately affect the market for our products. Changes in regulatory standards or policies could reduce the level of investment in the research and development of alternative power sources, including our products. Any reduction or termination of such programs could increase the cost to our potential customers, making our systems less desirable and thereby adversely affect our business and financial condition.

Utilities or governmental entities could hinder our entry into and growth in the marketplace, and we may not be able to effectively sell our products.

Utilities or governmental entities on occasion have placed barriers to the installation of our products or their interconnection with the electric grid, and they may continue to do so. Utilities may charge additional fees to customers who install on-site CHP and rely on the grid for back-up power. These types of restrictions, fees, or charges could make it harder for customers to install our products or use them effectively, as well as increasing the cost to our potential customers. This could make our systems less desirable, thereby adversely affecting our revenue and other operating results.

We may not achieve production cost reductions necessary to competitively price our products, which would adversely affect our sales.

We believe that we will need to reduce the unit production cost of our products over time to maintain our ability to offer competitively priced products. Our ability to achieve cost reductions will depend on our ability to develop low-cost design enhancements, to obtain necessary tooling and favorable supplier contracts, and to increase sales volumes so we can achieve economies of scale. We cannot assure you that we will be able to achieve any such production cost reductions. Our failure to do so could have a material adverse effect on our business and results of operations.

Commodity market factors impact our costs and availability of materials.

Our products contain a number of commodity materials, from metals, which include steel, special high temperature alloys, copper, nickel and molybdenum, to computer components. The availability of these commodities could impact our ability to acquire the materials necessary to meet our requirements. The cost of metals has historically fluctuated. The pricing could impact the costs to manufacture our products. If we are not able to acquire commodity materials at prices and on terms satisfactory to us or at all, our operating results may be materially adversely affected.

Our products involve a lengthy sales cycle and we may not anticipate sales levels appropriately, which could impair our results of operations.

The sale of our products typically involves a significant commitment of capital by customers, with the attendant delays frequently associated with large capital expenditures. For these and other reasons, the sales cycle associated with our products is typically lengthy and subject to a number of significant risks over which we have little or no control. We expect to plan our production and inventory levels based on internal forecasts of customer demand, which is highly unpredictable and can fluctuate substantially. If sales in any period fall significantly below anticipated levels, our financial condition, results of operations and cash flow would suffer. If demand in any period increases well above anticipated levels, we may have difficulties in responding, incur greater costs to respond, or be unable to fulfill the demand in sufficient time to retain the order, which would negatively impact our operations. In addition, our operating expenses are based on anticipated sales levels, and a high percentage of our expenses are generally fixed in the short term. As a result of these factors, a small fluctuation in timing of sales can cause operating results to vary materially from period to period.

The economic viability of our projects depends on the price spread between fuel and electricity, and the variability of these prices creates a risk that our projects will not be economically viable and that potential customers will avoid such energy price risks.

The economic viability of our CHP products depends on the spread between natural gas fuel and electricity prices. Volatility in one component of the spread, such as the cost of natural gas and other fuels (e.g., propane or distillate oil), can be managed to some extent by means of futures contracts. However, the regional rates charged for both base load and peak electricity may decline periodically due to excess generating capacity or general economic recessions.

Our products could become less competitive if electric rates were to fall substantially in the future. Also, potential customers may perceive the unpredictable swings in natural gas and electricity prices as an increased risk of investing in on-site CHP, and may decide not to purchase CHP products.

We are exposed to credit risks with respect to some of our customers.

To the extent our customers do not advance us sufficient funds to finance our costs during the execution phase of our contracts, we are exposed to the risk that they will be unable to accept delivery or that they will be unable to make payment at the time of delivery.

We may make acquisitions that could harm our financial performance.

To expedite development of our corporate infrastructure, particularly with regard to equipment installation and service functions, we anticipate the future acquisition of complementary businesses. Risks associated with such acquisitions include the disruption of our existing operations, loss of key personnel in the acquired companies, dilution through the issuance of additional securities, assumptions of existing liabilities, and commitment to further operating expenses. If any or all of these problems actually occur, acquisitions could negatively impact our financial performance and future stock value.

Our ability to access capital for the repayment of debts and for future growth may be limited due to periods of fluctuating financial markets and periods of economic disruption and recession. We may be affected by unknown future market conditions.

Our ability to continue to access capital could be impacted by various factors including general market conditions and the continuing slowdown in the economy, interest rates, the perception of our potential future earnings and cash distributions, any unwillingness on the part of lenders to make loans to us, and any deterioration in the financial position of lenders that might make them unable to meet their obligations to us.

Our business is affected by general economic conditions and related uncertainties affecting the markets in which we operate. Potential future economic conditions, including an unstable global economy, could adversely impact our business in 2014 and beyond.

The current unstable economic conditions could adversely impact our business in 2014 and beyond, resulting in reduced demand for our products, increased rate of order cancellations or delays, increased risk of supplier bankruptcy, increased rate of supply order cancellation or delays, increased risk of excess and obsolete inventories, increased pressure on the prices for our products and services; and greater difficulty in collecting accounts receivable.

Risks Related to this offering and ownership of our common stock

No public market for our common stock currently exists, and an active trading market for our common stock may not develop or be sustained following this offering.

Prior to this offering, there has been no public market for our common stock. The public offering price for our common stock will be determined through negotiations between us and the investors in this offering. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our common stock following this offering. Although we will not consummate this offering unless our common stock is approved for listing on The NASDAQ Capital Market, an active trading market for our shares may never develop or, if developed, be maintained following this offering. If an active market for our common stock does not develop or is not maintained, it may be difficult for you to sell shares you purchase in this offering without depressing the market price for the shares or at all. An inactive trading market may also impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

Our failure to meet the continued listing requirements of The NASDAQ Capital Market could result in a de-listing of our common stock.

If after listing we fail to satisfy the continued listing requirements of The NASDAQ Capital Market, such as the corporate governance requirements or the minimum closing bid price requirement, NASDAQ may take steps to de-list our common stock. Such a de-listing would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a de-listing, we would take actions to restore our compliance with NASDAQ's listing requirements, but we can provide no assurance that any such action taken by us would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the NASDAQ minimum bid price requirement or prevent future non-compliance with NASDAQ's listing requirements.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for our common stock will depend on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. There can be no assurance that analysts will cover us, or provide favorable coverage. If one or more analysts downgrade our stock or change their opinion of our stock, our share price would likely decline. In addition, if one or more analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

Investment in our common stock is subject to price fluctuations and market volatility.

Historically, valuations of many small companies have been highly volatile. The securities of many small companies have experienced significant price and trading volume fluctuations, unrelated to the operating performance or the prospects of such companies. The public offering price for our shares will be determined by negotiations between us and the investors in the offering and may not be indicative of prices that will prevail in the trading market. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- results and timing of our product development;
- results of the development of our competitors' products;
- regulatory actions with respect to our products or our competitors' products;
- actual or anticipated fluctuations in our financial condition and operating results;

- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;
- competition from existing products or new products that may emerge;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations, or capital commitments;
- issuance of new or updated research or reports by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- additions or departures of key management or personnel;
- disputes or other developments related to proprietary rights, including patents, litigation matters, and our ability to obtain, maintain, defend or enforce proprietary rights relating to our products and technologies;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders, or our other stockholders; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political, and market conditions such as recessions, interest rate changes, or international currency fluctuations, may negatively impact the market price of shares of our common stock. In addition, such fluctuations could subject us to securities class action litigation, which could result in substantial costs and divert our management's attention from other business concerns, which could potentially harm our business. If the market price of shares of our common stock after this offering does not exceed the public offering price, you may not realize any return on your investment in us and may lose some or all of your investment.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The public offering price of the shares offered by this prospectus will be substantially higher than the pro forma as adjusted net tangible book value per share of our common stock based on the total value of our tangible assets less our total liabilities immediately following this offering. Therefore, if you purchase shares of our common stock in this offering, you will experience immediate and substantial dilution of approximately $4.35 per share in the price you pay for shares of our common stock as compared to the as adjusted net tangible book value per share, based on an assumed public offering price of $5.25 per share, the midpoint of the price range set forth on the cover page of this prospectus. To the extent outstanding options to purchase shares of Common Stock are exercised, there will be further dilution. Investors who purchase shares in this offering will contribute a substantial portion of the equity capital raised by us through the date of this offering, but will own a significantly lower percentage of the shares outstanding immediately following the completion of this offering. For further information on this calculation, see the "Dilution" section of this prospectus.

We could issue additional Common Stock, which might dilute the book value of our common stock.

Our board of directors has the authority, without action or vote of our stockholders, to issue all or a part of any authorized but unissued shares. Such stock issuances may be made at a price that reflects a discount from the then-current trading price of our common stock. We may issue securities that are convertible into or exercisable for a significant amount of our common stock. These issuances would dilute the percentage ownership interest of holders of our securities, which would have the effect of reducing their influence on matters on which our stockholders vote, and might dilute the book value of our common stock. Investors in our securities may incur additional dilution of net tangible book value if holders of stock options, whether currently outstanding or subsequently granted, exercise their options or if warrant holders exercise their warrants to purchase shares of our common stock. There can be no assurance that any future offering will be consummated or, if consummated, will be at a share price equal or superior to the price paid by our investors even if we meet our technological and marketing goals.

We may be subject to securities litigation, which is expensive and could divert management attention.

Our share price may be volatile, and in the past companies that have experienced volatility in the market price of their stock have been subject to an increased incidence of securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Our quarterly operating results are subject to fluctuations, and if we fail to meet the expectations of securities analysts or investors, our share price may decrease significantly.

Our annual and quarterly results may vary significantly depending on various factors, many of which are beyond our control. If our earnings do not meet the expectations of securities analysts or investors, the price of our stock could decline. Also, because our sales are primarily made on a purchase order basis, customers may generally cancel, reduce or postpone orders, resulting in reductions to our net sales and profitability.

Future sales of Common Stock by our existing stockholders may cause our stock price to fall.

The market price of our common stock could decline as a result of sales by our stockholders of shares of Common Stock in the market or the perception that these sales could occur. As a result, such sales could significantly impact the trading price of our common stock and the ability of other stockholders to sell shares of our common stock. These sales might also make it more difficult for us to sell equity securities at a time and price that we deem appropriate and thus inhibit our ability to raise additional capital when it is needed.

Because we do not intend to pay cash dividends, our stockholders will receive no current income from holding our stock.

We have paid no cash dividends on our capital stock to date and we currently intend to retain all of our future earnings, if any, to fund the development and growth of our business. In addition, the terms of any future debt or credit facility may preclude us from paying these dividends. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for our stockholders for the foreseeable future.

We are controlled by a small group of majority stockholders, and our minority stockholders will be unable to effect changes in our governance structure or implement actions that require stockholder approval, such as a sale of the Company.

George N. Hatsopoulos and John N. Hatsopoulos, who are brothers, beneficially own approximately 48.0% of our outstanding shares of Common Stock. These stockholders have the ability to control various corporate decisions, including our direction and policies, the election of directors, the content of our charter and bylaws and the outcome of any other matter requiring stockholder approval, including a merger, consolidation and sale of substantially all of our assets or other change of control transaction. The concurrence of our minority stockholders will not be required for any of these decisions. This concentration of voting power could delay or prevent an acquisition of us on terms that other stockholders may desire. The interests of this group of stockholders may not always coincide with your interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their Common Stock, which might affect the prevailing market price for our common stock.

We are controlled by our two founding stockholders, George N. Hatsopoulos and John N. Hatsopoulos. These stockholders have registered the majority of their holdings for resale and therefore are able to sell all of their Common Stock.

John N. Hatsopoulos and George N. Hatsopoulos have registered the majority of their holdings of our common stock for resale primarily for estate planning purposes. For that reason, the timing and the amount of any future sales by them is difficult to predict. George Hatsopoulos is a director but not an officer of the Company. John Hatsopoulos is the Chief Executive Officer and a key employee of the Company. If John Hatsopoulos or George Hatsopoulos were to sell a substantial portion of their shares in the Company, they would no longer have a substantial continuing interest in the Company. If that were to occur, it may have a material adverse effect on their performance as director or Chief Executive Officer, as applicable, and on the business of the Company. Further, substantial sales of their Common Stock may result in a decline in the market price of our common stock. The Company's securities held by each of John Hatsopoulos and George Hatsopoulos will be subject to 180-day lock-up periods pursuant to the lock-up agreements described in the "Plan of Distribution" section of this prospectus.

We have broad discretion in the use of net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled "Use of Proceeds," and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their intended use. The failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders. Further, we anticipate that a certain portion of the proceeds from this offering will be used to finance Ilios, an entity of which we own only 65.0%. As such, your investment in our common stock may result in benefits of which you may only experience a portion.

There has been a material weakness in our disclosure controls and procedures and our internal control over financial reporting, which could harm our operating results or cause us to fail to meet our reporting obligations.

As of our fiscal year end, December 31, 2013, our principal executive officer and principal accounting officer performed an evaluation of controls and procedures and concluded that our controls were not effective to provide reasonable assurance that information required to be disclosed by our Company in reports that we file under the Exchange Act, is recorded, processed, summarized and reported as when required. Management conducted an evaluation of our internal control over financial reporting and based on this evaluation, management concluded that the company's internal control over financial reporting was not effective as of December 31, 2013. The Company currently does not have personnel with a sufficient level of accounting knowledge, experience and training in the selection, application and implementation of generally acceptable accounting principles as it relates to complex transactions and financial reporting requirements. The Company also has a small number of employees dealing with general controls over information technology security and user access. This constitutes a material weakness in financial reporting. Any failure to implement effective internal controls could harm our operating results or cause us to fail to meet our reporting obligations. Inadequate internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock, and may require us to incur additional costs to improve our internal control system.

Trading of our common stock may be restricted by the SEC's "penny stock" regulations which may limit a stockholder's ability to buy and sell our stock.

The SEC has adopted regulations that generally define "penny stock" to be any equity security that has a market price less than $5.00 per share or an exercise price of less than $5.00 per share, subject to certain exceptions. Our securities may be covered by the penny stock rules, which impose additional sales practice requirements on broker-dealers who sell to persons other than established customers and accredited investors. The penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document in a form prepared by the SEC that provides information about penny stocks and the nature and level of risks in the penny stock market. The broker-dealer also must provide the customer with current bid and other quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction and monthly account statement showing the market value of each penny stock held in the customer's account. The bid and offer quotations, and the broker-dealer and salesperson compensation information, must be given to the customer orally or in writing prior to effecting the transaction and must be given to the customer in writing before or with the customer's confirmation. In addition, the penny stock rules require that prior to a transaction in a penny stock not otherwise exempt from these rules, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These disclosure and suitability requirements may have the effect of reducing the level of trading activity in the secondary market for a stock that is subject to these penny stock rules. Consequently, these penny stock rules may affect the ability of broker-dealers to trade our securities. We believe that the penny stock rules may discourage investor interest in and limit the marketability of our capital stock. Trading of our capital stock may be restricted by the SEC's "penny stock" regulations which may limit a stockholder's ability to buy and sell our stock.

The JOBS Act allows us to postpone the date by which we must comply with certain laws and regulations and reduces the amount of information provided by us in reports filed with the SEC. We cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.

We are and we will remain an "emerging growth company", as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, until the earliest to occur of (i) the last day of the fiscal year during which our total annual gross revenues equal or exceed $1 billion (subject to adjustment for inflation), (ii) the last day of the fiscal year following the fifth anniversary of our initial public offering, (iii) the date on which we have, during the previous three-year period, issued more than $1 billion in non-convertible debt, or (iv) the date on which we are deemed a large accelerated filer under the Exchange Act.

For so long as we remain an emerging growth company we are not required to:

- have an auditor report on our internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act;
- comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements (i.e., an auditor discussion and analysis);
- submit certain executive compensation matters to shareholder non-binding advisory votes;
- submit for shareholder approval golden parachute payments not previously approved; and
- disclose certain executive compensation related items such as the correlation between executive compensation and financial performance and comparisons of the Chief Executive Officer's compensation to median employee compensation, when such disclosure requirements are adopted.

In addition, Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. An emerging growth company can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. However, we have chosen to "opt out" of such extended transition period, and as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

We cannot predict if investors will find our common stock less attractive because we may rely on some of these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. If we avail ourselves of certain exemptions from various reporting requirements, our reduced disclosure may make it more difficult for investors and securities analysts to evaluate us and may result in less investor confidence.

We will incur significantly increased costs and devote substantial management time as a result of operating as a public company particularly after we are no longer an "emerging growth company."

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. For example, we will be required to comply with certain of the requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC, and The NASDAQ Capital Market, our anticipated stock exchange, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. We expect that compliance with these requirements will increase our legal and financial compliance costs and will make some activities more time consuming and costly. In addition, we expect that our management and other personnel will need to divert attention from operational and other business matters to devote substantial time to these public company requirements. In particular, we expect to incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404 of the Sarbanes-Oxley Act.

As noted above, for as long as we remain an "emerging growth company" as defined in the JOBS Act, we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies." However, after we are no longer an "emerging growth company," we expect to incur additional management time and cost to comply with the more stringent reporting requirements applicable to companies that are deemed accelerated filers or large accelerated filers, including complying with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act. We cannot predict or estimate the amount of additional costs we may incur as a result of becoming a public company or the timing of such costs.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans, and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus include, among other things, statements about:

- our future financial performance, including our revenue, cost of revenue, operating expenses, and ability to achieve and maintain profitability an auditor report on our internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act;
- our future financial performance, including our revenue, cost of revenue, operating expenses, and ability to achieve and maintain profitability;
- our ability to market, commercialize, and achieve market acceptance for our combined heat and power systems, or any other product candidates or products that we may develop;
- our ability to innovate and keep pace with changes in technology;
- the success of our marketing and business development efforts;
- our ability to maintain, protect and enhance our intellectual property;
- the effects of increased competition in our market;
- our ability to effectively manage our growth and successfully enter new markets; and
- the attraction and retention of qualified employees and key personnel.

We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions, and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the "Risk Factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus, and we do not assume any obligation to update any forward-looking statements except as required by applicable law.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $9.3 million from the sale of our common stock in this offering, after deducting the estimated placement agent fees and estimated offering expenses payable by us. A $0.25 increase (decrease) in the assumed public offering price of $5.25 per share would increases (decrease) the net proceeds of this offering by approximately $466,000, assuming that the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, after deducting the estimated placement agent fees and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 100,000 shares in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering by approximately $500,000 million, assuming that the assumed public offering price remains the same, and after deducting the estimated placement agent fees and estimated offering expenses payable by us.

We currently expect to use the net proceeds from this offering to:

- Expand our turnkey design and installation contracting services business in our core markets in the Northeast United States and California. Proceeds will be used for additional sales and technical staff to support the business and for working capital to complete these projects. We anticipate expanding our service and turnkey operations to new territories, which will likewise require startup capital.

- Further expand our business into foreign markets.

- Expand our low-emissions technology business to other markets, including applying our emissions technology to non-Tecogen engines in a wider range of industrial markets.

- Refine our existing models and develop new products, including additional CHP and Ilios heat pump products that will use the advanced engine developed under completed research contract with the California Energy Commission (see “R&D Capabilities” below).

The remainder of the net proceeds from this offering may be used for working capital and general corporate purposes.

If we receive substantially less than the maximum proceeds from this offering, we believe that we will have access to other funding sources that, together with the proceeds we do receive, will be sufficient to meet our working capital requirements for at least the next twelve months.

The actual amount we spend for such purposes will depend on then-existing conditions, including our financial condition, operating results, business prospects, and other factors that we may deem relevant. Accordingly, our management will have significant flexibility in applying the net proceeds of this offering. Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments, and U.S. government securities.

We have no current understandings, commitments or agreements with respect to any material acquisition of or investment in any technologies, products, or companies.

DIVIDENDS

To date, we have not declared or paid any dividends on our outstanding shares. We currently do not anticipate paying any cash dividends in the foreseeable future on our common stock. Although we intend to retain our earnings to finance our operations and future growth, our Board of Directors will have discretion to declare and pay dividends in the future. Payment of dividends in the future will depend upon our earnings, capital requirements and other factors, which our Board of Directors may deem relevant.

DETERMINATION OF OFFERING PRICE

The offering price for the shares in this offering was determined by us after negotiation with the investors in this offering. In determining the offering price of the shares we considered several factors including the following:

- our status of business development;
- our new business structure and operations;
- prevailing market conditions, including the history and prospects for our industry;
- market valuations of other companies that we and the Placement Agent believe to be comparable to us;
- our future prospects and the experience of our management;
- our capital structure; and
- other factors deemed relevant.

Therefore, the public offering price of the shares does not necessarily bear any relationship to established valuation criteria and may not be indicative of prices that may prevail at any time or from time to time in the public market for the Common Stock. You cannot be sure that a public market for any of our securities will develop and continue or that the securities will ever trade at a price at or higher than the offering price in this prospectus.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of December 31, 2013:

- on an actual basis;
- on a pro forma basis to give effect to the private placement of 1,400 shares of common stock at $4.50 per share from January 1 to January 17, 2014, the exercise of 5,000 options at $1.20 on February 18, 2014 and the repayment of debt to the Company's CEO on January 6, 2014 consisting of principal of $2,950,000 and accrued interest of $200,658; and
- on a pro forma, as adjusted basis, to give effect to the assumed sale of 2,000,000 shares of our common stock in this offering at an assumed public offering price of $5.25 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated placement agent fees and estimated offering expenses payable by us.

You should read this table in conjunction with the sections titled “Selected Consolidated Financial Data” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes included elsewhere in this prospectus.

	December 31, 2013		
	Actual	**Pro Forma**	**Pro Forma, as adjusted**
Cash and cash equivalents	$ 7,713,899	$ 4,575,541	$ 13,916,541
Senior convertible promissory note, related party	3,000,000	3,000,000	3,000,000
Demand notes payable and line of credit, related party	2,950,000	—	—
Common Stock, par value $0.001 per share – 100,000,000 shares authorized; 15,155,200 issued shares, actual; 15,161,600 issued shares pro forma; and 17,155,200 issued shares, pro forma as adjusted	15,155	15,161	17,161
Additional paid-in capital	22,463,996	22,476,290	31,815,290
Accumulated deficit	(15,209,212)	(15,209,212)	(15,209,212)
Noncontrolling interest	(204,046)	(204,046)	(204,046)
Total stockholders’ equity	$ 7,065,893	$ 7,078,193	16,419,193
Total capitalization	$ 7,065,893	$ 7,078,193	16,419,193

Each $0.25 increase (decrease) in the assumed public offering price of $5.25 per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase (decrease), respectively, the amount of cash, and cash equivalents and short-term investments, additional paid-in capital, total stockholders’ equity (deficit) and total capitalization by approximately $466,000, assuming the number of shares offered by us remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 100,000 shares in the number of shares we are offering would increase (decrease), respectively, the amount of cash and cash equivalents, additional paid-in capital, total stockholders’ equity (deficit) and total capitalization by approximately $490,000, assuming the assumed public offering price remains the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual public offering price, number of shares offered and other terms of this offering determined at pricing.

The above table is based on 15,155,200 shares of our common stock outstanding as of December 31, 2013 and excludes as of that date the following:

- 1,148,000 shares of Common Stock issuable upon the exercise of stock options outstanding prior to this offering under our stock incentive plan, at a weighted average exercise price of $2.13 per share;

- 58,683 shares of Common Stock available for future grants under our stock incentive plan;

- 555,556 shares of Common Stock issuable pursuant to convertible debentures with an outstanding principal amount of $3,000,000 and a conversion price of $5.40 per share.

DILUTION

Purchasers of the shares offered by this prospectus will suffer immediate and substantial dilution in the net tangible book value per share of Common Stock. Our net tangible book value as of December 31, 2013, was approximately $6,071,696, or $0.40 per share. Net tangible book value per share is calculated by subtracting our total liabilities from our total tangible assets, which is total assets less intangible assets, and dividing this amount by the number of shares of Common Stock outstanding.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers in this offering and the as adjusted pro forma net tangible book value per share of our common stock immediately after this offering. After giving effect to the sale by us of all 2,000,000 shares offered in this offering at an assumed public offering price of $5.25 per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated placement agent fees and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2013, would have been approximately $15,413,000, or $ 0.90 per share. This represents an immediate increase in the net tangible book value of $0.50 per share to our existing stockholders and an immediate dilution in net tangible book value of $4.35 per share to investors in this offering. The following table illustrates this per share dilution:

Price per share to investors	$	5.25
Net tangible book value per share as of December 31, 2013		0.40
Increase in net tangible book value per share attributable to this offering		0.50
As adjusted net tangible book value per share as of December 31, 2013, after giving effect to this offering		0.90
Dilution in net tangible book value per share to investors	$	4.35

The above table is based on 15,155,200 shares of our common stock outstanding as of December 31, 2013 and excludes as of that date the following:

- 1,148,000 shares of Common Stock issuable upon the exercise of stock options outstanding prior to this offering under our stock incentive plan, at a weighted average exercise price of $2.13 per share;
- 58,683 shares of Common Stock available for future grants under our stock incentive plan;
- 555,556 shares of Common Stock issuable pursuant to convertible debentures with an outstanding principal amount of $3,000,000 and a conversion price of $5.40 per share.

Each $0.25 increase (decrease) in the assumed public offering price of $5.25 per share (the midpoint of the price range set forth on the cover page of this prospectus) , would increase (decrease) our pro forma as adjusted net tangible book value by approximately $466,000, our as adjusted net tangible book value per share by approximately $0.027 and dilution per share to new investors by approximately $0.22, assuming the number of shares offered hereby remains the same. We may also increase or decrease the number of shares we are offering. A 100,000 share increase (decrease) in the number of shares of common stock offered by us would increase (decrease) our pro forma as adjusted net tangible book value by approximately $490,000, our as adjusted net tangible book value per share by approximately $0.02, and dilution per share to new investors would be approximately $4.33, assuming the public offering price remains the same. The pro forma as adjusted information is illustrative only, and we will adjust this information based on the actual public offering price, number of shares offered and other terms of this offering determined at pricing.

To the extent that any options are exercised, new options are issued under our stock option or stock incentive plans, or we otherwise issue additional shares of Common Stock in the future, there will be further dilution to new investors.

SELECTED CONSOLIDATED FINANCIAL DATA

The summary consolidated statements of operations data for each of the years ended December 31, 2013 and 2012 and the summary consolidated balance sheet data as of December 31, 2013 and 2012, have been derived from our audited consolidated financial statements that are included elsewhere in this prospectus.

You should read this information together with the consolidated financial statements and related notes and other information under "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

	Year Ended December 31,	
Consolidated Statement of Operations Data:	**2013**	**2012**
Revenues	$ 15,849,869	$ 15,253,972
Cost of sales	10,819,741	9,388,898
Gross profit	5,030,128	5,865,074
Operating expenses		
General and administrative	7,018,133	6,643,120
Selling	1,423,587	1,225,580
Aborted public offering costs	258,512	—
	8,700,232	7,868,700
Loss from operations	(3,670,104)	(2,003,626)
Other income (expense)		
Interest and other income	3,958	48,397
Interest expense	(141,065)	(71,208)
	(137,107)	(22,811)
Loss before income taxes	(3,807,211)	(2,026,437)
Consolidated net loss	(3,807,211)	(2,026,437)
Less: Loss attributable to the noncontrolling interest	357,722	389,480
Net loss attributable to Tecogen Inc.	$ (3,449,489)	$ (1,636,957)
Net loss per share – basic and diluted	$ (0.26)	$ (0.12)
Weighted average shares outstanding – basic and diluted	13,385,155	13,135,071

	As of December 31, 2012	As of December 31, 2013		
Consolidated Balance Sheet Data:	**Actual**	**Actual**	**Pro Forma(1)**	**Pro Forma As Adjusted(2)**
Cash and cash equivalents	$ 1,572,785	$ 7,713,899	$ 4,575,541	$ 13,916,541
Short-term investments (restricted)	181,859	—	—	—
Working capital	4,078,704	5,565,789	5,578,089	14,919,089
Total assets	9,117,249	17,630,069	14,491,711	23,832,711
Total liabilities	4,334,214	10,564,176	7,814,834	7,814,834
Total stockholders' equity	$ 4,783,035	$ 7,065,893	$ 7,078,193	$ 16,419,193

(1) The pro forma consolidated balance sheet data in the table above gives effect to the private placement of 1,400 shares of common stock at $4.50 per share from January 1 to January 17, 2014, the exercise of 5,000 options at $1.20 on February 18, 2014 and the repayment of debt to the Company's CEO on January 6, 2014 consisting of principal of $2,950,000 and accrued interest of $200,658.

(2) The pro forma as adjusted consolidated balance sheet data in the table above gives effect to our receipt of the estimated net proceeds to us from this offering at an assumed public offering price of $5.25 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated placement agent fees and estimated offering expenses payable by us.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

Tecogen designs, manufactures and sells industrial and commercial cogeneration systems that produce combinations of electricity, hot water, and air conditioning using automotive engines that have been specially adapted to run on natural gas. Cogeneration systems are efficient because in addition to supplying mechanical energy to power electric generators or compressors – displacing utility supplied electricity – they provide an opportunity for the facility to incorporate the engine's waste heat into onsite processes such as space and potable water heating. We produce standardized, modular, small-scale products, with a limited number of product configurations that are adaptable to multiple applications. We refer to these combined heat and power products as CHP (electricity plus heat) and MCHP (mechanical power plus heat).

Our products are sold directly to end-users by our in-house marketing team and by established sales agents and representatives. We have agreements in place with distributors and sales representatives, including American DG Energy, which is an affiliated company. Our existing customers include hospitals and nursing homes, colleges and universities, health clubs and spas, hotels and motels, office and retail buildings, food and beverage processors, multi-unit residential buildings, laundries, ice rinks, swimming pools, factories, municipal buildings, and military installations. We have an installed base of more than 2,100 units. Many of these have been operating for almost 25 years.

In 2009, we created a majority-owned subsidiary Ilios to develop and distribute a line of ultra-high-efficiency heating products, including a high efficiency water heater. These products provide twice the efficiency of conventional commercial and industrial boilers (based upon management estimates) utilizing advanced thermodynamic principles. As of the date of this prospectus, we own a 65.0% interest in Ilios.

For each of our last five fiscal years and prior thereto, we have incurred annual operating losses. We expect this trend to continue until such time that we can sell a sufficient number of systems and achieve a cost structure to become profitable. We may not have adequate cash resources to reach the point of profitability, and we may never become profitable. Even if we do achieve profitability, we may be unable to increase our sales and sustain or increase our profitability in the future.

Although we may, from time to time, have one or a few customers who may represent more than 10% of our product revenue for a given year, we are not dependent on the recurrence of revenue from those customers. Our product revenue is such that customers may make a large purchase once and may not ever make a purchase again. Our equipment is built to last 20 or more years, therefore, our product revenue model is not dependent on recurring sales transactions from the same customer. Our service revenue, however, may lend itself to recurring revenue from particular customers; although we currently do not have any service revenue customers who make up more than 10% of our total revenues on an annual basis. American DG Energy has been considered a major customer in certain years, as disclosed in the accompanying financial statements; however, we do not consider our business "dependent" upon its recurrence.

For the last two fiscal years, more than half of our revenue was generated from long-term maintenance contracts, or service contracts, which provide us with a somewhat predictable revenue stream, especially during the summer months. We have a slight surge of activity from May through September as our "chiller season" is in full swing. Our service revenue has grown from year to year since 2005, with our New York City/New Jersey, New England and to some extent California territories experiencing the majority of the growth. This growth is consistent with the sale of new units into those territories. Our service margins are generally predictable as we service hundreds of long-term contracts with relatively low dollar, high volume sales. Fluctuations at the job level are to be expected however, due to the number of jobs, gross margin generally evens out in the aggregate.

Our product revenue is derived from the sale of the various cogeneration modules, such as the InVerde 100, the CM-75 and the CM-60, and the three chiller models, such as the smaller ST, the larger DT and the RT (roof-top) units. The sales cycle for each module varies widely, and can range from as short as a month to as long as a year or more. The length of the sales cycle is generally dependent on the size of the project and the number of decision makers in a customer's facility. Furthermore, since our products and their installation are costly they are considered a major capital improvement and customers may be slow in making their buying decisions. Our products sales are high dollar value, low volume transactions. Therefore our product revenue can be difficult to predict and the expected margin varies.

Our cogeneration and chiller modules are built to order and revenue is recognized upon shipment. The lead time to build and deliver a unit depends on its customized configuration and is approximately 12 to 16 weeks from time of purchase order. As revenue is recognized upon shipment, our work-in-process is an important factor in understanding our financial condition in any given quarter.

Recent Accounting Pronouncements

For recent accounting pronouncements see "Note 2 – Summary of significant accounting policies" to our consolidated financial statements.

Critical Accounting Policies

For critical accounting policies see "Note 2 – Summary of significant accounting policies" to our consolidated financial statements.

Emerging Growth Company

Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. However, we chose to "opt out" of any extended transition period, and as a result we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

Results of Operations

Year Ended December 31, 2013 Compared to Year Ended December 31, 2012

Revenues

Revenues in 2013 were $15,849,869 compared to $15,253,972 in 2012, an increase of $595,897 or 3.9%. This increase is largely due to an increase in service revenue during the year as a result of increased installation revenue. Product revenues in 2013 were $6,346,050 compared to $7,453,222 in 2012, a decrease of $1,107,172 or 14.9%. This decrease from the year ended December 31, 2012 to 2013 resulted from a decrease in cogeneration sales of $591,763 and a decrease in chiller sales of $515,409. Our product mix, as well as product revenue, can vary significantly from period to period as our products are high dollar, low volume sales in which revenue is only recognized upon shipment. As a result, such fluctuation is expected.

Revenues derived from our service centers including installation activities, in 2013 were $9,503,819 compared to $7,800,750 for the same period in 2012, an increase of $1,703,069 or 21.8%. Our service operation grows along with sales of cogeneration and chiller systems since the majority of our product sales are accompanied by a service contract or time and materials agreements. As a result our "fleet" of units being serviced by our service department grows with product sales. In addition, our service department revenue has increased due to turnkey projects of $2,432,431 in 2013 compared to $711,259 in 2012.

Cost of Sales

Cost of sales in 2013 was $10,819,741 compared to $9,388,898 in 2012, an increase of $1,430,843 or 15.2%. Our gross profit margin was 31.7% in 2013 compared to 38.4% in 2012, a decrease of 6.7%. The decrease in gross profit margin is attributable to the margin on turnkey projects, that, although they provide us with unit sales and the subsequent service contracts, the projects themselves provide a lower gross profit than our traditional service business. In addition, this decrease is attributable to sales of certain Ilios units at below cost. These units are among the first sold, and were sold at a loss in order to provide demonstration units for our sales representatives.

Contract Research and Development

Contract research and development income, which is classified as an offset to applicable expenses, for the years ended December 31, 2013 and 2012 was $127,500 and $126,500, respectively, a decrease of $1,000. The majority of this decrease is due to the completion of a research and development contract which ended on June 30, 2011.

Operating Expenses

Operating expenses increased in 2013 to $8,700,232 compared to $7,868,700 in 2012, an increase of $831,532 or 10.6%. This increase was due to increased investments in research and development of approximately $436,000 compared to those of 2012, costs of $258,512 associated with an aborted public offering in the third quarter of 2013, an increase in our selling efforts including attendance at trade shows and the related travel expenses of approximately $150,000 and salaries, and various other expenses.

Selling expenses increased in 2013 to $1,423,587 compared to $1,225,580 for the same period in 2012 due to increased headcount in our sales and marketing departments. In addition, during the year ended December 31, 2013 the Company invested approximately $200,000 in trade shows and a traveling “road show” where three of the Company's products were showcased on an enclosed trailer which traveled through our key territories on the east coast.

Loss from Operations

Loss from operations for the year ended December 31, 2013 was $3,670,104 compared to $2,003,626 for the same period in 2012. The increase in the loss of $1,666,478 was due to the increase in operating expenses and reduction in gross profit as discussed above.

Other Income (Expense), net

Other expense, net for the year ended December 31, 2013 was $137,107 compared to $22,811 for the same period in 2012. Other income (expense) includes interest income and other income of $3,958, net of interest expense on notes payable of $141,065 in 2013. For the same period in 2012, interest and other income was $48,397 and interest expense was $71,208. The decrease in interest income of $44,439 is the result of a decrease in short-term investments. The increase in interest expense of $69,857 was mainly due to demand notes and line of credit with an outstanding balance of $1,200,000.

Provision for Income Taxes

We did not record any benefit or provision for income taxes for the years ended December 31, 2013 and 2012, respectively. As of December 31, 2013 and 2012, the income tax benefits generated from our net losses have been fully reserved.

Noncontrolling Interest

The noncontrolling interest share in the losses of Ilios was $357,722 for the year ended December 31, 2013 compared to $389,480 for the same period in 2012, a decrease of $31,758 or 8.2%. The decrease was due to a reduction in payroll costs that Ilios incurred in 2013, associated with the departure of its Chief Operating Officer in May of 2013 and related forfeiture of stock compensation. Noncontrolling interest ownership percentage as of December 31, 2013 and 2012 was 35.0%.

Net loss

Net loss for the year ended December 31, 2013 was $3,449,489 compared to $1,636,957 for the same period in 2012. The increase in the loss of $1,812,532 was due to the increase in operating expenses and reduction in gross profit as discussed above.

Liquidity and Capital Resources

Consolidated working capital at December 31, 2013 was $5,565,789, compared to $4,078,704 at December 31, 2012, an increase of $1,487,085 or 36.5%. Included in working capital were cash and cash equivalents of $7,713,899 at December 31, 2013, compared to $1,572,785 in cash and cash equivalents and $181,859 in short-term investments at December 31, 2012.

Cash used in operating activities for the years ended December 31, 2013 and 2012 was $3,384,019 and $3,152,782, respectively. Our accounts receivable balance increased to $3,740,885 at December 31, 2013 compared to $2,700,243 at December 31, 2012, an increase of $1,091,242 due to timing of billing, shipments and collections. Unbilled revenues also increased by $646,398 in connection with turnkey projects. Our inventory decreased to $3,343,793 as of December 31, 2013 compared to $3,356,622 as of December 31, 2012, a decrease of $62,229. Prepaid assets as of December 31, 2013 decreased to $340,013 compared to $402,846, a decrease of $62,833.

Accounts payable increased to $2,338,046 as of December 31, 2013 from $1,151,010 at December 31, 2012, an increase of $1,187,036. Accrued expenses increased to $1,139,554 as of December 31, 2013 compared to $807,922 as of December 31, 2012, an increase of $331,632. Interest payable, related party increased from $126,170 as of December 31, 2012 to $198,450 as of December 31, 2013, an increase of $83,560.

Our related party balance was a net receivable of $55,837 as of December 31, 2012 and a net payable of $119,667 as of December 31, 2013. This change of $175,504 is due to the remaining balance on the prepayment for future purchases, received from American DG Energy of $827,747 as on March 14, 2013.

During 2013 our cash flows from investing activities were $916,389 and included sales of short-term investments of $182,061, purchases of property and equipment of $202,700, expenditures related to intangible assets such as patents and product certifications of $397,950 and an acquisition of a product line from a key vendor of $497,800.

Our cash flows from financing activities were $10,441,522 for 2013, resulting from the proceeds of $5,966,805 from the sale of the Company's common stock in a private placement, and the issuance of convertible debt of $3,000,000 and the issuance of demand notes payable of $1,650,000.

At December 31, 2013, our commitments included various leases for office and warehouse facilities of $5,333,143 to be paid over several years through 2024. The source of funds to fulfill these commitments will be provided either from cash and short-term investment balances, operations or through debt or equity financing.

Based on our current operating plan, we believe existing resources, including cash and cash flows from operations, will be sufficient to meet our working capital requirements for the next twelve months. As we continue to grow our business, we expect that our cash requirements will increase. As a result, we may need to raise additional capital through a debt financing or an equity offering to meet our operating and capital needs for future growth.

Seasonality

We expect that the majority of our heating systems sales will be in the winter and the majority of our chilling systems sales will be in the summer. Our cogeneration and chiller system sales are not generally affected by the seasons, although customer goals will be to have chillers installed and running in the spring. Our service team does experience higher demand in the warmer months when cooling is required. These units are generally shut down in the winter and started up again in the spring. This “busy season” for the service team generally runs from May through the end of September.

Off Balance Sheet Arrangements

On July 22, 2013, the Company’s Chief Executive Officer personally pledged to support a bank credit facility of $1,055,000 to support bank guarantees issued on certain construction contracts. This credit facility expires on July 22, 2014.

BUSINESS

Overview

Tecogen designs, manufactures, sells, and services systems that produce electricity, hot water, and air conditioning for commercial installations and buildings and industrial processes. These systems, powered by natural gas engines, are efficient because they drive electric generators or compressors, which reduce the amount of electricity purchased from the utility, plus they use the engine's waste heat for water heating, space heating, and/or air conditioning at the customer's building. We call this cogeneration technology CHP for combined heat and power.

Tecogen manufactures three types of CHP products:

- Cogeneration units that supply electricity and hot water;
- Chillers that provide air-conditioning and hot water; and
- High-efficiency water heaters.

All of these are standardized, modular, small-scale CHP products that reduce energy costs, carbon emissions, and dependence on the electric grid. Market drivers include the price of natural gas, local electricity costs, and governmental energy policies, as well as customers' desire to become more socially responsible. Traditional customers for our cogeneration and chiller systems include hospitals and nursing homes, colleges and universities, health clubs and spas, hotels and motels, office and retail buildings, food and beverage processors, multi-unit residential buildings, laundries, ice rinks, swimming pools, factories, municipal buildings, and military installations; however, the economic feasibility of using our systems is not limited to these customer types. Through our factory-owned service centers in California, New York, Massachusetts, Connecticut, New Jersey, and Michigan our specialized technical staff maintain our products through long-term contracts. We have shipped approximately 2,000 units, some of which have been operating for almost 25 years. We have 69 full-time employees and three part-time employees, including six sales and marketing personnel and 40 service personnel.

Our CHP technology uses low-cost, mass-produced engines manufactured by GM and Ford, which we modify to run on natural gas. In the case of our mainstay cogeneration and chiller products, the engines have proved to be cost-effective and reliable. In 2009, our research team developed a low-cost process for removing air pollutants from the engine exhaust. Because these systems are fueled by natural gas, they typically produce lower levels of "criteria" air pollutants (those that are regulated by the EPA, because they can harm human health and the environment) compared with systems fueled by propane, gasoline, distillates, or residual fuel oil. We offer our new *Ultra* low-emissions technology as an option in our CHP systems.

After a successful field test of more than a year, in 2012 we introduced the technology commercially as an option for all of our products under the trade name *Ultra,* which was recently patented in the US in October 2013. The *Ultra* low-emissions technology repositions our engine-driven products in the marketplace, making them comparable environmentally with emerging technologies such as fuel cells, but at a much lower cost and greater efficiency.

Our products are designed as compact modular units that are intended to be applied in multiples when utilized for larger CHP plants. Approximately 68% of our CHP modules are installed in multi-unit sites ranging up to 12 units. This approach has significant advantages over utilizing single, larger units, such as building placement in constrained urban settings and redundancy during service outages. Redundancy is particularly relevant in regions where the electric utility has formulated tariff structures that have high "peak demand" charges. Such tariffs are common in many areas of the country, and are applied by such utilities as Southern California Edison, Pacific Gas and Electric, Consolidated Edison of New York, and National Grid of Massachusetts. Because these tariffs assess customers' peak monthly demand charge over a very short interval (typically only 15 minutes), a brief service outage for a system comprised of a single unit is highly detrimental to the monthly savings of the system. For multiple unit sites, a full system outage is less likely and consequently these customers have a greater probability of capturing peak demand savings.

Our in-licensed microgrid technology enables our *InVerde* CHP products to provide backup power in the event of power outages that may be experienced by local, regional, or national grids.

Our CHP products are sold directly to customers by our in-house marketing team and by established sales agents and representatives, including American DG Energy and EuroSite Power which are affiliated companies. We have shipped approximately 2,000 units, some of which have been operating for almost 25 years. Our principal engine supplier is GM, and our principal generator supplier is Marathon Electric. To produce air conditioning, our engines drive a compressor purchased from J&E Hall International.

In 2009, we created a subsidiary, Ilios, to develop and distribute a line of high-efficiency heating products, starting with a water heater. We believe that these products are much more efficient than conventional boilers in commercial buildings and industrial processes (see "Our Products" below). As of the date of this prospectus, we own a 65.0% interest in Ilios.

Tecogen was formed in the early 1960s as the Research and Development New Business Center of Thermo Electron Corporation, which is now Thermo Fisher Scientific Inc. For the next 20 years, this group performed fundamental and applied research in many energy-related fields to develop new technologies. During the late 1970s, new federal legislation enabled electricity customers to sell power back to their utility. Thermo Electron saw a fit between the technology and know-how it possessed and the market for cogeneration systems.

In 1982, the Research and Development group released its first major product, a 60-kilowatt, or kW, cogenerator. In the late 1980s and early 1990s, they introduced air-conditioning and refrigeration products using the same gas engine-driven technology, beginning with a 150-ton chiller (tons are a measure of air-conditioning capacity). In 1987, Tecogen was spun out as a separate entity by Thermo Electron and, in 1992, Tecogen became a division of the newly formed Thermo Power Corporation.

In 2000, Thermo Power Corporation was dissolved, and Tecogen was sold to private investors including Thermo Electron's original founders, Dr. George N. Hatsopoulos and John N. Hatsopoulos. Tecogen Inc. was incorporated in the State of Delaware on September 15, 2000. Our business and registered office is located at 45 First Avenue, Waltham, Massachusetts, 02451. Our telephone number is 781-466-6400.

Industry Background

During the 20th century, fossil-fuel power plants worldwide evolved toward large, complex central stations using high-temperature steam turbines. This technology, though steadily refined, reached a maximum efficiency of about 40% that persists to this day. As used throughout, efficiency means electrical energy output per unit of fuel energy input. According to the EPA website, the average efficiency of fossil-fuel power plants in the United States is 33% and has remained virtually unchanged for four decades.

According to a 2002 report from the Northwest Power Planning Council, titled "Natural Gas Combined-cycle Gas Turbine Power Plants," the best efficiency obtainable at the time of the report was about 50% from a combined-cycle steam turbine. More recent reports have expressed that comparable efficiency rates are obtainable from a fuel cell. A combined-cycle system incorporates a second turbine powered by exhaust gases from the first turbine. Large-scale replacement of existing power plants with combined-cycle technology would require considerable capital investment and time. Fuel cells have high capital costs as well.

CHP, which harnesses waste energy from the power generation process and puts it to work on-site, can boost the efficiency of energy conversion to nearly 90%, a better than two-fold improvement over the average efficiency fossil fuel plant.

The implications of the CHP approach are significant. If CHP were applied on a large scale, global fuel usage might be curtailed dramatically. Small on-site power systems, in sizes like boilers and furnaces, would serve customers ranging from homeowners to large industrial plants. This is described as "distributed" energy, in contrast to central power.

CHP became recognized in the late 1970s as a technology important to aiding the reduction of fossil fuel consumption, pollution, and grid congestion. Since then, CHP has been applied increasingly around the world. According to a report by the International Energy Agency, or IEA, titled "*Cogeneration and District Energy: Sustainable energy technologies for today...and tomorrow (2009),* " the value of CHP technology to customers and policy makers stems from the fact that CHP systems are "inherently energy efficient and produce energy where it is needed."

According to the IEA report, the benefits of CHP include:

- Dramatically increased fuel efficiency;

- Reduced emissions of carbon dioxide (CO_2) and other pollutants;

- Cost savings for the energy consumer;

- Reduced need for transmission and distribution networks; and

- Beneficial use of local energy resources, providing a transition to a low-carbon future.

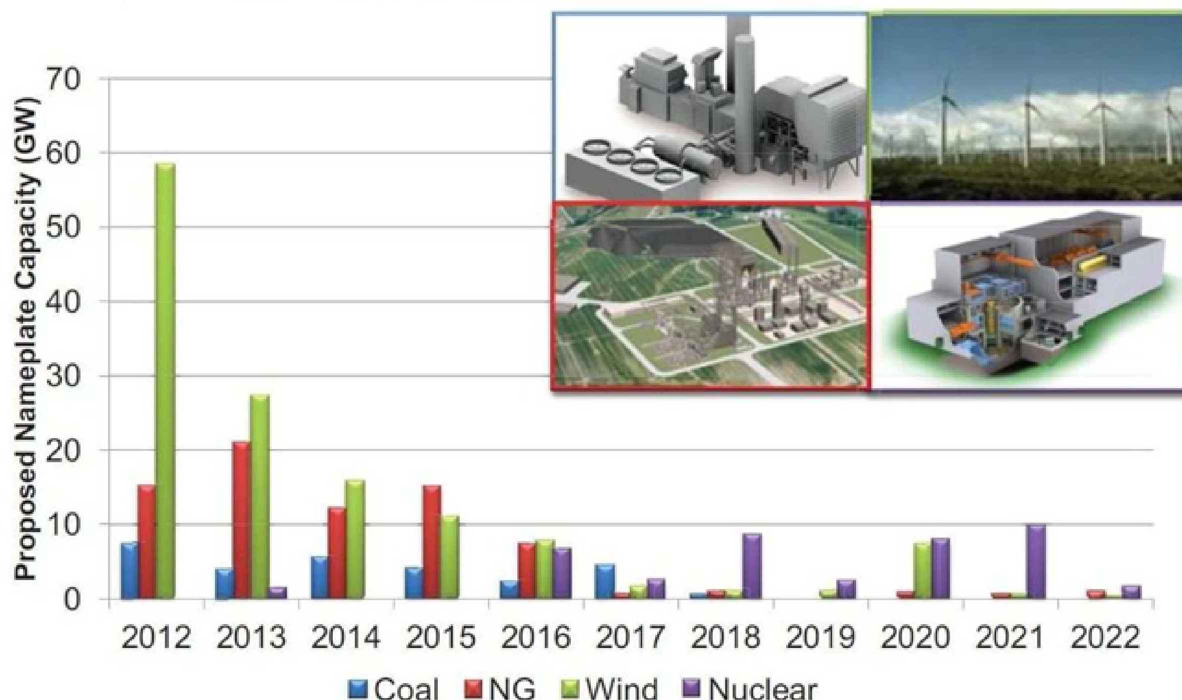
CHP generates about 10% of the world's electricity. According to the IEA report, CHP could supply up to 24% of the energy generation of the Group of Eight + Five countries, while meeting 40% of Europe's target reductions in carbon emissions.

In the United States, CHP represents only about 8% of the generating capacity. A paper issued by the United States Department of Energy, or DOE, in 2012, Combined Heat and Power, A Clean Energy Solution, states that CHP is an underutilized resource. On August 30, 2012, the White House issued an executive order, or the Executive Order, aimed at promoting investments in industrial energy efficiency, including CHP, and established a national goal of deploying 40 GW (or 40,000 megawatts, or MW) of new CHP in the United States by 2020.

On-site CHP not only eliminates the loss of electric power during transmission, but also offsets the capital expense of upgrading or expanding the utility infrastructure. The national electric grid is already challenged to keep up with existing power demand. The grid consists of power generation plants as well as the transmission and distribution network consisting of substations and wires.

Power plants are aging, and plans for new power plants are on the decline (Figure 1). According to the U.S. Energy Information Administration's " *Form EIA-860 Annual Electric Generator Report (2010)* ," the average age of a U.S. coal-fired power plant is 44 years. Coal plants account for about 40% of the nation's generation capacity.

Figure 1 — Proposed U.S. New Capacity: Coal, Natural Gas, Wind, and Nuclear
Source: ***National Energy Technology Laboratory, Tracking New Coal Fired Power Plants (2012).***



In addition, the transmission and distribution network is operating at capacity in urban areas. Decentralizing power generation by installing equipment at customer sites not only relieves the capacity burden on existing power plants, but also unburdens transmission and distribution lines. This ultimately improves the grid's reliability and reduces the need for costly upgrades. Consolidated Edison, Inc., the electric utility of New York City and surrounding areas, has identified an opportunity to integrate energy efficiency, distributed generation, and demand response as a way to defer new infrastructure investments, according to the utility's 2010 long-range plan.

We believe that increasingly favorable economic conditions could improve our business prospects domestically and abroad. Specifically, we believe that natural gas prices might increase from their current depressed values, but only modestly, while electric rates could go up over the long-term as utilities pay for better emission controls, efficiency improvements, and the integration of renewable power sources. The net result of relative gas and electric prices could be greater cost savings and annual rates of return to CHP customers.

Moreover, we believe that natural gas could win favor politically as a domestic fuel with low carbon emissions. Government policy, both here and abroad, might promote CHP as a way to conserve natural resources and reduce carbon and toxic emissions. Renewable wind and solar sources could encounter practical limitations, while nuclear power is likely to be affected by its safety setbacks.

Tecogen's Strategy for Growth

Target markets and new customers

The traditional markets for CHP systems are buildings with long hours of operation and with coincident demand for electricity and heat. Traditional customers for our cogeneration systems include hospitals and nursing homes, colleges and universities, health clubs and spas, hotels and motels, office and retail buildings, food and beverage processors, multi-unit residential buildings, laundries, ice rinks, swimming pools, factories, municipal buildings, and military installations.

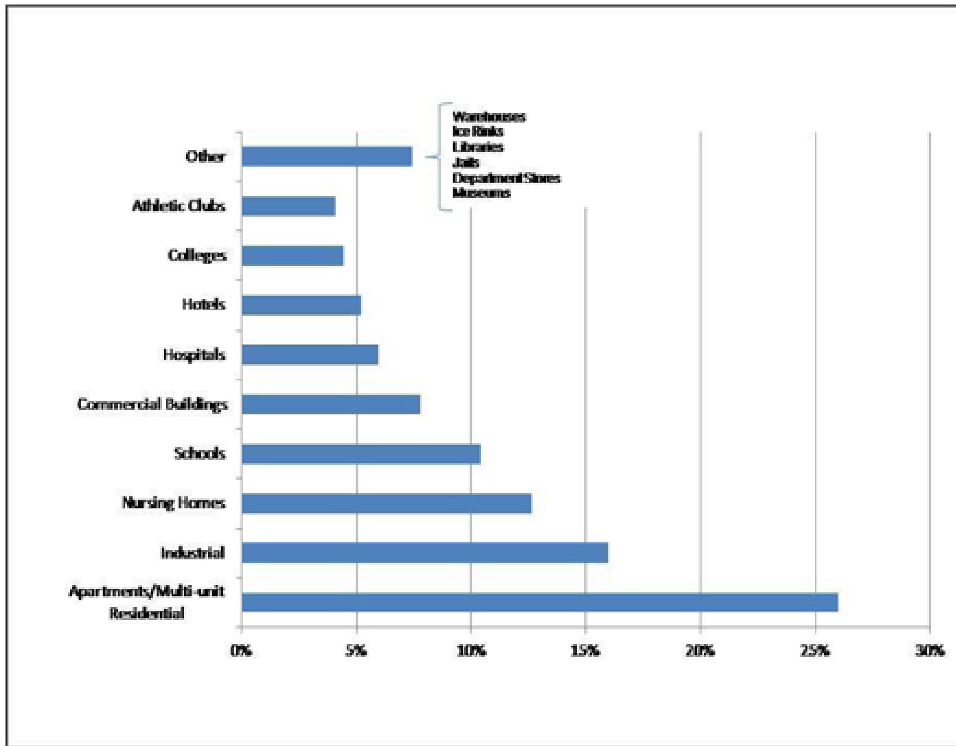
Traditional customers for our chillers overlap with those for our cogeneration systems. Chiller applications include schools, hospitals and nursing homes, office and apartment buildings, hotels, retailers, ice rinks and industrial facilities. Engine-driven chillers are utilized as replacements for aging electric chillers, since they both take up about the same amount of floor space.

The Company believes that the largest number of potential new customers in the U.S. require less than 1,000 kW of electric power and less than 1,200 tons of cooling capacity. We are targeting customers in states with high electricity rates in the commercial sector, such as California, Connecticut, Massachusetts, New Hampshire, New Jersey, and New York. These regions also have high peak demand rates, which favor utilization of our modular units in groups so as to assure redundancy and peak demand savings, as discussed above. Some of these regions also have generous rebates that improve the economic viability of our systems.

As stated earlier, the U.S. government's goal, according to the Executive Order, is to deploy 40 GW (40,000 MW) of new CHP in the United States by 2020. In order to estimate the share of that new deployment of CHP that is addressable by products in our size range, we reference a study done by ICF International on the California market that breaks down projected market penetration by kW output range. According to the April 2010 Combined Heat and Power Market Assessment, prepared for the California Energy Commission, in 2029, new CHP in the size range of our products (50 kW to 500 kW), is projected to be 476 MW in the base case, or 684 MW if incentives such as carbon credits and power export credits are considered. This size range constitutes 17.4% of the total California market potential in the base case, or 11% in the case with incentives. If we assume California's apportionment of small size CHP is applicable to the country, and conservatively extend the government's goal of 40,000 MW to 2029, we can estimate the U.S. market addressable by our products as 17.4% of 40,000 MW in the base case (11% with incentives) which amounts to 6,972 MW (4,416 MW with incentives). If we assume we can capture 30% of the market for CHP products in the size range of 50 kW to 500 kW, we can estimate that our potential for new unit sales over the next twenty years is between 13,250 and 20,920 *InVerde* (100 kW) units, or approximately $1.5 to $2.4 billion in revenue, at $112,500 per unit.

The largest market sectors identified by ICF that are suitable for our products closely match our sales data from January 2007 through June 2012 (Figure 2).

Figure 2 — Tecogen Customer Distribution (CHP and Engine-Driven Chiller Systems)
From January 2007 through June 2012
Source: ***Tecogen Inc.***



The ICF report reveals CHP's relatively low existing market penetration in the smaller system sizes. Given that multi-megawatt CHP is already well-established (Table 1), the market opportunity increases as size decreases. Small systems (less than one MW) may grow almost six-fold. The missed opportunity is evident and likely even more disproportionate nationally. Most areas of the country, except the Northeast, are essentially without significant market penetration of small-scale (less than 500 kW) CHP systems.

Table 1 — CHP Market Penetration by Size in California and Potential Through 2029
Source: ***ICF International, Combined Heat and Power Market Assessment (2010)***

System Size (MW)	<1	1 - 4.9	5 – 19.9	>20
2009 Inventory (MW)	200	350	750	7,900
New Potential Through 2029 (MW)	1,138	1,279	764	3,015
Relative Growth Potential (%)	569	365	102	38

The DOE/EPA report confirms that CHP is a “largely untapped resource” and states that there is significant technical market potential for CHP at commercial and institutional facilities at just over 65 GW. This report also indicates that there was a significant decline in CHP in the early 2000s due to deregulation of the power markets that resulted in market uncertainty and delayed energy investments. However, a significant rebound and expansion of the CHP market may occur because of the following emerging drivers:

- Changing outlook for natural gas supply and pricing as a result of shale exploration;
- Growing state policymaking and support; and
- Changing market conditions for the power and industrial sectors such as ageing power plants and boilers, as well as more strict air regulations.

We intend to seek both domestic and international customers in areas where utility pricing and government policy align with our advantages. These areas would include regions that have strict emissions regulations, such as California, or those that reward CHP systems that are especially non-polluting, such as New Jersey. There are currently 23 states that recognize CHP as part of their Renewable Portfolio Standards or Energy Efficiency Resource Standards and several of them, including New York, California, Massachusetts, New Jersey, and North Carolina, have initiated specific incentive programs for CHP (DOE/EPA report).

Our new microgrid capability, where multiple *InVerde* units can be seamlessly isolated from the main utility grid in the event of an outage and re-connected to it afterward, will likewise be exploited wherever utilities have resisted conventional generator interconnection but have conceded to UL-certified inverters (such as Consolidated Edison in New York and Pacific Gas and Electric Company in California). Because our *InVerde* systems operate independently from the grid, we also plan to exploit the need for outage security in certain market segments. These segments include military bases, hospitals, nursing homes, and hotels.

As noted above in “Industry Background,” the IEA report estimates that power from CHP produced by the Group of Eight + Five countries, currently at 10%, could increase to 24% under a best-case scenario. We hope to participate in a robust international market, which we believe will be as large as or larger than the domestic market.

Alliances

We continue to forge alliances with utilities, government agencies, universities, research facilities, and manufacturers. We have already succeeded in developing new technologies and products with several entities, including:

- General Motors Company — supplier of raw materials pursuant to a supplier agreement since the development of our cogeneration product in the early 1960s.
- Sacramento Municipal Utility District — has provided test sites for the Company since 2010.
- Southern California Gas Company and San Diego Gas & Electric Company, each a Sempra Energy subsidiary — have granted us research and development contracts since 2004.
- Lawrence Berkeley National Laboratory — research and development contracts since 2005.
- Consortium for Electric Reliability Technology Solutions — research and development contracts and provided a test site to the Company since 2005.
- California Energy Commission — research and development contracts from 2004 until March 2013.
- The AVL California Technology Center — support role in performance of research and development contracts as well as internal research and development on our emission control system from August 2009 to November 2011.

We also have an exclusive licensing agreement from the Wisconsin Alumni Research Foundation (WARF) for its proprietary control software that enables our microgrid system. The software allows our products to be integrated as a microgrid, where multiple *InVerde* units can be seamlessly isolated from the main utility grid in the event of an outage and re-connected to it afterward. The licensed software allows us to implement such a microgrid with minimal control devices and associated complexity and cost. Tecogen pays WARF a royalty for each cogeneration module sold using the licensed technology. Such royalty payments have been in the range of $5,000 to $20,000 on an annual basis through the year ended December 31, 2013. In addition, WARF reserved the right to grant non-profit research institutions and governmental agencies non-exclusive licenses to practice and use, for non-commercial research purposes technology developed by Tecogen that is based on the licensed software.

Our efforts to forge partnerships continue to focus on utilities, particularly to promote the *InVerde*, our most utility-friendly product. The nature of these alliances varies by utility, but could include simplified interconnection, joint marketing, ownership options, peak demand mitigation agreements, and customer services. We have commissioned a microgrid with the Sacramento Municipal Utility District at its headquarters in Sacramento, California, where the central plant incorporated three *InVerde* systems equipped with our *Ultra* low-emissions technology. Some expenses for this project were reimbursed to the utility through a grant from the California Energy Commission.

Certain components of our *InVerde* product were developed through a grant from the California Energy Commission. This grant includes a requirement that we pay royalties on all sales of all products related to the grant. As of December 31, 2012, such royalties accrued in accordance with this grant agreement were less than $10,000 on an annual basis.

We also continue to leverage our resources with government and industry funding, which has yielded a number of successful developments. These include the *Ultra* low-emissions technology, sponsored by the California Energy Commission and Southern California Gas Company, and new 35-kW engine technology we developed with the California Energy Commission’s support.

Pursuant to the terms of the grants from the California Energy Commission, the California Energy Commission has a royalty-free, perpetual, non-exclusive license to these technologies, for government purposes.

For the years ended December 31, 2013 and 2012, we spent approximately $866,700 and $384,500, respectively, in research and development activities, of which $127,500 and $126,500 was reimbursed through a grant agreement, respectively.

Tecogen’s Solution

Our CHP products address the inherent efficiency limitation of central power plants by siting generation close to the loads being served. This allows customers with energy-intensive buildings or processes to reduce energy costs and operate with a lower carbon footprint. Furthermore, with technology we have introduced within the last two years, such as our *Ultra* low-emissions technology our products can now contribute to better air quality at the local level.

According to our estimates and public sources, our cogeneration systems convert nearly 90% of the natural gas fuel to useful energy in the form of electricity and hot water or space heat. This compares to about 40% for central power. Other on-site upgrades such as insulation or lighting can help cut energy use as well, but they do not displace nearly as much low-efficiency electricity. Our engine-driven chillers, when the waste heat is effectively used, offer similar efficiency benefits compared with running an electric chiller plus a furnace or boiler.

Cogeneration and chiller products can often reduce the customer’s operating costs (for the portion of the facility loads to which they are applied) by approximately 30% to 50% based on Company estimates, which provides an excellent rate of return on the equipment’s capital cost in many areas of the country with high electricity rates. Our chillers are especially suited to regions where utilities impose extra charges during times of peak usage, commonly called “demand” charges. In these cases, the gas-fueled chiller reduces the use of electricity during the summer, the most costly time of year.

Our water heater product, introduced by Ilios, operates like an electric heat pump but uses a natural gas engine instead of an electric motor to power the system (see “Our Products” for an explanation of the heat pump). The gas engine’s waste heat is recovered and used in the process, unlike its electric counterpart, which runs on power that has already lost its waste heat. As of December 31, 2013 , we have shipped eight Ilios water heaters and have additional two in inventory to fulfill current orders.

The net effect is that our heat pump’s efficiency far surpasses that of conventional boilers for water heating. Similarly, if used for space heating, the engine-powered heat pump would be more efficient than an electric heat pump, again because heat is recovered and used. The product’s higher efficiency translates directly to lower fuel consumption and, for heavy use customers, significantly lower operating costs.

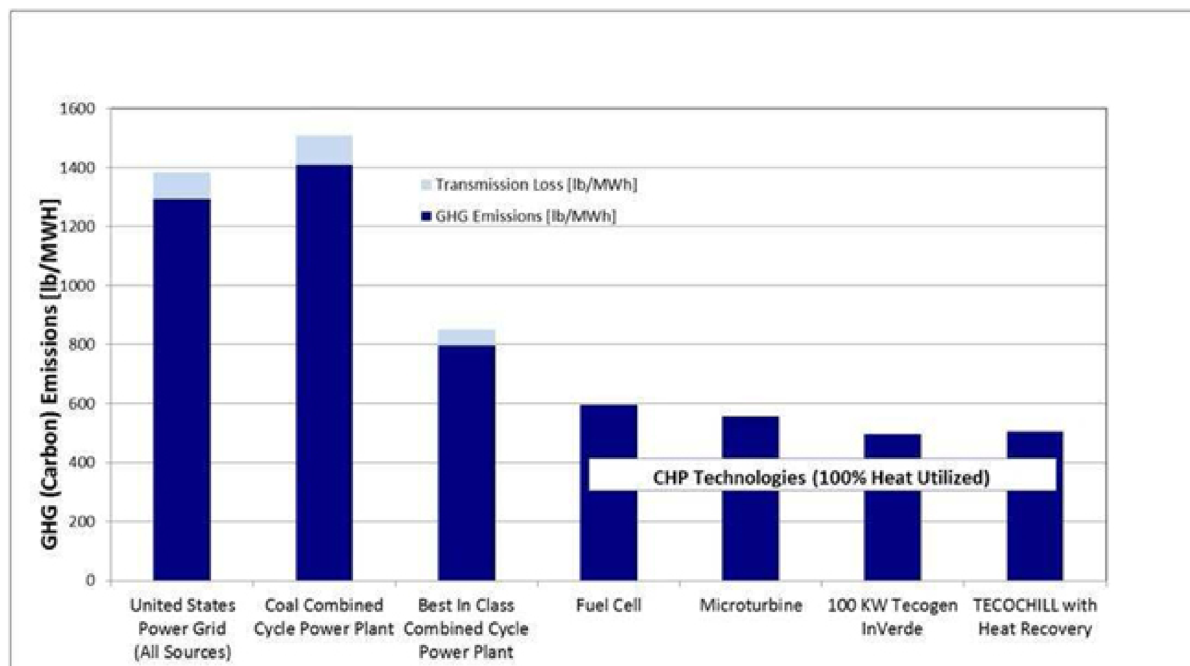
Our products also address the global objective of reducing greenhouse gas emissions. When burned to generate power, natural gas produces lower carbon emissions per unit of energy than any fossil fuel (Table 2), according to the EPA combined heat and power emissions calculator.

Table 2 — Fossil Fuel Carbon Emissions
Source: ***EPA Emissions Calculator***

Fuel	CO2 emissions, lbs/million Btu
Natural Gas	116.7
Distillate Oil	160.9
Coal	206.7

Our products, in addition to using the lowest amount of carbon fuel, further reduce CO_2 emissions (greenhouse gases) because of CHP’s higher efficiency. Figure 3 compares the CO_2 output of our products to that of the national electric grid and other generation technologies. Our products are far superior to the grid and even outperform the CHP technologies of fuel cells and microturbines.

Figure 3 — Comparison of Carbon Emissions (GHG) for Various Sources Including Tecogen's CHP and Chiller Products
Source: *Tecogen Inc.*



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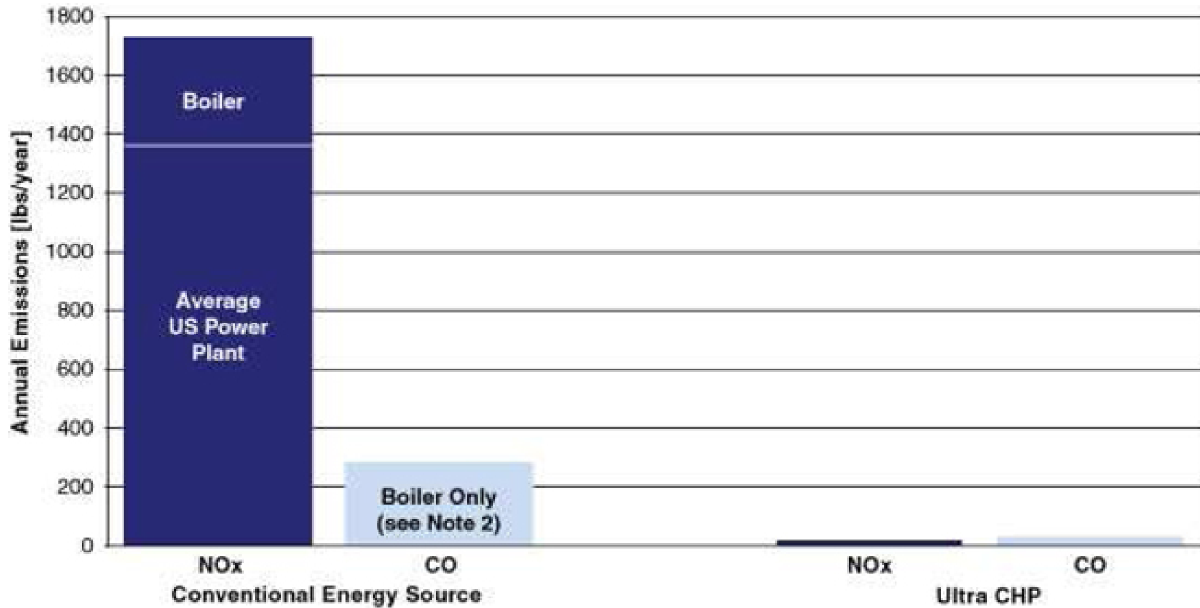
(1) Average U.S. Powerplant CO2 emission rate of 1,293 (lb/MWh) from USEPA eGrid 2010.
(2) Coal Combined Cycle emissions based upon 50% efficiency (assumed to be the same as Natural Gas) and coal CO2 emission rate from EPA website.
(3) "Best in Class" Natural Gas combined cycle plant emissions based upon 50% efficiency. (Northwest Power Planning Council "Natural Gas Combined-cycle Gas Turbine Power Plants, August 2002).
(4) Fuel Cell and Microturbine emissions based upon data listed in the ICF International Combined Heat and Power Market Assessment, April 2010.

Furthermore, one Tecogen 100-kW CHP unit will reduce carbon emissions by 390 tons per year (based on 8,000 run-hours), which, according to the EPA website's calculator, is the equivalent of 64 cars on the road. A microturbine of the same size would reduce carbon emissions by only 245 tons per year, the equivalent of 41 cars, which is less than two-thirds the emissions reduction of our CHP product. Our Ilios water heater also reduces CO2 emissions in proportion to its fuel savings.

In addition to reducing greenhouse gases, our products with *Ultra* low-emission controls can improve air quality by reducing such pollutants as NOx and CO. Figure 4 presents the annual output of emissions of the *InVerde* unit equipped with the *Ultra* technology and compares it to alternative energy technologies producing the equivalent energy output on an annual basis (100 kW, 670,000 Btu/hr). Thus, for example, in lieu of an *InVerde*, a building would obtain electricity from a power plant and heat energy from a boiler. As Figure 4 shows, the *Ultra* CHP system's emissions are significantly less than the combined emissions of the power plant and boiler for the same energy output.

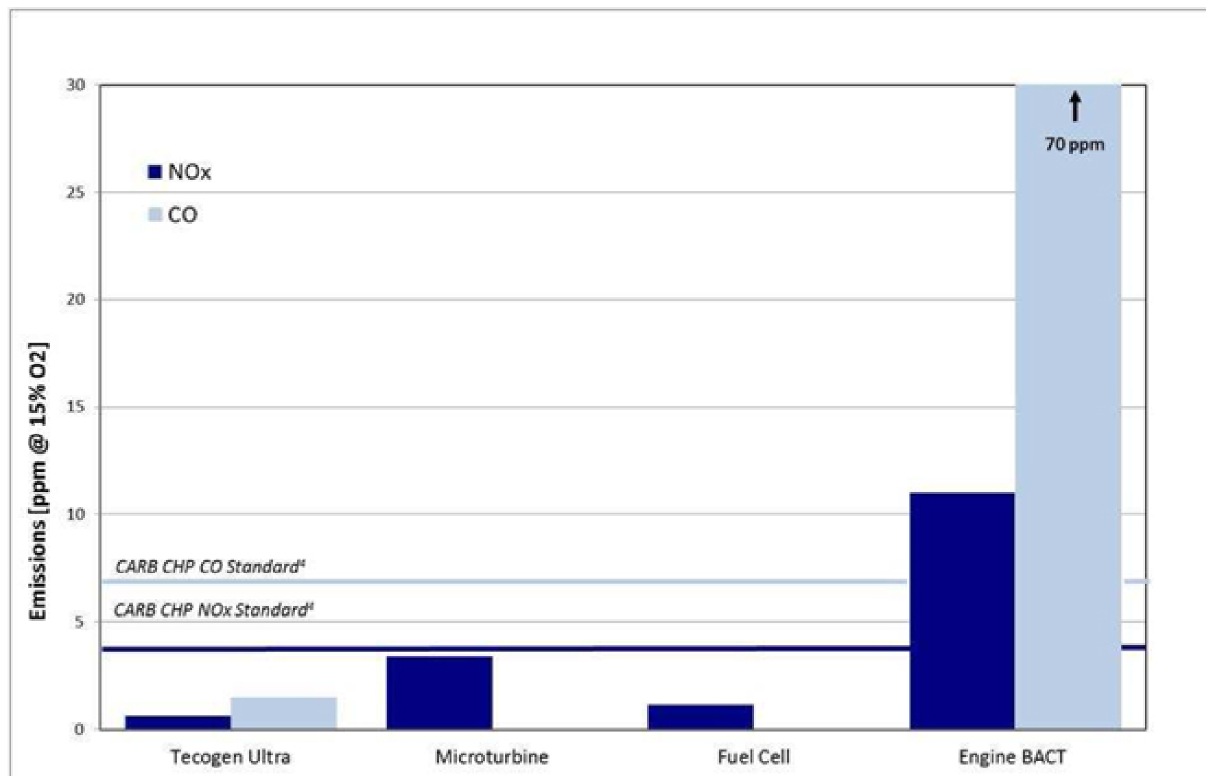
Figure 5 presents the criteria pollutant levels of the *Ultra* system versus alternative CHP sources of microturbines, fuel cells, and conventional reciprocating engines. Microturbines and fuel cells, newer CHP technologies typically considered low-emission alternatives to engines, produce more NOx than an *Ultra* engine CHP unit. Moreover, when compared to a conventional engine's "best available control technology" (BACT) as defined by the EPA for natural gas engines, both NOx and CO are reduced by nearly tenfold. Consequently, the *Ultra* low-emissions technology is potentially transformative to the engine's reputation in the energy marketplace, allowing it to now be characterized as a source of clean power.

Figure 4 — Comparison of Emissions Levels of Tecogen's *Ultra Low-Emissions Technology to Conventional Energy Sources (Based on 6,000 hrs/year of operation at 100 kW and 670,000 Btu/hr)*
Source: Tecogen Inc.



(1) Based upon an annual output of 100 kW and 670,000 Btu/hr of hot water.
(2) Average U.S. power plant NOx emission rate of 1.7717 lb/MWh from (USEPA eGrid 2010), CO data not available.
(3) Gas boiler efficiency of 78% (www.eia.gov) with emissions of 20 ppm NOx @ 3% O2 (California Regulation SCAQMD Rule 1146.2) and 50 ppmvCO @ 3% O2 (California Regulation SCAQMD BACT).

Figure 5 — Comparison of Tecogen Ultra Low-Emissions Technology to Other Technologies
Source: ***Tecogen Inc.***



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(1) Tecogen emissions based upon actual third party source test data.
(2) Microturbine and Fuel Cell NOx data from California Energy Commission, Combined Heat and Power Market Assessment 2010, by ICF international.
(3) Stationary engine BACT as defined by SCAQMD.
(4) Limits represent CARB 2007 emission standard for Distributed Generation with a 60% (HHV) Overall Efficiency credit.
(5) CO data not available for microturbine and fuel cell.

Our Products

We manufacture natural gas engine-driven cogeneration systems and chillers, all of which are CHP products that deliver more than one form of energy. We have simplified CHP technology for inexperienced customers. Our cogeneration products are all standard, modular units that come pre-packaged from the factory. They include everything the customer needs to minimize the cost and complexity of installing the equipment at a site. The package incorporates the engine, generator, heat-recovery equipment, system controls, electrical switchgear, emission controls, and modem for remote monitoring and data logging.

All of our cogeneration systems and most of our chillers use the same engine, the TecoDrive 7400 model supplied by GM and modified by us to use natural gas fuel. The small 25-ton chiller uses a similar GM engine, the 3000 model. We worked closely with GM and the gas industry (including the Gas Research Institute) in the 1980s and 1990s to modify the engine and validate its durability. For the Ilios water heater, we introduced a more modern Ford engine that is enhanced for industrial applications. As of December 31, 2013, we have shipped eight Ilios water heaters and have an additional two in inventory to fulfill current orders.

Our commercial product line includes:

- The *InVerde*® and TECOGEN® cogeneration units;
- TECOCHILL® chillers;
- Ilios high-efficiency water heaters; and
- *Ultra* low-emissions technology.

InVerde Cogeneration Units

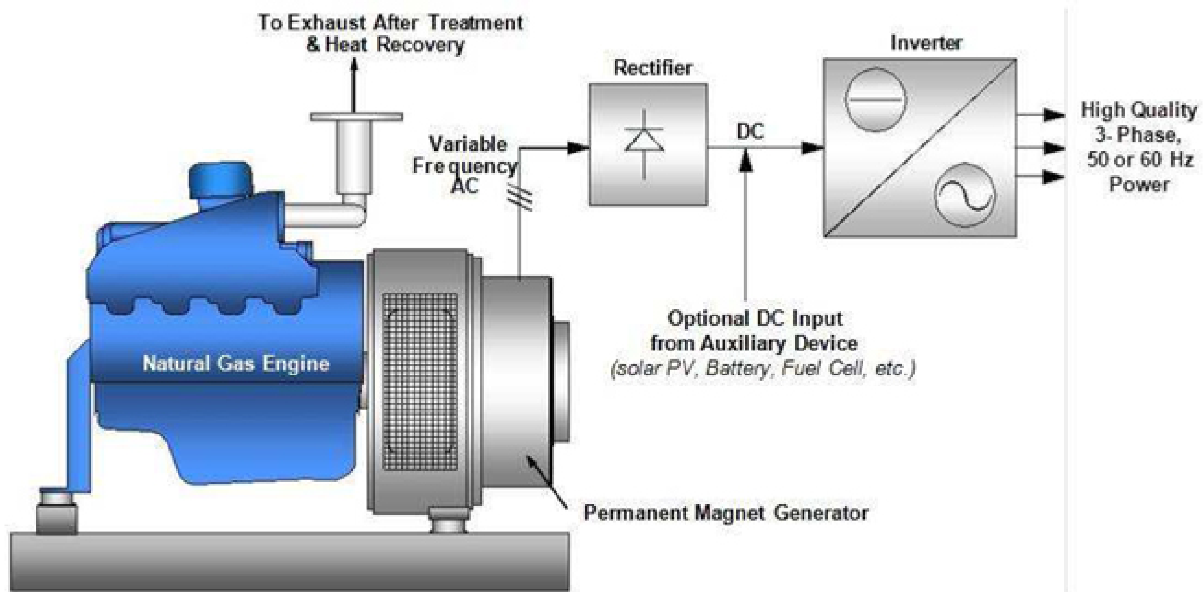
Our premier cogeneration product is the *InVerde*, a 100-kW CHP system that not only provides electricity and hot water, but also satisfies the growing customer demand for operation during a utility outage, commonly referred to as “black-start” capability. The *InVerde* incorporates an inverter, which converts direct current, or DC, electricity to alternating current, or AC. With an inverter, the engine and generator can run at variable speeds, which maximize efficiency at varying loads. The inverter then converts the generator’s variable output to the constant-frequency power required by customers (50 or 60 Hertz), as shown in Figure 6.

This inverter technology was developed originally for solar and wind power generation. The company believes that the *InVerde* is the first commercial engine-based CHP system to use an inverter. Electric utilities accept inverter technology as “safe” by virtue of its certification to the Underwriters Laboratory interconnection standard (1741) — a status that the *InVerde* has acquired. This qualifies our product for a much simpler permitting process nationwide and is mandatory in some areas such as New York City and California. The inverter also improves the CHP system’s efficiency at partial load, when less heat and power are needed by the customer.

The *InVerde`s* black-start feature addresses a crucial demand from commercial and institutional customers who are increasingly concerned about utility grid blackouts and brownouts, natural disasters, security threats, and antiquated utility infrastructure. Multiple *InVerde* units can operate collectively as a standalone microgrid, which is a group of interconnected loads served by one or more power sources. The *InVerde* is equipped with software that allows a cluster of units to seamlessly share the microgrid load without complex controls.

The *InVerde* CHP system was developed in 2007, and we began shipping it in 2008. Our largest *InVerde* installation utilizes 12 units, which supply 1.2 MW of on-site power and about 8.5 million Btu/hr of heat (700,000 Btu/hr per unit).

Figure 6 — Diagram of InVerde CHP System
Source: *Tecogen Inc.*



TECOGEN Cogeneration Units

The TECOGEN cogeneration system is the original model introduced in the 1980s, which is available in sizes of 60 kW and 75 kW, producing up to 500,000 Btu/hr of hot water. This technology is based on a conventional single-speed generator. It is meant only for grid-connected operation and is not universally accepted by utilities for interconnection, in contrast to the *InVerde*. Although this cogeneration product has the longest legacy and largest population, much of its production volume has been supplanted by the *InVerde*.

TECOCHILL Chillers

Our TECOCHILL natural gas engine-driven chillers are available in capacities ranging from 25 to 400 tons, with the smaller units air-cooled and the larger ones water-cooled. This technology was developed in 1987. The engine drives a compressor that makes chilled water, while the engine's free waste heat can be recovered to satisfy the building's needs for hot water or heat. This process is sometimes referred to as "mechanical" cogeneration, as it generates no electrical power, and the equipment does not have to be connected to the utility grid.

A gas-fueled chiller provides enough air conditioning to avoid most of the utility's seasonal peak charges for electric usage and capacity. In summer when electric rates are at their highest, natural gas is "off-peak" and quite affordable. Gas-fueled chillers also free up the building's existing electrical capacity to use for other loads.

Ilios High-Efficiency Water Heaters

Our newest product, the Ilios high-efficiency water heater, uses a heat pump, which captures warmth from outdoor air even if it is moderately cool outside. Heat pumps work somewhat like a refrigerator, but in reverse. Refrigerators extract heat from inside the refrigerator and move it outside the refrigerator. Heat pumps extract heat from outside and move it indoors. In both cases, fluids move the heat around by flowing through heat exchangers. At various points the fluids are compressed or expanded, which absorbs or releases heat.

In the Ilios water heater, the heat pump moves heat from outdoors to the water being heated in the customer's building. The heat pump water heater serves as a boiler, producing hot water for drinking and washing or for space heating, swimming pools, or other building loads. Energy cost savings to the customer depend on the climate. Heat pumps in general (whether gas or electric) perform best in moderate weather conditions.

In a conventional electric heat pump, the compressor is driven by an electric motor. In the Ilios design, a natural gas-fueled engine drives the compressor. This means that the heat being captured from outdoors is supplemented by the engine's waste heat, which increases the efficiency of the process. According to scientific studies, gas engine heat pumps can deliver efficiencies in excess of 200%.

***Ultra* Low-Emissions Technology**

All of our CHP products are available with the *Ultra* low-emissions technology. This breakthrough technology was developed in 2009 and 2010 as part of a research effort funded by the California Energy Commission and Southern California Gas Company. The objective was to bring our emission control systems into compliance with California's standards, which are the most stringent in the United States.

We were able to meet or exceed the standards with an emission control system that is cost-effective, robust, and reliable. The *Ultra* low-emissions technology keeps our CHP systems compliant with air quality regulations over the long term. Given the proprietary nature of this work, we obtained a patent in the United States and have filed patents that are pending in Europe, Australia, Brazil, Canada, China, Costa Rica, the Dominican Republic, India, Israel, Japan, Mexico, New Zealand, Nicaragua, Republic of Korea, Singapore, and South Africa. We shipped the first commercial CHP units equipped with *Ultra* low-emissions technology to a California utility in 2011.

We conducted three validation programs for this technology:

1. Third-party laboratory verification. The AVL California Technology Center, a long-standing research and technology partner with the international automotive industry, confirmed our results in their state-of-the-art dynamometer test cell, which was outfitted with sophisticated emissions measurement equipment.

2. Verifying longevity and reliability in the field. We did so by equipping one of our TECOGEN 75-kW units, already operating at a customer location in Southern California, with the Ultra low-emissions technology and a device to monitor emissions continuously. To date, the Ultra low-emissions system has operated successfully for more than 25,000 hours (more than three years) and has consistently complied with California's emission standards. This field test is ongoing.

3. Additional independent tests. During the field test, two companies licensed in California to test emissions each verified our results at different times. The results from one of these tests (obtained in August 2011) enabled us to qualify for New Jersey's fast-track permitting. Virtually every state nationwide requires some kind of permit related to local air quality, but New Jersey allows an exemption for systems such as ours that demonstrate superior emissions performance. This certification was granted in November 2011, and since then we have sold Ultra low-emissions systems to several customers.

In 2012, a 75 kW CHP unit equipped with the *Ultra* system became our first unit to obtain a conditional air permit (i.e. pending a third party source test to verify compliance) in Southern California since the strict regulations went into place in 2009. A state-certified source test, administered in January 2013, verified that our emissions levels were well below the new permitting requirements, and the final permit version was approved in August 2013. To date, we have shipped over fifty units fitted with the *Ultra* system to sites in the Northeast, as well as California.

Contributions to Revenue

The following table summarizes net revenue by product line and services for the years ended December 31, 2013 and 2012:

	December 31, 2013	December 31, 2012
Products:		
Cogeneration	$ 5,199,649	$ 5,791,412
Chiller	1,146,401	1,661,810
Total Product Revenue	6,346,050	7,453,222
Services	7,071,388	7,089,491
Installations	2,432,431	711,259
Total Service Revenue	9,503,819	7,800,750
Total Revenue	$ 15,849,869	$ 15,253,972

All of the Company's long lived assets reside in the United States of America. All of the Company's revenue is generated in the United States of America.

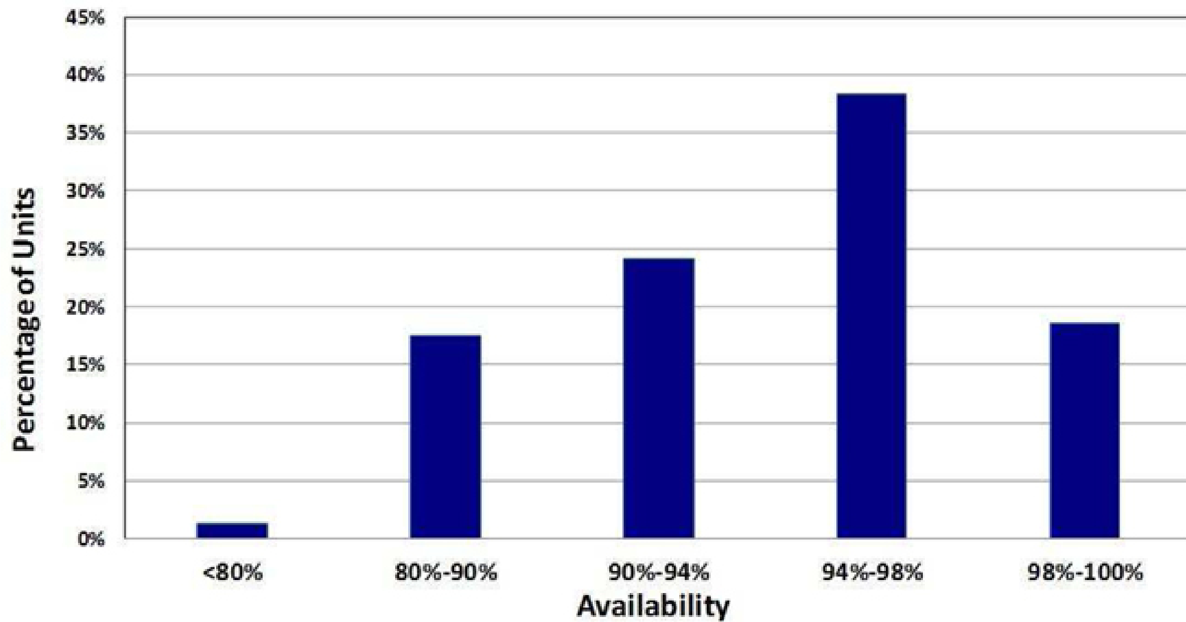
Segments

The Company's operations are comprised of one business segment. Our business is to manufacture and support highly efficient CHP products based on engines fueled by natural gas.

Product Reliability

Our product lines have a long history of reliable operation. Since 1995, we have had a remote monitoring system in place that connects to hundreds of units daily and reports their "availability," which is the amount of time a unit is running or is ready to run (% of hours). Figure 7 shows cumulative data for an installed base of 340 units. More than 80% of them operate above 90% availability, with the average being 93.8%. By comparison, the average availability for all fossil-fueled power plants in the United States was 87.5% during 2006 – 2010, according to a report by the North American Electric Reliability Corporation.

Figure 7 — Tecogen Product Reliability
Source: ***Tecogen Inc. – January 2014***



Product Service

We provide long-term maintenance contracts, parts sales, and turnkey installation through a network of eight well-established field service centers in California, the Midwest, and the Northeast. These centers are staffed by full-time Tecogen technicians, working from local leased facilities. The facilities provide offices and warehouse space for inventory. We encourage our customers to provide Internet or phone connections to our units so that we can maintain communications, in which case we contact the machines daily, download their status, and provide regular operational reports (daily, monthly, and quarterly) to our service managers. This communication link is used to support the diagnosis effort of our service staff and to send messages to preprogrammed phones that a unit has experienced an unscheduled shutdown.

Our service managers, supervisors, and technicians work exclusively on our products. Because we manufacture our own equipment, our service technicians bring hands-on experience and competence to their jobs. They are trained at our manufacturing facility in Waltham, Massachusetts.

Most of our service revenue is in the form of annual service contracts, which are typically of an all-inclusive “bumper-to-bumper” type, with billing amounts proportional to achieved operating hours for the period. Customers are thus invoiced in level, predictable amounts without unforeseen add-ons for such items as unscheduled repairs or engine replacements. We strive to maintain these contracts for many years, so that the integrity and performance of the machine are maintained. Between 2007 and 2012, approximately 68% of customers signed service contracts.

R&D Capabilities

Our research and development tradition and ongoing programs have allowed us to cultivate deep engineering expertise and maintain continuity over several decades. We have strong core technical knowledge that is critical to product support and enhancements. Our TecoDrive engine, cogeneration and chiller products, *InVerde*, and most recently the *InVerde Ultra* and Ilios heat pump water heater were all created and optimized with both public and private funding support.

In March 2013, we successfully completed a $1 million program with the California Energy Commission, which was awarded in 2009, to develop a small CHP engine (about 35 kW) that uses advanced automotive technology. The engine achieves a nearly 20% fuel efficiency gain over our current TecoDrive technology. The program included an endurance test to qualify the engine for the CHP duty cycle. Final development work to transition to the 2012 model year advanced engine took place in 2013, with rollout on the Ilios water heating product anticipated in late 2014. In 2015, we plan to develop a smaller *InVerde* unit (~35 kW) around this engine platform.

In October 2012, Tecogen was awarded a contract for a demonstration project to retrofit a natural-gas powered municipal water pump engine with Tecogen's proprietary *Ultra* low-emissions technology. This project, co-sponsored by Southern California Gas Co. (SoCalGas), DE Solutions, and the Eastern Municipal Water District (EMWD) will be the first application of Tecogen's emission control technology on a non-Tecogen engine, and an important proof of concept for its wider application. This system was commissioned in September 2013.

Tecogen also continues to support a contract with the DOE's Lawrence Berkeley National Laboratory, awarded in 2012, for microgrid development work related to the *InVerde*.

Distribution Methods

Our products are sold directly to end-users by our sales team and by established sales agents and representatives. Various agreements are in place with distributors and outside sales representatives, who are compensated by commissions, including American DG Energy, which is an affiliated company, for certain territories and product lines. For example, we have sales representatives for the chiller market in the New York City/New Jersey territory, but we do not have a sales representative for our cogeneration products in this territory. In New England, our affiliate, American DG Energy, has exclusive sales representation rights to our cogeneration products only (not including chillers). Sales through our in-house team or sales that are not covered by a representative's territory carry no commission or only a fractional one.

Summary of our Products' Advantages

- Our CHP products provide an efficient on-site solution to power generation as the market seeks cost savings and clean alternatives to centralized grid power.

- Our CHP products are all standard, modular units that come pre-packaged from the factory to simplify installation and grid connection. The systems are supported in the field by a nationwide network of experienced professional staff. Standardized CHP units, as opposed to custom-designed systems, achieve lower cost, better quality control, higher reliability, and easier service. Emission controls are integrated, and complete system warranty and maintenance are available.

- Our *Ultra* low-emissions technology eliminates the air quality concerns associated with engines. Our units comply with the most rigorous air quality regulations, including California's.

- Our cogeneration systems and chillers use standard, well-proven equipment made by reputable, well-established manufacturers. These components include rugged automotive engines, certified inverters, commercial generators, and conventional compressors. Certain key components are proprietary and have patent protection. Most notably, all control software is either proprietary (and copyright protected) or under an exclusive license agreement. Suppliers of the *InVerde `s* inverter and generator hold certain related patent protection.

- All of our CHP products can be designed for installation of multiple units at a single site, depending on the customer's particular needs. This enhances the ability of our products to meet the building's varying demand for electricity, heat, and/or air conditioning throughout the day and from season to season. Also, multiple units operate more efficiently throughout the range of a customer's high and low energy requirements.

- Our *InVerde* product is opening new market opportunities and expanding our reach to customers beyond our traditional market segments. The *InVerde`s* black-start feature addresses a crucial demand from customers concerned about utility blackouts and brownouts, natural disasters, security threats, and antiquated grid infrastructure. The *InVerde* also provides premium-quality power, which is required by operators of computer server farms and precision instrumentation, for example.

- The *InVerde* overcomes barriers related to grid interconnection, since the product is UL-certified as utility-safe. In microgrids, *InVerde* units can help prevent brownouts by maximizing their power output when utilities approach peak capacity. Unlike standby diesel generators, the *InVerde* can operate without hourly limits because its emissions are so low, and it can serve as a stable anchor in hybrid microgrids that incorporate solar power.

- Our extensive use of standardized components lets us manufacture CHP products at competitive prices, even at relatively low production volumes. Proven, well-understood hardware increases the reliability and durability of the equipment and reduces the cost of servicing in the field. We are also able to minimize spare parts inventories and simplify training requirements.

- The Ilios heat pump water heater roughly doubles the efficiency of conventional water heating systems. The Ilios heat pump targets a large international market that is characterized by heavy, year-round use. This will increase fuel savings and maximize return on investment for the customer. Also, such applications are mostly central heating and cooling systems, rather than units distributed throughout the building, so it is easier to integrate new equipment. The heat pump water heater product competes only against other gas-fueled water heaters, which could expand our market beyond areas with high electric rates, and regulatory issues should be minimal.

Competitive Position and Business Conditions

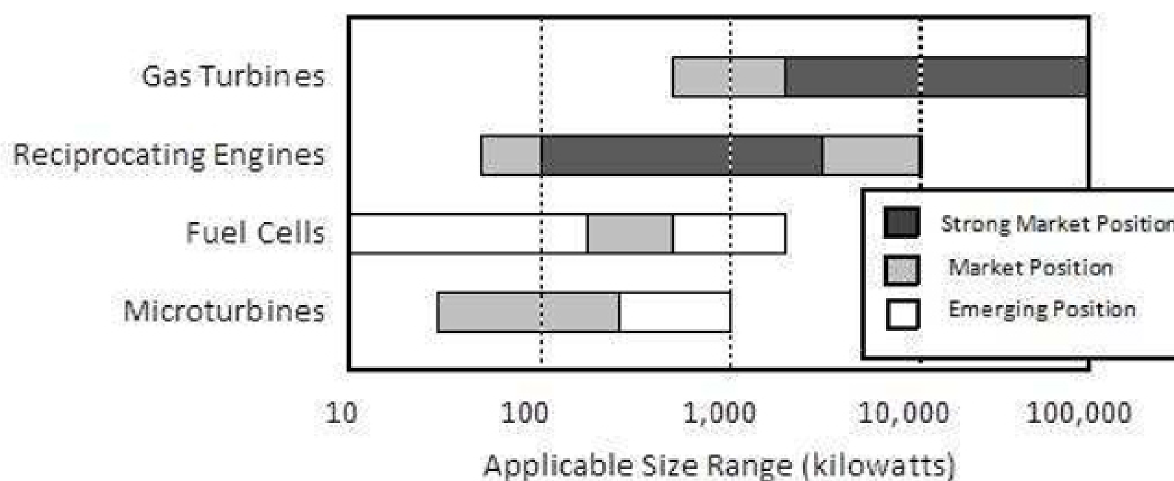
Our products fall into the broad market category of distributed generation systems that produce electric power on-site to mitigate the drawbacks of traditional central power and the low efficiency of conventional heating processes.

Renewable power sources, such as wind and solar, do not improve heating inefficiencies as CHP systems do, so they do not compete with our products. That is, CHP utilization is based on the redirection of fuel from an onsite boiler to an engine (or other device) for the production of electricity; the waste heat from the engine meets the heating load of the site with only a small incremental fuel consumption increase, but with the benefit of a significant amount of electricity production. As the boiler output cannot be displaced by renewable electricity production — the output of which is far more valuable displacing utility electric power, than used for water heating — the CHP opportunity remains available even in sites fully exploited relative to their renewable potential.

Cogeneration Systems

The ICF report breaks down the CHP market by technology as provided in Figure 8 below. We believe the California data applies to the domestic and international CHP market as a whole.

Figure 8 — Technology Size and Market Position
Source: ***ICF International, Combined Heat and Power Market Assessment (2010) (Data from 2004)***



Our CHP products use automotive reciprocating engines originally designed for gasoline fuel and modified to run on natural gas. Diesel-fueled reciprocating engines will remain prominent in the CHP market, but only in larger, custom-designed systems (one MW or more), so these products do not compete with ours.

In smaller CHP sizes, competitors have duplicated our older design, coupling an automotive engine to a single-speed generator and adding controls and heat recovery. To be competitive with our designs, however, they would have to acquire comparable experience in the equipment and technology, installation contracting, maintenance and operation, economic evaluation of candidate sites, project financing, and energy sales, as well as the ability to cover broad regions. They would also have to meet the price of our products, which is low because we use standardized components.

We believe that no other company has developed a product that competes with our inverter-based *InVerde*, which offers UL-certified grid connection, outage capability, and variable-speed operation. We anticipate that an inverter-based product with at least some of these features will be introduced by others, but we believe that they will face serious challenges in duplicating the *InVerde*. Product development time and costs would be significant, and we expect that our patents and license for microgrid software will keep others from offering certain important functions.

Our patent application relating to the *Ultra* low-emissions technology was issued by the U.S. PTO in October 2013. We expect that this will make the development of alternative technologies by competitors difficult. If this is the case, we could retain a strong competitive advantage for all our products in markets where severe emissions limits are imposed or where very clean power is favored, such as New Jersey, California, and Massachusetts.

Newer technologies, such as fuel cells and microturbines, pose limited competition to our CHP products. ICF International's 2010 CHP market assessment provides a comparison of the various small CHP technologies (50 – 500 kW), and a summary of this study is presented in Table 3. As shown, reciprocating engine CHP enjoys an economic advantage, as it has just over one-third the installed cost of a fuel cell and costs 20% less than a microturbine. With regard to operation and maintenance (O&M) costs, engine O&M costs are slightly less than those of microturbines, and just over half those of fuel cells. Although fuel cells have the highest electric efficiency (36%), they also have the lowest thermal output, so often fuel cells cannot recover enough heat to serve building loads effectively. Microturbines also recover less heat than engine CHP and have a lower electric efficiency. As a result, typical reciprocating engine CHP has the most favorable overall efficiency, at 79%, compared to 72% for microturbines and 67% for fuel cells.

With regard to pollutant emissions, Figure 5, above, compares all three technologies, along with the Tecogen engine CHP equipped with the *Ultra* technology. This figure illustrates that although fuel cells and microturbines are cleaner than conventional engine CHP (i.e., BACT), an engine equipped with *Ultra* technology now has comparable emissions to these other two technologies.

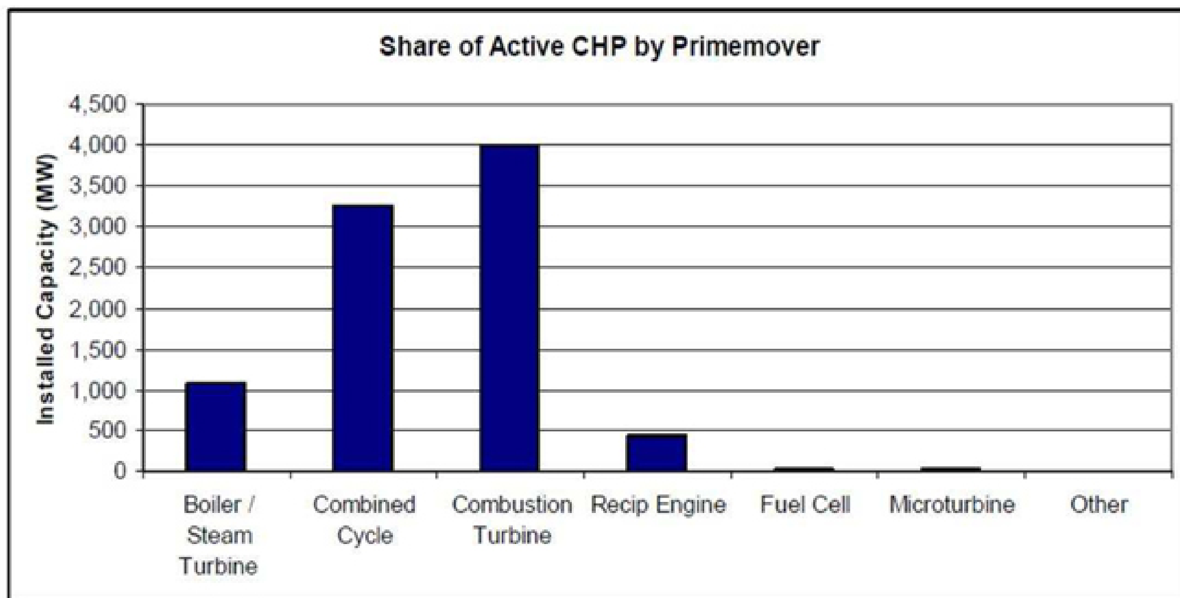
In the growing microgrid segment, neither fuel cells nor microturbines can respond to changing energy loads when the system is disconnected from the utility grid. Engines inherently have a fast dynamic response to step load changes, which is why they are the primary choice for emergency generators. Fuel cells and microturbines would require an additional energy storage device to be utilized in off-grid operation.

Most manufacturers of microturbines have refocused on other markets. We believe that Capstone Turbine Corporation is the only microturbine manufacturer with a commercial presence in CHP. Figure 9 reveals the modest impact of both microturbines and fuel cells in California's CHP space.

Table 3 — Comparison of CHP Technologies
Source: ***ICF International, Combined Heat and Power Market Assessment (2010)***

	Microturbine 50 – 500 kW	Fuel Cell 50 – 500 kW	Generic Engine 100 kW
Installed Costs, $/kW	2,739	6,310	2,210
O&M Costs, $/kWh	0.022	0.038	0.020
Electric Efficiency, %	25.2%	36.0%	28.4%
Thermal Output, Btu/kWh	6,277	2,923	6,100
Overall Efficiency, %	72%	67%	79%

Figure 9 — Share of Installed CHP by Prime Mover in California
Source: ***ICF International Combined Heat and Power Market Assessment (2010) — (Data from 2008)***



Engine Driven Chillers (TECOCHILL)

According to the Energy Solutions Center (a non-profit consortium), three companies make gas-engine-driven chillers that compete with our products: Trane, a division of Ingersoll-Rand plc, York, a division of Johnson Controls, Inc. and Alturdyne. Natural gas can also fuel absorption chillers, which use fluids to transfer heat without an engine drive.

Today's low natural gas prices in the United States improve the economics of gas-fueled chillers, so more competition could emerge. However, engine chillers will continue to have an efficiency advantage over absorption machines. Chiller performance is measured in terms of cooling energy output per unit of fuel input. This industry standard is called the coefficient of performance, or COP. Absorption chillers achieve COPs of about 1.2 (see, for example, The Chartered Institution of Building Services Engineers' Datasheet 07, Absorption *Cooling*, February 2012). Our TECOCHILL products reach efficiencies well above that level (COPs ranging from 1.6 to 2.6).

Ilios Engine-Driven Heat Pump

Although a few companies manufacture gas-engine heat pumps, their products are not directly comparable to the Ilios. The Ilios water heater and other heat pump products compete in both the high-efficiency water heating market and the CHP market. In a typical building, the Ilios heat pump would be added on to an existing heating/water heating system, but would be operated as many hours as possible. The conventional boiler would be left in place, but would serve mainly as a backup when the heat pump's engine is down for maintenance or when the heat pump cannot meet the building's peak heating load.

The best customers for the Ilios heat pump water heater would be very similar to those for traditional CHP — heavy consumers of hot water and process heat. In areas where low electric rates make CHP not economical, the Ilios heat pump could be a financially attractive alternative because its economics depend only on natural gas rates. In some areas with high electric rates, the Ilios option could have advantages over CHP. For example, where it is hard to connect to the utility grid or where the building's need for electricity is too low for CHP to work economically. As of December 31, 2013, we have shipped eight Ilios water heaters and have an additional two in inventory to fulfill current orders.

Intellectual Property

We currently hold three United States patents for our technologies:

- 8,578,704: "Assembly and method for reducing nitrogen oxides, carbon monoxide, and hydrocarbons in exhausts of internal combustion engines." This patent, granted in November 2013, is for the *Ultra* emission system applicable to all our products.

- 7,239,034: "Engine driven power inverter system with cogeneration". This patent, granted in July 2007, pertains to the utilization of an engine-driven CHP module combined with an inverter and applies to our *InVerde* product specifically.

- 7,243,017: "Method for controlling internal combustion engine emissions". This patent, granted in July 2007, applies to the specific algorithms used in our engine controller for metering the fuel usage to obtain the correct combustion mixture. It applies to most of our engines.

In addition, we have licensed specific rights to microgrid algorithms developed by University of Wisconsin researchers for which we pay royalties to the assignee, The Wisconsin Alumni Research Foundation (WARF). The specific patent named in our agreement is "Control of small distributed energy resources" (7,116,010), granted in 2006. Our specific rights are valid for engine-driven systems utilizing natural gas or diesel fuel in the application of power generation where the per unit output is less than 500 kW.

We consider our patents and license to be important in the present operation of our business. The expiration, termination, or invalidity of one or more of these patents may have a material adverse effect on our business. Our earliest patent, that licensed from WARF, was issued in 2006 and expires in 2022. Most of our patents expire between 2022 and 2027.

We believe that no other company has developed a product that competes with our inverter-based *InVerde*. We anticipate that an inverter-based product with at least some of these features will be introduced by others, but we believe that competitors will face serious challenges in duplicating the *InVerde*. Product development time and costs would likely be significant, and we expect that our patent for the inverter-based CHP system (7,239,034) would offer significant protection, especially in key features. Likewise, we consider the microgrid license with WARF to be a key feature of our *InVerde* product, and one that would be difficult to duplicate outside the patent.

The recent issuance by the U.S. PTO of the patent for the *Ultra* low-emissions technology keeps that technology exclusive to us. It applies to all of our gas engine-driven products and may have licensing applications to other natural gas engines. We have also filed for patents for this technology in Europe, Australia, Brazil, Canada, China, Costa Rica, the Dominican Republic, India, Israel, Japan, Mexico, New Zealand, Nicaragua, Republic of Korea, Singapore, and South Africa. There is no assurance, however, that the *Ultra* low-emissions patent applications will be approved in any other country.

Government Regulation and Its Effect on Our Business

Several kinds of government regulations affect our current and future business, such as:

- Product safety certifications and interconnection requirements;
- Air pollution regulations, which govern the emissions allowed in engine exhaust;
- State and federal incentives for CHP technology; and
- Electric utility pricing and related regulations.

Regulations that control air quality and greenhouse gases might increasingly favor our low-emission products. Regulations related to utility rates and interconnections, which are burdensome today, could evolve to embrace CHP because of its efficiency benefits.

Product Safety Certifications and Interconnection Requirements

Our products must comply with various local building codes and must undergo inspection by local authorities. Our products are also certified by a third party to conform to specific standards. These certifications require continuous verification by a company that monitors our processes and design every three months. Our *InVerde* product is also certified to Europe’s standard CE mark (European Conformity), which is mandatory for products imported into the European Union for commercial sale.

Our cogeneration CHP products are also certified to a particular group of standards specific to the distributed power industry, which are used in the utility interconnection permitting process. These unique certifications were developed by various manufacturers, utilities, and government regulators to standardize the process of getting the utility’s permission to jointly power a facility.

In essence, manufacturers of standard products are allowed to submit a sample unit to be “type-tested” by a Nationally Recognized Testing Laboratory. This test proves that the product adheres to safety requirements and that its design is fail-safe. The product then becomes eligible for a fast-track interconnection, after passing simple site-specific screens. Under state-mandated regulations, such as California Rule 21 and Massachusetts Interconnection Tariff 09-03, most utilities must accept the fast-track process, which includes the certification.

Simplified utility interconnection is important to CHP projects, so our interconnect certification, Underwriters Laboratory Standard 1741, or UL Certification, is a significant competitive advantage. Obtaining the UL Certification was a major reason for us to develop the inverter-based CHP product. As with our other product certifications, we plan to maintain the certification through routine processes when modest design changes occur. When complete recertification is required, such as when a new revision to the standard is applicable or when the design undergoes a major upgrade, the company will follow the normal procedures for first-time certification (third party design review and test verification). The company does not anticipate any changes to the standard that would preclude recertification, as the underlying content is carefully administered by balanced committees (representing utilities, inverter suppliers, and academia). In addition, the standard and its utilization as the criterion for systems to qualify for simplified interconnection programs, is important for the solar PV industry. The company believes that this importance to the solar industry will help assure the long-term relevance in interconnection of distributed generation devices.

Air Pollution Regulations

Stationary natural gas engines are subject to emissions regulations that are part of a complex hierarchy of state and federal regulations. The EPA establishes technology-specific standards that are based on cost-benefit analysis for emission control strategies. These standards, termed BACT (best available control technology), are imposed in regions that fail to meet federal clean air standards. Local regulators can and do restrict engine emissions to lower levels.

In some instances, regional standards in our key markets have become sufficiently strict, presenting a challenge in controlling pollution from natural gas engines. However, our development of the *Ultra* low-emissions technology has addressed this issue, allowing us to permit our equipment in the strictest region of Southern California. In January 2013, a state-certified source test at a new customer's site verified that our emissions levels were well below the new permitting requirements. Since we have now successfully removed this barrier, we are not only competitive in the California market, but have an advantage as a cleaner CHP technology. Likewise, in the Northeast where emissions regulations are trending towards California levels, we have already established our *Ultra* CHP as a certified technology in New Jersey, exempt from the air permitting process and subsequent testing, a unique status that separates us from the competition.

On the East Coast, important CHP territories are also moving toward limits below federal BACT levels. Effective in 2012, Massachusetts, Rhode Island, and Connecticut require 3.6 ppm NOx and about 56 ppm CO, which is on par with California's BACT standard. New Jersey also emulates California's BACT, but allows the project to side-step the air permit process if the CHP device is "emissions certified" through third-party testing to 10 ppm NOx and 10 ppm CO. Our *Ultra* low-emissions technology has qualified for New Jersey's "clean" certification, as noted earlier. In New York, clean power is encouraged through state grants that exclude products, or reduce the grant amount, unless low emissions are demonstrated.

Air emissions regulations also affect our air conditioning and Ilios heat pump products, though the effects are muted. TECOCHILL rebates are not common, and none has been tied to a specific emissions level. The heat pump's small size often exempts it from regulations, and the market for heat pump products could lie in lightly regulated regions (those with low electric rates). Nevertheless, the *Ultra* low-emissions technology can be applied to these products if required to meet regulatory standards.

State and Federal Incentives

On August 30, 2012, the White House released an Executive Order to accelerate investments in industrial energy efficiency, including CHP. The goal of the Executive Order is to supply 40 GW of energy by 2020 from greater efficiency sources such as CHP systems. The DOE, Commerce, and Agriculture, and the Environmental Protection Agency, or EPA, in coordination with the National Economic Council, the Domestic Policy Council, the Council on Environmental Quality, and the Office of Science and Technology Policy, shall coordinate policies to encourage investment in industrial efficiency in order to reduce costs for industrial users, improve U.S. competitiveness, create jobs, and reduce harmful air pollution. With this Executive Order, it is expected that barriers to CHP development will be removed with effective programs, policies, and financing opportunities, resulting in $40 – $80 billion in new capital investment in CHP. This initiative by the U.S. government may boost CHP awareness and stimulate market activity.

In addition, some states offer incentives to CHP systems. New York and New Jersey have incentive programs that rebate a significant portion of the CHP project cost. Similar incentive programs also exist in Massachusetts, Rhode Island, and Maryland albeit with different structures and terms. Massachusetts has an additional CHP incentive in the form of an annual rebate proportional to the carbon savings versus conventional technology.

Also our products installed before 2010 are eligible for the bonus depreciation included in the 2009 American Recovery and Reinvestment Act, and our products installed between January 1, 2008 and December 31, 2013 are eligible for the bonus depreciation included in the 2012 American Taxpayer Relief Act. Also, the Energy Improvement and Extension Act of 2008 provides a 10% investment tax credit through 2016 for CHP in our size range, which applies to the total project cost. Our TECOCHILL and heat pump products also qualify for the credit when heat recovery achieves a minimum 60% efficiency.

Electric Utility Pricing and Related Regulations

Electricity prices, rate structures, and tariffs are another form of government incentive or disincentive. Utility pricing is administered through state agencies, typically public utility commissions, through formal proceedings involving the public, utilities, and various affected parties. Often, direct legislative mandates apply to specific issues. How these rules are structured and interpreted has a significant impact on the economic viability of CHP. These rules have hurt the CHP industry in the past, but we have designed our products to undermine their impact.

Demand Charges. Many electric utilities structure their commercial rates such that part of the customer's bill is fixed charges such as meter fees, and part is peak demand charges, which are a much larger line-item based on the building's maximum short-term usage (typically 15 minutes). Fixed charges, usually small, are not addressed by CHP technology. Avoidance of peak demand charges requires a CHP system to always operate at extremely high efficiency, which is difficult to achieve in practice.

Our CHP products, being small and modular, are often installed as multiple units. This protects the customer to some degree from incurring peak demand charges at the full system rating by providing equipment redundancy. The customer would then have to buy more electricity to make up for it, possibly incurring a large demand charge. With a modular, multi-unit CHP system, all the units would have to fail simultaneously to incur an equivalent charge.

Our TECOCHILLs are highly effective in eliminating not only summertime electricity usage, but also peak demand charges. The chiller's operation is confined to the cooling season, allowing maintenance to be scheduled for other times. Outages during the cooling season can be managed to minimize their impact.

Avoided-Cost Penalties. In some regions, utilities have argued that CHP customers, by reducing their electric usage, have avoided paying their fair share of the costs associated with grid infrastructure. To correct this perceived inequity, some utilities have successfully petitioned their state commissions to impose a "departing load charge." Utilities have also been allowed to add a "standby" surcharge to compensate for the cost of utility power being available when the CHP system is down.

These types of charges are not prevalent in East Coast states, but both standby and departing load charges are well-established in California. Although our CHP products are affected, our chillers and heat pumps are not.

Technology-Specific Net Metering. Interconnection issues are safety-related and should be product-neutral, but technology bias is common. In many states, CHP is excluded from net metering while other technologies are eligible. Under net metering, utilities must pay on-site generators for excess electricity that is fed into the grid. Net metering makes it easier to manage the operation of a CHP system or other generator.

Other Utility-Related Regulations. Another category of utility regulation that might affect our business is Renewable Portfolio Standards, or RPS. As of December 2013, some form of portfolio standards had been established in 38 states and the District of Columbia. According to the EPA, out of these states, 26 — Arizona, Connecticut, Delaware, Colorado, Hawaii, Illinois, Indiana, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Nevada, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Dakota, Utah, Vermont, Washington and West Virginia — specifically mention CHP and/or waste heat-to-power as eligible under their RPS (or related efficiency/clean energy program guidelines). RPS-type mechanisms have been adopted in several other countries, including Britain, Italy, Poland, Sweden, Belgium, and Chile.

Overall, RPS appears to be a positive policy for Tecogen and CHP. Program structures, if fair and balanced, encourage less fossil fuel use by offering financial incentives to improve efficiency. Electric power generated from renewable sources would tend to increase overall electric rates and improve CHP investment returns. Since these programs are in their early stages, their impact is yet to be determined.

A national carbon “cap and trade” program is not anticipated in the foreseeable future. Cap and trade programs seek to reduce carbon emissions by putting a price on them. Of possible impact to Tecogen is the cap and trade bill moving forward in the California legislature. The program’s details are still being reviewed and negotiated by various government and advocacy groups.

Employees

As of December 31, 2013, we employed 69 full-time employees and three part-time employees. We believe that our relationship with our employees is satisfactory. Three of our New Jersey service employees are represented by a collective bargaining agreement which was executed on February 25, 2014 with a retroactive effective date of January 1, 2014. This agreement expires on December 31, 2016.

Properties

Our headquarters is located in Waltham, Massachusetts, and consists of approximately 43,000 square feet of leased space, of which Tecogen occupies approximately 34,600 square feet of manufacturing, storage and office space. We sub-lease the remaining space to Ilios, American DG Energy, and other tenants. Our lease, with an original expiration date of March 31, 2014, was renewed for an additional ten years and will expire March 31, 2024. We believe that our facilities are appropriate and adequate for our current needs.

Legal Proceedings

From time to time, we may become party to litigation or other legal proceedings that we consider to be a part of the ordinary course of our business. We are not currently involved in legal proceedings that could reasonably be expected to have a material adverse effect on our business, prospects, financial condition, or results of operations. We may become involved in material legal proceedings in the future.

MANAGEMENT AND GOVERNANCE

Directors and Executive Officers

The following table lists the current members of our Board of Directors and our executive officers. The address for our directors and officers is c/o Tecogen Inc., 45 First Avenue, Waltham, Massachusetts 02451.

Name	Age	Position(s)
Angelina M. Galiteva	47	Chairperson of the Board of Directors
John N. Hatsopoulos	79	Chief Executive Officer and Director
Robert A. Panora	59	Chief Operating Officer and President
Bonnie J. Brown	51	Chief Financial Officer, Treasurer, and Secretary
George N. Hatsopoulos	87	Director
Ahmed F. Ghoniem	62	Director
Charles T. Maxwell	82	Director
Joseph E. Aoun	61	Director

Angelina M. Galiteva, age 47, has been our Chairperson of the Board of Directors since 2005. She is founder and Chair of the Board for the Renewables 100 Policy Institute, a non-profit entity dedicated to the global advancements of renewable energy solutions since 2008. Ms. Galiteva is also Chairperson at the World Council for Renewable Energy (WCRE) which focuses on the development of legislative and policy initiatives to facilitate the introduction and growth of renewable energy technologies since 2003. Since 2011, Ms. Galiteva has served on the Board of Governors of the California Independent System Operator (CA ISO), providing direction and oversight for the California ISO which operates the California electricity grid. Also, Ms. Galiteva is a principal at New Energy Options, Inc., a company focusing on advancing the integration of sustainable energy solutions since 2006. Ms. Galiteva has also been a strategic consultant with Renewable Energy Policy and Strategy Consulting since 2004. Ms. Galiteva holds a Master's degree in Environmental and Energy Law, a law degree from Pace University School of Law, and a bachelor's degree from Sofia University in Bulgaria.

Our Board of Directors has determined that Ms. Galiteva's prior experience in the energy field qualifies her to be a member of the Board of Directors in light of the Company's business and structure.

John N. Hatsopoulos*,* age 79, has been the Chief Executive Officer of the Company since the organization of the Company in 2000. He has also been the Chief Executive Officer of American DG Energy Inc., (NYSE MKT: ADGE), a publicly traded company in the On-Site Utility business since 2000, and the Chairman of EuroSite Power Inc., a subsidiary of American DG Energy Inc. since 2009. Mr. Hatsopoulos is a co-founder of Thermo Electron Corporation, which is now Thermo Fisher Scientific (NYSE: TMO), and the retired President and Vice Chairman of the Board of Directors of that company. He is a member of the Board of Directors of Ilios Inc., GlenRose Instruments Inc., Agenus Inc. (NASDAQ: AGEN), American CareSource Holdings, Inc. (NASDAQ: ANCI) and TEI Biosciences Inc., and is a former Member of the Corporation of Northeastern University. The Company, American DG Energy Inc., EuroSite Power Inc., and GlenRose Instruments Inc., are affiliated companies by virtue of common ownership. Mr. Hatsopoulos graduated from Athens College in Greece, and holds a bachelor's degree in history and mathematics from Northeastern University, as well as honorary doctorates in business administration from Boston College and Northeastern University.

Mr. Hatsopoulos is the Company's Chief Executive Officer and is also the Chief Executive Officer of American DG Energy and the Chairman of GlenRose Instruments. On average, Mr. Hatsopoulos spends approximately 50% of his business time on the affairs of the Company; however such amount varies widely depending on the needs of the business and is expected to increase as the business of the Company develops.

Our Board of Directors has determined that Mr. Hatsopoulos' prior experience as co-founder, president and Chief Financial Officer of Thermo Electron Corporation, where he demonstrated leadership capability and gained extensive expertise involving complex financial matters, and his extensive knowledge of complex financial and operational issues qualify him to be a member of the Board of Directors in light of the Company's business and structure.

Robert A. Panora, age 59, has been our Chief Operating Officer and President since the organization of the Company in 2000 and the Chief Operating Officer of Ilios since its inception in 2009. He had been General Manager of Tecogen's Product Group since 1990 and Manager of Product Development, Engineering Manager, and Operations Manager of the Company since 1984. Over his 27-year tenure with Tecogen, Mr. Panora has been responsible for sales and marketing, engineering, service, and manufacturing. Mr. Panora contributed to the development of Tecogen's first product, the CM-60 cogeneration system, and was Program Manager for the cogeneration and chiller projects that followed. Mr. Panora has had considerable influence on many aspects of Tecogen's business, from building the employee team, to conceptualizing product designs and authoring many of the original business documents, sales tools, and product literature pieces. Mr. Panora has a bachelor's and master's degrees in Chemical Engineering from Tufts University.

Bonnie J. Brown, age 51, has been our Chief Financial Officer since 2007, our Secretary since 2010 and our Treasurer as of January 1, 2013. Ms. Brown joined the Company in 2005 as Controller. She has also been the Chief Financial Officer of Ilios Inc. since its inception in 2009. Prior to joining Tecogen, Ms. Brown was a partner at Sullivan Bille PC, a regional accounting firm, for 15 years where she provided financial, accounting, audit, tax, and business consulting services for mid-sized companies. Ms. Brown has also worked at Enterprise Bank and Trust (NASDAQ:EBTC) as project manager for special assignments including branch acquisitions and information systems transitions in the trust department eventually serving as Internal Audit Director, establishing an in-house audit function. She has also provided independent contractor services for a wide variety of publicly traded and closely held companies, including consulting, internal control and Sarbanes-Oxley compliance services. Ms. Brown is a CPA and holds a B.S. in Accountancy from Bentley College and an M.S. in Computer Information Systems from Boston University.

George N. Hatsopoulos, age 87, has been a member of our Board since the organization of the Company in 2000. He is the founder and Chief Executive Officer of Pharos, LLC, an organization devoted to the creation of leading edge business ventures and he is a former member of the Board of Directors of American DG Energy Inc., an affiliated company by virtue of common ownership. He is the founder and chairman emeritus of Thermo Electron Corporation and served as Chairman and Chief Executive Officer since its founding in 1956 until his retirement from those positions in 1999. Dr. Hatsopoulos has served on the board of the Federal Reserve Bank of Boston, including a term as chairman. He was a member of the Securities and Exchange Commission Advisory Committee on Capital Formation and Regulatory Process, the Advisory Committee of the U.S. Export-Import Bank, and the boards of various corporations and institutions. Dr. Hatsopoulos is a fellow of the American Academy of Arts and Sciences, the American Society of Mechanical Engineers and other scientific and technical organizations. He is the recipient of numerous honors and awards in engineering, science, industry and academics, has authored over 60 articles in professional journals, and is the principal author of textbooks on thermodynamics and thermionic energy conversion. Dr. Hatsopoulos has been a faculty member and senior lecturer at Massachusetts Institute of Technology and continues his association with MIT as a Life Member of the Corporation. Dr. Hatsopoulos holds bachelors, masters and doctorate degrees from MIT, all in mechanical engineering.

Our Board of Directors has determined that Dr. Hatsopoulos' prior experience as founder, Chairman and Chief Executive Officer of Thermo Electron Corporation, where he demonstrated leadership capability and gained extensive expertise involving complex financial matters, and his extensive knowledge of complex financial and operational issues qualify him to be a member of the Board of Directors in light of the Company's business and structure.

Ahmed H. Ghoniem, age 62, has been a member of our Board since 2008. He is the Ronald C. Crane Professor of Mechanical Engineering at MIT. He is also the director of the Center for 21st Century Energy, and the head of Energy Science and Engineering at MIT, where he plays a leadership role in many energy-related activities, initiatives and programs. Mr. Ghoniem joined MIT as an assistant professor in 1983. He is an associate fellow of the American Institute of Aeronautics and Astronautics, and Fellow of American Society of Mechanical Engineers. Recently, he was granted the KAUST Investigator Award. He is a member of the Board of Directors of EuroSite Power Inc., and Ilios Inc., which are affiliated companies by virtue of common ownership. Mr. Ghoniem holds a Ph.D. in Mechanical Engineering from the University of California, Berkeley, and an M.S. and B.S. in Mechanical Engineering from Cairo University.

Our Board of Directors has determined that Dr. Ghoniem's prior experience as a Professor of Mechanical Engineering at MIT and his prior experience in the energy sector qualify him to be a member of our Board of Directors in light of our business and structure.

Charles T. Maxwell, age 82, has been a member of our Board since 2001. He is a widely recognized expert in the energy sector, with over 40 years of experience with major oil companies and investment banking firms. From 1999, until his retirement in 2012, Mr. Maxwell was a Senior Energy Analyst with Weeden & Co. of Greenwich, Connecticut, since 1999, where he develops strategic data and forecasts on oil, gas, and power markets. Mr. Maxwell is a member of the Board of Directors of American DG Energy, an affiliated company by virtue of common ownership. Since the early 1980s, he has been an active member of an Oxford-based organization comprised of present or past OPEC-county oil ministers and other oil industry executives from 30 countries who meet twice annually to analyze trends in global energy markets. He is a member of the board of directors of Daleco Resources Corporation (OTCQB: DLOV) and Lescarden Inc. (OTC: LCAR). Mr. Maxwell holds a bachelor's degree in political science from Princeton University and holds a B.A. from Oxford University as a Marshall Scholar in Middle East literature and history.

Our Board of Directors has determined that Mr. Maxwell's prior experience in the energy sector and his extensive experience as a director of public companies qualifies him to be a member of the Board of Directors in light of the Company's business and structure.

Joseph E. Aoun*,* age 61, has been a member of our Board since 2011. He has been President of Northeastern University since 2006. President Aoun is recognized as a leader in higher education policy and serves on the board of directors of the American Council on Education as well as the Boston Private Industry Council, Boston World Partnerships, Jobs for Mass, and the New England Council. He is a member of the Executive Committee of the Greater Boston Chamber of Commerce, a member of the Massachusetts Business Roundtable and Massachusetts Math & Science Initiative, and serves on the Leadership Council for the Mass Life Sciences Collaborative and as co-chair of the City to City Boston initiative. President Aoun is the recipient of numerous honors and awards and is an internationally known scholar in linguistics. President Aoun holds a master's degree in Oriental Languages and Literature from Saint Joseph University, Beirut, Lebanon, Diploma of Advanced Study General and Theoretical Linguistics, University of Paris VIII, Paris, France, and a Ph.D. Linguistics and Philosophy from MIT.

Our Board of Directors has determined that Dr. Aoun's prior experience as the President of Northeastern University and his prior experience in the energy sector qualify him to be a member of our Board of Directors in light of our business and structure.

Each executive officer is elected or appointed by, and serves at the discretion of, our Board of Directors. The elected officers of the Company will hold office until their successors are duly elected and qualified, or until their earlier resignation or removal.

Family Relationships

There are no family relationships among members of our Board of Directors and executive officers other than George N. Hatsopoulos and John N. Hatsopoulos, who are brothers.

Board Composition

The number of directors of the Company is established by the Board of Directors in accordance with our bylaws. The exact number of directors is currently set at six by resolution of the Board of Directors. The directors are elected to serve for one year terms, with the term of directors expiring each year at the annual meeting of stockholders; provided further, that the term of each director shall continue until the election and qualification of a successor and be subject to such director's earlier death, resignation or removal.

Our certificate of incorporation and bylaws provide that the authorized number of directors may be changed only by resolution of the Board of Directors, and also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our Board of Directors, including a vacancy resulting from an enlargement of our Board of Directors, may be filled only by vote of a majority of our directors then in office.

We have no formal policy regarding board diversity. Our priority in selection of board members is identification of members who will further the interests of our stockholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, and understanding of the competitive landscape.

Board Committees

Our Board of Directors directs the management of our business and affairs and conducts its business through meetings of the Board of Directors and our committees: the Audit Committee, the Compensation Committee, and the Nominating and Corporate Governance Committee.

The members of the Audit Committee are Dr. Ghoniem, Ms. Galiteva, and Mr. Maxwell. The members of the Compensation Committee are Dr. Aoun, Ms. Galiteva, and Dr. Ghoniem. The members of our Nominating and Corporate Governance Committee are Dr. Aoun, Dr. Ghoniem and Mr. Maxwell. All committee members have been determined to be independent by our Board of Directors in accordance with the rules of the NASDAQ Capital Market rules. The Board of Directors has also determined that Mr. Maxwell qualifies as an Audit Committee financial expert. In addition, from time to time, other committees may be established under the direction of the Board of Directors when necessary to address specific issues.

The functions of the Audit Committee include reviewing and supervising the financial controls of the Company; appointing, compensating, and overseeing the work of the independent auditors; reviewing the books and accounts of the Company; meeting with the officers of the Company regarding the Company’s financial controls; and making recommendations to the Board of Directors based on the findings of the independent auditors. The charter of the Audit Committee is available on the Company’s website at www.tecogen.com.

The Compensation Committee’s functions include reviewing with management cash and other compensation policies for employees, making recommendations to the Board of Directors regarding compensation matters and determining compensation for the Chief Executive Officer. Our Chief Executive Officer has been instrumental in the design and recommendation to the Compensation Committee of compensation plans and awards for our directors and executive officers including our President, Chief Operating Officer and Chief Financial Officer. All compensation decisions for the Chief Executive Officer and all other executive officers are reviewed and approved by the Compensation Committee, subject to ratification by the Board of Directors. The charter of the Compensation Committee is available on the Company’s website at www.tecogen.com.

The Nominating and Corporate Governance Committee functions are to identify persons qualified to serve as members of the Board of Directors and to recommend to the Board of Directors persons to be nominated by the Board of Directors for election as directors at the annual meeting of stockholders and persons to be elected by the board to fill any vacancies. In addition, the Nominating and Corporate Governance Committee is responsible for developing and recommending to the Board of Directors a set of corporate governance guidelines applicable to the Company (as well as reviewing and reassessing the adequacy of such guidelines as it deems appropriate from time to time) and overseeing the annual self-evaluation of the Board of Directors. The charter of the Nominating and Corporate Governance Committee is available on the Company’s website at www.tecogen.com.

Director Compensation

Each director who is not also one of our employees will receive a fee of $500 per day for service on those days that our Board of Directors and/or each of the Audit, Compensation, or Nominating and Corporate Governance Committees hold meetings, or otherwise conduct business. Non-employee directors also will be eligible to receive stock or options awards under our 2006 Stock Incentive Plan, as amended, or the Stock Plan. We reimburse all of our non-employee directors for reasonable travel and other expenses incurred in attending Board of Directors and committee meetings. Any director who is also one of our employees receives no additional compensation for serving as a director. Our non-employee directors did not receive any compensation in cash prior to or during 2010. Until December 2011, the compensation of directors was only in stock awards.

Board Leadership Structure

We separate the roles of Chief Executive Officer and Chairman in recognition of the differences between the two roles. Our Chief Executive Officer is responsible for setting the strategic direction for the Company and the overall leadership and performance of the Company. Our Chairman provides guidance to the Chief Executive Officer, sets the agenda for Board of Director meetings, presides over meetings of the full Board of Directors, and leads all executive meetings of the independent directors. We are a small company with a small management team, and we feel the separation of these roles enhances high-level attention to our business.

Our Board of Directors' Role in Risk Oversight

Our Board of Directors oversees our risk management processes directly and through its committees. Our management is responsible for risk management on a day-to-day basis. The Audit Committee assists the Board of Directors in fulfilling its oversight responsibilities with respect to risk management in the areas of financial reporting, internal controls, and compliance with legal and regulatory requirements, and discusses policies with respect to risk assessment and risk management, including guidelines and policies to govern the process by which the Company's exposure to risk is handled. The Compensation Committee assists the Board of Directors in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs. The Nominating and Corporate Governance Committee assists the Board of Directors in fulfilling its oversight responsibilities with respect to the management of risks associated with board organization, membership and structure, succession planning for our directors, and corporate governance.

Code of Business Conduct and Ethics

The Company has adopted a code of business conduct and ethics that applies to the Company's directors, officers, and employees. The Company's code of business conduct and ethics is intended to promote honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships; full, fair, accurate, timely and understandable disclosure in reports and documents that the Company files with, or submits to, the SEC and in other public communications made by the Company; compliance with applicable governmental laws, rules and regulations; prompt internal reporting of violations of the code of business conduct and ethics to an appropriate person or persons identified in the code of business conduct and ethics; and accountability for adherence to the code of business conduct and ethics. The Company's code of business conduct and ethics is available on the Company's website at www.tecogen.com.

EXECUTIVE OFFICER AND DIRECTOR COMPENSATION

The Compensation Committee and Board of Directors construct policies and guidelines regarding executive compensation. The major components of executive compensation will be base salary, annual incentive bonuses, equity incentive awards and customary employee benefits. Among the factors likely to be relevant are:

- the executive officer's skills and experience;
- the particular importance of the executive officer's position to us;
- the executive officer's individual performance;
- the executive officer's growth in his or her position; and
- base salaries for comparable positions within our Company and at other companies.

Our Compensation Committee performs evaluations of our executive officers' compensation at least annually and may solicit the input of a compensation consulting firm and peer group benchmarking data in making any adjustments believed to be appropriate.

The following table sets forth information with respect to the compensation of our executive officers for the Company's last two completed fiscal years:

Summary Compensation Table

Name and principal position	Year	Salary ($)	Bonus ($)	Stock awards ($)	Option awards ($)(1)	All other compensation ($)	Total ($)
John N. Hatsopoulos	2013	1	—	—	—	—	1
Chief Executive Officer	2012	1	—	—	—	—	1
(Principal Executive Officer)							
Robert A. Panora (2)	2013	163,770	—	—	—	1,032	164,802
Chief Operating Officer and President	2012	163,770	—	—	—	1,032	164,802
Bonnie J. Brown (3)	2013	156,000	—	—	—	360	156,360
Chief Financial Officer, Treasurer and Secretary	2012	156,000	—	—	—	360	156,360
(Principal Financial Officer)							
Anthony S. Loumidis (4)							
Former Vice President and Treasurer	2012					25,091	25,091

(1) The amounts in the "Stock Option Awards" column reflect the aggregate grant date fair value of the awards computed in accordance with FASB ASC Topic 718. The assumptions used by us with respect to the valuation of stock and option awards are set forth in *Note 10 – Stockholders' equity* to our financial statements included elsewhere in this registration statement.
(2) Includes group life insurance of $1,032 for 2013 and 2012, respectively.
(3) Includes group life insurance of $360 for 2013 and 2012.
(4) Mr. Loumidis resigned as Vice President and Treasurer of the Company effective December 31, 2012.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information with respect to outstanding equity awards held by our executive officers as of December 31, 2013:

	Option awards				Stock awards	
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date	Number of shares of stock that have not vested (#)	Market value of shares of stock that have not vested ($)(1)
John N. Hatsopoulos	—	—	—	—	—	—
Robert A. Panora (2)(3)	62,500	62,500	2.60	2/14/2021	138,350	622,575
Bonnie J. Brown (4)(5)	25,000	—	1.20	2/13/2015	12,500	56,250
Bonnie J. Brown (6)	50,000	—	2.00	3/11/2019	—	—
Bonnie J. Brown (7)	18,750	6,250	2.60	2/18/2020	—	—

(1) Market value of shares of stock that have not vested is computed on the last private placement price of the Company's Common Stock on January 17, 2014, which was $4.50 per share.
(2) Includes stock option award granted on February 15, 2011, with 25% of the shares vesting on February 15, 2012 and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, subject to Mr. Panora's continued employment and subject to acceleration of vesting upon a change in control.
(3) Includes 138,350 shares of restricted Common Stock at a purchase price of $.001 per share granted on December 4, 2006, with 100% of the shares vesting one year after the Company's initial public offering, subject to acceleration of vesting upon a change in control prior to a termination event.
(4) Includes stock option award granted on February 13, 2008, with 25% of the shares vesting on February 13, 2009 and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, subject to Ms. Brown's continued employment and subject to acceleration of vesting upon a change in control.
(5) Includes 12,500 shares of restricted Common Stock at a purchase price of $.004 per share granted on December 13, 2006, with 100% of the shares vesting one year after the Company's initial public offering, subject to acceleration of vesting upon a change in control prior to a termination event.
(6) Includes stock option award granted on March 11, 2009, with 25% of the shares vesting on March 11, 2010 and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, subject to Ms. Brown's continued employment and subject to acceleration of vesting upon a change in control.
(7) Includes stock option award granted on February 28, 2010, with 25% of the shares vesting on February 28, 2011 and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, subject to Ms. Brown's continued employment and subject to acceleration of vesting upon a change in control.

Director Compensation

Each director who is not also one of our employees will receive a fee of $500 per day for service on those days that our Board of Directors and or each of the Audit, Compensation or Nominating and Corporate Governance Committees hold meetings, or otherwise conduct business. Non-employee directors also will be eligible to receive stock or option awards under our equity incentive plan. We reimburse all of our non-employee directors for reasonable travel and other expenses incurred in attending Board and committee meetings. Any director who is also one of our employees receives no additional compensation for serving as a director.

The following table sets forth information with respect to the compensation of our directors as of December 31, 2013:

Name	Fees earned or paid in cash ($)	Stock awards ($)	Option awards ($)	All other compensation ($)	Total ($)
Angelina M. Galiteva	1,500	—	—	—	1,500
John N. Hatsopoulos	—	—	—	—	—
George N. Hatsopoulos	—	—	—	—	—
Ahmed F. Ghoniem	500	—	—	—	500
Charles T. Maxwell	1,000	—	—	—	1,000
Joseph E. Aoun	—	—	—	—	—

Outstanding Equity Awards at Fiscal Year-End Table

The following table summarizes the outstanding equity awards held by each director as of December 31, 2013:

	Option awards				Stock awards	
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date	Number of shares of stock that have not vested (#)	Market value of shares of stock that have not vested ($)(1)
Angelina M. Galiteva (2)(3)	12,500	12,500	2.60	2/14/2021	25,000	112,500
John N. Hatsopoulos	—	—	—	—	—	—
George N. Hatsopoulos	—	—	—	—	—	—
Ahmed F. Ghoniem (4)(5)	12,500	12,500	2.60	2/14/2021	25,000	112,500
Charles T. Maxwell (6)(7)	12,500	12,500	2.60	2/14/2021	25,000	112,500
Joseph E. Aoun (8)	—	25,000	4.50	12/31/2023	—	—

(1) Market value of shares of Common Stock that have not vested is computed by the Company's most recent private placement of Common Stock on January 17, 2014, which was $4.50 per share.

(2) Includes 25,000 shares of restricted Common Stock at a purchase price of $.004 per share granted on December 13, 2006, with 100% of the shares vesting one year after the Company's initial public offering.

(3) Includes stock option award granted on February 15, 2011, with 25% of the shares vesting on February 15, 2012, and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, provided that Ms. Galiteva serves as a director or consultant to the Company.

(4) Includes stock option award granted on February 15, 2011, with 25% of the shares vesting on February 15, 2012, and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, provided that Mr. Ghoniem serves as a director or consultant to the Company.

(5) Includes 25,000 shares of restricted Common Stock at a purchase price of $.004 per share granted on October 1, 2008, with 100% of the shares vesting 180 days after the Company's initial public offering.

(6) Includes stock option award granted on February 15, 2011, with 25% of the shares vesting on February 15, 2012, and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, provided that Mr. Maxwell serves as a director or consultant to the Company.

(7) Includes 25,000 shares of restricted Common Stock at a purchase price of $.004 per share granted on October 1, 2008, with 100% of the shares vesting 180 days after the Company's initial public offering.
(8) Includes stock option award granted on December 31, 2013, with 25% of the shares vesting on December 31, 2014, and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, provided that Dr. Aoun serves as a director or consultant to the Company.
There have been no other stock awards granted to date and none of such options have been exercised.

2006 Stock Incentive Plan

The Company's 2006 Stock Incentive Plan, or Stock Plan, provides for the grant of stock-based awards to employees, officers and directors of, and consultants or advisors to, the Company and any of its present or future parents, subsidiaries or affiliates. The Stock Plan is included as Exhibit 10.1 hereto.

Under the Stock Plan, the Company may grant stock options, restricted stock and other stock-based awards. As of December 31, 2013, a total of 1,148,000 shares of Common Stock may be issued upon the exercise of options or other awards granted under the Stock Plan.

The Stock Plan is administered by the Board of Directors and the Compensation Committee. Subject to the provisions of the Stock Plan, the Board of Directors and the Compensation Committee each has the authority to select the persons, to whom awards are granted and determine the terms of each award, including the number of shares of Common Stock subject to the award. Payment of the exercise price of an award may be made in cash, in a "cashless exercise" through a broker, or if the applicable stock option agreement permits, shares of Common Stock or by any other method approved by the Board of Directors or Compensation Committee. Unless otherwise permitted by the Company, awards are not assignable or transferable except by will or the laws of descent and distribution.

Upon the consummation of an acquisition of the business of the Company, by merger or otherwise, the Board of Directors shall, as to outstanding awards (on the same basis or on different bases as the Board of Directors shall specify), make appropriate provision for the continuation of such awards by the Company or the assumption of such awards by the surviving or acquiring entity and by substituting on an equitable basis for the shares then subject to such awards either (a) the consideration payable with respect to the outstanding shares of Common Stock in connection with the acquisition, (b) shares of stock of the surviving or acquiring corporation or (c) such other securities or other consideration as the Board of Directors deems appropriate, the fair market value of which (as determined by the Board of Directors in its sole discretion) shall not materially differ from the fair market value of the shares of Common Stock subject to such awards immediately preceding the acquisition. In addition to or in lieu of the foregoing, with respect to outstanding stock options, the Board of Directors may, on the same basis or on different bases as the Board of Directors shall specify, upon written notice to the affected optionees, provide that one or more options then outstanding must be exercised, in whole or in part, within a specified number of days of the date of such notice, at the end of which period such options shall terminate, or provide that one or more options then outstanding, in whole or in part, shall be terminated in exchange for a cash payment equal to the excess of the fair market value (as determined by the Board of Directors in its sole discretion) for the shares subject to such options over the exercise price thereof.

The Board of Directors may at any time provide that any stock options shall become immediately exercisable in full or in part, that any restricted stock awards shall be free of some or all restrictions, or that any other stock-based awards may become exercisable in full or in part or free of some or all restrictions or conditions, or otherwise realizable in full or in part, as the case may be.

The Board of Directors or Compensation Committee may, in its sole discretion, amend, modify or terminate any award granted or made under the Stock Plan, so long as such amendment, modification or termination would not materially and adversely affect the participant.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2013, regarding Common Stock that may be issued under the Company's equity compensation plans.

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in second column)
Equity compensation plans approved by security holders	1,148,000	$ 2.13	58,683
Equity compensation plans not approved by security holders	—	—	—
Total	1,148,000	$ 2.13	58,683

In February 2011, our management conducted an assessment of the risks associated with our compensation policies and practices. This process included a review of our compensation programs, a discussion of the types of practices that could be reasonably likely to create material risks, and an analysis of the potential effects on the Company on related risks as a whole.

Although we reviewed all of our compensation programs, we paid particular attention to programs involving incentive-based payouts and programs that involve our executive officers. During the course of our assessment, we consulted with the Compensation Committee of our Board of Directors.

We believe that our compensation programs are designed to create appropriate incentives without encouraging excessive risk taking by our employees. In this regard, our compensation structure contains various features intended to mitigate risk. For example:

- None of our executive officers receives any performance-based compensation or incentive payments.

- A portion of the compensation package for our sales-based employees consists of commissions for shares sold and installed, which package is designed to link an appropriate portion of compensation to long-term performance, while providing a balanced compensation model overall.

- The Compensation Committee oversees our compensation policies and practices and is responsible for reviewing and approving executive compensation, annual incentive compensation plans applicable to sales employees and other compensation plans.

Our Compensation Committee, in its evaluation, determined that it does not believe that the Company employs any compensation plans or practices that create incentives for employees to deliver short-term profits at the expense of generating systematic risks for the Company. Based on this and the assessment described above, we have concluded that the risks associated with our compensation policies and practices are not reasonably likely to have material adverse effect on the Company.

Compensation Committee Interlocks and Insider Participation

None of our executive officers serve as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our Board of Directors or Compensation Committee. None of the current members of the Compensation Committee of our Board of Directors has ever been one of our employees.

Employment Contracts and Termination of Employment and Change-in-Control Arrangements

None of our executive officers has an employment contract or change-in-control arrangement, other than stock and option awards that contain certain change-in-control provisions such as accelerated vesting due to acquisition. In the event an acquisition that is not a private transaction occurs while the optionee maintains a business relationship with the Company and the option has not fully vested, the option will become exercisable for 100% of the then number of shares as to which it has not vested and such vesting to occur immediately prior to the closing of the acquisition.

The stock and option awards that would vest for each named executive if a change-in-control were to occur are disclosed under our *Outstanding Equity Awards at Fiscal Year-End Table.* Specifically, as of December 31, 2013, Robert A. Panora, our Chief Operating Officer and President, had 62,500 stock options and 138,350 shares of restricted stock that had not vested and Bonnie J. Brown, our Chief Financial Officer, had 6,250 stock options and 12,500 shares of restricted stock that had not vested.

Our stock and option awards contain certain change-in-control provisions. Descriptions of those provisions are set forth below:

Stock Awards Change-in-Control Definition

Change-in-Control shall mean (a) the acquisition in a transaction or series of transactions by any person (such term to include anyone deemed a person under Section 13(d)(3) of the Exchange Act), other than the Company or any of its subsidiaries, or any employee benefit plan or related trust of the Company or any of its subsidiaries, of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 50% or more of the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors; provided a Change-in-Control shall not occur solely as the result of an initial public offering or (b) the sale or other disposition of all or substantially all of the assets of the Company in one transaction or series of related transactions.

Option Awards Change-in-Control Definition

Accelerated vesting due to acquisition. In the event an acquisition that is not a private transaction occurs while the optionee maintains a business relationship with the Company and the option has not fully vested, the option shall become exercisable for 100% of the then number of shares as to which it has not vested, such vesting to occur immediately prior to the closing of the acquisition.

Definitions. The following definitions shall apply to certain terms used in this Section:

Acquisition means (i) the sale of the Company by merger in which the stockholders of the Company in their capacity as such no longer own a majority of the outstanding equity securities of the Company (or its successor); or (ii) any sale of all or substantially all of the assets or capital stock of the Company (other than in a spin-off or similar transaction) or (iii) any other acquisition of the business of the Company, as determined by the Board.

Business relationship means service to the Company or its successor in the capacity of an employee, officer, director or consultant.

Private transaction means any acquisition where the consideration received or retained by the holders of the then outstanding capital stock of the Company does not consist of (i) cash or cash equivalent consideration, (ii) securities which are registered under the Securities Act, or any successor statute or (iii) securities for which the Company or any other issuer thereof has agreed, including pursuant to a demand, to file a registration statement within 90 days of completion of the transaction for resale to the public pursuant to the Securities Act.

Director Independence

Under Rule 5605(b)(1) of the Nasdaq Marketplace Rules, independent directors must comprise a majority of a listed company's board of directors within one year of listing. In addition, Nasdaq Marketplace Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and governance committees be independent. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act, and compensation committee members must also satisfy the independence criteria set forth in Rule 10C under the Exchange Act. Under Nasdaq Marketplace Rule 5605(a)(2), a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered to be independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

Our Board of Directors intends to review its composition, the composition of its committees and the independence of each director according to the independence standards established by applicable SEC rules and the Nasdaq Marketplace Rules. As part of its review, our Board of Directors will consider the relationships that each non-employee director has with our company and all other facts and circumstances our Board of Directors deems relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

PRINCIPAL STOCKHOLDERS

The table below sets forth information with respect to the beneficial ownership of our common stock as of March 31, 2014 by:

- each of our named executive officers;
- all of our directors and executive officers as a group; and
- each person, or group of affiliated persons, who is known to us to beneficially own more than 5% of our outstanding shares of Common Stock.

Except as otherwise indicated, to our knowledge, the persons named in the table below have sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by them, subject to community property laws, where applicable, and the address for each of the named directors and executive officers is 45 First Avenue, Waltham, MA 02451.

The number of shares beneficially owned by each stockholder is determined under rules promulgated by the SEC. The information does not necessarily indicate beneficial ownership for any other purpose. Under those rules, the number of shares of Common Stock deemed outstanding includes shares issuable upon exercise of stock options held by the respective person or group that may be exercised within 60 days. For purposes of calculating each person's or group's percentage ownership, shares of Common Stock issuable pursuant to stock options exercisable within 60 days after December 31, 2013 are reflected in the table below and included as outstanding and beneficially owned for that person or group but are not treated as outstanding for the purpose of computing the percentage ownership of any other person or group. The percentages of shares outstanding provided in the table are based on a total of 15,161,600 shares of our common stock outstanding on March 31, 2014. For purposes of the table below, we have assumed shares of Common Stock will be sold by us in this offering and all shares offered in the secondary offering will be sold by the selling stockholders.

	Shares Beneficially Owned Prior to this Offering		**Shares Beneficially Owned After this Offering**	
Directors, Executive Officers and 5% Stockholders	**Number (1)**	**Percent**	**Number (1)**	**Percent**
5% Stockholders:				
John N. Hatsopoulos (1)	3,718,939	24.5%	3,718,939	21.7%
George N. Hatsopoulos (2)	3,554,651	23.5%	3,554,651	20.7%
Michaelson Capital Special Finance Fund LP (3)	1,000,001	6.4%	1,000,001	5.8%
RBC Cees Nominees Limited (4)	904,105	6%	904,105	5.3%
Joseph J. Ritchie (5)	896,613	5.9%	896,613	5.2%
Directors and Officers:				
John N. Hatsopoulos (1)	3,718,939	24.5%	3,718,939	21.7%
George N. Hatsopoulos (2)	3,554,651	23.5%	3,554,651	20.7%
Robert A. Panora (6)	257,100	1.7%	225,850	1.5%
Bonnie J. Brown (7)	112,500	0.7%	106,250	0.7%
Charles T. Maxwell (8)	93,750	0.6%	87,500	0.5%
Angelina M. Galiteva (9)	68,750	0.4%	62,500	0.4%
Ahmed F. Ghoniem (10)	43,750	0.3%	37,500	0.3%
Joseph E. Aoun	—	—	—	—
All executive officers and directors as a group (8 persons)	7,849,440	51.8%	7,849,440	45.7%

(1) Includes:(a) 2,135,210 shares of Common Stock held by J&P Enterprises LLC for the benefit of: (1) John N. Hatsopoulos and (2) Patricia L. Hatsopoulos. John N. Hatsopoulos is the Executive Member of J&P Enterprises LLC and has voting and investment power; (b) 593,770 shares of Common Stock held by John N. Hatsopoulos and his wife, Patricia L. Hatsopoulos, as joint tenants with rights of survivorship, each of whom share voting and investment power; and (c) 989,859 shares of Common Stock held by The John N. Hatsopoulos Family Trust 2007 for the benefit of: (1) Patricia L. Hatsopoulos, (2) Alexander J. Hatsopoulos, and (3) Nia Marie Hatsopoulos, for which Dr. George N. Hatsopoulos and Ms. Patricia L. Hatsopoulos are the trustees; and (d) 100 shares of Common Stock held by Patricia L. Hatsopoulos, John's spouse.

(2) Includes: (a) 1,304,651 shares of Common Stock, directly held by Dr. George N. Hatsopoulos; (b) 2,250,000 shares of Common Stock held by The Hatsopoulos Family 2012 Trust.This amount does not include (a) 234,049 shares held in the 1994 Hatsopoulos Family Trust for the benefit of Marina Hatsopoulos Bornhorst, for which Ms. Daphne Hatsopoulos and Mr. Gordon Erhlich are the trustees. The trusts are for the benefit of Dr. Hatsopoulos's adult children. Dr. Hatsopoulos disclaims beneficial ownership of the shares held by this trust. The percentage of shares owned after the offering assumes that Dr. Hatsopoulos does not sell any shares in the secondary offering.

(3) Includes: (a) 444,445 shares of Common Stock purchased December 23, 2013; and (b) 555,556 shares of Common Stock issuable upon conversion of $3,000,000 principal amount of 4% convertible debentures.

(4) Includes 904,105 shares of Common Stock purchased in August 2010 and November 2011 held by RBC cees Nominees Ltd. The address of RBC cees Nominees Ltd. is 19-21 Broad Street, St. Hellier, Jersey JE1 3PB, Channel Islands.

(5) Includes 896,613 shares of Common Stock, directly held by Mr. Ritchie. The address of Mr. Ritchie is 2100 Enterprise Avenue, Geneva, IL 60134.

(6) Includes: (a) 163,350 shares of Common Stock, directly held by Mr. Panora, and (b) options to purchase 93,750 shares of Common Stock exercisable within 60 days of March 31, 2014.

(7) Includes: (a) 12,500 shares of Common Stock, directly held by Ms. Brown, and (b) options to purchase 100,000 shares of Common Stock exercisable within 60 days of March 31, 2014.

(8) Includes: (a) 75,000 shares of Common Stock, directly held by Mr. Maxwell, and (b) options to purchase 18,750 shares of Common Stock exercisable within 60 days of March 31, 2014.

(9) Includes: (a) 50,000 shares of Common Stock, directly held by Ms. Galiteva and (b) options to purchase 18,750 shares of Common Stock exercisable within 60 days of March 31, 2014.

(10) Includes: (a) 25,000 shares of Common Stock, directly held by Mr. Ghoniem, and (b) options to purchase 18,750 shares of Common Stock exercisable within 60 days of March 31, 2014.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The Company has five affiliated companies: (a) American DG Energy, a publicly traded company that distributes, owns and operates on-site energy systems that produce electricity, hot water, heat, and cooling in the United States; (b) EuroSite Power, a publicly traded company that distributes, owns, and operates on-site energy systems that produce electricity, hot water, heat, and cooling in the United Kingdom and Europe; (c) GlenRose Instruments, a company that provides radiological services, operates a radiochemistry laboratory network, and provides radiological characterization and analysis, hazardous, radioactive, and mixed waste management, facility, environmental, safety, and industrial hygiene health management; (d) Pharos, a private company that offers investment services in the healthcare sector; and (e) Levitronix Technologies LLC, or Levitronix, a worldwide leader in magnetically levitated bearingless motor technology, specializing in supplying medical blood pumps to the medical community and ultra-pure fluid handling devices for microelectronics, life science, and industrial applications.

These companies are affiliates because several of the major stockholders of those companies have a significant ownership position in the Company. American DG Energy, EuroSite Power, GlenRose Instruments, Pharos, and Levitronix do not own any shares of the Company, and the Company does not own any shares of American DG Energy, EuroSite Power, GlenRose Instruments, Pharos, or Levitronix. The businesses of GlenRose Instruments, Pharos, and Levitronix are not related to the business of the Company.

American DG Energy, EuroSite Power, GlenRose Instruments, Pharos and Levitronix are affiliated companies by virtue of common ownership. The common stockholders include:

- John N. Hatsopoulos, the Company’s Chief Executive Officer who is also: (a) the Chief Executive Officer and a director of American DG Energy and holds 10.7% of the company’s common stock; (b) the Chairman of EuroSite Power; (c) a director of Ilios and holds 7.2% of the company’s common stock; and (d) the Chairman of GlenRose Instruments and holds 15.7% of the company’s common stock.

- Dr. George N. Hatsopoulos, who is John N. Hatsopoulos’ brother, and is also: (a) a director of American DG Energy and holds 13.6% of the company’s common stock; (b) an investor in Ilios and holds 3.1% of the company’s common stock; (c) an investor of GlenRose Instruments and holds 15.7% of the company’s common stock; (d) an investor of Pharos and may be deemed to hold 24.4% of the company’s common stock; and (e) a director and an investor of Levitronix and may be deemed to hold 21.4% of the company’s common stock.

Additionally, the following related persons had or may have a direct or indirect material interest in our transactions with our affiliated companies:

- Barry J. Sanders, who is: (a) the President and Chief Operating Officer of American DG Energy, (b) the Chief Executive Officer and a director of EuroSite Power and (c) the Chairman of Ilios.

- Anthony S. Loumidis, the Company’s former Vice President and Treasurer who is: (a) the former Chief Financial Officer Secretary and Treasurer of American DG Energy, (b) the former Chief Financial Officer Secretary and Treasurer of EuroSite Power, (c) the former Chief Financial Officer Secretary and Treasurer of GlenRose Instruments and (d) the former Treasurer of Ilios.

American DG Energy has sales representation rights to the Company’s products and services in New England. Revenue from sales of cogeneration and chiller systems, parts and service to American DG Energy during the years ended December 31, 2013 and 2012 amounted to $758,930 and $3,795,666, respectively.

On October 20, 2009, American DG Energy, in the ordinary course of its business, signed a Sales Representative Agreement with Ilios to promote, sell and service the Ilios high-efficiency heating products, such as the high efficiency water heater, in the marketing territory of the New England states, including Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, and Maine. The marketing territory also includes all of the nations in the European Union. The initial term of this Agreement is for five years, after which it may be renewed for successive one-year terms upon mutual written agreement. American DG Energy has not yet sold any products under this agreement and therefore, no amounts have been required to be paid.

On September 24, 2001, the Company entered into subscription agreements with investors for the sale of convertible debentures. The primary investors were George N. Hatsopoulos, who subscribed for debentures having an initial principal amount of $200,000; the John N. Hatsopoulos 1989 Family Trust for the benefit of Nia Marie Hatsopoulos, or the Nia Hatsopoulos Trust, which subscribed for debentures having an initial principal amount of $50,000; and the John N. Hatsopoulos 1989 Family Trust for the benefit of Alexander John Hatsopoulos, or the Alexander Hatsopoulos Trust, which subscribed for debentures having an initial principal amount of $50,000. Nia Hatsopoulos and Alexander Hatsopoulos are John N. Hatsopoulos' adult children. John N. Hatsopoulos disclaims beneficial ownership of the shares held by these trusts. The debentures accrue interest at a rate of 6% per annum and were due on September 24, 2007. The debentures are convertible, at the option of the holder, into shares of Common Stock at a conversion price of $1.20 per share.

On September 24, 2007, George N. Hatsopoulos, the Nia Hatsopoulos Trust and the Alexander Hatsopoulos Trust, holding debentures representing a majority of the then-outstanding principal amount of the debentures, agreed to extend the debenture term to September 24, 2011.

On May 11, 2009, George N. Hatsopoulos converted $109,033 of the principal amount under the debentures held by him, together with accrued interest in the amount of $90,967 into 400,000 shares of Common Stock of Ilios, the Company's then newly-formed subsidiary, which were previously held by the Company, at a conversion price of $0.50 per share. The difference between the Company's purchase price of the Ilios shares and the amount of debt forgiveness was recorded as additional paid-in capital.

On September 30, 2009, Joseph J. Ritchie elected to convert the outstanding principal amount under the debenture held by him, $30,000, together with accrued interest of $14,433, into 37,028 shares of the Company's Common Stock at a conversion price of $1.20 per share.

On September 24, 2011, George N. Hatsopoulos, the Nia Hatsopoulos Trust and the Alexander Hatsopoulos Trust, holding debentures representing a majority of the then-outstanding principal amount of the debentures, agreed to extend the term of the debentures to September 24, 2013 and requested that accrued interest in the aggregate amount of approximately $72,960 be converted into the Company's Common Stock at $2.00 per share (which was the average price of the Company's stock between September 24, 2001 and September 24, 2011). As a result, the Company issued 6,474 shares of Common Stock to George N. Hatsopoulos, 15,003 shares of Common Stock to the Nia Hatsopoulos Trust and 15,003, shares of Common Stock to the Alexander Hatsopoulos Trust.

On September 30, 2012, the remaining principal amount under the debentures held by the Nia Hatsopoulos Trust and the Alexander Hatsopoulos Trust, including the applicable accrued interest, was converted into 42,620 shares of Common Stock issued to each of the Nia Hatsopoulos Trust and the Alexander Hatsopoulos Trust.

On September 20, 2013, the term of the debentures held by George N. Hatsopoulos was extended to October 31, 2013. On October 18, 2013, George N. Hatsopoulos elected to convert the outstanding principal balance of the debenture held by him of $90,967 into 75,806 shares of the Company's Common Stock at a conversion price of $1.20 per share. In addition, Mr. Hatsopoulos requested that the accrued interest earned in 2012 in the amount of $6,913 be converted into 2,161 shares of the Company's Common Stock at a conversion price of $3.20 per share and that the accrued interest earned on or after January 1, 2013 in the amount of $4,366 be converted into 970 shares of the Company's Common Stock at a conversion price of $4.50 per share.

On May 11, 2009, John Hatsopoulos converted an aggregate of $427,432 in principal amount under demand notes held by him, together with accrued interest in the amount of $72,568 into 1,000,000 shares of Common Stock of Ilios, which were previously held by the Company, at a conversion price of $0.50 per share. The difference between the Company's purchase price of the Ilios shares and the amount of debt forgiveness was recorded as additional paid-in capital.

On September 10, 2008, the Company entered into a demand note agreement with John N. Hatsopoulos in the principal amount of $250,000 at an annual interest rate of 5%. On September 7, 2011, the Company entered into an additional demand note agreement with John N. Hatsopoulos, in the principal amount of $750,000 at an annual interest rate of 6%. On November 30, 2012, the Company entered into an additional demand note agreement with John N. Hatsopoulos in the principal amount of $300,000 at an annual interest rate of 6%. On October 3, 2013, the Company signed a demand note for $450,000, which accrues interest at 6%, to John N. Hatsopoulos, the Company's Chief Executive Officer. Unpaid principal and interest on the demand notes are due upon demand. On January 6, 2014 these demand notes were paid in full with accrued interest.

On March 25, 2013, the Company entered into a Revolving Line of Credit Agreement, or the Credit Agreement, with John N. Hatsopoulos, our Chief Executive Officer. Under the terms of the Credit Agreement, as amended on August 13, 2013, Mr. Hatsopoulos has agreed to lend the Company up to an aggregate of $1,500,000 from time to time, at the written request of the Company. Any amounts borrowed by the Company pursuant to the Credit Agreement will bear interest at the Bank Prime Rate as quoted from time to time in the Wall Street Journal plus 1.5% per year. Repayment of the principal amount borrowed pursuant to the Credit Agreement will be due on March 1, 2014. In addition, the company may prepay accrued interest, provided that prepayment may not be made prior to January 1, 2014. As of December 31, 2013 the Company has borrowed $1,200,000 pursuant to the Credit Agreement. On January 6, 2014, the Company repaid the then outstanding principal balance of $1,200,000 together with accrued interest of $25,347.

If the Company's existing resources, including cash and cash equivalents and future cash flows from operations are not sufficient to meet the working capital requirements of the Company's existing business through 2014, John Hatsopoulos has committed to provide any shortfall in the form of a demand note.

On March 26, 2014, the Company entered into a Revolving Line of Credit Agreement, or the 2014 Credit Agreement, with John N. Hatsopoulos, our Chief Executive Officer. Under the terms of the 2014 Credit Agreement, Mr. Hatsopoulos has agreed to lend the Company up to an aggregate of $3,500,000 from time to time, at the written request of the Company. Any amounts borrowed by the Company pursuant to the 2014 Credit Agreement will bear interest at the Bank Prime Rate as quoted from time to time in the Wall Street Journal plus 1.5% per year. Repayment of the principal amount borrowed pursuant to the 2014 Credit Agreement will be due on March 25, 2015.

For additional disclosure on the Company's debt see *Note 7 – Demand notes payable, convertible debentures and line of credit – related party.*

John N. Hatsopoulos' salary is $1.00 per year. On average, Mr. Hatsopoulos spends approximately 50% of his business time on the affairs of the Company; however such amount varies widely depending on the needs of the business and is expected to increase as the business of the Company develops.

On July 1, 2012 the Company signed a Facilities and Support Services Agreement, or the Facilities and Support Services Agreement, with American DG Energy for a period of one year, renewable annually, on July 1st, by mutual agreement. Under this agreement, the Company provides American DG Energy with certain office and business support services and also provides pricing based on a volume discount depending on the level of American DG Energy purchases of cogeneration and chiller products. For certain sites, American DG Energy hires the Company to service its chiller and cogeneration products. The Company also provides office space and certain utilities to American DG Energy based on a monthly rate set at the beginning of each year. Also, under this agreement, American DG Energy has sales representation rights to the Company's products and services in New England.

On July 1, 2013 the Company entered into the First Amendment to the Facilities, Support Services and Business Agreement, or the First Amendment, with American DG Energy. The First Amendment renewed the term of the Facilities and Support Services Agreement for a one year period, beginning on July 1, 2013. The First Amendment also increased the space provided to the Company by Tecogen from approximately 3,071 square feet to 3,282 square feet and from six offices to nine offices. Under the First Amendment, the amount that American DG Energy will pay the Company for the space and services that it provides under the Facilities and Support Services Agreement increased to $6,495 per month. The First Amendment further clarifies that the total sales thresholds for volume discounts are to be met during a calendar year and that American DG Energy's representation rights may be terminated by either the Company or American DG Energy upon 60 days' notice, without cause.

On November 12, 2013, the Company entered into the Second Amendment to the Facilities, Support Services and Business Agreement, or the Second Amendment. The Second Amendment modified the exclusivity arrangement of the Facilities and Support Services Agreement between the Company and American DG Energy to state that in New England States American DG Energy shall have the right to purchase cogeneration products directly from the Company as described in the agreement so long as American DG Energy intends to retain long-term ownership of the cogeneration product and utilize it for the production and sale of electricity and thermal energy. The Company will not sell its products to parties for which the intended use is to earn revenue from metered energy to third parties other than American DG Energy. In cases where American DG Energy has the opportunity to sell cogeneration products to an unaffiliated party in the New England States and where the Company has no other appointed representation in that specific region, American DG Energy may buy/resell the cogeneration product as specified under the terms of the Facilities and Support Services Agreement. If, however, the Company has appointed a local exclusive representative in that specific New England region, American DG Energy will defer to the local representative for pricing and other specific details for working cooperatively.

In July 2013, the Company obtained a letter of credit for approximately $1.1 million in connection with a performance guarantee for certain of its turnkey installations. This letter of credit was collateralized by $1.055 million in personal funds by John N. Hatsopoulos. If Mr. Hatsopoulos had not provided this collateral, the Company may have been required to provide the collateral itself, and may not have been able to do so.

On November 12, 2013, the Company entered into the Second Amendment to the Facilities, Support Services and Business Agreement, or the ADG Amendment, American DG Energy. The Amendment modifies the exclusivity arrangement of the Facilities, Support Services and Business Agreement between the Company and American DG Energy.

On November 12, 2013, Ilios entered into the First Amendment to the Sales Representative Agreement with American DG Energy Inc. The Amendment modifies and defines territories covered under the Agreement.

The Company subleases portions of its corporate offices and manufacturing facility to sub-tenants under annual sublease agreements. For the years ended December 31, 2013 and 2012, the Company received $113,784 and $158,898, respectively, from American DG Energy, Levitronix LLC and Alexandros Partners LLC. In addition, for the years ended December 31, 2013 and 2012 the Company received from the same companies, $90,348 and $101,218, respectively, to offset common operating expenses incurred in the administration and maintenance of its corporate office and warehouse facility.

Our headquarters is located in Waltham, Massachusetts, and consists of approximately 43,000 square feet of leased space, of which Tecogen occupies approximately 34,600 square feet of manufacturing, storage and office space. We sub-lease the remaining space to Ilios, American DG Energy, and other tenants. Our lease, with an original expiration date of March 31, 2014, was renewed for an additional ten years and will expire March 31, 2024. We believe that our facilities are appropriate and adequate for our current needs.

Revenue from sales of cogeneration and chiller systems, parts and service to American DG Energy during the years ended December 31, 2013 and 2012 amounted to $758,930 and $3,795,666, respectively. In addition, Tecogen pays certain operating expenses, including benefits and insurance, on behalf of American DG Energy. Tecogen was reimbursed for these costs. As of December 31, 2013 the total amount due to American DG Energy was $119,667. As of December 31, 2012, the total amount due from American DG Energy was $70,811.

For additional disclosure related to our related parties and related party transactions see Note 13 — Related party transactions to our financial statements included in this prospectus.

Policies and Procedures for Related Person Transactions

Our Board of Directors will adopt a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover any transaction, arrangement, or relationship, or any series of similar transactions, arrangements, or relationships, in which we were or are to be a participant where the amount involved exceeds $120,000, and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness, and employment by us of a related person.

Any related person transaction proposed to be entered into by us will be required to be reported to our Chief Financial Officer and will be reviewed and approved by the Audit Committee in accordance with the terms of the policy, prior to effectiveness or consummation of the transaction, whenever practicable. If our Chief Financial Officer determines that advance approval of a related person transaction is not practicable under the circumstances, the Audit Committee will review and, in its discretion, may ratify the related person transaction at the next meeting of the Audit Committee, or at the next meeting following the date that the related person transaction comes to the attention of our Chief Financial Officer. Our Chief Financial Officer, however, may present a related person transaction arising in the time period between meetings of the Audit Committee to the chair of the Audit Committee, who will review and may approve the related person transaction, subject to ratification by the Audit Committee at the next meeting of the Audit Committee.

In addition, any related person transaction previously approved by the Audit Committee or otherwise already existing that is ongoing in nature will be reviewed by the Audit Committee annually to ensure that such related person transaction has been conducted in accordance with the previous approval granted by the Audit Committee, if any, and that all required disclosures regarding the related person transaction are made.

Transactions involving compensation of executive officers will be reviewed and approved by the Compensation Committee in the manner specified in the charter of the Compensation Committee.

A related person transaction reviewed under this policy will be considered approved or ratified if it is authorized by the Audit Committee in accordance with the standards set forth in our related person transaction policy after full disclosure of the related person's interests in the transaction. As appropriate for the circumstances, the Audit Committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of business;
- whether the transaction with the related person is proposed to be, or was, entered into on terms no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to stockholders in light of the circumstances of the particular transaction.

The Audit Committee will review all relevant information available to it about the related person transaction. The Audit Committee may approve or ratify the related person transaction only if the Audit Committee determines that, under all of the circumstances, the transaction is in, or is not inconsistent with, our best interests. The Audit Committee may, in its sole discretion, impose conditions as it deems appropriate on us or the related person in connection with approval of the related person transaction.

DESCRIPTION OF COMMON STOCK

General

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and bylaws are summaries and are qualified by reference to the charter and the bylaws that will be in effect upon the effectiveness of this registration statement. These documents are filed as exhibits hereto.

Upon the effectiveness of this registration statement, our authorized capital stock will consist of 100,000,000 shares of Common Stock, par value $0.001 per share. Information concerning our outstanding Common Stock and stock options is contained in the section entitled "Outstanding Securities and Shares Eligible for Future Sale."

The following description summarizes information about our capital stock. You can obtain more comprehensive information about our capital stock by reviewing our certificate of incorporation and bylaws as well as the Delaware General Corporation Law.

Common Stock

Voting Rights. Each holder of Common Stock is entitled to one vote per share on all matters properly submitted to a vote of the stockholders, including the election of directors. Our charter will not provide for cumulative voting rights. Because of this, but subject to the rights of any then outstanding shares of preferred stock, the holders of a majority of the shares of Common Stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose. An election of directors by our stockholders is determined by a plurality of the votes cast by stockholders entitled to vote on the election.

Dividends. Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of Common Stock are entitled to receive dividends, if any, as may be declared from time to time by our Board of Directors out of legally available funds.

Liquidation. In the event of our liquidation, dissolution or winding up, holders of Common Stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Rights and Preferences. Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock.

Delaware Anti-Takeover Law and Charter and Bylaws Provisions

Delaware Anti-Takeover Law. We are subject to Section 203 of the Delaware General Corporation Law. Section 203 of that law generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our Board of Directors, the business combination is approved in a prescribed manner or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which it became an interested stockholder. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Certificate of Incorporation and Bylaws. Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change of control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock if and when it becomes tradable. Among other things, our charter and bylaws:

- authorize the issuance of "blank check" preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- eliminate the ability of stockholders to call a special meeting of stockholders; and
- establish advance notice requirements for nominations for election to the Board of Directors or for proposing matters that can be acted upon at stockholder meetings.

The amendment of any provisions of our charter by the stockholders would require the approval of the holders at least two-thirds of our then outstanding Common Stock. Our by-laws may be amended or repealed by a majority vote of our Board of Directors or by the affirmative vote of the holders of at least two-thirds of our then outstanding Common Stock.

NASDAQ Capital Market

We have applied to list our common stock on the NASDAQ Capital Market on the effectiveness of this registration statement.

Authorized but Unissued Shares

The authorized but unissued shares of Common Stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by regulatory authorities. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved Common Stock and preferred stock could make it more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be VStock Transfer LLC.

OUTSTANDING SECURITIES AND SHARES ELIGIBLE FOR FUTURE SALE

Immediately prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of Common Stock in the public market could adversely affect prevailing market prices. The Company does not have any lock-up agreements or registration rights agreements requiring future registration of our common stock.

Outstanding Common Stock

As of March 31, 2014 there were 246 holders of record of our common stock. See “Principal Stockholders” for information on the holders of our common stock. Also see “Description of Securities” for a description of our outstanding and issued capital stock.

Stock Options

As of March 31, 2014, we had 1,186,325 options outstanding under our incentive stock plan at a weighted average exercise price of $2.22. As of such date, 812,313 of those options were exercisable.

Warrants

As of March 31, 2014, there were no warrants outstanding.

SEC Rules Governing Resales of our common stock

The shares of our common stock covered by this prospectus are freely transferable without restriction. In addition, there are two SEC rules that permit the resale of our common stock held by our affiliates and the resale of Common Stock sold in private placements that are not covered by this prospectus.

Rule 144

In general, pursuant to Rule 144, under the Securities Act, as currently in effect, a person (or persons whose shares are aggregated) who is not deemed to have been an affiliate of ours at any time during the three months preceding a sale, and who has beneficially owned restricted securities within the meaning of Rule 144 for a least six months (including certain periods of consecutive ownership of preceding non-affiliated holders) would be entitled to sell those shares, subject only to the availability of current public information about us. Under Rule 144, a person who is not deemed to have been one of our affiliates at any time during the 3 months preceding a sale, and who has beneficially owned the shares proposed to be sold for at least one year is entitled to sell the shares without restriction.

On the other hand, our affiliates or persons selling shares on behalf of our affiliates who own shares that were acquired from us or an affiliate of ours at least six months prior to the proposed sale are entitled to sell within any three-month period beginning 90 days after the date of this prospectus, a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 151,566 shares of our common stock estimated as of the date of this prospectus; or
- The average weekly trading volume of our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale, or if no such notice is required, the date of receipt of the order to execute the transaction by a broker or the execution of the transaction directly with a market maker.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 provides that the shares of Common Stock acquired upon the exercise of currently outstanding options or other rights granted under our equity plans may be resold by persons, other than affiliates, restricted only by the manner of sale provisions of Rule 144, and by affiliates in accordance with Rule 144 without compliance with its one-year minimum holding period.

Shares Eligible for Future Sale

Based on the number of shares of Common Stock outstanding as of March 31, 2014, upon the closing of this offering:

- The shares sold in this offering will be available for sale without restriction;

- The 2,028,145 shares registered in a secondary offering will be available for sale without restriction;

- 5,725,034 shares will be held by non-affiliates for more than six months and will be available for sale without restriction;

- 5,600 shares will be held by non-affiliates for less than six months and will become available for sale without restriction once they are held for six months; and

- 7,849,440 shares will be held by affiliates, of which 25,000 shares will be held by affiliates for less than six months and will become available for sale under Rule 144 once they are held for six months, and 7,824,440 shares are available for sale under Rule 144 or Rule 701, as described above.

On February 6, 2014, in order to satisfy our contractual obligations to certain investors in a private placement, we filed a registration statement on Form S-1 with the SEC seeking to register 2,028,145 shares of our common stock for resale or other disposition by the selling stockholders named therein. Once the registration statement for the secondary offering has been declared effective by the SEC, the shares offered thereby will be available for sale without restriction. None of the selling stockholders in the secondary offering will be subject to lock-up agreements in connection with this offering.

Lock-up Agreements

Our officers, directors, employees, option holders and stockholders owning more than 5% of our outstanding common stock have agreed, subject to certain exceptions, for a period of 180 days after the date of this prospectus, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of our common stock or any securities convertible into or exchangeable for shares of our common stock either owned as of the date hereof or thereafter acquired without the prior written consent of the Placement Agent. The Placement Agent may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

PLAN OF DISTRIBUTION

Scarsdale Equities LLC, which we refer to as the Placement Agent, has agreed to act as the exclusive placement agent in connection with this offering subject to the terms and conditions of a placement agent agreement, dated . The Placement Agent may engage selected dealers to assist in the placement of the shares. The Placement Agent is not purchasing or selling any shares offered by this prospectus, nor is it required to arrange the purchase or sale of any specific number or dollar amount of the shares, but has agreed to use its commercially reasonable efforts to arrange for the sale of all of the shares offered hereby. We will enter into subscription agreements directly with investors in connection with this offering and we may not sell the entire amount of shares offered pursuant to this prospectus. The price per share has been determined based upon arm's-length negotiations between the investors and us.

The Placement Agent proposes to arrange for the sale to one or more investors of the shares offered pursuant to this prospectus through direct subscription agreements between the investors and us.

Commissions and Expenses

We have agreed to pay the Placement Agent an aggregate cash placement fee equal to 6.75% of the gross proceeds in this offering.

The following table shows the per share and total cash Placement Agent's fees we will pay to the Placement Agent in connection with the sale of the shares offered pursuant to this prospectus assuming the purchase of all of the shares offered hereby:

Per Share	$
Total	$

Because there is no minimum offering amount required as a condition to closing in this offering, the actual total offering commissions, if any, are not presently determinable and may be substantially less than the maximum amount set forth above. We have also agreed to reimburse the Placement Agent for its reasonable out-of-pocket expenses in connection with the offering, including the reasonable legal fees and disbursements of its counsel subject to a cap of $50,000 for such legal fees and disbursements. We have placed $35,000 in an escrow account to partially secure our expense reimbursement obligation.

Our obligation to issue and sell shares to the investors is subject to the conditions set forth in the subscription agreements, which may be waived by us at our discretion. An investor's obligation to purchase shares is subject to the conditions set forth in his or her subscription agreement as well, which may also be waived.

We currently anticipate that the sale of the shares will be completed on or about , 2014. We estimate the total offering expenses of this offering that will be payable by us, excluding placement agent fees, will be approximately $450,000, which includes legal and printing costs, various other fees and reimbursement of the Placement Agent's expenses. At the closing, The Depository Trust Company will credit the shares of common stock to the respective accounts of the investors.

No Public Market

Prior to this offering, there has not been a public market for our common stock, and the public offering price for our common stock will be determined through negotiations between us and the investors in the offering. Among the factors to be considered in these negotiations will be:

- our status of business development;
- our new business structure and operations;
- prevailing market conditions, including the history and prospects for our industry;
- market valuations of other companies that we and the Placement Agent believe to be comparable to us;

- our future prospects and the experience of our management;
- our capital structure; and
- other factors deemed relevant.

No assurance can be given that the public offering price will correspond to the price at which our common stock will trade in the public market subsequent to this offering or that an active trading market for our common stock will develop and continue after this offering. See "Determination of Offering Price" in this prospectus for more information regarding the determination of the public offering price.

Indemnification

We have agreed to indemnify the Placement Agent against liabilities under the Securities Act. We have also agreed to contribute to payments the Placement Agent may be required to make in respect of such liabilities.

NASDAQ Listing

We have applied to list our common stock on the NASDAQ Capital Market under the symbol "TGEN".

Lock-up Agreements

We, our officers, directors, employees, option holders and stockholders owning more than 5% of our outstanding common stock have agreed, subject to certain exceptions, for a period of 180 days after the date of this prospectus, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of our common stock or any securities convertible into or exchangeable for shares of our common stock either owned as of the date hereof or thereafter acquired without the prior written consent of the Placement agent. This 180-day period may be extended if (1) during the last 17 days of the 180-day period, we issue an earnings release or material news or a material event regarding us occurs or (2) prior to the expiration of the 180-day period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 30-day period, then the period of such extension will be 18-days, beginning on the issuance of the earnings release or the occurrence of the material news or material event. If after any announcement described in clause (2) of the preceding sentence, we announce that we will not release earnings results during the 16-day period, the lock-up period shall expire the later of the expiration of the 180-day period and the end of any extension of such period made pursuant to clause (1) of the preceding sentence. The Placement Agent may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

Electronic Distribution

This prospectus may be made available in electronic format on websites or through other online services maintained by the Placement Agent, or by an affiliate of the Placement Agent. Other than this prospectus in electronic format, the information on the Placement Agent's website and any information contained in any other website maintained by the Placement Agent is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the Placement Agent, and should not be relied upon by investors.

The foregoing does not purport to be a complete statement of the terms and conditions of the placement agent agreement and subscription agreements. A copy of the placement agent agreement and the form of subscription agreement with the investors are included as exhibits to the registration statement of which this prospectus is a part. See "Where You Can Find Additional Information" on page 84.

Regulation M Restrictions

The Placement Agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the shares sold by it while acting as a principal might be deemed to be an underwriting discount or commission under the Securities Act. As an underwriter, the Placement Agent would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares by the Placement Agent acting as principal. Under these rules and regulations, the placement agent may not:

- engage in any stabilization activity in connection with our securities; and
- bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Other

Ardour Capital Investments, LLC, which we refer to as the Selected Dealer, entered into a Selected Dealers Agreement with the Placement Agent in connection with this offering. From time to time, the Placement Agent, the Selected Deal and their respective affiliates have provided, and may in the future provide, various investment banking, financial advisory and other services to us and our affiliates for which services they have received, and may in the future receive, customary fees. In the course of their businesses, the Placement Agent, the Selected Dealer and their respective affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the Placement Agent, the Selected Dealer and their respective affiliates may at any time hold long or short positions in such securities or loans. Except for services provided in connection with this offering, and except as described below, the Placement Agent, the Selected Dealer and their respective affiliates have not provided any investment banking or other financial services to us during the 180-day period preceding the date of this prospectus and we do not expect to retain any placement agent to perform any investment banking or other financial services for us for at least 90 days after the date of this prospectus. In November 2013, the Placement Agent acted as our placement agent in connection with certain private placements of our securities for which we paid the Placement Agent $276,553 in commissions. In December 2013, the Selected Dealer acted as our placement agent in connection with certain private placements of our securities for which we paid the Selected Dealer $255,000 in commissions.

Certain Relationships

Francis A. Mlynarczyk, Jr., the Registered Principal and Managing Member of the Placement Agent, is also a director of American DG Energy, one of our affiliated entities. In addition, Mr. Mlynarczyk through an investment account, IRA FBO Francis A. Mlynarczyk, Jr. Pershing LLC as Custodian, beneficially owns 5,600 shares of our common stock.

EXPERTS

The consolidated financial statements as of December 31, 2013 and 2012 and for the years then ended, appearing in this registration statement and prospectus have been audited by McGladrey LLP, an independent registered public accounting firm, as stated in their report appearing elsewhere herein, and are included in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

No expert or counsel named in this prospectus as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the Common Stock was employed on a contingency basis, or had, or is to receive, any interest, directly or indirectly, in our Company or any of our parents or subsidiaries. Nor was any such person connected with us or any of our parents or subsidiaries, if any, as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.

LEGAL MATTERS

The validity of our common stock offered under this prospectus will be passed upon by Sullivan & Worcester LLP, Boston, Massachusetts. Lowenstein Sandler LLP, New York, New York, is acting as counsel to the Placement Agent in connection with this offering.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1, including exhibits and schedules, under the Securities Act with respect to the shares of common stock to be sold in this offering. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules that are part of the registration statement. For further information about us and our securities, you should refer to the registration statement.

We are subject to the information and reporting requirements of the Exchange Act and are required to file annual, quarterly, and current reports, proxy statements, and other information with the SEC. You may read, without charge, and copy, at prescribed rates, all or any portion of the registration statement or any reports, statements, or other information in the files at the public reference room at the SEC's principal office at 100 F Street NE, Washington, D.C., 20549, Room 1580. You may request copies of these documents, for a copying fee, by writing to the SEC. You may call the SEC at 1-800-SEC-0330 for further information on the operation of its public reference room. Our filings, including the registration statement, are also available to you on the Internet website maintained by the SEC at *http://www.sec.gov*.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

The Financial Statements included below are stated in U.S. dollars and are prepared in accordance with U.S. Generally Accepted Accounting Principles. The following table summarizes the relevant financial data for our business and should be read with our financial statements, which are included in this registration statement.

Audited Financial Statements

Report of Independent Registered Public Accounting Firm McGladrey LLP	F-2
Consolidated Balance Sheets as of December 31, 2013 and 2012	F-3
Consolidated Statements of Operations for the years ended December 31, 2013 and 2012	F-4
Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2013 and 2012	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2013 and 2012	F-6
Notes to Audited Consolidated Financial Statements	F-8

All other schedules for which provision is made in the applicable accounting regulations of the SEC are not required under the related instructions, or are inapplicable, and therefore have been omitted.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of

Tecogen Inc.

We have audited the accompanying consolidated balance sheets of Tecogen Inc. as of December 31, 2013 and 2012, and the related consolidated statements of operations, stockholders' equity, and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Tecogen Inc. as of December 31, 2013 and 2012, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

/s/ McGladrey LLP

Boston, Massachusetts
March 31, 2014

Audited Financial Statements

TECOGEN INC.
CONSOLIDATED BALANCE SHEETS
As of December 31, 2013 and 2012

	2013	2012
ASSETS		
Current assets:		
Cash and cash equivalents	$ 7,713,899	$ 1,572,785
Short-term investments, restricted	—	181,859
Accounts receivable, net	3,740,885	2,700,243
Unbilled revenue	646,398	—
Inventory, net	3,343,793	3,356,622
Due from related party	—	55,837
Deferred financing costs	140,433	—
Prepaid and other current assets	340,013	402,846
Total current assets	15,925,421	8,270,192
Property, plant and equipment, net	638,026	435,612
Intangible assets, net	953,327	372,020
Goodwill	40,870	—
Other assets	72,425	39,425
TOTAL ASSETS	$ 17,630,069	$ 9,117,249
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Demand notes payable and line of credit, related party	$ 2,950,000	$ 1,337,500
Senior convertible promissory note, related party	3,000,000	—
Current portion of convertible debentures, related party	—	90,967
Accounts payable	2,338,046	1,151,010
Accrued expenses	1,139,554	807,922
Deferred revenue	613,915	677,919
Due to related party	119,667	—
Interest payable, related party	198,450	126,170
Total current liabilities	10,359,632	4,191,488
Long-term liabilities:		
Deferred revenue, net of current portion	204,544	142,726
Total liabilities	10,564,176	4,334,214
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Tecogen Inc. stockholders' equity:		
Common stock, $0.001 par value; 100,000,000 shares authorized; 15,155,200 and 13,611,974 issued and outstanding at December 31, 2013 and 2012, respectively	15,155	13,612
Additional paid-in capital	22,463,996	16,360,821
Accumulated deficit	(15,209,212)	(11,759,723)
Total Tecogen Inc. stockholders' equity	7,269,939	4,614,710
Noncontrolling interest	(204,046)	168,325
Total stockholders' equity	7,065,893	4,783,035
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 17,630,069	$ 9,117,249

The accompanying notes are an integral part of these consolidated financial statements.

TECOGEN INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
For the Years Ended December 31, 2013 and 2012

	2013	2012
Revenues		
Products	$ 6,346,050	$ 7,453,222
Services	9,503,819	7,800,750
	15,849,869	15,253,972
Cost of sales		
Products	4,709,767	5,290,535
Services	6,109,974	4,098,363
	10,819,741	9,388,898
Gross profit	5,030,128	5,865,074
Operating expenses		
General and administrative	7,018,133	6,643,120
Selling	1,423,587	1,225,580
Aborted public offering costs	258,512	—
	8,700,232	7,868,700
Loss from operations	(3,670,104)	(2,003,626)
Other income (expense)		
Interest and other income	3,958	48,397
Interest expense	(141,065)	(71,208)
	(137,107)	(22,811)
Loss before income taxes	(3,807,211)	(2,026,437)
Consolidated net loss	(3,807,211)	(2,026,437)
Less: Loss attributable to the noncontrolling interest	357,722	389,480
Net loss attributable to Tecogen Inc.	$ (3,449,489)	$ (1,636,957)
Net loss per share - basic and diluted	$ (0.26)	$ (0.12)
Weighted average shares outstanding - basic and diluted	13,385,155	13,135,071

The accompanying notes are an integral part of these consolidated financial statements.

TECOGEN INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
For the Years Ended December 31, 2013 and 2012

	Tecogen Inc.						
	Common Stock 0.001 Par Value	Additional Paid-In Capital	Common Stock Subscription	Shareholder Receivable	Accumulated Deficit	Noncontrolling Interest	Total
Balance at December 31, 2011	$ 13,498	$ 15,527,271	$ —	$ (345,000)	$ (10,122,766)	$ 150,161	$ 5,223,164
Sale of subsidiary common stock	—	289,606	—	—	—	210,394	500,000
Purchase of subsidiary common stock	—	(174,958)	—	—	—	174,958	—
Sale of common stock	213	679,787	—	—	—	—	680,000
Conversion of related party convertible notes to common stock	83	99,917	—	—	—	—	100,000
Conversion of accrued interest on related party convertible notes to common stock	2	6,098	—	—	—	—	6,100
Settlement of shareholder receivable (Note 10)	(100)	(239,900)	—	345,000	—	—	105,000
Purchase of restricted stock	(84)	(253)	—	—	—	—	(337)
Stock based compensation expense	—	173,253	—	—	—	22,292	195,545
Net loss	—	—	—	—	(1,636,957)	(389,480)	(2,026,437)
Balance at December 31, 2012	13,612	16,360,821	—	—	(11,759,723)	168,325	4,783,035
Sale of common stock	1,477	5,965,328	—	—	—	—	5,966,805
Conversion of related party convertible notes to common stock	76	90,891	—	—	—	—	90,967
Conversion of accrued interest on related party convertible notes to common stock	3	11,277	—	—	—	—	11,280
Exercise of stock options	25	2,975	—	—	—	—	3,000
Forfeiture and repurchase of restricted stock grant	(38)	(112)	—	—	—	(200)	(350)
Stock based compensation expense (forfeiture)	—	32,816	—	—	—	(14,449)	18,367
Net loss	—	—	—	—	(3,449,489)	(357,722)	(3,807,211)
Balance at December 31, 2013	$ 15,155	$ 22,463,996	$ —	$ —	$ (15,209,212)	$ (204,046)	$ 7,065,893

The accompanying notes are an integral part of these consolidated financial statements.

TECOGEN INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	2013	2012
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (3,807,211)	$ (2,026,437)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	256,459	203,775
Provision for losses on accounts receivable	50,600	57,600
Provision (recovery) for inventory reserve	(32,000)	(26,800)
Stock-based compensation	18,367	195,545
Changes in operating assets and liabilities		
(Increase) decrease in:		
Short-term investments, restricted	(202)	(4,776)
Accounts receivable	(1,091,242)	(1,358,611)
Inventory	62,229	(760,836)
Unbilled revenue	(646,398)	—
Due from related party	55,837	243,902
Prepaid expenses and other current assets	62,833	(290,130)
Other assets	(33,000)	(4,000)
Increase (decrease) in:		
Accounts payable	1,187,036	338,796
Accrued expenses	331,632	80,459
Deferred revenue	(2,186)	127,523
Interest payable, related party	83,560	71,208
Due to related party	119,667	—
Net cash used in operating activities	(3,384,019)	(3,152,782)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment	(202,700)	(219,711)
Purchases of intangible assets	(397,950)	(164,296)
Cash paid for asset acquisition	(497,800)	—
Maturities of short-term investments	182,061	506,345
Net cash provided by (used in) investing activities	(916,389)	122,338
CASH FLOWS FROM FINANCING ACTIVITIES:		
Payments made on demand notes payable, related party	(37,500)	—
Proceeds from payments on receivable from shareholder	—	105,000
Proceeds from issuance of demand notes payable and line of credit, related party	1,650,000	300,000
Proceeds from sale of common stock, net of costs	5,966,805	680,000
Proceeds from exercise of stock options	3,000	—
Proceeds from issuance of senior convertible promissory note	3,000,000	—
Payments from debt issuance costs	(140,433)	—
Purchase of restricted stock	(350)	(337)
Proceeds from sale of subsidiary common stock	—	500,000
Net cash provided by financing activities	10,441,522	1,584,663
Net increase (decrease) in cash and cash equivalents	6,141,114	(1,445,781)
Cash and cash equivalents, beginning of the year	1,572,785	3,018,566
Cash and cash equivalents, end of the year	$ 7,713,899	$ 1,572,785
Supplemental disclosures of cash flows information:		
Cash paid for interest	$ 55,639	$ —
Non-cash investing and financing activities:		
Conversion of accrued convertible debenture interest into common stock	$ 11,280	$ 6,100
Conversion of related party notes to common stock	$ 90,967	$ 100,000
Settlement of shareholder receivable	$ —	$ 240,000

The accompanying notes are an integral part of these consolidated financial statements.

Notes to Audited Consolidated Financial Statements

Note 1 – Nature of business and operations

Tecogen Inc. (the "Company") (a Delaware Corporation) was organized on November 15, 2000, and acquired the assets and liabilities of the Tecogen Products division of Thermo Power Corporation. The Company produces commercial and industrial, natural-gas-fueled engine-driven, combined heat and power (CHP) products that reduce energy costs, decrease greenhouse gas emissions and alleviate congestion on the national power grid. Tecogen's products supply electric power or mechanical power for cooling, while heat from the engine is recovered and purposefully used at a facility. The majority of Company's customers are located in regions with the highest utility rates, typically California, the Midwest and the Northeast.

On May 4, 2009 the Company invested $8,400 in exchange for 8,400,000 shares of a newly established corporation Ilios Inc., or Ilios. The investment gave the Company a controlling financial interest in Ilios, whose business focus is advanced heating systems for commercial and industrial applications. On May 11, 2009 the Company sold 1,400,000 shares in Ilios at $0.50 per share to two of its existing stockholders in exchange for the extinguishment of $700,000 in demand notes payable, convertible debentures and accrued interest (see *Note 7 – Demand notes payable and convertible debentures – related party*). On July 24, 2009, Ilios sold 2,710,000 shares of common stock to accredited investors at $0.50 per share and raised $1,352,500. On June 3, 2011, Ilios sold 500,000 shares of common stock to Tecogen at $0.50 per share and raised $250,000 and on December 29, 2011, Ilios sold 1,000,000 shares of common stock to Tecogen at $0.50 per share and raised $500,000. On January 19, 2012, Ilios sold 1,000,000 shares of common stock to an accredited investor and raised $500,000. On December 28, 2012, Ilios sold 1,000,000 shares of common stock to Tecogen at $0.50 per share and raised $500,000. As of December 31, 2013 the Company owns a 65.0% interest in Ilios and has consolidated Ilios into its financial statements.

The accompanying consolidated financial statements include the accounts of the Company and its majority owned subsidiary Ilios, whose business focus is on advanced heating systems for commercial and industrial applications. With the inclusion of unvested restricted stock awards, the Company owns 63.7% of Ilios.

The Company's operations are comprised of one business segment. Our business is to manufacture and support highly efficient CHP products based on engines fueled by natural gas.

Note 2 – Summary of significant accounting policies

Principles of Consolidation and Basis of Presentation

The financial statements have been prepared in accordance with accounting standards set by the Financial Accounting Standards Board (FASB). The FASB sets generally accepted accounting principles (GAAP) to ensure financial condition, results of operations, and cash flows are consistently reported. References to GAAP issued by the FASB in these footnotes are to the FASB Accounting Standards Codification (ASC). The Company adopted the presentation requirements for noncontrolling interests required by ASC 810 *Consolidation*. Under ASC 810, earnings or losses attributed to the noncontrolling interests are reported as part of the consolidated earnings and not a separate component of income or expense. Noncontrolling interests in the net assets and operations of Ilios are reflected in the caption "Noncontrolling interest" in the accompanying consolidated financial statements. All intercompany transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Concentration of Credit Risk

The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments and accounts receivable. The Company maintains its cash balances in bank accounts, which at times may exceed the Federal Deposit Insurance Corporation's ("FDIC") general deposit insurance limits. The amount on deposit at December 31, 2013 and 2012 which exceeded the $250,000 federally insured limit was approximately $7,410,000 and $1,070,000, respectively. The Company has not experienced any losses in such accounts and thus believes that it is not exposed to any significant credit risk on cash and cash equivalents.

There was one customer who represented more than 10% of revenues for the year ended December 31, 2012. The Company has no customers who represented 10% of revenues for the year ended December 31, 2013. Included in trade accounts receivable are amounts from one customer who represents 22% of the accounts receivable balance as of December 31, 2013 and another customer who represented 16% of the accounts receivable balance as of December 31, 2012.

Cash and Cash Equivalents

The Company considers all highly liquid instruments with an original maturity date, at date of purchase, of three months or less to be cash and cash equivalents.

Short-Term Investments

Short-term investments consist of certificates of deposit with maturities of greater than three months but less than one year. Certificates of deposits approximate fair value, based on estimates using current market rates offered for deposits with similar remaining maturities.

On October 26, 2011, the Company entered into an agreement with Digital Energy Corp., a customer of the Company, whereby the Company provided a letter of credit in the amount of $180,000, for the benefit of Digital Energy Corp., to satisfy a requirement of the New York Independent System Operator, Inc. A certificate of deposit for $180,000 secures the letter of credit. In exchange for providing this letter of credit, Digital Energy Corp. provided a promissory note to the Company for $180,000, with interest at 6%, payable in monthly installments of interest only. Principal would only be owed if the letter of credit was drawn upon and would become due and payable on the first anniversary date of the note. On February 19, 2013, this letter of credit was cancelled and the certificate of deposit was released from restriction and sold.

On June 13, 2011, the Southern California Gas Company entered into an agreement with the Company to invest $500,000 in the Company's Common Stock. The agreement included certain stockholder rights and a redemption right whereby the investor may redeem the shares for cash until the earlier of, the initiation of a public offering of the Company by filing a registration statement with the SEC, or 5 years. A letter of credit, secured by a Certificate of Deposit, for the amount of the investment had been put in place to satisfy the contingency of the redemption right. Since the Company filed a registration statement with the Securities and Exchange Commission on December 23, 2011 the redemption right was no longer valid. The Certificate of Deposit was converted to cash in 2012.

Accounts Receivable

Accounts receivable are stated at the amount management expects to collect from outstanding balances. An allowance for doubtful accounts is provided for those accounts receivable considered to be uncollectible based upon historical experience and management's evaluation of outstanding accounts receivable at the end of the year. Bad debts are written off against the allowance when identified. At December 31, 2013 and 2012 the allowance for doubtful accounts was $103,800 and $154,400, respectively.

Inventory

Raw materials, work in process, and finished goods inventories are stated at the lower of cost, as determined by the average cost method, or market. The Company periodically reviews inventory quantities on hand for excess and/or obsolete inventory based primarily on historical usage, as well as based on estimated forecast of product demand. Any reserves that result from this review are charged to cost of sales.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation is provided using the straight-line method over the estimated useful lives of the asset, which range from three to fifteen years. Leasehold improvements are amortized using the straight-line method over the lesser of the estimated useful lives of the assets or the term of the related leases. Expenditures for maintenance and repairs are expensed currently, while renewals and betterments that materially extend the life of an asset are capitalized.

Intangible Assets

Intangible assets subject to amortization include costs incurred by the Company to acquire product certifications, certain patent costs and developed technologies. These costs are amortized on a straight-line basis over the estimated economic life of the intangible asset. The Company reviews intangible assets for impairment when the circumstances warrant.

Goodwill

The Company's goodwill was recorded as a result of the Company's asset acquisition discussed in Note 15. The Company has recorded this transaction using the acquisition method of accounting. The Company tests its recorded goodwill for impairment as of the last day of the year, or more often if indicators of potential impairment exist, by determining if the carrying value of the Company's single reporting unit exceeds its estimated fair value. Factors that could trigger an interim impairment test include, but are not limited to, underperformance relative to historical or projected future operating results, significant changes in the manner of use of the acquired assets or the Company's overall business, significant negative industry or economic trends and a sustained period where market capitalization, plus an appropriate control premium, is less than stockholders' equity.

The Company's impairment test involves a two-step process. In the first step, the Company compares the fair value of the reporting unit to its carrying value. If the fair value of the reporting unit exceeds its carrying value, goodwill is not impaired and no further testing is required. If the fair value of the reporting unit is less than the carrying value, the Company must perform the second step of the impairment test to measure the amount of impairment loss, if any. In the second step, the reporting unit's fair value is allocated to all of the assets and liabilities of the reporting unit, including any unrecognized intangible assets, in a hypothetical analysis that calculates the implied fair value of goodwill in the same manner as if the reporting unit was being acquired in a business combination. If the implied fair value of the reporting unit's goodwill is less than the carrying value, the difference is recorded as an impairment loss. As of December 31, 2013, the Company determined that the fair value of the reporting unit exceeded its carrying value and therefore the second step was not necessary and no impairment was recognized.

Common Stock

The Company's common stock was split one-for-four in a reverse stock split effective July 22, 2013. The effect of this reverse stock split has been retroactively applied to per share data and common stock information.

Impairment of long-lived assets

Long-lived assets, including intangible assets and property and equipment, are evaluated for impairment whenever events or changes in circumstances have indicated that an asset may not be recoverable and are grouped with other assets to the lowest level for which identifiable cash flows are largely independent of the cash flows of other groups of assets and liabilities. If the sum of the projected undiscounted cash flows (excluding interest charges) is less than the carrying value of the assets, the assets will be written down to the estimated fair value and such loss is recognized in income from continuing operations in the period in which the determination is made. Management determined that no impairment of long-lived assets existed as of December 31, 2013.

Off Balance Sheet Arrangements

On July 22, 2013, the Company's Chief Executive Officer personally pledged to support a bank credit facility of $1,055,000 to support bank guarantees issued on certain construction contracts.

Loss per Common Share

The Company computes basic loss per share by dividing net loss for the period by the weighted-average number of shares of Common Stock outstanding during the period. The Company computes its diluted earnings per common share using the treasury stock method. For purposes of calculating diluted earnings per share, the Company considers its shares issuable in connection with the convertible debentures, stock options and warrants to be dilutive Common Stock equivalents when the exercise/conversion price is less than the average market price of our common stock for the period. All shares issuable for the years ended December 31, 2013 and 2012 were anti-dilutive because of the reported net loss.

Other Comprehensive Net Loss

The comprehensive net loss for the years ended December 31, 2013 and 2012 does not differ from the reported loss.

Segment Information

The Company reports segment data based on the management approach. The management approach designates the internal reporting that is used by management for making operating and investment decisions and evaluating performance as the source of the Company's reportable segments. The Company uses one measurement of profitability and does not disaggregate its business for internal reporting. The Company has determined that it operates in one business segment which manufactures and supports highly efficient CHP products based on engines fueled by natural gas. All of the Company's long lived assets reside in the United States of America. All of the Company's revenue is generated in the United States of America.

The following table summarizes net revenue by product line and services for the years ended December 31, 2013 and 2012:

	2013	2012
Products:		
Cogeneration	$ 5,199,649	$ 5,791,412
Chiller	1,146,401	1,661,810
Total Product Revenue	6,346,050	7,453,222
Services		
Service contracts	7,071,388	7,089,491
Installations	2,432,431	711,259
Total Service Revenue	9,503,819	7,800,750
	$ 15,849,869	$ 15,253,972

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. The current or deferred tax consequences of transactions are measured by applying the provisions of enacted tax laws to determine the amount of taxes payable currently or in future years. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities and expected future tax consequences of events that have been included in the financial statements or tax returns using enacted tax rates in effect for the years in which the differences are expected to reverse. Under this method, a valuation allowance is used to offset deferred taxes if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets may not be realized. Management evaluates the recoverability of deferred taxes and the adequacy of the valuation allowance annually.

The Company has adopted the provisions of the accounting standards relative to accounting for uncertainties in tax positions. These provisions provide guidance on the recognition, de-recognition and measurement of potential tax benefits associated with tax positions. The Company elected to recognize interest and penalties related to income tax matters as a component of income tax expense in the statements of operations. There was no impact on the financial statements as a result of this guidance.

With few exceptions, the Company is no longer subject to possible income tax examinations by federal, state or local taxing authorities for tax years before 2009, with the exception of loss carryforwards in the event they are utilized in future years. The Company's tax returns are open to adjustment from 2001 forward, as a result of the fact that the Company has loss carryforwards from those years, which may be adjusted in the year those losses are utilized.

Fair Value of Financial Instruments

The Company’s financial instruments are cash and cash equivalents, certificates of deposit, accounts receivable, accounts payable, demand notes, line of credit and convertible debentures due to related parties. The recorded values of cash and cash equivalents, accounts receivable and accounts payable approximate their fair values based on their short-term nature. At December 31, 2013, the recorded value on the consolidated balance sheet of the debentures approximates fair value as the terms approximate those available for similar instruments. Certificates of deposits are classified as short-term investments and approximate fair value, based on estimates using current market rates offered for deposits with similar remaining maturities.

Revenue Recognition

Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable and collectability is reasonably assured. Generally, sales of cogeneration and chiller units and parts are recognized when shipped and services are recognized over the term of the service period. Payments received in advance of services being performed are recorded as deferred revenue.

Infrequently, the Company recognizes revenue in certain circumstances before delivery has occurred (commonly referred to as bill and hold transactions). In such circumstances, among other things, risk of ownership has passed to the buyer, the buyer has made a written fixed commitment to purchase the finished goods, the buyer has requested the finished goods be held for future delivery as scheduled and designated by them, and no additional performance obligations exist by the Company. For these transactions, the finished goods are segregated from inventory and normal billing and credit terms granted. For the years ended December 31, 2013 and 2012 no revenues were recorded as bill and hold transactions.

For those arrangements that include multiple deliverables, the Company first determines whether each service or deliverable meets the separation criteria of FASB ASC 605-25, *Revenue Recognition—Multiple-Element Arrangements*. In general, a deliverable (or a group of deliverables) meets the separation criteria if the deliverable has stand-alone value to the customer and, if the arrangement includes a general right of return, delivery or performance of the undelivered item(s) is considered probable and substantially in control of the Company. Each deliverable that meets the separation criteria is considered a separate ‘‘unit of accounting”. The Company allocates the total arrangement consideration to each unit of accounting using the relative selling price method. The amount of arrangement consideration that is allocated to a delivered unit of accounting is limited to the amount that is not contingent upon the delivery of another unit of accounting.

When vendor-specific objective evidence or third-party evidence is not available, adopting the relative fair value method of allocation permits the Company to recognize revenue on specific elements as completed based on the estimated selling price. The Company generally uses internal pricing lists that determine sales prices to external customers in determining its best estimate of the selling price of the various deliverables in multiple-element arrangements. Changes in judgments made in estimating the selling price of the various deliverables could significantly affect the timing or amount of revenue recognition. The Company enters into sales arrangements with customers to sell its cogeneration and chiller units and related service contracts and occasionally installation services. Based on the fact that the Company sells each deliverable to other customers on a stand-alone basis, the company has determined that each deliverable has a stand-alone value. Additionally, there are no rights of return relative to the delivered items; therefore, each deliverable is considered a separate unit of accounting.

After the arrangement consideration has been allocated to each unit of accounting, the Company applies the appropriate revenue recognition method for each unit of accounting based on the nature of the arrangement and the services included in each unit of accounting. Cogeneration and chiller units are recognized when shipped and services are recognized over the term of the applicable agreement, or as provided when on a time and materials basis.

In some cases, our customers may choose to have the Company engineer and install the system for them rather than simply purchase the cogeneration and/or chiller units. In this case, the Company accounts for revenue, or turnkey revenue, and costs using the percentage-of-completion method of accounting. Under the percentage-of-completion method of accounting, revenues are recognized by applying percentages of completion to the total estimated revenues for the respective contracts. Costs are recognized as incurred. The percentages of completion are determined by relating the actual cost of work performed to date to the current estimated total cost at completion of the respective contracts. When the estimate on a contract indicates a loss, the Company's policy is to record the entire expected loss, as required by generally accepted accounting principles. The excess of contract costs and profit recognized to date on the percentage-of-completion accounting method in excess of billings is recorded as unbilled revenue. Billings in excess of related costs and estimated earnings are recorded as deferred revenue.

Presentation of Sales Taxes

The Company reports revenues net of any revenue-based taxes assessed by governmental authorities that are imposed on and concurrent with specific revenue-producing transactions.

Shipping and Handling Costs

The Company classifies freight billed to customers as sales revenue and the related freight costs as cost of sales.

Advertising Costs

The Company expenses the costs of advertising as incurred. For the years ended December 31, 2013 and 2012, advertising expense was approximately $242,200 and $187,500, respectively.

Research and Development Costs

Internal research and development expenditures are expensed as incurred. Proceeds from certain grants and contracts with governmental agencies and their contractors to conduct research and development for new CHP technologies or to improve or enhance existing technology is recorded as an offset to the related research and development expenses. These grants and contracts are paid on a cost reimbursement basis provided in the agreed upon budget. Amounts received totaled $127,500 and $126,500 in fiscal years 2013 and 2012, respectively, which offset the Company's total research and development expenditures of approximately $867,000 and $431,000 for each of the years ended December 31, 2013 and 2012, respectively, which are included in general and administrative expenses in the accompanying consolidated statements of operations.

Stock-Based Compensation

Stock-based compensation cost is measured at the grant date, based on the estimated fair value of the award, and is recognized as an expense in the statements of operations over the requisite service period.

The determination of the fair value of share-based payment awards is affected by the Company's stock price. Since the Company was not publicly traded when the awards were issued, the Company considered the sales price of the Common Stock in private placements to unrelated third parties as a measure of the fair value of its Common Stock.

The Company utilizes an estimated forfeiture rate when calculating the expense for the period. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Stock-based compensation expense recognized is based on awards that are ultimately expected to vest. The Company evaluates the assumptions used to value awards regularly and if factors change and different assumptions are employed, stock-based compensation expense may differ significantly from what has been recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, the Company may be required to accelerate, increase or cancel any remaining unearned stock-based compensation expense.

Pursuant to ASC 505-50, *Equity Based Payments to Non-Employees*, the fair value of restricted Common Stock and stock options issued to nonemployees is revalued at each reporting period until the ultimate measurement date, as defined by ASC 505-50. The Company records the value of the instruments at the time services are provided and the instruments vest. Accordingly, the ultimate expense is not fixed until such instruments are fully vested.

Reclassifications

Certain prior period balances have been reclassified to conform with current period presentation. As a result of a four-for-one reverse stock split which took place during the year, a reclassification of $40,836 from common stock to additional paid in capital was retroactively applied to the balances as of December 31, 2012. Also, installation revenue is broken out in the schedule of net revenue by product line and services above; in the prior year this revenue was included in services.

Note 3 – Loss per common share:

Basic and diluted earnings per share for the years ended December 31, 2013 and 2012, respectively, were as follows:

	2013	2012
Loss available to stockholders	$ (3,449,489)	$ (1,636,957)
Weighted average shares outstanding - Basic and diluted	13,385,155	13,135,071
Basic and diluted loss per share	$ (0.26)	$ (0.12)
Anti-dilutive shares underlying stock options outstanding	1,148,000	1,096,500
Anti-dilutive convertible debentures	555,556	75,806

Note 4 – Inventory

Inventories at December 31, 2013 and 2012 consisted of the following.

	2013	2012
Gross raw materials	$ 3,539,732	$ 3,574,620
Less - reserves	(300,000)	(332,000)
Net raw materials	3,239,732	3,242,620
Work-in-process	104,061	114,002
Finished goods	—	—
	$ 3,343,793	$ 3,356,622

Note 5 – Intangible assets other than goodwill

The Company capitalized $171,224 and $17,314 of product certification costs during the years ended December 31, 2013 and 2012, respectively. Also included in intangible assets are the costs incurred by the Company to acquire certain patents. These patents, once in service, will be amortized on a straight-line basis over the estimated economic life of the associated product, which range from approximately 7-10 years. The Company capitalized $226,726 and $146,981 of patent-related costs during the years ended December 31, 2013 and 2012, respectively. The Company also capitalized $240,000 certain developed technology in connection with an asset acquisition which is being amortized over its useful life of fifteen years. Intangible assets at December 31, 2013 and 2012 consist of the following:

	Product Certifications	Patents	Developed Technology	Total
Balance at December 31, 2013				
Intangible assets	$ 406,706	$ 441,609	240,000	$ 1,088,315
Less - accumulated amortization	(83,405)	(39,583)	(12,000)	(134,988)
	$ 323,301	$ 402,026	$ 228,000	$ 953,327
Balance at December 31, 2012				
Intangible assets	$ 235,482	$ 214,883	—	$ 450,365
Less - accumulated amortization	(57,798)	(20,547)	—	(78,345)
	$ 177,684	$ 194,336	$ —	$ 372,020

Amortization expense was $56,643 and $33,896 during the years ended December 31, 2013 and 2012, respectively. Estimated amortization expense at December 31, 2013 for each of the five succeeding years is as follows:

2014	$ 80,937
2015	119,758
2016	119,758
2017	119,758
2018	113,560
Thereafter	399,556
	$ 953,327

Note 6 – Property and equipment

Property and equipment at December 31, 2013 and 2012 consisted of the following:

	Estimated Useful Life (in Years)	2013	2012
Machinery and equipment	5 - 7 years	$ 773,894	$ 478,290
Furniture and fixtures	5 years	79,612	54,058
Computer software	3 - 5 years	67,215	56,935
Leasehold improvements	*	397,158	326,366
		1,317,879	915,649
Less - accumulated depreciation and amortization		(679,853)	(480,037)
Net property, plant and equipment		$ 638,026	$ 435,612

* Lesser of estimated useful life of asset or lease term

Depreciation and amortization expense on property and equipment for the years ended December 31, 2013 and 2012 was $199,816 and $169,879, respectively. Estimated depreciation expense at December 31, 2013 for each of the five succeeding years is as follows:

2014	$ 171,691
2015	130,287
2016	105,792
2017	79,616
2018	52,851
Thereafter	97,789
	$ 638,026

Note 7 – Demand notes payable, convertible debentures and line of credit

Demand notes payable to related parties consist of various demand notes outstanding to stockholders totaling $1,750,000 and $1,337,500 at December 31, 2013 and 2012, respectively. The primary lender is John N. Hatsopoulos, the company's Chief Executive Officer, who holds $1,750,000 and $1,300,000 of the demand notes as of December 31, 2013 and 2012, respectively. The demand notes accrue interest annually at rates ranging from 5% to 6%. Unpaid principal and interest on the demand notes is due upon demand by the lender. On January 6, 2014, the Company repaid the then outstanding principal balance of $1,750,000 together with accrued interest of $175,311.

On September 24, 2001, the Company entered into subscription agreements with three investors for the sale of convertible debentures in the aggregate principal amount of $330,000. The primary investors were George N. Hatsopoulos, a member of the board of directors, who subscribed for $200,000 of the debentures and John N. Hatsopoulos, the Company's Chief Executive Officer, who subscribed for $100,000 of the debentures. The debentures accrue interest at a rate of 6% per annum and are due six years from issuance date. The debentures are convertible, at the option of the holder, into a number of shares of Common Stock as determined by dividing the original principal amount plus accrued and unpaid interest by a conversion price of $1.20. On September 24, 2011 the remaining holders of the Company's convertible debentures agreed to amend the terms of the debentures and extend the due date from September 24, 2011 to September 24, 2013.

On May 11, 2009 the Company sold 1,400,000.00 shares in Ilios at $0.50 per share to George Hatsopoulos and John Hatsopoulos in exchange for the extinguishment of $427,432 in demand notes payable, $109,033 in convertible debentures and $163,535 in accrued interest. The difference between the Company's purchase price of the Ilios shares and the amount of debt forgiveness was recorded as additional paid-in capital.

On September 30, 2009, Joseph J. Ritchie elected to convert $30,000 of the outstanding principal amount of the debenture, plus accrued interest of $14,433, into 37,028 shares of Common Stock at a conversion price of $1.20 per share.

On September 30, 2012, certain holders of the debentures converted the principal amount of $100,000 and accrued interest in the amount of $6,100 into 85,242 shares of the Company's Common Stock. At December 31, 2012 there were 75,806 shares of common stock issuable upon conversion of the Company's outstanding convertible debentures. At December 31, 2012, the principal amount of the Company's convertible debentures was $90,967 which was due on September 24, 2013.

On October 18, 2013, the remaining holder of the debentures, George N. Hatsopoulos, converted the principal balance of $90,967 into 75,806 shares of the Company's common stock at a conversion price of $1.20 per share. In addition, Mr. Hatsopoulos requested that the accrued interest earned in 2012 in the amount of $6,913 be converted into 2,161 shares of the Company's common stock at a conversion price of $3.20 per share and that the accrued interest earned on or after January 1, 2013 in the amount of $4,367 be converted into 970 shares of the Company's common stock at a conversion price of $4.50 per share.

On March 25, 2013, the Company entered into a Revolving Line of Credit Agreement, or the Credit Agreement, with John N. Hatsopoulos, our Chief Executive Officer. Under the terms of the Credit Agreement, as amended on August 13, 2013, Mr. Hatsopoulos has agreed to lend the Company up to an aggregate of $1,500,000 from time to time, at the written request of the Company. Any amounts borrowed by the Company pursuant to the Credit Agreement will bear interest at the Bank Prime Rate as quoted from time to time in the Wall Street Journal plus 1.5% per year. Repayment of the principal amount borrowed pursuant to the Credit Agreement will be due on March 1, 2014. In addition, the company may prepay accrued interest, provided that prepayment may not be made prior to January 1, 2014.The Credit Agreement terminated on March 1, 2014. As of December 31, 2013 the Company has borrowed $1,200,000 pursuant to the Credit Agreement. On January 6, 2014, the Company repaid the then outstanding principal balance of $1,200,000 together with accrued interest of $25,347.

On December 23, 2013, the company entered into a Senior Convertible Promissory Note (the "Note") with Michaelson Capital Special Finance Fund LP, ("Michaelson"), for the principal amount of $3,000,000 with interest at 4% per annum for a term of three years. In the event of default such interest rate shall accrue at 8% after the occurrence of the event of default and during continuance plus 2% after the occurrence and during the continuance of any other event of default. The Note is a senior unsecured obligation which pays interest only on a monthly basis in arrears at a rate of 4% per annum, unless earlier converted in accordance with the terms of the agreement prior to such date. The principal amount, if not converted, is due on the third anniversary of the Note, December 31, 2016. The Note is senior in right of payment to any unsecured indebtedness that is expressly subordinated in right of payment to the Note.

The principal balance of the Note, together with any unpaid interest, is convertible into shares of the Company's common stock at 185.19 shares of our common stock per $1,000 principal amount of Note (equivalent to a conversion price of $5.40 per share) at the option of Michaelson. If at any time the common stock of the Company is (1) trading on a national securities exchange, (2) qualifies for unrestricted resale under federal securities laws and (3) the arithmetic average of the volume weighted average price of the Common Stock for the twenty consecutive trading days preceding the Company's notice of mandatory conversion exceeds $150,000, the Company shall have the right to require conversion of all of the then outstanding principal balance together with unpaid interest of this Note into the Company's common stock based on the conversion price of $5.40 per share.

The Company may prepay all of the outstanding principal and interest due and payable under this Note in full, at any time prior to the maturity date for an amount equal to 120% of the then outstanding principal and interest due and payable as of the date of such prepayment.

Upon change of control, as defined by the Note, at Michaelson's option, the obligations may be assumed, on the terms and conditions in this Note, through an assignment and assumption agreement, or the Company may prepay all of the then outstanding principal and unpaid interest under this Note in full at the optional 120% prepayment amount. This provision creates an embedded derivative in accordance with ASC 815, *Derivatives and Hedging*. As such it is required to be bifurcated and accounted for separately from the Note. However, the Company has determined that the fair value of the embedded derivative is immaterial to the financial statements.

Debt issuance costs of $140,433 are being amortized to interest expense over the term of the Note using the effective interest method. At December 31, 2013, there were 555,556 shares of common stock issuable upon conversion of the Company's outstanding convertible debentures.

Michaelson has the option to call the Note upon an event of default at the optional 120% prepayment amount discussed above. One event of default is defined as the Company's failure to issue a registration statement covering the resale of the Company's Common Stock that is declared effective within one year of the funding date of the Note. The Company has classified this Note as current on the accompanying consolidated balance sheet due to this event of default as the company cannot control when the registration statement, originally filed on February 6, 2014, will become effective. Additionally, the Note contains a contingent interest clause in connection with events of default, including this event of default. This registration rights provision is not indexed to credit risk, and therefore is not clearly and closely related to the Note. This provision creates an embedded derivative in accordance with ASC 815, *Derivatives and Hedging*. As such it is required to be bifurcated and accounted for separately from the Note. However, the Company has determined that the fair value of the embedded derivative is immaterial to the financial statements.

While, prior to this transaction, Michaelson was an unrelated party, due to their beneficial ownership percentage of 6.4% after this transaction, Michaelson is now considered a related party.

Note 8 – Commitments and contingencies

Operating Lease Obligations

The Company leases office space and warehouse facilities under various lease agreements which expire through March 2024. The Company subleases portions of its corporate offices and manufacturing facility to sub-tenants under annual sublease agreements, on a calendar year basis (see *Note 13 – Related party transactions*). Total rent expense for the years ended December 31, 2013 and 2012 amounted to $616,041 and $595,851, offset by $127,784 and $173,898 in rent paid by sub-lessees, to both related and unrelated parties, for a net amount of $488,257 and $421,953.

As of December 31, 2013, the future minimum lease payments receivable on subleases were $51,033 on sub-leases.

The Company leased one service vehicle under a lease agreement which expired January 2012. Vehicle rent expense amounted to $387 during the year ended December 31, 2012.

Future minimum lease payments under all non-cancelable operating leases as of December 31, 2013 consist of the following:

Years Ending December 31,	Amount
2014	$ 579,495
2015	535,349
2016	485,040
2017	491,920
2018	499,122
2019 and thereafter	2,742,217
Total	$ 5,333,143

Letters of Credit

On October 26, 2011, the Company entered into an agreement with Digital Energy Corp., a customer of the Company, whereby the Company provided a letter of credit in the amount of $180,000, for the benefit of Digital Energy Corp., to satisfy a requirement of the New York Independent System Operator, Inc. A certificate of deposit for $180,000 secures the letter of credit. In exchange for providing this letter of credit, Digital Energy Corp. provided a promissory note to the Company for $180,000, with interest at 6%, payable in monthly installments of interest only. Principal would only be owed if the letter of credit was drawn upon and would become due and payable on the first anniversary date of the note. On February 19, 2013 this letter of credit and certificate of deposit restriction were released.

As of December 31, 2013, $583,073 in a letter of credit was outstanding under a revolving bank credit facility needed to collateralize a performance bond on a certain installation project. This revolving bank credit facility expires June 14, 2014. In addition, approximately $1,055,000 in letters of credit were required to collateralize performance bonds on several installation projects. This letter of credit is collateralized by an account owned by John N. Hatsopoulos and expires July 22, 2014. In each case, a performance bond has been furnished on the project and would be drawn upon only in the event that Tecogen fails to complete the project in accordance with the contract.

Legal Proceedings

From time to time the Company may be involved in various claims and other legal proceedings which arise in the normal course of business. Such matters are subject to many uncertainties and outcomes that are not predictable. Based on the information available to the Company and after discussions with legal counsel, the Company does not believe any such proceedings will have a material adverse effect on the business, results of operations, financial position or liquidity.

Note 9 – Product warranty

The Company reserves an estimate of its exposure to warranty claims based on both current and historical product sales data and warranty costs incurred. The majority of the Company’s products carry a one-year warranty. The Company assesses the adequacy of its recorded warranty liability annually and adjusts the amount as necessary. The warranty liability is included in accrued expenses on the accompanying consolidated balance sheets.

Changes in the Company's warranty reserve were as follows:

Warranty reserve, December 31, 2011	$	57,000
Warranty provision for units sold		160,684
Costs of warranty incurred		(127,484)
Warranty reserve, December 31, 2012		90,200
Warranty provision for units sold		179,841
Costs of warranty incurred		(175,041)
Warranty reserve, December 31, 2013	$	95,000

Note 10 – Stockholders' equity

Common Stock

In 2013 and 2012 the Company raised additional funds through private placements of common stock to a limited number of accredited investors. In connection with the 2013 private placements the Company sold an aggregate of 1,476,789 shares of common stock at a purchase price of $4.50 per share. In connection with this private placement the Company incurred commissions, legal fees and various other costs of $678,746 which were offset against the proceeds in additional paid in capital, resulting in net cash proceeds of $5,966,805. In connection with the 2012 private placements the Company sold an aggregate of 212,500 shares of common stock at a purchase price $3.20 per share, resulting in net cash proceeds after commissions and other offering costs of $680,000.

The holders of Common Stock have the right to vote their interest on a per share basis. At December 31, 2013 and 2012 there were 15,156,600 and 13,611,974 shares of Common Stock outstanding, respectively.

Preferred Stock

On February 13, 2013, the authorized preferred stock of 10 million shares, as of December 31, 2013 none of these shares were issued or outstanding.

Receivable from Shareholder

On June 3, 2010 the Company issued a promissory note to an investor in the amount of $345,000. The note was due in full on June 3, 2012 and bears interest at the Bank Prime Rate plus three percent. Accrued interest is paid on a quarterly basis. The note was secured by 287,500 shares of Tecogen Common Stock. The note was repaid with cash of $105,000 and return of 100,000 shares of common stock at a value of $2.40 per share, which were retired by the Company on December 7, 2012.

Stock-Based Compensation

In 2006, the Company adopted the 2006 Stock Option and Incentive Plan (the "Plan"), under which the board of directors may grant incentive or non-qualified stock options and stock grants to key employees, directors, advisors and consultants of the Company. The Plan was amended at various dates by the board to increase the reserved shares of common stock issuable under the Plan from 1,000,000 to 1,838,750 as of December 31, 2013 (the "Amended Plan").

Stock options vest based upon the terms within the individual option grants, with an acceleration of the unvested portion of such options upon a change in control event, as defined in the Amended Plan. The options are not transferable except by will or domestic relations order. The option price per share under the Amended Plan cannot be less than the fair market value of the underlying shares on the date of the grant. The number of shares remaining available for future issuance under the Amended Plan as of December 31, 2013 and 2012 was 58,683 and 135,183, respectively.

In 2012, the company granted nonqualified options to purchase an aggregate of 17,500 shares of common stock at $3.20 per share to a director. These options have a vesting schedule of four years and expire in ten years. The fair value of the options issued in 2012 was $20,223. The weighted-average grant date fair value of stock options granted during 2012 was $1.16 per option.

In 2013, the company granted nonqualified options to purchase an aggregate of 37,500 and 39,000 shares of common stock at $3.20 and $4.50 per share, respectively to certain employees. These options have a vesting schedule of four years and expire in five and ten years, respectively. The fair value of the options issued in 2013 was $80,952. The weighted-average grant date fair value of stock options granted during 2013 was $0.75 and $1.35 per option. Stock option activity for the years ended December 31, 2013 and 2012 was as follows:

Common Stock Options	Number of Options	Exercise Price Per Share	Weighted Average Exercise Price	Weighted Average Remaining Life	Aggregate Intrinsic Value
Outstanding, December 31, 2011	1,095,250	$0.12-$2.80	$ 1.92	5.53 years	$ 1,387,150
Granted	17,500	3.20	3.20		
Exercised	—	—	—		
Canceled and forfeited	(15,938)	1.20 - 2.60	1.28		
Expired	(313)	2.60	2.60		
Outstanding, December 31, 2012	1,096,500	$0.12-$3.20	$ 1.96	4.66 years	$ 1,356,400
Exercisable, December 31, 2012	662,563		$ 1.56		$ 1,096,225
Vested and expected to vest, December 31, 2012	1,096,500		$ 1.96		$ 1,356,400
Outstanding, December 31, 2012	1,096,500	$0.12-$3.20	$ 1.96	4.66 years	$ 1,356,400
Granted	76,500	3.20-4.50	3.86		
Exercised	(25,000)	0.12	0.12		
Canceled and forfeited	—	—	—		
Expired	—	—	—		
Outstanding, December 31, 2013	1,148,000	$1.20-$4.50	$ 2.13	5.80 years	$ 2,721,100
Exercisable, December 31, 2013	799,500		$ 1.79		$ 2,166,550
Vested and expected to vest, December 31, 2013	1,148,000		$ 2.13		$ 2,721,100

The Company does not expect any forfeitures and the table above represents all stock options expected to vest. The Company uses the Black-Scholes option pricing model to determine the fair value of stock options granted. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs. Expected volatility was calculated based on the average volatility of four comparable publicly traded companies. The average expected life was estimated using the simplified method to determine the expected life based on the vesting period and contractual terms, since it does not have the necessary historical exercise data to determine an expected life for stock options. The Company uses a single weighted-average expected life to value option awards and recognizes compensation on a straight-line basis over the requisite service period for each separately vesting portion of the awards. The risk-free interest rate is based on U.S. Treasury zero-coupon issues with a remaining term which approximates the expected life assumed at the date of grant.

The weighted average assumptions used in the Black-Scholes option pricing model for options granted in 2013 and 2012 are as follows:

	2013	2012
Stock option awards:		
Expected life	5.63 years	6.25 years
Risk-free interest rate	1.34%	0.70%
Expected volatility	26.5%-36.1%	35.9%-36.0%

The Company has granted restricted stock awards to its employees and directors. The performance based awards have vesting schedules ranging from 100% 90 days after an initial public offering (IPO) up to 100% one year after an IPO.

Restricted stock activity for the years ended December 31, 2013 and 2012 was as follows:

	Number of Restricted Stock		Weighted Average Grant Date Fair Value
Unvested, December 31, 2011	483,317	$	1.44
Granted	—		—
Vested	—		—
Forfeited	(84,247)		1.36
Unvested, December 31, 2012	399,070	$	1.44
Granted	—		—
Vested	—		—
Forfeited	(37,500)		2.60
Unvested, December 31, 2013	361,570	$	1.31

During the years ended December 31, 2013 and 2012, the Company recognized stock-based compensation of $59,678 and $136,184, respectively, related to the issuance of stock options and restricted stock. No tax benefit was recognized related to the stock-based compensation recorded during the years. At December 31, 2013 and 2012 there were 361,570 and 399,070 unvested shares of restricted stock outstanding, respectively. At December 31, 2013 and 2012 the total compensation cost related to unvested restricted stock awards and stock option awards not yet recognized is $124,845 and $183,230, respectively. This amount will be recognized over a weighted average period of 0.56 years.

Stock Based Compensation - Ilios

In 2009, Ilios adopted the 2009 Stock Incentive Plan (the "2009 Plan") under which the board of directors may grant incentive or non-qualified stock options and stock grants to key employees, directors, advisors and consultants of the company. The maximum number of shares allowable for issuance under the Plan is 2,000,000 shares of common stock.

Stock options vest based upon the terms within the individual option grants, with an acceleration of the unvested portion of such options upon a change in control event, as defined in the Plan. The options are not transferable except by will or domestic relations order. The option price per share under the Plan cannot be less than the fair market value of the underlying shares on the date of the grant.

In 2012, Ilios granted nonqualified options to purchase 50,000 shares of common stock to a director at $0.50 per share. These options have a vesting schedule of four years and expire in ten years. The total fair value of the options issued in 2012 was $9,750. The weighted-average grant date fair value of stock options granted during 2012 was $0.20.

During the years ended December 31, 2013 and 2012 Ilios recognized stock-based compensation of $(41,311) and $59,361, related to the forfeiture and issuance of stock options and restricted stock, respectively. No tax benefit was recognized related to the stock-based compensation recorded during the year. At December 31, 2013 and 2012 there were 310,000 and 510,000 unvested shares of restricted stock outstanding. At December 31, 2013 and 2012 the total compensation cost related to unvested restricted stock awards and stock option awards not yet recognized is $9,004 and $67,493, respectively. This amount will be recognized over the weighted average period of 1.59 years.

Stock option activity relating to Ilios for the year ended December 31, 2013 and 2012 was as follows:

Common Stock Options	Number of Options	Exercise Price Per Share	Weighted Average Exercise Price	Weighted Average Remaining Life	Aggregate Intrinsic Value
Outstanding, December 31, 2011	525,000	$0.10-$0.50	$ 0.27	8.23 years	$ 120,000
Granted	50,000	0.50	0.50		
Exercised	—	—	—		
Canceled and forfeited	—	—	—		
Expired	—	—	—		
Outstanding, December 31, 2012	575,000	$0.10-$0.50	$ 0.29	7.44 years	$ 120,000
Exercisable, December 31, 2012	—		$ —		$ —
Vested and expected to vest, December 31, 2012	575,000		$ 0.29		$ 120,000
Outstanding, December 31, 2012	575,000	$0.10-$0.50	$ 0.29	7.44 years	$ 120,000
Granted	—	—	—		
Exercised	—	—	—		
Canceled and forfeited	—	—	—		
Expired	—	—	—		
Outstanding, December 31, 2013	575,000	$0.10-$0.50	$ 0.29	6.44 years	$ 120,000
Exercisable, December 31, 2013	—		$ 0.50		$ —
Vested and expected to vest, December 31, 2013	575,000		$ 0.29		$ 120,000

Ilios does not expect any forfeitures and the table above represents all stock options expected to vest. Ilios uses the Black-Scholes option pricing model to determine the fair value of stock options granted. Expected volatility was calculated based on the average volatility of comparable publicly traded companies, the expected life of the options was calculated using the simplified method, and the risk-free interest rate is based on U.S. Treasury zero-coupon issues with a remaining term which approximates the expected life assumed at the date of grant. The Company uses a single weighted-average expected life to value option awards and recognizes compensation on a straight-line basis over the requisite service period for each separately vesting portion of the awards.

For the Ilios awards, the weighted average assumptions used in the Black-Scholes option pricing model for options granted in 2012 are as follows:

	2012
Stock option awards:	
Expected life	6.25 years
Risk-free interest rate	2.03%
Expected volatility	36.1%

Ilios has granted restricted stock awards to its employees and directors. The awards have only service conditions and carry vesting schedules ranging from 100% 90 days after an IPO up to 100% one year after an IPO.

Restricted stock activity for the Ilios awards, for the years ended December 31, 2013 and 2012 was as follows:

	Number of Restricted Stock	Weighted Average Grant Date Fair Value
Unvested, December 31, 2011	560,000	$ 0.24
Granted	—	—
Vested	—	—
Forfeited	(50,000)	0.10
Unvested, December 31, 2012	510,000	$ 0.24
Granted	—	—
Vested	—	—
Forfeited	(200,000)	0.50
Unvested, December 31, 2013	310,000	$ 0.10

Note 11 – Noncontrolling interests

As of January 1, 2012 Tecogen owned 63.0% of Ilios. During the year ended December 31, 2012 Tecogen purchased 1,000,000 shares of Ilios common stock at $0.50 per share for an aggregate amount of $750,000 which increased Tecogen's ownership interest to 67.4%.

During the year ended December 31, 2012 Ilios sold 1,000,000 shares of common stock to an accredited investor at $0.50 per share for an aggregate amount of $500,000. Also during the year ended December 31, 2012, Tecogen purchased 1,000,000 shares of Ilios common stock at $0.50 per share for an aggregate amount of $500,000. The net result decreased Tecogen's ownership interest to 65.0%. The table below presents the changes in equity resulting from net loss attributable to Tecogen and transfers to or from noncontrolling interests for the years ended December 31, 2013 and 2012.

Net loss attributable to Tecogen Inc. and
Transfers (to) from the Noncontrolling Interest
Years ended December 31,

	2013	2012
Net loss attributable to Tecogen Inc.	$ (3,449,489)	$ (1,636,957)
Transfers (to) from the noncontrolling interest		
Decrease in Tecogen's paid-in capital for purchase of 1,000,000 Ilios common shares	—	(174,958)
Increase in Tecogen's paid-in capital upon the sale of 1,000,000 Ilios common shares	—	289,606
Net transfers to noncontrolling interest	—	114,648
Change from net loss attributable to Tecogen Inc. and transfers to noncontrolling interest	$ (3,449,489)	$ (1,522,309)

Note 12 – Retirement plans

The Company has a defined contribution retirement plan (the “Plan”), which qualifies under Section 401(k) of the Internal Revenue Code (IRC). Under the Plan, employees meeting certain requirements may elect to contribute a percentage of their salary up to the maximum allowed by the IRC. The Company matches a variable amount based on participant contributions up to a maximum of 4.5% of each participant’s salary. The Company contributed approximately $125,680 and $116,850 to the Plan for the years ended December 31, 2013 and 2012.

Note 13 – Related party transactions

The Company has five affiliated companies, namely American DG Energy, EuroSite Power, GlenRose Instruments Inc., or GlenRose Instruments, Pharos LLC, or Pharos, and Levitronix Technologies LLC, or Levitronix. These companies are affiliates because several of the major stockholders of those companies, have a significant ownership position in the Company. American DG Energy, EuroSite Power, GlenRose Instruments, Pharos or Levitronix do not own any shares of the Company, and the Company does not own any shares of American DG Energy, EuroSite Power, GlenRose Instruments, Pharos or Levitronix. The business of GlenRose Instruments, Pharos and Levitronix is not related to the business of the Company.

American DG Energy, EuroSite Power, GlenRose Instruments, Pharos and Levitronix are affiliated companies by virtue of common ownership. The common stockholders include:

- John N. Hatsopoulos, the Company’s Chief Executive Officer who is also: (a) the Chief Executive Officer and a director of American DG Energy and holds 10.7% of American DG Energy’s common stock; (b) the Chairman of EuroSite Power; (c) a director of Ilios and holds 7.2% of EuroSite Power’s common stock; and (d) the Chairman of GlenRose Instruments and holds 15.7% of GlenRose Instruments’ common stock.

- Dr. George N. Hatsopoulos, who is John N. Hatsopoulos’ brother, and is also: (a) a director of American DG Energy and holds 13.6% of American DG Energy’s common stock; (b) an investor in Ilios and holds 3.1% of Ilios' common stock; (c) an investor of GlenRose Instruments and holds 15.7% of GlenRose Instruments' common stock; (d) an investor of Pharos and may be deemed to hold 24.4% of Pharos' common stock; and (e) an investor of Levitronix and may be deemed to hold 21.4% of Levitronix’s common stock.

Additionally, the following related persons had or may have a direct or indirect material interest in our transactions with our affiliated companies:

- Barry J. Sanders, who is: (a) the President and Chief Operating Officer of American DG Energy, (b) the Chief Executive Officer and a director of EuroSite Power and (c) the Chairman of Ilios.

- Anthony S. Loumidis, the Company’s former Vice President and Treasurer who is: (a) the former Chief Financial Officer Secretary and Treasurer of American DG Energy, (b) the former Chief Financial Officer Secretary and Treasurer of EuroSite Power, (c) the former Chief Financial Officer Secretary and Treasurer of GlenRose Instruments and (d) the former Treasurer of Ilios.

American DG Energy has sales representation rights to the Company’s products and services in New England. Revenue from sales of cogeneration and chiller systems, parts and service to American DG Energy during the years ended December 31, 2013 and 2012 amounted to $758,930 and $3,795,666, respectively.

On October 20, 2009, American DG Energy, in the ordinary course of its business, signed a Sales Representative Agreement with Ilios to promote, sell and service the Ilios high-efficiency heating products, such as the high efficiency water heater, in the marketing territory of the New England States, including Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont, and Maine. The marketing territory also includes all of the nations in the European Union. The initial term of this Agreement is for five years, after which it may be renewed for successive one-year terms upon mutual written agreement.

On September 24, 2001, the Company entered into subscription agreements with investors for the sale of convertible debentures. The primary investors were George N. Hatsopoulos, who subscribed for $200,000 of the debentures, and the John N. Hatsopoulos 1989 Family Trust for the benefit of Mr. Hatsopoulos' adult children, who subscribed for a total amount of $100,000 of the debentures. The debentures accrue interest at a rate of 6% per annum and are due on September 24, 2007. The debentures are convertible, at the option of George N. Hatsopoulos, and the John N. Hatsopoulos 1989 Family Trust for the benefit of Mr. Hatsopoulos' adult children, into shares of Common Stock at a conversion price of $1.20 per share.

On September 24, 2007, George N. Hatsopoulos, and the John N. Hatsopoulos 1989 Family Trust for the benefit of Mr. Hatsopoulos' adult children agreed to extend the debenture term to September 24, 2011. On May 11, 2009, George N. Hatsopoulos converted a portion of the principal in the amount of $109,033 of the debentures and accrued interest in the amount of $90,967 into 400,000 shares of Common Stock in the Company's newly formed subsidiary, Ilios, at $2.00 per share. Also, on May 11, 2009, John N. Hatsopoulos converted principal amount of $427,432 in demand notes payable and accrued interest in the amount of $72,567 into 1,000,000 shares of Ilios Common Stock at $2.00 per share. The difference between the Company's purchase price of the Ilios shares and the amount of debt forgiveness was recorded as additional paid-in capital.

On September 30, 2009, Joseph J. Ritchie elected to convert $30,000 of the outstanding principal amount of the debenture, plus accrued interest of $14,433, into 37,028 shares of Common Stock at a conversion price of $1.20 per share. On September 24, 2011, George N. Hatsopoulos, and the John N. Hatsopoulos 1989 Family Trust for the benefit of Mr. Hatsopoulos' adult children, agreed to extend their term to September 24, 2013 and requested that accrued interest in the amount of $72,959 be converted into the Company's Common Stock at $2.00 per share (which was the average price of the Company's stock from September 24, 2001 to September 24, 2011).

On September 30, 2012, the debentures, including accrued interest, were converted into 170,480 shares of Common Stock held in the JNH 1989 Family Trust for the benefit of Nia Marie Hatsopoulos and 170,480 shares of Common Stock held in the JNH 1989 Family Trust for the benefit of Alexander J. Hatsopoulos for whom Mr. and Mrs. Paris Nicolaidis are the trustees. Mr. John N. Hatsopoulos disclaims beneficial ownership of the shares held by this trust.

On October 18, 2013, the remaining holder of the debentures, George N. Hatsopoulos, converted the principal balance of $90,967 into 75,806 shares of the Company's common stock at a conversion price of $1.20 per share. In addition, Mr. Hatsopoulos requested that the accrued interest earned in 2012 in the amount of $6,913 be converted into 2,161 shares of the Company's common stock at a conversion price of $3.20 per share and that the accrued interest earned on or after January 1, 2013 in the amount of $4,367 be converted into 970 shares of the Company's common stock at a conversion price of $4.50 per share.

On September 10, 2008 the Company entered into a demand note agreement with John N. Hatsopoulos, in the principal amount of $250,000 at an annual interest rate of 5%. On September 7, 2011 the Company entered in to an additional demand note agreement with John N. Hatsopoulos, in the principal amount of $750,000 at an annual interest rate of 6%. On November 30, 2012 the Company entered into an additional demand note agreement with John N. Hatsopoulos, in the principal amount of $300,000 at an annual interest rate of 6%. Unpaid principal and interest on the demand notes are due upon demand. On October 3, 2013 the Company entered into an additional demand note agreement with John N. Hatsopoulos, in the principal amount of $450,000 at an annual interest rate of 6%. On January 6, 2014, the Company repaid the then outstanding principal balance of 1,750,000 together with accrued interest of $175,311.

On March 25, 2013, the Company entered into a Revolving Line of Credit Agreement, or the Credit Agreement, with John N. Hatsopoulos, our Chief Executive Officer. Under the terms of the Credit Agreement, as amended on August 13, 2013, Mr. Hatsopoulos has agreed to lend the Company up to an aggregate of $1,500,000 from time to time, at the written request of the Company. Any amounts borrowed by the Company pursuant to the Credit Agreement will bear interest at the Bank Prime Rate as quoted from time to time in the Wall Street Journal plus 1.5% per year. Repayment of the principal amount borrowed pursuant to the Credit Agreement will be due on March 1, 2014. In addition, the company may prepay accrued interest, provided that prepayment may not be made prior to January 1, 2014.The Credit Agreement terminates on March 1, 2014. As of December 31, 2013 the Company has borrowed $1,200,000 pursuant to the Credit Agreement. On January 6, 2014, the Company repaid the then outstanding principal balance of $1,200,000 together with accrued interest of $25,347.

On December 23, 2013, the company entered into a Senior Convertible Promissory Note (the "Note") with Michaelson Capital Special Finance Fund LP, ("Michaelson"), for the principal amount of $3,000,000 with interest at 4% per annum for a term of three years. The Note is a senior unsecured obligation which pays interest only on a monthly basis in arrears at a rate of 4% per annum, unless earlier converted in accordance with the terms of the agreement prior to such date. The principal amount, if not converted, is due on the third anniversary of the Note, December 31, 2016.The Note is senior in right of payment to any unsecured indebtedness that is expressly subordinated in right of payment to the Note. The Note is convertible into shares of the Company's common stock at 185.19 shares of our common stock per $1,000 principal amount of Note (equivalent to a conversion price of $5.40 per share). Debt issuance costs of $140,433 are being amortized to expense over the term of the Note using the effective interest method. At December 31, 2013, there were 555,556 shares of common stock issuable upon conversion of the Company's outstanding convertible debentures.

In addition, on December 23, 2013, Michaelson participated in our private placement, investing $2,000,000 to purchase 444,445 shares of common stock at $4.50 per share. As of the purchase date and December 31, 2010, Michaelson, on a fully diluted basis, owns 6.4% of the Company. As Michaelson's beneficial ownership is 6.4% after this transaction, it is now considered a related party.

For additional disclosure on the Company's debt see *Note 7 – Demand notes payable, convertible debentures and line of credit – related party.*

John N. Hatsopoulos' salary is $1.00 per year. On average, Mr. Hatsopoulos spends approximately 50% of his business time on the affairs of the Company; however such amount varies widely depending on the needs of the business and is expected to increase as the business of the Company develops.

On January 1, 2006 the Company signed a Facilities and Support Services Agreement with American DG Energy for a period of one year, renewable annually, on January 1st, by mutual agreement. That agreement was amended July 1, 2012. Under this agreement, the Company provides American DG Energy with certain office and business support services and also provides pricing based on a volume discount depending on the level of American DG Energy purchases of cogeneration and chiller products. For certain sites, American DG Energy hires the Company to service its chiller and cogeneration products. The Company also provides office space and certain utilities to American DG Energy based on a monthly rate set at the beginning of each year. Also, under this agreement, American DG Energy has sales representation rights to the Company's products and services in New England.

The Company subleases portions of its corporate offices and manufacturing facility to sub-tenants under annual sublease agreements. For the years ended December 31, 2013 and 2012, the Company received $113,784 and $158,898, respectively, from American DG Energy, Levitronix LLC and Alexandros Partners LLC. In addition, for the years ended December 31, 2013 and 2012 the Company received from the same companies, $90,348 and $101,218, respectively, to offset common operating expenses incurred in the administration and maintenance of its corporate office and warehouse facility.

The Company's headquarters are located in Waltham, Massachusetts and consist of 27,000 square feet of office and storage space that are shared with American DG Energy and other tenants. The lease expires on March 31, 2024. We believe that our facilities are appropriate and adequate for our current needs.

Revenue from sales of cogeneration and chiller systems, parts and service to American DG Energy during the years ended December 31, 2013 and 2012 amounted to $758,930 and $3,795,666, respectively. In addition, Tecogen pays certain operating expenses, including benefits and insurance, on behalf of American DG Energy. Tecogen was reimbursed for these costs. As of December 31, 2013 and 2012, the total amount due (to) or from American DG Energy was $(119,667) and $70,811, respectively.

Note 14 – Fair value measurements

The Company has categorized its financial assets and liabilities, based on the priority of the inputs to the valuation technique, into a three-level fair value hierarchy as set forth below. If the inputs used to measure the financial instruments fall within different levels of the hierarchy, the categorization is based on the lowest level input that is significant to the fair value measurement the instrument. The three levels of the hierarchy are defined as follows:

Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities. We currently do not have any Level 1 financial assets or liabilities.

Level 2 - Observable inputs other than quoted prices included in Level 1. Level 2 inputs include quoted prices for identical assets or liabilities in non-active markets, quoted prices for similar assets or liabilities in active markets and inputs other than quoted prices that are observable for substantially the full-term of the asset or liability.

Level 3 - Unobservable inputs reflecting management's own assumptions about the input used in pricing the asset or liability. We currently do not have any Level 3 financial assets or liabilities.

There were no financial instruments measured at fair value on a recurring basis as of December 31, 2013. The following table presents the input level used to determine the fair values of the Company's financial instruments measured at fair value on a recurring basis for the year ended December 31, 2012:

	December 31, 2012	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets				
Certificates of deposit	181,859	—	181,859	—
Total Assets	$ 181,859	$ —	$ 181,859	$ —

Certificates of deposits approximate fair value, based on estimates using current market rates offered for deposits with similar remaining maturities. The Company has no assets or liabilities that are measured at fair value on a non-recurring basis.

Note 15 - Asset acquisition

On January 9, 2013 the Company purchased certain assets, both tangible and intangible, required to manufacture the generator used in its InVerde product from Danotek Motion Technologies. The aggregate consideration paid in cash by the Company was $497,800, of which $17,400 represents the fair value of inventory and $199,530 represents the estimated fair value of property, plant and equipment consisting of machinery and equipment, computer equipment, and tooling, which is depreciated over useful lives ranging from 5 to 8.5 years. The fair value of the property, plant and equipment was estimated utilizing a replacement cost method. In addition, $240,000 of the purchase consideration represents the fair value of identified intangible assets using a relief from royalty method with a useful life of fifteen years. The balance of $40,870 is included in goodwill in the accompanying condensed consolidated balance sheet, which consists largely of economies of scale expected from combining the manufacturing of the generator into Tecogen's operations. Acquisition related costs were not material to the financial statements and were expensed as incurred to general and administrative expenses.

This transaction was accounted for under the purchase method of accounting in accordance with FASB ASC Topic 805, *Business Combinations*. Under the purchase method of accounting, the total purchase price has been allocated to the net tangible and intangible assets acquired based on estimates of their fair values by the Company's management. There is one reporting unit within the Company.

Under the purchase method of accounting, an acquisition is recorded as of the closing date, reflecting the purchased assets, at their acquisition date fair values. Intangible assets that are identifiable are recognized separately from goodwill which is measured and recognized as the excess of the fair value, as a whole, over the net amount of the recognized identifiable assets acquired.

The purchase price has been allocated as follows:

Inventory	$ 17,400
Machinery and equipment	171,910
Computer equipment	22,070
Tooling	5,550
Developed technology	240,000
Goodwill	40,870
	$ 497,800

Note 16 – Income taxes

A reconciliation of the federal statutory income tax provision to the Company's actual provision for the years ended December 31, 2013 and 2012 is as follows:

	2013	2012
Benefit at federal statutory tax rate	$ 1,280,000	$ 680,000
Unbenefited operating losses	(1,280,000)	(680,000)
Income tax provision	$ —	$ —

The components of net deferred tax assets recognized in the accompanying consolidated balance sheets at December 31, 2013 and 2012 are as follows:

	2013	2012
Net operating loss carryforwards	$ 4,850,000	$ 3,380,000
Accrued expenses and other	598,000	676,000
Accounts receivable	40,000	60,000
Inventory	117,000	130,000
Property, plant and equipment	155,000	94,000
	5,760,000	4,340,000
Valuation allowance	(5,760,000)	(4,340,000)
Net deferred tax asset	$ —	$ —

As of December 31, 2013, the company has federal loss carryforwards of approximately $12,300,000, which expire beginning in 2021 through 2033. In addition, the Company has varying amounts of state net operating losses, expiring at various dates starting in 2012 through 2033. The federal net operating losses include approximately $2,800,000 attributable to the Company's majority owned subsidiary, which can only be used against income of that entity.

Management has determined that it is more likely than not that the company will not recognize the benefits of the federal and state deferred tax assets and as a result has recorded a valuation allowance against the entire net deferred tax asset. The valuation allowance has increased by $1,420,000 during the year ended December 31, 2013. If the company should generate sustained future taxable income, against which these tax attributes may be recognized, some portion or all of the valuation allowance would be reversed.

The Company did not record a benefit for income taxes related to its operating losses for the years ended December 31, 2013 and 2012.

The Company has analyzed its current tax return compliance positions and has determined that no uncertain tax positions have been taken that would require recognition.

Note 17 – Subsequent events

On January 2, 2014, the Company opened a Certificate of Deposit in the amount of $583,073 to collateralize a letter of credit, at the request of Michaelson. This Certificate of Deposit allowed the bank to remove their UCC filing on the Company. These funds will remain restricted until the letter of credit is released. See Note 8 for further discussion.

On January 6, 2014, the Company repaid all debt owed to its Chief Executive Officer including demand notes with a principal balance $1,750,000 and accrued interest of $175,311 and the line of credit with an outstanding principal balance of $1,200,000 and accrued interest of $25,347.

The Company continued its private placement through January 17, 2014. During 2014 the Company sold an additional 1,400 shares of common stock at $4.50 per share for a total of $6,300 of additional funds raised after year end 2013.

On February 25, 2014, the Company executed a Collective Bargaining Agreement with International Union of Operating Engineers, Local 68 covering 3 of its service employees in New Jersey.

On March 26, 2014, the Company secured a working capital line of credit with John Hatsopoulos, the Company's Chief Executive Officer, in the amount of $3,500,000 which may be used in the occurrence of certain events.

The Company has evaluated subsequent events through the date of this report and determined that no additional subsequent events occurred that would require recognition in the consolidated financial statements or disclosure in the notes thereto.

PART II - INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth our expenses in connection with this registration statement. All such amounts are estimates, other than the fees payable to the SEC, the Financial Industry Regulatory Authority, Inc. ("FINRA"), and the NASDAQ Capital Market.

SEC registration fee	$	1,031
FINRA filing fee		1,700
NASDAQ Capital Market listing fee		75,000
Legal fees and expenses		175,000
Accounting fees and expenses		150,000
Transfer Agent's fees and expenses		5,000
Printing expenses		20,000
Miscellaneous		22,269
Total	$	450,000

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ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 102 of the Delaware General Corporation Law allows a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law, or obtained an improper personal benefit. We have included such a provision in our amended and restated charter.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against amounts paid and expenses incurred in connection with an action or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person shall have acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal proceeding, if such person had no reasonable cause to believe his conduct was unlawful; *provided that,* in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the adjudicating court determines that such indemnification is proper under the circumstances.

Our amended and restated charter includes a provision that eliminates the personal liability of our directors for monetary damages for breach of fiduciary duty as a director, except for liability:

- for any breach of the director's duty of loyalty to the Company or its stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- under section 174 of the Delaware General Corporation Law regarding unlawful dividends and stock purchases; or

- for any transaction from which the director derived an improper personal benefit.

Our amended and restated charter also provides that:

- we must indemnify our directors and officers to the fullest extent permitted by Delaware law;
- we may, to the extent authorized from time to time by our Board of Directors, indemnify our other employees and agents to the same extent that we indemnified our officers and directors; and
- in the event we do not assume the defense in a legal proceeding, we must advance expenses, as incurred, to our directors and executive officers in connection with a legal proceeding to the fullest extent permitted by Delaware law.

The indemnification provisions contained in our amended and restated charter and bylaws are not exclusive of any other rights to which a person may be entitled by law, agreement, vote of stockholders, or disinterested directors or otherwise.

In addition to the indemnification provided for in our restated charter and bylaws, we intend to enter into indemnification agreements with each of our directors and executive officers. Each indemnification agreement will provide that we will indemnify the director or executive officer to the fullest extent permitted by law for claims arising in his or her capacity as our director, officer, employee, or agent, provided that he or she acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, our best interests and, with respect to any criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful. In the event that we do not assume the defense of a claim against a director or executive officer, we are required to advance his or her expenses in connection with his or her defense, provided that he or she undertakes to repay all amounts advanced if it is ultimately determined that he or she is not entitled to be indemnified by us.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, or persons controlling our Company pursuant to the foregoing provisions, the opinion of the SEC is that such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

In addition, we may maintain insurance on behalf of our directors and executive officers insuring them against any liability asserted against them in their capacities as directors or officers or arising out of such status.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

Set forth below is information regarding Common Stock issued, warrants issued, and stock options granted by the Company since January 1, 2010 through April 11, 2014. Also included is the consideration, if any, we received and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

Common Stock and Warrants

On March 26, 2010, the Company raised $142,500 through the exercise of 118,750 warrants of Common Stock at a price of $1.20 per share. The warrant exercise was done by three accredited investors representing 1.0% of the total shares then outstanding. Prior to this transaction the company had 11,628,936 shares of Common Stock outstanding. Included in those shares are 56,250 shares to George N. Hatsopoulos, 56,250 shares to John N. Hatsopoulos, and 6,250 shares to Ravinder K. Sakhuja. Such transactions were exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

On October 20, 2010, the Company raised $1,211,250 in a private placement of 466,866 shares of Common Stock at a price of $2.60 per share. The private placement was done exclusively by eight accredited investors, representing 4.0% of the total shares then outstanding. Prior to this transaction the company had 11,747,686 shares of Common Stock outstanding. Included in those shares are 192,308 shares to Nettlestone Enterprises Limited, 192,308 shares to RBC cees Nominees Ltd, 37,500 shares to Stephen B. Brodeaur, 25,000 shares to Kenneth G. Eisner, 6,250 shares to Ernest Aloi and Joseph Aloi, 6,250 shares to Ernest Aloi and Catherine Aloi, and 6,250 shares to Ernest Aloi and Karen Mauro. Such transactions were exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

On June 10, 2011, the Company raised $666,075 in a private placement of 256,183 shares of Common Stock at a price of $2.60 per share. The private placement was done exclusively by twelve accredited investors, representing 2.1% of the total shares then outstanding. Prior to this transaction the company had 12,232,762 shares of Common Stock outstanding. Included in those shares are 192,308 shares to the Southern California Gas Company, 25,000 shares to Giordano Venzi, 5,000 shares to Ioannis Retsos, 5,000 shares Vasileios Kakoulidis, 5,000 shares to Sandro Reginelli, 5,000 shares to Jean Skeparnias, 3,750 shares to Franco Venzi, 3,750 shares to Nicola Bianchi, 3,750 shares to Charlotte Maier, 3,750 shares to Fermin Alou, 2,500 shares to Stephano Venzi, and 1,375 shares to Athanasios Kyranis. Such transactions were exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

On May 31, 2011, the Company raised $14,000 in a private placement of 5,000 shares of Common Stock at a price of $2.80 per share. The private placement was done by Michael Zuk, Jr. & Gayle Line Zuk JTWROS, an accredited investor representing 0.04% of the total shares then outstanding. Prior to this transaction the company had 12,488,945 shares of Common Stock outstanding. Such transaction was exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

On September 24, 2011, holders of the Company's convertible debentures elected to convert accrued interest of $72,959, into 36,480 shares of Common Stock at a conversion price of $2.00 per share. The conversion was done exclusively by three accredited investors, representing 0.3% of the total shares then outstanding. Prior to this transaction the company had 12,543,945 shares of Common Stock outstanding. Included in those shares are 6,474 shares to George N. Hatsopoulos, 15,003 shares to Paris and Aliki Nikolaidis, trustees for the John N. Hatsopoulos 1989 Family Trust for the benefit of Nia Marie Hatsopoulos, and 15,003 shares to Paris and Aliki Nikolaidis, trustees for the John N. Hatsopoulos 1989 Family Trust for the benefit of Alexander John Hatsopoulos. Such transaction was exempt from registration under Section 3(a)(9) of the Securities Act and/or under Rule 506 of Regulation D.

On November 30, 2011, the Company raised $2,937,750 in a private placement of 918,047 shares of Common Stock at a price of $3.20 per share. The private placement represented 7.3% of the total shares then outstanding and was sold exclusively to three accredited investors. Prior to this transaction the company had 12,580,424 shares of Common Stock outstanding. Included in those shares are 711,797 shares to RBC cees Nominees Limited, 156,250 shares to Nettlestone Enterprises Limited, and 50,000 shares to Jeremy Benjamin. Such transactions were exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

On May 24, 2012, the Company raised $480,000 in a private placement of 150,000 shares of Common Stock at a price of $3.20 per share. The private placement represented 1.1% of the total shares then outstanding and was sold exclusively to three accredited investors. Prior to this transaction the company had 13,498,471 shares of Common Stock outstanding. Included in those shares are 62,500 shares to Bruno Meier, 25,000 shares to Hans Schopper, and 62,500 shares to Pictet Bank & Trust. Such transactions were exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

On September 30, 2012, certain holders of the debentures converted the principal amount of $100,000 and accrued interest in the amount of $6,100 into 85,240 shares of the Company's Common Stock. The conversion was done by a related party representing 0.6% of the total shares then outstanding. Prior to this transaction the company had 13,648,471 shares of Common Stock outstanding. Included in those shares are 42,620 shares to Paris and Aliki Nikolaidis, trustees for the John N. Hatsopoulos Family Trust for the benefit of Nia Marie Hatsopoulos and 42,620 shares to Paris and Aliki Nikolaidis, trustees for the John N. Hatsopoulos Family Trust for the benefit of Alexander John Hatsopoulos. Such transaction was exempt from registration under Section 3(a)(9) of the Securities Act and/or under Rule 506 of Regulation D.

On December 3, 2012, the Company raised $200,000 in a private placement of 62,500 shares of Common Stock at a price of $3.20 per share. The private placement was done by Bruno Meier, an accredited investor representing 0.5% of the total shares then outstanding. Prior to this transaction the company had 13,733,711 shares of Common Stock outstanding. Such transaction was exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

From October 16, 2013 to January 17, 2014, the Company raised $6,651,844 in a private placement of 1,478,189 shares of Common Stock at a price of $4.50 per share. The private placement was done with ninety seven accredited investors representing 10.8% of the total shares then outstanding. Prior to this transaction the company had 13,678,411 shares of Common Stock outstanding. Such transaction was exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

On December 23, 2013, the Company entered into a Senior Convertible Promissory Note with Michaelson Capital Special Finance Fund LP, or Michaelson, for the principal sum of $3,000,000 with interest at 4.0% per annum for a term of three years. At Michaelson's option, the Senior Convertible Promissory Note, or a portion thereof, may be converted into shares of the Company's common stock at a conversion price of $5.40 per share, subject to adjustment. Such transaction was exempt from registration under Section 4(a)(2) of the Securities Act and/or under Rule 506 of Regulation D.

Restricted Stock Grants

On September 15, 2010, the Company made restricted stock grants to three employees, permitting them to purchase an aggregate of 19,211 shares of Common Stock at a price of $0.004 per share. Such transactions were exempt from registration under Section 4(a)(2) of the Securities Act.

On June 20, 2011, the Company made a restricted stock grant to an employee, granting him the right to purchase an aggregate of 50,000 shares of Common Stock at a price of $0.004 per share. Such transaction was exempt from registration under the Securities Act under Section 4(a)(2).

Stock Options

On February 18, 2010, the Company granted nonqualified options to purchase 25,000 shares of Common Stock to one employee at $2.60 per share. The grant of such options was exempt from registration under Rule 701 under the Securities Act.

On February 15, 2011, the Company granted nonqualified options to purchase 480,250 shares of the Common Stock to 28 employees at $2.60 per share. The grant of such options was exempt from registration under Rule 701 under the Securities Act.

On December 31, 2013, the Company granted nonqualified options to purchase 39,000 shares of the Common Stock to 26 employees and 1 director at $4.50 per share. The grant of such options was exempt from registration under Rule 701 under the Securities Act.

On February 18, 2014, a former officer of the Company exercised an option to purchase 5,000 shares of Common Stock at $1.20. The grant of such options was exempt from registration under Rule 701 under the Securities Act.

On February 28, 2014, the Company granted nonqualified options to purchase 43,325 shares of the Common Stock to 31 employees at $4.50 per share. The grant of such options was exempt from registration under Rule 701 under the Securities Act.

No underwriters were involved in the foregoing sales of securities. All purchasers represented to us in connection with their purchase that they were accredited investors and made other customary investment representations. All of the foregoing securities were deemed restricted securities when granted for purposes of the Securities Act.

ITEM 16. EXHIBITS.

The exhibits to the Registration Statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

ITEM 17. UNDERTAKINGS.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(i) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in Waltham, Massachusetts, on April 17, 2014.

TECOGEN INC.

By: /s/ John N. Hatsopoulos
John N. Hatsopoulos
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Angelina M. Galiteva* Angelina M. Galiteva	Chairman of the Board	April 17, 2014
/s/ John N. Hatsopoulos John N. Hatsopoulos	Chief Executive Officer (Principal Executive Officer) & Director	April 17, 2014
/s/ Bonnie J. Brown* Bonnie J. Brown	Chief Financial Officer (Principal Financial and Accounting Officer)	April 17, 2014
/s/ George N. Hatsopoulos* George N. Hatsopoulos	Director	April 17, 2014
/s/ Charles T. Maxwell* Charles T. Maxwell	Director	April 17, 2014
/s/ Ahmed F. Ghoniem* Ahmed F. Ghoniem	Director	April 17, 2014
/s/ Joseph E. Aoun* Joseph E. Aoun	Director	April 17, 2014

*By: /s/ John H. Hatsopoulos
Attorney-in-Fact

EXHIBIT INDEX

Exhibit Number	Description
1.1*	Placement Agent Agreement between Tecogen Inc. and Scarsdale Equities LLC.
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to the registrant's Current Report on Form 8-K, dated July 25, 2013).
3.3	Amended and Restated Bylaws (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
4.1	Specimen Common Stock Certificate of Tecogen Inc. (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
4.2	Form of Restricted Stock Purchase Agreement (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
4.3+	Form of Stock Option Agreement (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
4.4+	Indenture and Form of 6% Convertible Debenture Due 2004, dated September 24, 2001 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
4.5*	Form of Securities Purchase Agreement.
5.1*	Opinion of Sullivan & Worcester LLP.
10.1+	Tecogen Inc. 2006 Stock Incentive Plan, as amended on November 10, 2011 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.2	Form of Tecogen Inc. Subscription Agreement for private placement of Common Stock (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.3#	Facilities and Support Services Agreement between American DG Energy Inc. and Tecogen Inc., dated July 1, 2012 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.4	First Amendment to the Facilities, Support Services, and Business Agreement between American DG Energy Inc. and Tecogen Inc., dated July 1, 2013 (incorporated by reference to the Company's current report on Form 8-K filed July 3, 2013).
10.5	Second Amendment to the Facilities, Support Services, and Business Agreement between American DG Energy Inc. and Tecogen Inc., dated November 12, 2013 (incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2013).
10.6#	General Motors LLC, Customer Care and Aftersales Agreement, dated November 15, 2011 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.7	Lease Agreement between Atlantic-Waltham Investment II, LLC, and Tecogen Inc., dated May 14, 2008 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.8+	Form of Demand Promissory Note Agreement by Tecogen Inc. in favor of John N. Hatsopoulos (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).

Exhibit Number	Description
10.9	Demand Promissory Note by Tecogen Inc., dated October 3, 2013, in favor of John N. Hatsopoulos (incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended September 30, 2013).
10.10	Form of Sales Representative Agreement (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.11#	Asset Purchase Agreement with Danotek (assignment for the benefit of creditors), LLC, dated January 8, 2013 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.12#	Exclusive License Agreement between Tecogen Inc. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.13#	Grant Award Number PIR-08-022, dated July 2, 2009 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.14#	Sales Representative Agreement between American DG Energy Inc. and Ilios Dynamics, dated October 20, 2009 (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
10.15	First Amendment to the Sales Representative Agreement, dated November 12, 2013, between Ilios Inc. and American DG Energy Inc. (incorporated by reference to the Company's quarterly report on Form 10-Q for the quarter ended September 30, 2013).
10.16	Revolving Line of Credit Agreement, dated March 25, 2013, between Tecogen Inc. and John N. Hatsopoulos (incorporated by reference to the registrant's Current Report on Form 8-K, dated March 25, 2013).
10.17	First Amendment to the Revolving Line of Credit Agreement, dated August 13, 2013, between Tecogen Inc. and John N. Hatsopoulos (incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2013).
10.18	Senior Convertible Promissory Note, dated December 23, 2013, by Tecogen Inc. in favor of Michaelson Capital Special Finance Fund LP (incorporated by reference to the Company's current report on Form 8-K dated December 23, 2013).
21.1	List of subsidiaries (incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011 (Registration No. 333 178697)).
23.1*	Consent of McGladrey LLP.
23.2	Consent of Sullivan & Worcester LLP (included in the opinion filed as Exhibit 5.1).
24.1**	Power of Attorney.
101.1	The following materials from pages F-2 through F-27 of the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2013 formatted in XBRL (eXtensible Business Reporting Language): (i) the Registrant's Consolidated Balance Sheets; (ii) the Registrant's Consolidated Statements of Operations; (iii) the Registrant's Consolidated Statements of Stockholders' Equity; (iv) the Registrant's Consolidated Statement of Cash Flows; and (v) related notes to these financial statements, tagged as blocks of text.

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* Filed herewith.
** Previously filed.
*** Furnished herewith.
\# Confidential Treatment has been granted for portions of this document. The confidential portions were omitted and filed separately, on a confidential basis, with the Securities and Exchange Commission.
\+ Management contract or compensatory plan or agreement

Exhibit 1.1

TECOGEN INC.
Up to 2,000,000 Shares
Common Stock

PLACEMENT AGENT AGREEMENT

April ●, 2014

Scarsdale Equities LLC
10 Rockefeller Plaza, Suite 720
New York, NY 10020

Dear Sirs:

1. *INTRODUCTION.* Tecogen Inc., a Delaware corporation (the **"Company"**), proposes to issue and sell to the purchasers, pursuant to the terms and conditions of this Placement Agent Agreement (this **"Agreement"**) and the Subscription Agreements in the form of Exhibit A attached hereto (the **"Subscription Agreements"**) entered into with the purchasers identified therein (each a **"Purchaser"** and collectively, the **"Purchasers"**), up to an aggregate of 2,000,000 authorized but unissued shares (the **"Shares"**) of common stock, par value $0.001 per share (the **"Common Stock"**), of the Company. The Company hereby confirms its agreement with Scarsdale Equities LLC (the "**Placement Agent**") to act as Placement Agent in accordance with the terms and conditions hereof.

2. *AGREEMENT TO ACT AS PLACEMENT AGENT; PLACEMENT OF SHARES*. On the basis of the representations, warranties and agreements of the Company herein contained, and subject to all the terms and conditions of this Agreement:

(a) The Company hereby authorizes the Placement Agent to act as its exclusive agent to solicit offers for the purchase of all or part of the Shares from the Company in connection with the proposed offering of the Shares (the "**Offering**"). Until the Closing Date (as defined in Section 4 hereof) or earlier upon termination of this Agreement pursuant to Section 9 the Company shall not, without the prior consent of the Placement Agent, solicit or accept offers to purchase the Shares otherwise than through the Placement Agent.

(b) The Company hereby acknowledges that the Placement Agent has agreed, as agent of the Company, to use its reasonable efforts to solicit offers to purchase the Shares from the Company on the terms and subject to the conditions set forth in the Prospectus (as defined below). The Placement Agent shall use reasonable efforts to assist the Company in obtaining performance by each Purchaser whose offer to purchase Shares has been solicited by the Placement Agent and accepted by the Company, but the Placement Agent shall not, except as otherwise provided in this Agreement, be obligated to disclose the identity of any potential purchaser not previously identified to the Company or have any liability to the Company in the event any purchase is not consummated for any reason. Under no circumstances will the Placement Agent be obligated to underwrite or purchase any Shares for its own account and, in soliciting purchases of the Shares, the Placement Agent shall act solely as the Company's agent and not as principal.

(c) Subject to the provisions of this Section 2, offers for the purchase of the Shares may be solicited by the Placement Agent as agent for the Company at such times and in such amounts as the Placement Agent deems advisable. The Placement Agent shall communicate to the Company, orally or in writing, each reasonable offer to purchase Shares received by it as agent of the Company. The Company shall have the sole right to accept offers to purchase Shares and may reject any such offer, in whole or in part. The Placement Agent shall have the right, in its discretion reasonably exercised, without notice to the Company, to reject any offer to purchase Shares received by it, in whole or in part, and any such rejection shall not be deemed a breach of this Agreement.

(d) The Shares are being sold to the Purchasers at an aggregate initial public offering price of $● per Share. The purchases of Shares by the Purchasers shall be evidenced by the execution of Subscription Agreements by each of the Purchasers and the Company.

(e) As compensation for services rendered, on the Closing Date (as defined in Section 4 hereof), the Company shall pay to the Placement Agent by wire transfer of immediately available funds to an account or accounts designated by the Placement Agent, a cash fee (the "**Placement Fee**") in an aggregate amount equal to six and three-quarters percent (6.75%) of the gross proceeds received by the Company from the sale of the Shares on the Closing Date The Placement Agent may retain other brokers or dealers to act as sub-agents on its behalf in connection with the Offering, the fees of which shall be paid out of the Placement Fee.

(f) No Shares which the Company has agreed to sell pursuant to this Agreement and the Subscription Agreements shall be deemed to have been purchased and paid for, or sold by the Company, until such Shares shall have been delivered to the Purchaser thereof against payment by such Purchaser. If the Company shall default in its obligations to deliver Shares to a Purchaser whose offer it has accepted, the Company shall indemnify and hold the Placement Agent harmless against any loss, claim, damage or expense arising from or as a result of such default by the Company in accordance with the procedures set forth in Section 8(c) herein.

3 . *REPRESENTATIONS AND WARRANTIES OF THE COMPANY.* The Company represents and warrants to, and agrees with, the Placement Agent and the Purchasers that:

(a) The Company has prepared and filed in conformity with the requirements of the Securities Act of 1933, as amended (the **"Securities Act"**), and published rules and regulations thereunder (the **"Rules and Regulations"**) adopted by the Securities and Exchange Commission (the **"Commission"**), a Registration Statement (as hereinafter defined) on Form S-1 (File No. 333-193823) covering the offer and sale of the Securities and the Agent Securities, which became effective on ●, 2014 (the **"Effective Date"**), including any amendments and supplements thereto as may have been required to the date of this Agreement. The term **"Registration Statement"** as used in this Agreement means the registration statement (including all exhibits, financial schedules and all documents and information deemed to be a part of the Registration Statement pursuant to Rule 430A under the Rules and Regulations), as amended and/or supplemented to the date of this Agreement. The Registration Statement is effective under the Securities Act and no stop order preventing or suspending the effectiveness of the Registration Statement or suspending or preventing the use of the Prospectus (as defined below) has been issued by the Commission and no proceedings for that purpose have been instituted or, to the knowledge of the Company, are threatened by the Commission. The Company, if required by the Rules and Regulations of the Commission, will file the Prospectus, with the Commission pursuant to Rule 424(b) under the Rules and Regulations. The term **"Prospectus,"** as used in this Agreement, means the Prospectus, in the form in which it is to be filed with the Commission pursuant to Rule 424(b) under the Rules and Regulations, or, if the Prospectus is not to be filed with the Commission pursuant to Rule 424(b), the Prospectus in the form included as part of the Registration Statement as of the Effective Date, except that if any revised prospectus shall be provided to the Placement Agent by the Company for use in connection with the offering and sale of the Shares which differs from the Prospectus (whether or not such revised prospectus is required to be filed by the Company pursuant to Rule 424(b) under the Rules and Regulations), the term **"Prospectus"** shall refer to such revised prospectus from and after the time it is first provided to the Placement Agent for such use. Any preliminary prospectus or prospectus subject to completion included in the Registration Statement or filed with the Commission pursuant to Rule 424 under the Rules and Regulations is hereafter called a **"Preliminary Prospectus."** Any reference herein to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include the documents, if any, incorporated by reference therein pursuant to Item 12 of Form S-1 which were filed under the Securities Exchange Act of 1934, as amended (the **"Exchange Act"**), on or before the last to occur of the Effective Date, the date of the Preliminary Prospectus, or the date of the Prospectus, and any reference herein to the terms "amend," "amendment," or "supplement" with respect to the Registration Statement, any Preliminary Prospectus or the Prospectus shall be deemed to refer to and include any such documents so filed. If the Company has filed an abbreviated registration statement to register additional securities pursuant to Rule 462(b) under the Rules and Regulations (the **"462(b) Registration Statement"**), then any reference herein to the Registration Statement shall also be deemed to include such 462(b) Registration Statement.

(b) As of the Applicable Time (as defined below) and as of the Closing Date, neither (i) any General Use Free Writing Prospectus (as defined below) issued at or prior to the Applicable Time, and the Pricing Prospectus (as defined below) and the information included on Schedule A hereto, all considered together (collectively, the **"General Disclosure Package"**), (ii) any individual Limited Use Free Writing Prospectus (as defined below), (iii) the bona fide electronic road show (as defined in Rule 433(h)(5) under the Rules and Regulations), if any, that has been made available without restriction to any person, nor (iv) any individual Written Testing the Waters Communication, when considered together with the General Disclosure Package, included or will include, any untrue statement of a material fact or omitted or as of the Closing Date will omit, to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however,* that the Company makes no representations or warranties as to information contained in or omitted from any documents contained in the General Disclosure Package, in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17). As used in this paragraph (b) and elsewhere in this Agreement:

“**Applicable Time**” means ●:00 ●.M., Eastern time, on the date of this Agreement.

“**General Use Free Writing Prospectus**” means any Issuer Free Writing Prospectus that is identified on Schedule A to this Agreement.

“**Issuer Free Writing Prospectus**” means any “issuer free writing prospectus,” as defined in Rule 433 under the Rules and Regulations relating to the Shares in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g) under the Rules and Regulations.

“**Limited Use Free Writing Prospectuses**” means any Issuer Free Writing Prospectus that is not a General Use Free Writing Prospectus.

“**Pricing Prospectus**” means the Preliminary Prospectus, as amended and supplemented immediately prior to the Applicable Time, including any document incorporated by reference therein.

“**Written Testing-the-Waters Communication**” means any Testing-the-Waters Communication (as defined below) that is a written communication within the meaning of Rule 405 of the Rules and Regulations.

(c) No order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus relating to the Offering has been issued by the Commission, and no proceeding for that purpose or pursuant to Section 8A of the Securities Act has been instituted or threatened by the Commission, and each Preliminary Prospectus (if any), at the time of filing thereof, conformed in all material respects to the requirements of the Securities Act and the Rules and Regulations, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; *provided, however,* that the Company makes no representations or warranties as to information contained in or omitted from any Preliminary Prospectus, in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent’s Information (as defined in Section 17).

(d) At the time the Registration Statement became or becomes effective, at the date of this Agreement and at the Closing Date, the Registration Statement conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading; the Prospectus, at the time the Prospectus was issued and at the Closing Date, conformed and will conform in all material respects to the requirements of the Securities Act and the Rules and Regulations and did not and will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading; *provided, however,* that the foregoing representations and warranties in this paragraph (d) shall not apply to information contained in or omitted from the Registration Statement or the Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17).

(e) Each Issuer Free Writing Prospectus, if any, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Shares or until any earlier date that the Company notified or notifies the Placement Agent as described in Section 5(e), did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, Pricing Prospectus or the Prospectus, including any document incorporated by reference therein that has not been superseded or modified, or did not, does not or will not include an untrue statement of a material fact or did not, does not or will not omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17).

(f) The documents incorporated by reference in the Prospectus, if any, when they became effective or were filed with the Commission, as the case may be, conformed in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and none of such documents contained any untrue statement of a material fact or omitted to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading; and any further documents so filed and incorporated by reference in the Prospectus, when such documents become effective or are filed with the Commission, as the case may be, will conform in all material respects to the requirements of the Securities Act or the Exchange Act, as applicable, and the rules and regulations of the Commission thereunder and will not contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(g) The Company has not, directly or indirectly, distributed and will not distribute any offering material in connection with the Offering other than any Pricing Prospectus, the Prospectus and other materials, if any, permitted under the Securities Act and consistent with Section 5(b) below. The Company is not an "ineligible issuer" in connection with the offering pursuant to Rules 164, 405 and 433 under the Securities Act. The Company will file with the Commission all Issuer Free Writing Prospectuses (other than a "road show," as defined in Rule 433(d)(8) under the Rules and Regulations), if any, in the time and manner required under Rules 163(b)(2) and 433(d) under the Rules and Regulations.

(h) From the first date on which the Company engaged directly or through any person authorized to act on its behalf in any communication in reliance on Section 5(d) of the Securities Act) through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “**Emerging Growth Company**”).

(i) The Company (a) has not alone engaged in any Testing-the-Waters Communication with entities that are qualified institutional buyers within the meaning of Rule 144A under the Securities Act or institutions that are accredited investors within the meaning of Rule 501 under the Securities Act and (b) has not authorized anyone to engage in Testing-the-Waters Communications. The Company has not distributed any Written Testing-the-Waters Communications.

(j) The Company and each Subsidiary (as defined below) has been duly organized and is validly existing in good standing (or the foreign equivalent thereof) under the laws of each of their respective jurisdictions of organization. The Company and each Subsidiary is duly qualified to do business and is in good standing in each jurisdiction in which its ownership or lease of property or the conduct of its business requires such qualification and has all power and authority necessary to own or hold its properties and to conduct the business in which it is engaged, except where the failure to so qualify or have such power or authority (i) would not have, singularly or in the aggregate, a material adverse effect on the condition (financial or otherwise), results of operations, assets or business or prospects of the Company or any Subsidiary, taken as a whole, or (ii) impair in any material respect the ability of the Company to perform its obligations under this Agreement or to consummate any transactions contemplated by the Agreement, the Registration Statement, the General Disclosure Package or the Prospectus (any such effect as described in clauses (i) or (ii), a **“Material Adverse Effect”**). The Company owns or controls, directly or indirectly, only the following corporations, partnerships, limited liability partnerships, limited liability companies, associations or other entities: Ilios Inc., a Delaware corporation (each, a “**Subsidiary**” and, collectively, the “**Subsidiaries**”).

(k) The Company has the full right, power and authority to enter into this Agreement and each of the Subscription Agreements and to perform and to discharge its obligations hereunder and thereunder; and this Agreement and each of the Subscription Agreements have been duly authorized, executed and delivered by the Company, and constitutes a valid and binding obligation of the Company enforceable in accordance with its terms, except as may be limited by bankruptcy, insolvency, reorganization or other similar laws affecting the enforcement of creditors’ rights generally and by general principles of equity.

(l) The Shares to be issued and sold by the Company to the Purchasers hereunder and under the Subscription Agreements have been duly authorized, and the Shares, when issued and delivered against payment therefor as provided herein and in the Subscription Agreements, will be validly issued, fully paid and non-assessable and free of any preemptive or similar rights and will conform in all material respects to the description thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus.

(m) The Company has an authorized capitalization as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, and all of the issued shares of capital stock of the Company have been duly authorized and validly issued, are fully paid and non-assessable, have been issued in compliance with United States federal and state securities laws, and conform to the description thereof contained in the Registration Statement, the General Disclosure Package and the Prospectus. As of December 31, 2013, there were ● shares of Common Stock issued and outstanding and an aggregate of ● shares of Common Stock were issuable upon the exercise of all options and warrants and conversion of all convertible securities outstanding as of such date. Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, since such date, the Company has not issued any securities, other than Common Stock of the Company issued pursuant to the exercise of stock options previously outstanding under the Company's stock incentive plans or the issuance of restricted Common Stock or other awards pursuant to such stock incentive plans. All of the Company's options, warrants and other rights to purchase, exchange or convert any securities for shares of the Company's capital stock have been duly authorized and validly issued and were issued in compliance with United States federal and state securities laws. None of the outstanding shares of Common Stock was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding shares of capital stock, options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company or any Subsidiary other than those described above or accurately described in the Registration Statement, the General Disclosure Package and the Prospectus. The description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, as described in the Registration Statement, the General Disclosure Package and the Prospectus, accurately and fairly present the information required to be shown with respect to such plans, arrangements, options and rights.

(n) All the outstanding shares of capital stock or ownership interests of each Subsidiary have been duly authorized and validly issued, are fully paid and non-assessable and, except to the extent set forth in the Registration Statement, the General Disclosure Package and the Prospectus, are owned by the Company directly or indirectly through one or more wholly-owned Subsidiaries, free and clear of any claim, lien, encumbrance, security interest, restriction upon voting or transfer or any other claim of any third party.

(o) The execution, delivery and performance of this Agreement and the Subscription Agreements by the Company, the issue and sale of the Shares by the Company and the consummation of the transactions contemplated hereby and thereby will not (with or without notice or lapse of time or both): (i) conflict with or result in a breach or violation of any of the terms or provisions of, constitute a default or Debt Repayment Triggering Event (as defined below) under, give rise to any right of termination or other right or the cancellation or acceleration of any right or obligation or loss of a benefit under, or give rise to the creation or imposition of any lien, encumbrance, security interest, claim or charge upon any property or assets of the Company or any Subsidiary pursuant to any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company or any Subsidiary is a party or by which the Company or any Subsidiary is bound or to which any of the property or assets of the Company or any Subsidiary is subject (each, a "**Contract**" and, collectively, the "**Contracts**"); (ii) result in any violation of the provisions of the charter or by-laws (or analogous governing instruments, as applicable) of the Company or any Subsidiary; or, (iii) to the Company's knowledge, result in the violation of any law, statute, rule, regulation, judgment, order or decree of any court or governmental agency or body, domestic or foreign, having jurisdiction over the Company or any Subsidiary or any of their properties or assets, except with respect to clauses (i) and (iii), any breaches, violations or defaults which, singularly or in the aggregate, would not have a Material Adverse Effect. A " **Debt Repayment Triggering Event**" means any event or condition that gives, or with the giving of notice or lapse of time would give the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder's behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any Subsidiary.

(p) Except for the registration of the Shares under the Securities Act, and such consents, approvals, authorizations, registrations or qualifications as may be required under the Exchange Act and applicable state or foreign securities laws, the Financial Industry Regulatory Authority ("**FINRA**") and The NASDAQ Capital Market ("**NASDAQ**") in connection with the offering and sale of the Shares by the Company, no consent, approval, authorization or order of, or filing, qualification or registration with, any court or governmental agency or body, foreign or domestic, which has not been made, obtained or taken and is not in full force and effect, is required for the execution, delivery and performance of this Agreement and the Subscription Agreements by the Company, the offer or sale of the Shares or the consummation of the transactions contemplated hereby or thereby.

(q) McGladrey LLP, who has certified certain financial statements and related schedules included in the Registration Statement, the General Disclosure Package and the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Rules and Regulations and the Public Company Accounting Oversight Board (United States) (the "**PCAOB**"). Except as pre-approved in accordance with the requirements set forth in Section 10A of the Exchange Act, McGladrey LLP has not been engaged by the Company to perform any "prohibited activities" (as defined in Section 10A of the Exchange Act).

(r) The financial statements, together with the related notes and schedules, included in the Registration Statement, the General Disclosure Package and the Prospectus fairly present in all material respects the financial position and the results of operations and changes in financial position of the Company and its Subsidiaries and other consolidated entities at the respective dates or for the respective periods therein specified. Such statements and related notes and schedules have been prepared in accordance with the generally accepted accounting principles in the United States ("**GAAP**") applied on a consistent basis throughout the periods involved except as may be set forth in the related notes included or incorporated by reference in the General Disclosure Package. The financial statements, together with the related notes and schedules, included in the Registration Statement, the General Disclosure Package and the Prospectus comply in all material respects with the Securities Act, the Exchange Act, and the Rules and Regulations and the rules and regulations under the Exchange Act. No other financial statements or supporting schedules or exhibits are required by the Securities Act or the Rules and Regulations to be described or included in the Registration Statement, the General Disclosure Package or the Prospectus. There is no pro forma or as adjusted financial information which is required to be included in the Registration Statement, the General Disclosure Package, or the Prospectus in accordance with the Securities Act and the Rules and Regulations which has not been included as so required. Any pro forma and pro forma as adjusted financial information and the related notes included in the Registration Statement, the General Disclosure Package and the Prospectus have been properly compiled and prepared in accordance with the applicable requirements of the Securities Act and the Rules and Regulations and present fairly the information shown therein, and the assumptions used in the preparation thereof are reasonable and the adjustments used therein are appropriate to give effect to the transactions and circumstances referred to therein.

(s) Neither the Company nor any Subsidiary has sustained, since the date of the latest audited financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Registration Statement, the General Disclosure Package and the Prospectus; and, since such date, there has not been any change in the capital stock or long-term debt of the Company or any Subsidiary or any material adverse changes, or any development involving a prospective material adverse change, in or affecting the business, assets, management, financial position, prospects, stockholders' equity or results of operations of the Company or any Subsidiary, otherwise than as set forth or contemplated in the Registration Statement, the General Disclosure Package and the Prospectus.

(t) Except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, there is no legal or governmental action, suit, claim or proceeding pending to which the Company or any Subsidiary is a party or of which any property or assets of the Company or any Subsidiary is the subject which is required to be described in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein and is not described therein, or which, singularly or in the aggregate, if determined adversely to the Company or any Subsidiary could have a Material Adverse Effect or prevent the consummation of the transactions contemplated hereby; and to the best of the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others.

(u) Neither the Company nor any Subsidiary is in (i) violation of its charter or by-laws (or analogous governing instrument, as applicable), (ii) default in any respect, and no event has occurred which, with notice or lapse of time or both, would constitute such a default, in the due performance or observance of any term, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it is bound or to which any of its property or assets is subject or (iii) to the Company's knowledge, violation of any law, ordinance, governmental rule, regulation or court order, decree or judgment to which it or its property or assets is subject except, in the case of clauses (ii) and (iii) of this paragraph(s), for any violations or defaults which, singularly or in the aggregate, would not have a Material Adverse Effect.

(v) The Company and each Subsidiary possesses all licenses, certificates, authorizations and permits issued by, and have made all declarations and filings with, the appropriate local, state, federal or foreign regulatory agencies or bodies which are necessary or desirable for the ownership of its properties or the conduct of their respective businesses as described in the Registration Statement, the General Disclosure Package and the Prospectus (collectively, the "**Governmental Permits**") except where any failures to possess or make the same, singularly or in the aggregate, would not have a Material Adverse Effect. The Company and each Subsidiary is in compliance with all such Governmental Permits, and all such Governmental Permits are valid and in full force and effect, except where any non-compliance or the validity or failure to be in full force and effect would not, singularly or in the aggregate, have a Material Adverse Effect. To the Company's knowledge, all such Governmental Permits are free and clear of any restriction or condition that are in addition to, or materially different from those normally applicable to similar licenses, certificates, authorizations and permits. Neither the Company nor any Subsidiary has received notification of any revocation or modification (or proceedings related thereto) of any such Governmental Permit and, to the Company's knowledge, there is no reason to believe that any such Governmental Permit will not be renewed.

(w) Neither the Company nor any Subsidiary is or, after giving effect to the offering of the Shares and the application of the proceeds thereof as described in the Registration Statement, the General Disclosure Package and the Prospectus, will become an "investment company" within the meaning of the Investment Company Act of 1940, as amended, and the rules and regulations of the Commission thereunder.

(x) Neither the Company nor any Subsidiary, nor to the Company's knowledge, any of the Company's and any Subsidiary's officers, directors or affiliates has taken or will take, directly or indirectly, any action designed or intended to stabilize or manipulate the price of any security of the Company, or which caused or resulted in, or which might in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any security of the Company.

(y) To the best of the Company's knowledge, the Company and each Subsidiary owns or possesses the right to use all patents, trademarks, trademark registrations, service marks, service mark registrations, trade names, copyrights, licenses, inventions, software, databases, know-how, Internet domain names, trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures, and other intellectual property (collectively, **"Intellectual Property"**) necessary to carry on their respective businesses as currently conducted, and as proposed to be conducted and described in the Registration Statement, the General Disclosure Package and the Prospectus, and the Company is not aware of any claim to the contrary or any challenge by any other person to the rights of the Company or any Subsidiary with respect to the foregoing except for those that could not have a Material Adverse Effect. The Intellectual Property licenses described in the Registration Statement, the General Disclosure Package and the Prospectus are valid, binding upon, and enforceable by or against the parties thereto in accordance with their terms. The Company and each Subsidiary has complied in all material respects with, and is not in breach nor has received any asserted or threatened claim of breach of, any Intellectual Property license, and the Company has no knowledge of any breach or anticipated breach by any other person to any Intellectual Property license. To the best of the Company's knowledge, the Company's and each Subsidiary's business as now conducted and as proposed to be conducted does not and will not infringe or conflict with any valid patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses or other Intellectual Property or franchise right of any person, except for any such acts that would not have a Material Adverse Effect. No claim has been made against the Company or any Subsidiary alleging the infringement by the Company or any Subsidiary of any patent, trademark, service mark, trade name, copyright, trade secret, license in or other intellectual property right or franchise right of any person. The Company and each Subsidiary has taken all reasonable steps to protect, maintain and safeguard its rights in all Intellectual Property, including the execution of appropriate nondisclosure and confidentiality agreements. The consummation of the transactions contemplated by this Agreement will not result in the loss or impairment of or payment of any additional amounts with respect to, nor require the consent of any other person in respect of, each of the Company's and each Subsidiary's right to own, use, or hold for use any of the Intellectual Property as owned, used or held for use in the conduct of its business as currently conducted. The Company and each Subsidiary has at all times complied in all material respects with all applicable laws relating to privacy, data protection, and the collection and use of personal information collected, used, or held for use by the Company or any Subsidiary in the conduct of the Company's or any Subsidiary's business. No claims have been asserted or threatened against the Company or any Subsidiary alleging a violation of any person's privacy or personal information or data rights and the consummation of the transactions contemplated hereby will not breach or otherwise cause any violation of any law related to privacy, data protection, or the collection and use of personal information collected, used, or held for use by the Company or any Subsidiary in the conduct of the Company's or any Subsidiary's business. The Company and each Subsidiary takes reasonable measures to ensure that such information is protected against unauthorized access, use, modification, or other misuse.

(z) The Company and each Subsidiary has good and marketable title in fee simple to, or have valid rights to lease or otherwise use, all items of real or personal property which are material to the business of the Company and any Subsidiary, free and clear of all liens, encumbrances, security interests, claims and defects that do not, singularly or in the aggregate, materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company or any Subsidiary; and all of the leases and subleases material to the business of the Company or any Subsidiary, and under which the Company or any Subsidiary holds properties described in the Registration Statement, the General Disclosure Package and the Prospectus, are in full force and effect, and neither the Company nor any Subsidiary has received any notice of any material claim of any sort that has been asserted by anyone adverse to the rights of the Company or any Subsidiary under any of the leases or subleases mentioned above, or affecting or questioning the rights of the Company or any Subsidiary to the continued possession of the leased or subleased premises under any such lease or sublease.

(aa) No organized labor disturbance by the employees of the Company or any Subsidiary exists or, to the best of the Company's knowledge, is imminent, and the Company has no actual knowledge of any existing or imminent labor disturbance by the employees of any of its or any Subsidiary's principal suppliers, manufacturers, customers or contractors, that could reasonably be expected, singularly or in the aggregate, to have a Material Adverse Effect. The Company is not aware that any key employee or significant group of employees of the Company or any Subsidiary plans to terminate employment with the Company or any Subsidiary.

(bb) No "prohibited transaction" (as defined in Section 406 of the Employee Retirement Income Security Act of 1974, as amended, including the regulations and published interpretations thereunder (**"ERISA"**), or Section 4975 of the Internal Revenue Code of 1986, as amended from time to time (the **"Code"**)) or "accumulated funding deficiency" (as defined in Section 302 of ERISA) or any of the events set forth in Section 4043(b) of ERISA (other than events with respect to which the thirty (30)-day notice requirement under Section 4043 of ERISA has been waived) has occurred or could reasonably be expected to occur with respect to any employee benefit plan of the Company or any Subsidiary which could, singularly or in the aggregate, have a Material Adverse Effect. Each employee benefit plan of the Company or any Subsidiary is in compliance in all material respects with applicable law, including ERISA and the Code. The Company and each Subsidiary has not incurred and could not reasonably be expected to incur liability under Title IV of ERISA with respect to the termination of, or withdrawal from, any pension plan (as defined in ERISA). Each pension plan for which the Company or any Subsidiary would have any liability that is intended to be qualified under Section 401(a) of the Code is so qualified, and nothing has occurred, whether by action or by failure to act, which could, singularly or in the aggregate, cause the loss of such qualification to the extent such loss would have a Material Adverse Effect.

(cc) To the best of the Company's knowledge, the Company and each Subsidiary is in compliance with all foreign, federal, state and local rules, laws and regulations relating to the use, treatment, storage and disposal of hazardous or toxic substances or waste and protection of health and safety or the environment which are applicable to its businesses (**"Environmental Laws"**), except where the failure to comply would not, singularly or in the aggregate, have a Material Adverse Effect. There has been no storage, generation, transportation, handling, treatment, disposal, discharge, emission, or other release of any kind of toxic or other wastes or other hazardous substances regulated by Environmental Laws (**"Hazardous Substances"**) by or caused by the Company or any Subsidiary (or, to the Company's knowledge and without independent investigation, any other entity for whose acts or omissions the Company or any Subsidiary is or may otherwise be liable) upon any of the property now or previously owned or leased by the Company or any Subsidiary, or upon any other property, in violation of any law, statute, ordinance, rule, regulation, order, judgment, decree or permit or which would, under any law, statute, ordinance, rule (including rule of common law), regulation, order, judgment, decree or permit, give rise to any liability, except for any violation or liability which would not have, singularly or in the aggregate with all such violations and liabilities, a Material Adverse Effect; to the Company's actual knowledge and without independent investigation, there has been no disposal, discharge, emission or other release onto property now leased by the Company or any Subsidiary or into the environment surrounding such property of any Hazardous Substance, except for any such disposal, discharge, emission, or other release in violation of Environmental Laws which would not have, singularly or in the aggregate with all such discharges and other releases, a Material Adverse Effect.

(dd) The Company and each Subsidiary (i) has timely filed (or filed an extension to file) all necessary federal, state, local and foreign tax returns, and all such filed returns were true, complete and correct, (ii) has paid all federal, state, local and foreign taxes, assessments, governmental or other charges due and payable for which it is liable, including, without limitation, all sales and use taxes and all taxes which the Company or any Subsidiary is obligated to withhold from amounts owing to employees, creditors and third parties, and (iii) does not have any tax deficiency or claims outstanding or assessed or, to the best of its knowledge, proposed against any of them, except those, in each of the cases described in clauses (i), (ii) and (iii) of this paragraph (bb), that would not, singularly or in the aggregate, have a Material Adverse Effect. The Company and each Subsidiary has not engaged in any transaction which is a corporate tax shelter or which could be characterized as such by the Internal Revenue Service or any other taxing authority. The accruals and reserves on the books and records of the Company in respect of tax liabilities for any taxable period not yet finally determined are adequate to meet any assessments and related liabilities for any such period, and the Company and each Subsidiary has not incurred any liability for taxes other than in the ordinary course.

(ee) The Company and each Subsidiary carries, or is covered by, insurance provided by recognized, financially sound and reputable institutions with policies in such amounts and covering such risks as is adequate in the good faith opinion of Company management for the conduct of their respective businesses and the value of its properties and, to its knowledge, as is customary for companies engaged in similar businesses in similar industries. The Company has no reason to believe that it or any Subsidiary will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct their respective businesses as now conducted and at a cost that would not result in a Material Adverse Effect. Neither the Company nor any Subsidiary has been denied any insurance coverage that it has sought or for which it has applied.

(ff) The Company and each Subsidiary maintains a system of internal accounting and other controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(gg) The minute books of the Company and each Subsidiary have been made available to the Placement Agent and counsel for the Placement Agent, and such books (i) contain a complete summary in all material respects of all meetings and actions of the board of directors (including each board committee) and stockholders of the Company and each Subsidiary (or analogous governing bodies and interest holders, as applicable), since January 1, 2011 through the date of the latest meeting and action, and (ii) accurately, in all material respects, reflect all transactions referred to in such minutes.

(hh) There is no franchise, lease, contract, agreement or document required by the Securities Act or by the Rules and Regulations to be described in the Registration Statement, the General Disclosure Package and the Prospectus or a document incorporated by reference therein or to be filed as an exhibit to the Registration Statement or a document incorporated by reference therein which is not described or filed therein as required; and all descriptions of any such franchises, leases, contracts, agreements or documents contained in the Registration Statement, the General Disclosure Package and the Prospectus or in a document incorporated by reference therein are accurate and complete descriptions of such documents in all material respects. Other than as described in the Registration Statement, the General Disclosure Package and the Prospectus, no such franchise, lease, contract or agreement has been suspended or terminated for convenience or default by the Company or any Subsidiary or any of the other parties thereto, and neither the Company nor any Subsidiary has received notice nor does the Company have any other knowledge of any such pending or threatened suspension or termination, except for such pending or threatened suspensions or terminations that would not reasonably be expected to, singularly or in the aggregate, have a Material Adverse Effect.

(ii) No relationship, direct or indirect, exists between or among the Company and any Subsidiary on the one hand, and the directors, officers, stockholders (or analogous interest holders), customers or suppliers of the Company or any Subsidiary or any of their affiliates on the other hand, which is required to be described in the Registration Statement, the General Disclosure Package and the Prospectus or a document incorporated by reference therein and which is not so described.

(jj) No person or entity has the right to require registration of shares of Common Stock or other securities of the Company or any Subsidiary because of the filing or effectiveness of the Registration Statement or otherwise, except for persons and entities who have expressly waived such right in writing or who have been given timely and proper written notice and have failed to exercise such right within the time or times required under the terms and conditions of such right. Except as described in the Registration Statement, the General Disclosure Package and the Prospectus, there are no persons with registration rights or similar rights to have any securities registered by the Company or any Subsidiary under the Securities Act.

(kk) Neither the Company nor any Subsidiary owns any "margin securities" as that term is defined in Regulation U of the Board of Governors of the Federal Reserve System (the **"Federal Reserve Board"**), and none of the proceeds of the sale of the Shares will be used, directly or indirectly, for the purpose of purchasing or carrying any margin security, for the purpose of reducing or retiring any indebtedness which was originally incurred to purchase or carry any margin security or for any other purpose which might cause any of the Shares to be considered a "purpose credit" within the meanings of Regulation T, U or X of the Federal Reserve Board.

(ll) Except for this Agreement, neither the Company nor any Subsidiary is a party to any contract, agreement or understanding with any person that would give rise to a valid claim against the Company or the Placement Agent for a brokerage commission, finder's fee or like payment in connection with the offering and sale of the Shares or any transaction contemplated by this Agreement, the Registration Statement, the General Disclosure Package or the Prospectus.

(mm) No forward-looking statement (within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act) contained in either the Registration Statement, the General Disclosure Package or the Prospectus has been made or reaffirmed without a reasonable basis or has been disclosed other than in good faith.

(nn) The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(g) of the 1934 Act and has been approved for listing on NASDAQ subject to official notice of issuance and adequate distribution, and the Company has taken no action designed to, or likely to have the effect of, terminating the registration of the Common Stock under the 1934 Act or removal from quotation of the Common Stock from NASDAQ, nor has the Company received any notification that the SEC, NASDAQ or the Financial Industry Regulatory Authority, Inc. is contemplating terminating such registration or quotation. The Company has obtained or will have obtained, or has made or will have made, as applicable, all necessary consents, approvals, authorizations or orders of, or filing, notification or registration with, NASDAQ required for the quotation and trading of the Shares on NASDAQ.

(oo) The Company is in material compliance with all applicable provisions of the Sarbanes-Oxley Act of 2002 and all applicable rules and regulations promulgated thereunder or implementing the provisions thereof (the "**Sarbanes-Oxley Act**").

(pp) Neither the Company nor any Subsidiary, nor, to the best of the Company's knowledge, any employee or agent of the Company or any Subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state, local or foreign office in violation of any law (including the Foreign Corrupt Practices Act of 1977, as amended) or of the character required to be disclosed in the Registration Statement, the General Disclosure Package or the Prospectus or a document incorporated by reference therein.

(qq) There are no transactions, arrangements or other relationships between and/or among the Company or any Subsidiary, any of their affiliates (as such term is defined in Rule 405 of the Securities Act) and any unconsolidated entity, including, but not limited to, any structured finance, special purpose or limited purpose entity that could reasonably be expected to materially affect the Company's or any Subsidiary's liquidity or the availability of or requirements for their capital resources required to be described in the Registration Statement, the General Disclosure Package and the Prospectus or a document incorporated by reference therein which have not been described as required.

(rr) There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company to or for the benefit of any of the officers or directors of the Company or any of their respective family members, except as disclosed in the Registration Statement, the General Disclosure Package and the Prospectus.

(ss) The statistical and market related data included in the Registration Statement, the General Disclosure Package and the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate, and such data agree with the sources from which they are derived.

(tt) The operations of the Company and each Subsidiary are and have been conducted at all times in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, applicable money laundering statutes and applicable rules and regulations thereunder (collectively, the **"Money Laundering Laws"**), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any Subsidiary with respect to the Money Laundering Laws is pending, or to the best knowledge of the Company, threatened.

(uu) Neither the Company nor any Subsidiary nor, to the knowledge of the Company, any director, officer, agent, employee or affiliate of the Company or any Subsidiary is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (**"OFAC"**); and the Company will not directly or indirectly use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other person or entity, for the purpose of financing the activities of any person currently subject to any U.S. sanctions administered by OFAC.

(vv) Neither the Company, nor any Subsidiary, nor any of their affiliates (within the meaning of FINRA Rule 5121(b)(1)(a)) directly or indirectly controls, is controlled by, or is under common control with, or is an associated person (within the meaning of Article I, Section l(ee) of the By-laws of FINRA) of, any member firm of FINRA.

(ww) Any certificate signed by or on behalf of the Company and delivered to the Placement Agent or to counsel for the Placement Agent shall be deemed to be a representation and warranty by the Company to the Placement Agent and the Purchasers as to the matters covered thereby.

4 . *THE CLOSING.* The time and date of closing and delivery of the documents required to be delivered to the Placement Agent pursuant to Sections 5 and 7 hereof shall be at 10:00 A.M., Eastern time, on ●, 2014 (the **"Closing Date"**) at the office of Lowenstein Sandler LLP, 1251 Avenue of the Americas, New York, New York 10020.

5. *FURTHER AGREEMENTS OF THE COMPANY.* The Company agrees with the Placement Agent and the Purchasers:

(a) To prepare the Rule 462(b) Registration Statement, if necessary, in a form approved by the Placement Agent and file such Rule 462(b) Registration Statement with the Commission on the date hereof; to prepare the Prospectus in a form approved by the Placement Agent containing information previously omitted at the time of effectiveness of the Registration Statement in reliance on rules 430A, 430B and 430C and to file such Prospectus pursuant to Rule 424(b) under the Rules and Regulations not later than the second (2nd) business day following the execution and delivery of this Agreement or, if applicable, such earlier time as may be required by Rule 430A under the Rules and Regulations; to notify the Placement Agent immediately of the Company's intention to file or prepare any supplement or amendment to any Registration Statement or to the Prospectus and to make no amendment or supplement to the Registration Statement, the General Disclosure Package or to the Prospectus to which the Placement Agent shall reasonably object by notice to the Company after a reasonable period to review, to advise the Placement Agent, promptly after it receives notice thereof, of the time when any amendment to any Registration Statement has been filed or becomes effective or any supplement to the General Disclosure Package or the Prospectus or any amended Prospectus has been filed and to furnish the Placement Agent copies thereof; to file promptly all material required to be filed by the Company with the Commission pursuant to Rule 433(d) or 163(b)(2), as the case may be; to file promptly all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the Prospectus and for so long as the delivery of a prospectus (or in lieu thereof, the notice referred to in Rule 173(a) under the Rules and Regulations) is required in connection with the offering or sale of the Shares; to advise the Placement Agent, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement, the General Disclosure Package or the Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus, any Issuer Free Writing Prospectus or the Prospectus or suspending any such qualification, and promptly to use its best efforts to obtain the withdrawal of such order.

(b) The Company will promptly notify the Placement Agent if the Company ceases to be an Emerging Growth Company at any time prior to the later of (a) the completion of the distribution of the Shares within the meaning of the Securities Act and (b) completion of the Lock-Up Period (as defined below)

(c) If at any time following the distribution of any Written Testing-the-Waters Communication there occurred or occurs an event or development as a result of which such Written Testing-the-Waters Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Placement Agent and will promptly amend or supplement, at its own expense, such Written Testing-the-Waters Communication to eliminate or correct such untrue statement or omission.

(d) The Company represents and agrees that, unless it obtains the prior consent of the Placement Agent, it has not made and will not make any offer relating to the Shares that would constitute a "free writing prospectus" as defined in Rule 405 under the Rules and Regulations unless the prior written consent of the Placement Agent has been received (each, a **"Permitted Free Writing Prospectus"**); *provided* that the prior written consent of the Placement Agent hereto shall be deemed to have been given in respect of the Issuer Free Writing Prospectus included in Schedule A hereto. The Company represents that it has treated and agrees that it will treat each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus, comply with the requirements of Rules 164 and 433 under the Rules and Regulations applicable to any Issuer Free Writing Prospectus, including the requirements relating to timely filing with the Commission, legending and record keeping and will not take any action that would result in the Placement Agent or the Company being required to file with the Commission pursuant to Rule 433(d) under the Rules and Regulations a free writing prospectus prepared by or on behalf of the Placement Agent that the Placement Agent otherwise would not have been required to file thereunder.

(e) If at any time when a Prospectus relating to the Shares is required to be delivered under the Securities Act, any event occurs or condition exists as a result of which the Prospectus, as then amended or supplemented, would include any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in light of the circumstances under which they were made, not misleading, or the Registration Statement, as then amended or supplemented, would include any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein not misleading, or if for any other reason it is necessary at any time to amend or supplement any Registration Statement or the Prospectus to comply with the Securities Act or the Exchange Act, the Company will promptly notify the Placement Agent, and upon the Placement Agent's request, the Company will promptly prepare and file with the Commission, at the Company's expense, an amendment to the Registration Statement or an amendment or supplement to the Prospectus that corrects such statement or omission or effects such compliance and will deliver to the Placement Agent, without charge, such number of copies thereof as the Placement Agent may reasonably request. The Company consents to the use of the Prospectus or any amendment or supplement thereto by the Placement Agent.

(f) If the General Disclosure Package is being used to solicit offers to buy the Shares at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur as a result of which, in the judgment of the Company or in the reasonable opinion of the Placement Agent, it becomes necessary to amend or supplement the General Disclosure Package in order to make the statements therein, in the light of the circumstances then prevailing, not misleading, or to make the statements therein not conflict with the information contained or incorporated by reference in the Registration Statement then on file and not superseded or modified, or if it is necessary at any time to amend or supplement the General Disclosure Package to comply with any law, the Company promptly will either (i) prepare, file with the Commission (if required) and furnish to the Placement Agent and any dealers an appropriate amendment or supplement to the General Disclosure Package or (ii) prepare and file with the Commission an appropriate filing under the Exchange Act which shall be incorporated by reference in the General Disclosure Package so that the General Disclosure Package as so amended or supplemented will not, in the light of the circumstances then prevailing, be misleading or conflict with the Registration Statement then on file, or so that the General Disclosure Package will comply with law.

(g) If at any time following issuance of an Issuer Free Writing Prospectus there occurred or occurs an event or development as a result of which such Issuer Free Writing Prospectus conflicted or will conflict with the information contained in the Registration Statement, any Pricing Prospectus or the Prospectus, including any document incorporated by reference therein and any prospectus supplement deemed to be a part thereof and not superseded or modified or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances prevailing at the subsequent time, not misleading, the Company has promptly notified or will promptly notify the Placement Agent so that any use of the Issuer Free Writing Prospectus may cease until it is amended or supplemented and has promptly amended or will promptly amend or supplement, at its own expense, such Issuer Free Writing Prospectus to eliminate or correct such conflict, untrue statement or omission. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus in reliance upon, and in conformity with, written information furnished to the Company by the Placement Agent specifically for inclusion therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17).

(h) To the extent not available on the Commission's EDGAR system or any successor system, to furnish promptly to the Placement Agent and to counsel for the Placement Agent a signed copy of the Registration Statement as originally filed with the Commission, and of each amendment thereto filed with the Commission, including all consents and exhibits filed therewith.

(i) To the extent not available on the Commission's EDGAR system or any successor system, to deliver promptly to the Placement Agent in New York City such number of the following documents as the Placement Agent shall reasonably request: (i) conformed copies of the Registration Statement as originally filed with the Commission (in each case excluding exhibits), (ii) each Preliminary Prospectus, (iii) any Issuer Free Writing Prospectus, (iv) the Prospectus (the delivery of the documents referred to in clauses (i), (ii), (iii) and (iv) of this paragraph (g) to be made not later than 10:00 A.M., New York time, on the business day following the execution and delivery of this Agreement), (v) conformed copies of any amendment to the Registration Statement (excluding exhibits), (vi) any amendment or supplement to the General Disclosure Package or the Prospectus (the delivery of the documents referred to in clauses (v) and (vi) of this paragraph (g) to be made not later than 10:00 A.M., Eastern time, on the business day following the date of such amendment or supplement) and (vii) any document incorporated by reference in the Registration Statement, the General Disclosure Package or the Prospectus (excluding exhibits thereto) (the delivery of the documents referred to in clause (vii) of this paragraph (g) to be made not later than 10:00 A.M., New York City time, on the business day following the date of such document).

(j) To make generally available to its stockholders as soon as practicable, but in any event not later than eighteen (18) months after the effective date of each Registration Statement (as defined in Rule 158(c) under the Rules and Regulations), an earnings statement of the Company and any Subsidiary (which need not be audited) complying with Section 11(a) of the Securities Act and the Rules and Regulations (including, at the option of the Company, Rule 158); and to furnish to its stockholders as soon as practicable after the end of each fiscal year an annual report (including a balance sheet and statements of income, stockholders' equity and cash flows of the Company and its consolidated subsidiaries certified by independent public accountants) and as soon as possible after each of the first three fiscal quarters of each fiscal year (beginning with the first fiscal quarter after the effective date of such Registration Statement), consolidated summary financial information of the Company and its subsidiaries for such quarter in reasonable detail.

(k) To take promptly from time to time such actions as the Placement Agent may reasonably request to qualify the Shares for offering and sale under the securities or Blue Sky laws of such jurisdictions (domestic or foreign) as the Placement Agent may designate and to continue such qualifications in effect, and to comply with such laws, for so long as required to permit the offer and sale of the Shares in such jurisdictions; *provided* that the Company shall not be obligated to qualify as foreign corporations in any jurisdiction in which they are not so qualified or to file a general consent to service of process in any jurisdiction.

(l) To the extent not available on the Commission's EDGAR system or any successor system, during the period of two (2) years from the date hereof, to deliver to the Placement Agent, (i) as soon as they are available, copies of all reports or other communications furnished to stockholders (other than reports, proxy statements and other information that is electronically filed with the Commission via EDGAR or any successor system), and (ii) as soon as they are available, copies of any reports and financial statements furnished or filed with the Commission or any national securities exchange or automatic quotation system on which the Company's securities are listed or quoted.

(m) That the Company will not, for a period of 180 days from the date of the Prospectus (the **"Lock-Up Period"**), without the prior written consent of the Placement Agent, directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, other than: (i) the Company's sale of the Shares hereunder; (ii) the issuance of restricted Common Stock or options to acquire Common Stock pursuant to the Company's employee benefit plans, qualified stock option plans or other employee compensation plans as such plans are in existence on the date hereof and described in the Prospectus; and (iii) the issuance of Common Stock pursuant to the valid exercises or conversions of options, warrants, rights or convertible securities outstanding on the date hereof. The Company will cause each executive officer, director, stockholder, optionholder and warrantholder listed in Schedule B to furnish to the Placement Agent, on or prior to the date of this Agreement, a letter, substantially in the form of Exhibit B hereto, pursuant to which each such person shall agree, among other things, not to directly or indirectly offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, not to engage in any swap or other agreement or arrangement that transfers, in whole or in part, directly or indirectly, the economic risk of ownership of Common Stock or any such securities and not to engage in any short selling of any Common Stock or any such securities, during the Lock-Up Period, without the prior written consent of the Placement Agent, subject to certain other exceptions provided for in such letter. The Company also agrees that during such period, the Company will not file any registration statement, preliminary prospectus or prospectus, or any amendment or supplement thereto, under the Securities Act for any such transaction or which registers, or offers for sale, Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, except for a registration statement on Form S-8 relating to employee benefit plans and except for ordinary course amendments to effective registration statements already on file with the Commission on the date of this Agreement. The Company hereby agrees that (i) if it issues an earnings release or material news, or if a material event relating to the Company occurs, during the last seventeen (17) days of the Lock-Up Period, or (ii) if prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results during the sixteen (16)-day period beginning on the last day of the Lock-Up Period, the restrictions imposed by this paragraph (k) or the letter shall continue to apply until the expiration of the eighteen (18)-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

(n) To supply the Placement Agent with copies of all correspondence to and from, and all documents issued to and by, the Commission in connection with the registration of the Shares under the Securities Act or the Registration Statement, any Preliminary Prospectus or the Prospectus, or any amendment or supplement thereto or document incorporated by reference therein.

(o) Prior to the Closing Date, to furnish to the Placement Agent, as soon as they have been prepared, copies of any unaudited interim consolidated financial statements of the Company for any periods subsequent to the periods covered by the financial statements appearing in the Registration Statement and the Prospectus.

(p) Prior to the Closing Date, not to issue any press release or other communication directly or indirectly or hold any press conference with respect to the Company, its condition, financial or otherwise, or earnings, business affairs or business prospects (except for routine oral marketing communications in the ordinary course of business and consistent with the past practices of the Company and of which the Placement Agent is notified), without the prior written consent of the Placement Agent, unless in the judgment of the Company and its counsel, and after notification to the Placement Agent, such press release or communication is required by law.

(q) Until the Placement Agent shall have notified the Company of the completion of the offering of the Shares, that the Company will not, and will cause its affiliated purchasers (as defined in Regulation M under the Exchange Act) not to, either alone or with one or more other persons, bid for or purchase, for any account in which it or any of its affiliated purchasers has a beneficial interest, any Shares, or attempt to induce any person to purchase any Shares; and not to, and to cause its affiliated purchasers not to, make bids or purchase for the purpose of creating actual, or apparent, active trading in or of raising the price of the Shares; provided, however, that this clause (o) shall not affect the ability of the Company's affiliated purchasers to purchase Shares in the Offering.

(r) Not to take any action prior to the Closing Date which would require the Prospectus to be amended or supplemented pursuant to Section 5.

(s) To at all times comply in all material respects with all applicable provisions of the Sarbanes-Oxley Act in effect from time to time.

(t) To apply the net proceeds from the sale of the Shares as set forth in the Registration Statement, the General Disclosure Package and the Prospectus under the heading "Use of Proceeds."

(u) To use its best efforts to effect, list and maintain, subject to official notice of issuance and adequate distribution, the Common Stock on NASDAQ.

(v) To use its best efforts to assist the Placement Agent with any filings with FINRA and obtaining clearance from FINRA as to the amount of compensation allowable or payable to the Placement Agent.

(w) To use its best efforts to do and perform all things required to be done or performed under this Agreement by the Company prior to the Closing Date and to satisfy all conditions precedent to the delivery of the Shares.

6 . *PAYMENT OF EXPENSES*. The Company agrees to pay, or reimburse if paid by the Placement Agent, whether or not the transactions contemplated hereby are consummated or this Agreement is terminated: (a) the costs incident to the authorization, issuance, sale, preparation and delivery of the Shares to the Purchasers and any taxes payable in that connection; (b) the costs incident to the registration of the Shares under the Securities Act; (c) the costs incident to the preparation, printing and distribution of the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, the General Disclosure Package, the Prospectus, any amendments, supplements and exhibits thereto or any document incorporated by reference therein and the costs of printing, reproducing and distributing any transaction document by mail, telex or other means of communications; (d) the filing fees and other costs (including fees and expenses of counsel for the Placement Agent) of any required review by FINRA of the terms of the sale of the Shares and any filings made with FINRA; (e) any applicable listing, quotation or other fees; (f) the filing fees and other costs (including fees and expenses of counsel to the Placement Agent, if applicable) of qualifying the Shares under the securities laws of the several jurisdictions as provided in Section 5(i) and of preparing, printing and distributing wrappers, Blue Sky Memoranda and Legal Investment Surveys; (g) the cost of preparing and printing stock certificates; (h) all fees and expenses of the registrar and transfer agent of the Common Stock; and (i) all other costs and expenses incident to the offering of the Shares or the performance of the obligations of the Company under this Agreement (including, without limitation, the fees and expenses of the Company's counsel and the Company's independent accountants and the travel and other reasonable documented expenses incurred by Company personnel in connection with any "road show" including, without limitation, any expenses advanced by the Placement Agent on the Company's behalf (which will be promptly reimbursed)); *provided* that, except to the extent otherwise provided in this Section 6 and in Sections 8 and 10, the Placement Agent shall pay its own costs and expenses. In addition, the Company will reimburse the Placement Agent for its reasonable out-of-pocket expenses, including legal fees and disbursements of its counsel in connnection with the purchase and sale of the Shares contemplated hereby up to an aggregate of $50,000.

7 . *CONDITIONS TO THE OBLIGATIONS OF THE PLACEMENT AGENT AND THE PURCHASERS, AND THE SALE OF THE SHARES*. The respective obligations of the Placement Agent hereunder and the Purchasers under the Subscription Agreements, and the Closing of the sale of the Shares, are subject to the accuracy in all material respects, when made and as of the Applicable Time and on the Closing Date, of the representations and warranties of the Company contained herein, to the accuracy of the statements of the Company made in any certificates pursuant to the provisions hereof, to the performance by the Company of its obligations hereunder, and to each of the following additional terms and conditions:

(a) No stop order suspending the effectiveness of the Registration Statement or any part thereof, preventing or suspending the use of any Preliminary Prospectus, any Pricing Prospectus, the Prospectus or any Permitted Free Writing Prospectus or any part thereof shall have been issued and no proceedings for that purpose or pursuant to Section 8A under the Securities Act shall have been initiated or threatened by the Commission, and all requests for additional information on the part of the Commission (to be included or incorporated by reference in the Registration Statement or the Prospectus or otherwise) shall have been complied with to the reasonable satisfaction of the Placement Agent; the Rule 462(b) Registration Statement, if any, each Issuer Free Writing Prospectus, if any, and the Prospectus shall have been filed with the Commission within the applicable time period prescribed for such filing by, and in compliance with, the Rules and Regulations and in accordance with Section 5(a) and the Rule 462(b) Registration Statement, if any, shall have become effective immediately upon its filing with the Commission; and FINRA shall have raised no objection to the fairness and reasonableness of the terms of this Agreement or the transactions contemplated hereby.

(b) The Placement Agent shall not have discovered and disclosed to the Company on or prior to the Closing Date that the Registration Statement or any amendment or supplement thereto contains an untrue statement of a fact which, in the opinion of counsel for the Placement Agent, is material or omits to state any fact which, in the opinion of such counsel, is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the General Disclosure Package, any Issuer Free Writing Prospectus or the Prospectus or any amendment or supplement thereto contains an untrue statement of fact which, in the opinion of such counsel, is material or omits to state any fact which, in the opinion of such counsel, is material and is necessary in order to make the statements, in the light of the circumstances in which they were made, not misleading.

(c) All corporate proceedings and other legal matters incident to the authorization, form and validity of each of this Agreement, the Subscription Agreements, the Shares, the Registration Statement, the General Disclosure Package, each Issuer Free Writing Prospectus, if any, and the Prospectus and all other legal matters relating to this Agreement and the transactions contemplated hereby shall be reasonably satisfactory in all material respects to counsel for the Placement Agent, and the Company shall have furnished to such counsel all documents and information that they may reasonably request to enable them to pass upon such matters.

(d) Sullivan & Worcester LLP shall have furnished to the Placement Agent, such counsel's written opinion and negative assurances statement, as counsel to the Company, addressed to the Placement Agent and dated the Closing Date, in a form reasonably acceptable to the Placement Agent and its counsel, subject to reasonably acceptable qualifications, limitations and assumptions.

(e) [reserved]

(f) The Company shall have furnished to the Placement Agent a certificate, dated the Closing Date, of its Chief Executive Officer, its President or a Vice President and its Chief Financial Officer stating that (i) such officers have carefully examined the Registration Statement, the General Disclosure Package, any Permitted Free Writing Prospectus and the Prospectus and, in their opinion, the Registration Statement and each amendment thereto, at the Applicable Time and as of the date of this Agreement and as of the Closing Date did not include any untrue statement of a material fact and did not omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, and the General Disclosure Package, as of the Applicable Time and as of the Closing Date, any Permitted Free Writing Prospectus as of its date and as of the Closing Date, the Prospectus and each amendment or supplement thereto, as of the respective date thereof and as of the Closing Date, did not include any untrue statement of a material fact and did not omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances in which they were made, not misleading, (ii) since the effective date of the Registration Statement, no event has occurred which should have been set forth in a supplement or amendment to the Registration Statement, the General Disclosure Package or the Prospectus, (iii) to the best of their knowledge after reasonable investigation, as of the Closing Date, the representations and warranties of the Company in this Agreement are true and correct and the Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied hereunder at or prior to the Closing Date, and (iv) there has not been, subsequent to the date of the most recent audited financial statements included or incorporated by reference in the Registration Statement, the General Disclosure Package and the Prospectus, any material adverse change in the financial position or results of operations of the Company or any Subsidiary, or any change or development that, singularly or in the aggregate, would involve a material adverse change or a prospective material adverse change, in or affecting the condition (financial or otherwise), results of operations, business, assets or prospects of the Company or any Subsidiary when taken as a whole, except as set forth in the Registration Statement, the General Disclosure Package and the Prospectus.

(g) Since the date of the latest audited financial statements included in the Registration Statement, the General Disclosure Package and the Prospectus or incorporated by reference therein as of the date hereof, (i) neither the Company nor any Subsidiary shall have sustained any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, and (ii) there shall not have been any change in the capital stock or long-term debt of the Company or any Subsidiary, or any change, or any development involving a prospective change, in or affecting the business, management, financial position, stockholders' equity or results of operations of the Company, otherwise than as set forth in the Registration Statement, the General Disclosure Package and the Prospectus, the effect of which, in any such case described in clause (i) or (ii) of this paragraph (g) is, in the judgment of the Placement Agent, so material and adverse as to make it impracticable or inadvisable to proceed with the sale or delivery of the Securities on the terms and in the manner contemplated in the General Disclosure Package.

(h) No action shall have been taken and no law, statute, rule, regulation or order shall have been enacted, adopted or issued by any governmental agency or body which would prevent the issuance or sale of the Shares or is reasonably likely to materially and adversely affect or potentially materially and adversely affect the business or operations of the Company or any Subsidiary; and no injunction, restraining order or order of any other nature by any federal or state court of competent jurisdiction shall have been issued which would prevent the issuance or sale of the Shares or materially and adversely affect or potentially materially and adversely affect the business or operations of the Company or any Subsidiary.

(i) Subsequent to the execution and delivery of this Agreement there shall not have occurred any of the following: (i) trading in securities generally on the New York Stock Exchange, NYSE MKT or the NASDAQ Stock Market or in the over-the-counter market, or trading in any securities of the Company on any exchange or in the other over-the-counter market, shall have been suspended or materially limited, or minimum or maximum prices or maximum range for prices shall have been established on any such exchange or such market by the Commission, by such exchange or market or by any other regulatory body or governmental authority having jurisdiction, (ii) a banking moratorium shall have been declared by Federal or state authorities or a material disruption has occurred in commercial banking or securities settlement or clearance services in the United States, (iii) the United States shall have become engaged in hostilities, or the subject of an act of terrorism, or there shall have been an outbreak of or escalation in hostilities involving the United States, or there shall have been a declaration of a national emergency or war by the United States or (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions (or the effect of international conditions on the financial markets in the United States shall be such) as to make it, in the judgment of the Placement Agent, impracticable or inadvisable to proceed with the sale or delivery of the Shares on the terms and in the manner contemplated in the Registration Statement, the General Disclosure Package and the Prospectus.

(j) NASDAQ shall have approved the listing of the Shares, subject only to official notice of issuance and adequate distribution.

(k) The Placement Agent shall have received on or prior to the date of this Agreement the written agreements, substantially in the form of Exhibit B hereto, of the executive officers, directors, stockholders, optionholders and warrantholders of the Company listed in Schedule B to this Agreement.

(l) The Company shall have entered into Subscription Agreements with each of the Purchasers and such agreements shall be in full force and effect.

(m) FINRA shall have raised no objection as to the amount of compensation allowable or payable to the Placement Agent as described in the General Disclosure Package, any Pricing Prospectus or any Preliminary Prospectus.

(n) Prior to the Closing Date, the Company shall have furnished to the Placement Agent such further information, opinions, certificates, letters or documents as the Placement Agent shall have reasonably requested.

All opinions, letters, evidence and certificates mentioned above or elsewhere in this Agreement shall be deemed to be in compliance with the provisions hereof only if they are in form and substance reasonably satisfactory to counsel for the Placement Agent.

8. *INDEMNIFICATION AND CONTRIBUTION*.

(a) The Company shall indemnify and hold harmless the Placement Agent, its affiliates and each of its and their respective directors, officers, members, employees, representatives and agents and its affiliates, and each of its and their respective directors, officers, members, employees, representatives and agents and each person, if any, who controls the Placement Agent within the meaning of Section 15 of the Securities Act of or Section 20 of the Exchange Act (collectively the **"Placement Agent Indemnified Parties,"** and each a **"Placement Agent Indemnified Party"**) against any loss, claim, damage, expense or liability whatsoever (or any action, investigation or proceeding in respect thereof), joint or several, to which such Placement Agent Indemnified Party may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, expense, liability, action, investigation or proceeding arises out of or is based upon (A) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Written Testing the Waters Communication, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, (B) the omission or alleged omission to state in the Registration Statement, any Written Testing the Waters Communication, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, a material fact required to be stated therein or necessary to make the statements therein not misleading, or (C) any breach of the representations and warranties of the Company contained herein or in the Subscription Agreements or failure of the Company to perform its obligations hereunder or thereunder or pursuant to any law, any act or failure to act, or any alleged act or failure to act, by the Placement Agent in connection with, or relating in any manner to, the Shares or the Offering, and which is included as part of or referred to in any loss, claim, damage, expense, liability, action, investigation or proceeding arising out of or based upon matters covered by subclause (A), (B) or (C) above of this Section 8(a) (*provided* that the Company shall not be liable in the case of any matter covered by this subclause (C) to the extent that it is determined in a final judgment by a court of competent jurisdiction that such loss, claim, damage, expense or liability resulted directly from any such act or failure to act undertaken or omitted to be taken by the Placement Agent through its gross negligence or willful misconduct), and shall reimburse the Placement Agent Indemnified Party promptly upon demand for any legal fees or other expenses reasonably incurred by that Placement Agent Indemnified Party in connection with investigating, or preparing to defend, or defending against, or appearing as a third party witness in respect of, or otherwise incurred in connection with, any such loss, claim, damage, expense, liability, action, investigation or proceeding, as such fees and expenses are incurred; *provided, however,* that the Company shall not be liable in any such case to the extent that any such loss, claim, damage, expense or liability arises out of or is based upon an untrue statement or alleged untrue statement in, or omission or alleged omission from the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein made in reliance upon and in conformity with written information furnished to the Company by the Placement Agent specifically for use therein, which information the parties hereto agree is limited to the Placement Agent's Information (as defined in Section 17). This indemnity agreement is not exclusive and will be in addition to any liability, which the Company might otherwise have and shall not limit any rights or remedies which may otherwise be available at law or in equity to the Placement Agent Indemnified Party.

(b) The Placement Agent shall indemnify and hold harmless the Company and its directors, its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act (collectively the **"Company Indemnified Parties"** and each a **"Company Indemnified Party"**) against any loss, claim, damage, expense or liability whatsoever (or any action, investigation or proceeding in respect thereof), joint or several, to which such Company Indemnified Party may become subject, under the Securities Act or otherwise, insofar as such loss, claim, damage, expense, liability, action, investigation or proceeding arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, or (ii) the omission or alleged omission to state in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, a material fact required to be stated therein or necessary to make the statements therein not misleading, but in each case only to the extent that the untrue statement or alleged untrue statement or omission or alleged omission was made in reliance upon and in conformity with written information furnished to the Company by the Placement Agent specifically for use therein, which information the parties hereto agree is limited to the Placement Agent's Information as defined in Section 17 and shall reimburse the Company for any legal or other expenses reasonably incurred by such party in connection with investigating or preparing to defend or defending against or appearing as third party witness in connection with any such loss, claim, damage, liability, action, investigation or proceeding, as such fees and expenses are incurred. Notwithstanding the provisions of this Section 8(b) in no event shall any indemnity by the Placement Agent under this Section 8(b) exceed the total compensation received by the Placement Agent in accordance with Section 2.5.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of the commencement of any action, the indemnified party shall, if a claim in respect thereof is to be made against an indemnifying party under this Section 8 notify such indemnifying party in writing of the commencement of that action; *provided, however,* that the failure to notify the indemnifying party shall not relieve it from any liability which it may have under this Section 8 except to the extent it has been materially prejudiced by such failure; and, *provided, further,* that the failure to notify an indemnifying party shall not relieve it from any liability which it may have to an indemnified party otherwise than under this Section 8. If any such action shall be brought against an indemnified party, and it shall notify the indemnifying party thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it wishes, jointly with any other similarly notified indemnifying party, to assume the defense of such action with counsel reasonably satisfactory to the indemnified party (which counsel shall not, except with the written consent of the indemnified party, be counsel to the indemnifying party). After notice from the indemnifying party to the indemnified party of its election to assume the defense of such action, except as provided herein, the indemnifying party shall not be liable to the indemnified party under Section 8 for any legal or other expenses subsequently incurred by the indemnified party in connection with the defense of such action other than reasonable costs of investigation; *provided, however,* that any indemnified party shall have the right to employ separate counsel in any such action and to participate in the defense of such action but the fees and expenses of such counsel (other than reasonable costs of investigation) shall be at the expense of such indemnified party unless (i) the employment thereof has been specifically authorized in writing by the Company in the case of a claim for indemnification under Section 8(a) or Section 2(f) or the Placement Agent in the case of a claim for indemnification under Section 8(b), (ii) such indemnified party shall have been advised by its counsel that there may be one or more legal defenses available to it which are different from or additional to those available to the indemnifying party that make it inadvisable for joint representation by one counsel, or (iii) the indemnifying party has failed to assume the defense of such action and employ counsel reasonably satisfactory to the indemnified party within a reasonable period of time after notice of the commencement of the action or the indemnifying party does not diligently defend the action after assumption of the defense, in which case, if such indemnified party notifies the indemnifying party in writing that it elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of (or, in the case of a failure to diligently defend the action after assumption of the defense, to continue to defend) such action on behalf of such indemnified party and the indemnifying party shall be responsible for legal or other expenses subsequently incurred by such indemnified party in connection with the defense of such action; *provided, however,* that the indemnifying party shall not, in connection with any one such action or separate but substantially similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances, be liable for the reasonable fees and expenses of more than one separate firm of attorneys at any time for all such indemnified parties (in addition to any local counsel), which firm shall be designated in writing by the Placement Agent if the indemnified parties under this Section 8 consist of any Placement Agent Indemnified Party or by the Company if the indemnified parties under this Section 8 consist of any Company Indemnified Parties. Subject to this Section 8(c), the amount payable by an indemnifying party under Section 8 shall include, but not be limited to, (x) reasonable legal fees and expenses of counsel to the indemnified party and any other expenses in investigating, or preparing to defend or defending against, or appearing as a third party witness in respect of, or otherwise incurred in connection with, any action, investigation, proceeding or claim, and (y) all amounts paid in settlement of any of the foregoing. No indemnifying party shall, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of judgment with respect to any pending or threatened action or any claim whatsoever, in respect of which indemnification or contribution could be sought under this Section 8 (whether or not the indemnified parties are actual or potential parties thereto), unless such settlement, compromise or consent (i) includes an unconditional release of each indemnified party in form and substance reasonably satisfactory to such indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act by or on behalf of any indemnified party. Subject to the provisions of the following sentence, no indemnifying party shall be liable for settlement of any pending or threatened action or any claim whatsoever that is effected without its written consent (which consent shall not be unreasonably withheld or delayed), but if settled with its written consent, if its consent has been unreasonably withheld or delayed or if there be a judgment for the plaintiff in any such matter, the indemnifying party agrees to indemnify and hold harmless any indemnified party from and against any loss or liability by reason of such settlement or judgment. In addition, if at any time an indemnified party shall have requested that an indemnifying party reimburse the indemnified party for fees and expenses of counsel, such indemnifying party agrees that it shall be liable for any settlement of the nature contemplated herein effected without its written consent if (i) such settlement is entered into more than forty-five (45) days after receipt by such indemnifying party of the request for reimbursement, (ii) such indemnifying party shall have received notice of the terms of such settlement at least thirty (30) days prior to such settlement being entered into and (iii) such indemnifying party shall not have reimbursed such indemnified party in accordance with such request prior to the date of such settlement.

(d) If the indemnification provided for in this Section 8 is unavailable or insufficient to hold harmless an indemnified party under Section 8(a) or Section 8(b), then each indemnifying party shall, in lieu of indemnifying such indemnified party, contribute to the amount paid, payable or otherwise incurred by such indemnified party as a result of such loss, claim, damage, expense or liability (or any action, investigation or proceeding in respect thereof), as incurred, (i) in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and the Placement Agent on the other hand from the offering of the Shares, or (ii) if the allocation provided by clause (i) of this Section 8(d) is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) of this Section 8(d) but also the relative fault of the Company on the one hand and the Placement Agent on the other with respect to the statements, omissions, acts or failures to act which resulted in such loss, claim, damage, expense or liability (or any action, investigation or proceeding in respect thereof) as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Placement Agent on the other with respect to such offering shall be deemed to be in the same proportion as the total net proceeds from the offering of the Shares purchased under this Agreement (before deducting expenses) received by the Company bear to the total Placement Fee received by the Placement Agent in connection with the Offering, in each case as set forth in the table on the cover page of the Prospectus. The relative fault of the Company on the one hand and the Placement Agent on the other shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Placement Agent on the other, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement, omission, act or failure to act; *provided* that the parties hereto agree that the written information furnished to the Company by the Placement Agent for use in the Registration Statement, any Preliminary Prospectus, any Pricing Prospectus, any Issuer Free Writing Prospectus, any "issuer information" filed or required to be filed pursuant to Rule 433(d) under the Rules and Regulations, or the Prospectus, or in any amendment or supplement thereto or document incorporated by reference therein, consists solely of the Placement Agent's Information as defined in Section 17. The Company and the Placement Agent agree that it would not be just and equitable if contributions pursuant to this Section 8(d) were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, damage, expense, liability, action, investigation or proceeding referred to above in this Section 8(d) shall be deemed to include, for purposes of this Section 8(d). any legal or other expenses reasonably incurred by such indemnified party in connection with investigating, preparing to defend or defending against or appearing as a third party witness in respect of, or otherwise incurred in connection with, any such loss, claim, damage, expense, liability, action, investigation or proceeding. Notwithstanding the provisions of this Section 8(d), the Placement Agent shall not be required to contribute any amount in excess of the total compensation received by the Placement Agent in accordance with Section 2.5 less the amount of any damages which the Placement Agent has otherwise paid or become liable to pay by reason of any untrue or alleged untrue statement, omission or alleged omission, act or alleged act or failure to act or alleged failure to act. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

9. *TERMINATION.* The obligations of the Placement Agent and the Purchasers hereunder and under the Subscription Agreements may be terminated by the Placement Agent, in its absolute discretion by notice given to the Company prior to delivery of and payment for the Shares if, prior to that time, (i) any of the conditions to closing in Section 7 shall not have been satisfied in full and shall not have been expressly waived in writing by the Placement Agent, (ii) any of the events described in Section 7(a), (b), (g), (h) or (i) shall have occurred or (iii) the Purchasers shall decline to purchase the Shares for any reason permitted under this Agreement or the Subscription Agreements.

10. *REIMBURSEMENT OF PLACEMENT AGENT'S EXPENSES.* Notwithstanding anything to the contrary in this Agreement, if (a) this Agreement shall have been terminated pursuant to Section 9, (b) the Company shall fail to tender the Shares for delivery to the Purchasers for any reason not permitted under this Agreement, (c) the Purchasers shall decline to purchase the Shares for any reason permitted under this Agreement or (d) the sale of the Shares is not consummated because any condition to the obligations of the Purchasers or the Placement Agent set forth herein is not satisfied or because of the refusal, inability or failure on the part of the Company to perform any agreement herein or to satisfy any condition or to comply with the provisions hereof, then in addition to the payment of amounts in accordance with Section 6 the Company shall reimburse the Placement Agent for the reasonable documented and accountable fees and expenses of the Placement Agent's counsel and for such other out-of-pocket expenses as shall have been reasonably incurred by them in connection with this Agreement and the proposed purchase of the Shares, and upon demand the Company shall pay the full amount thereof to the Placement Agent.

11. *ABSENCE OF FIDUCIARY RELATIONSHIP.* The Company acknowledges and agrees that:

(a) the Placement Agent's responsibility to the Company is solely contractual in nature, the Placement Agent has been retained solely to act as Placement Agent in connection with the Offering and no fiduciary, advisory or agency relationship between the Company and the Placement Agent has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether the Placement Agent has advised or is advising the Company on other matters;

(b) the price of the Shares set forth in this Agreement was established by the Company following discussions and arms-length negotiations with the Placement Agent and the Purchasers, and the Company is capable of evaluating and understanding, and understands and accepts, the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) it has been advised that the Placement Agent and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that the Placement Agent has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and

(d) it waives, to the fullest extent permitted by law, any claims it may have against the Placement Agent for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that the Placement Agent shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary duty claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders, employees or creditors of the Company.

12. *SUCCESSORS; PERSONS ENTITLED TO BENEFIT OF AGREEMENT.* This Agreement shall inure to the benefit of and be binding upon the Placement Agent, the Company, and their respective successors and assigns. This Agreement shall also inure to the benefit of the Purchasers, and each of their respective successors and assigns, which shall be third party beneficiaries hereof. Nothing expressed or mentioned in this Agreement is intended or shall be construed to give any person, other than the persons mentioned in the preceding sentences, any legal or equitable right, remedy or claim under or in respect of this Agreement, or any provisions herein contained, this Agreement and all conditions and provisions hereof being intended to be and being for the sole and exclusive benefit of such persons and for the benefit of no other person; except that the representations, warranties, covenants, agreements and indemnities of the Company contained in this Agreement shall also be for the benefit of the Placement Agent Indemnified Parties and the indemnities of the Placement Agent shall be for the benefit of the Company Indemnified Parties. It is understood that the Placement Agent's responsibility to the Company is solely contractual in nature and the Placement Agent does not owe the Company, or any other party, any fiduciary duty as a result of this Agreement.

13. *SURVIVAL OF INDEMNITIES, REPRESENTATIONS, WARRANTIES, ETC.* The respective indemnities, covenants, agreements, representations, warranties and other statements of the Company and the Placement Agent, as set forth in this Agreement or made by them respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation made by or on behalf of the Placement Agent, the Company, the Purchasers or any person controlling any of them and shall survive delivery of and payment for the Shares. Notwithstanding any termination of this Agreement, including without limitation any termination pursuant to Sections 9 or 10, the indemnity and contribution agreements contained in Section 8 and the covenants, representations, warranties set forth in this Agreement shall not terminate and shall remain in full force and effect at all times.

14. *NOTICES.* All statements, requests, notices and agreements hereunder shall be in writing, and:

(a) if to the Placement Agent, shall be delivered or sent by mail, telex, facsimile transmission or overnight courier to Scarsdale Equities LLC, 10 Rockefeller Plaza, Suite 720, New York, NY 10020, Attention: Francis A. Mlynarczyk, Jr., Fax: (212) 969-9013, with a copy (which shall not constitute notice) to: Lowenstein Sandler LLP, 1251 Avenue of the Americas, New York, NY 10020, Attention: John D. Hogoboom, Fax (973) 597-2400; and

(b) if to the Company, shall be delivered or sent by mail, telex, facsimile transmission or overnight courier to 45 First Avenue, Waltham, MA 02451, Attention: Chief Executive Officer, Fax: (781) 622-1027, with a copy (which shall not constitute notice) to: Sullivan & Worcester LLP, One Post Office Square, Boston, MA 02109, Attention: Edwin L. Miller, Jr., Fax: (617) 338-2880.

Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof, except that any such statement, request, notice or agreement delivered or sent by email shall take effect at the time of confirmation of receipt thereof by the recipient thereof.

15. *DEFINITION OF CERTAIN TERMS.* For purposes of this Agreement, "business day" means any day on which the New York Stock Exchange, Inc. is open for trading.

16. *GOVERNING LAW, AGENT FOR SERVICE AND JURISDICTION.* **This Agreement shall be governed by and construed in accordance with the laws of the State of New York, including without limitation Section 5-1401 of the New York General Obligations Law**. No legal proceeding may be commenced, prosecuted or continued in any court other than the courts of the State of New York located in the City and County of New York or in the Shareed States District Court for the Southern District of New York, which courts shall have jurisdiction over the adjudication of such matters, and the Company and the Placement Agent each hereby consent to the jurisdiction of such courts and personal service with respect thereto. The Company and the Placement Agent each hereby consent to personal jurisdiction, service and venue in any court in which any legal proceeding arising out of or in any way relating to this Agreement is brought by any third party against the Company or the Placement Agent. The Company and the Placement Agent each hereby waive all right to trial by jury in any legal proceeding (whether based upon contract, tort or otherwise) in any way arising out of or relating to this Agreement. The Company agrees that a final judgment in any such legal proceeding brought in any such court shall be conclusive and binding upon the Company and the Placement Agent and may be enforced in any other courts in the jurisdiction of which the Company is or may be subject, by suit upon such judgment.

17. *PLACEMENT AGENT'S INFORMATION.* The parties hereto acknowledge and agree that, for all purposes of this Agreement, the Placement Agent's Information consists solely of the following information in the Prospectus: the second paragraph and the first sentence of the thirteenth paragraph and the last sentence of the seventeenth paragraph under the heading "Plan of Distribution."

18. *PARTIAL UNENFORCEABILITY.* The invalidity or unenforceability of any section, paragraph, clause or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph, clause or provision hereof. If any section, paragraph, clause or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable.

19. *GENERAL.* This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof. In this Agreement, the masculine, feminine and neuter genders and the singular and the plural include one another. The Section headings in this Agreement are for the convenience of the parties only and will not affect the construction or interpretation of this Agreement. This Agreement may be amended or modified, and the observance of any term of this Agreement may be waived, only by a writing signed by the Company and the Placement Agent.

20. *COUNTERPARTS.* This Agreement may be signed in any number of counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument and such signatures may be delivered by facsimile.

If the foregoing is in accordance with your understanding of the agreement between the Company and the Placement Agent, kindly indicate your acceptance in the space provided for that purpose below.

Very truly yours,

TECOGEN INC.

By: ______________________________
Name:
Title:

Accepted as of the date first above written:

SCARSDALE EQUITIES LLC

By: ______________________________
Name: Francis A. Mlynarczyk, Jr.
Title: Chief Executive Officer

SCHEDULE A

General Use Free Writing Prospectuses

None

SCHEDULE B

[Company to provide list of everyone who signed a lock-up]

EXHIBIT A

Form of Subscription Agreement

EXHIBIT B

FORM OF LOCK-UP AGREEMENT

February __, 2014

Scarsdale Equities LLC
10 Rockefeller Plaza
Suite 720
New York, NY 10020

Ladies and Gentlemen:

This Lock-Up Agreement is being delivered to you in connection with the proposed Placement Agent Agreement (the " Placement Agreement") to be entered into by Tecogen Inc., a Delaware corporation (the "Company"), and Scarsdale Equities LLC (the "Placement Agent"), with respect to the public offering (the "Offering") of common stock, $0.001 par value, of the Company (the "Common Stock").

To induce the Placement Agent to enter into the Placement Agreement, the undersigned agrees that, for a period (the " Lock-Up Period") beginning on the date hereof and ending on, and including, the date that is 180 days after the date of the final prospectus for the Offering, the undersigned will not, without the prior written consent of the Placement Agent, (i) sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, or file (or participate in the filing of) a registration statement with the Securities and Exchange Commission (the "Commission") in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission promulgated thereunder (the "Exchange Act") with respect to, any Common Stock or any other securities of the Company that are substantially similar to the Common Stock or any securities convertible into or exchangeable or exercisable for, or any other rights to purchase, the foregoing, (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock or any other securities of the Company that are substantially similar to the Common Stock or any securities convertible into or exchangeable or exercisable for, or any other rights to purchase, the foregoing, whether any such transaction is to be settled by delivery of any Common Stock or such other securities, in cash or otherwise, or (iii) publicly announce an intention to effect any transaction specified in clause (i) or (ii).

The foregoing paragraph shall not apply to (a) the registration of the offer and sale of the Common Stock as contemplated by the Placement Agreement and the sale of the Common Stock to the Placement Agent in the Offering, (b) bona fide gifts, provided the recipient thereof agrees in writing with the Placement Agent to be bound by the terms of this Lock-Up Agreement, (c) dispositions to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned, provided that a duly authorized representative of such trust agrees in writing with the Placement Agent to be bound by the terms of this Lock-Up Agreement, (d) transfers of any Common Stock or securities convertible into Common Stock on death by will or intestacy, (e) sales or transfers of any Common Stock solely in connection with the "cashless" exercise of Company stock options outstanding on the date hereof for the purpose of exercising such stock options (provided that any remaining Common Stock received upon such exercise will be subject to the restrictions provided for in this Lock-Up Agreement) or (f) sales or transfers of any Common Stock or securities convertible into Common Stock pursuant to a sales plan entered into prior to the date hereof pursuant to Rule 10b5-1 under the Exchange Act, a copy of which has been provided to the Placement Agent. In addition, the restrictions sets forth herein shall not prevent the undersigned from entering into a sales plan pursuant to Rule 10b5-1 under the Exchange Act after the date hereof, provided that (i) a copy of such plan is provided to the Placement Agent promptly upon entering into the same and (ii) no sales or transfers may be made under such plan until the Lock-Up Period ends or this Lock-Up Agreement is terminated in accordance with its terms. For purposes of this paragraph, "immediate family" shall mean the undersigned and the spouse, any lineal descendent, father, mother, brother or sister of the undersigned.

In addition, the undersigned hereby waives any rights the undersigned may have to require registration of any Common Stock or any other securities of the Company in connection with the filing of a registration statement relating to the Offering. The undersigned further agrees that, for the Lock-Up Period, the undersigned will not, without the prior written consent of the Placement Agent, make any demand for, or exercise any right with respect to, the registration of any Common Stock or any securities convertible into or exercisable or exchangeable for the Common Stock or warrants or other rights to purchase Common Stock or any such securities.

Notwithstanding the above, if (a) during the period that begins on the date that is seventeen (17) days before the last day of the Lock-Up Period and ends on the last day of the Lock-Up Period, the Company issues an earnings release or material news or a material event relating to the Company occurs; or (b) prior to the expiration of the Lock-Up Period, the Company announces that it will release earnings results during the sixteen (16) day period beginning on the last day of the Lock-Up Period, then the restrictions imposed by this Lock-Up Agreement shall continue to apply until the expiration of the date that is eighteen (18) days after the date on which the issuance of the earnings release or the material news or material event occurs.

The undersigned hereby confirms that the undersigned has not, directly or indirectly, taken, and hereby covenants that the undersigned will not, directly or indirectly, take, any action designed, or which has constituted or will constitute or might reasonably be expected to cause or result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Common Stock.

If (i) the Company notifies the Placement Agent in writing that it does not intend to proceed with the Offering, (ii) the registration statement filed with the Commission with respect to the Offering is withdrawn, (iii) if the closing of the Offering does not occur prior to ninety (90) days from the date of this Lock-Up Agreement or (iv) for any reason the Placement Agreement shall be terminated prior to the Closing Date (as defined in the Placement Agreement), this Lock-Up Agreement shall be terminated and the undersigned shall be released from its obligations hereunder.

Yours very truly,

____

Name:

Title:

Exhibit 4.5

Tecogen Inc.
45 First Avenue
Waltham, MA 02451

Gentlemen:

The undersigned (the "*Investor*") hereby confirms its agreement with Tecogen Inc., a Delaware corporation (the "*Company*") as follows:

1. This Subscription Agreement, including the Terms and Conditions For Purchase of Securities attached hereto as Annex I (collectively, (this "*Agreement*") is made as of the date set forth below between the Company and the Investor.

2. The Company has authorized the sale and issuance to certain investors of up to an aggregate of ● authorized and unissued shares (the "*Shares*") of its common stock, par value $0.001 per share (the "*Common Stock*"), at an initial public offering price of $● per Share (the "*Purchase Price*").

3. The offering and sale of the Shares (the "*Offering*") are being made pursuant to (1) an effective Registration Statement on Form S-1, File No. 333-193823 (the "*Registration Statement*") filed by the Company with the Securities and Exchange Commission (the "*Commission*") (including the preliminary prospectus contained therein (the "*Preliminary Prospectus*"), and (2) if applicable, certain "free writing prospectuses" (as that term is defined in Rule 405 under the Securities Act of 1933, as amended (the "*Securities Act*")), that have been or will be filed with the Commission and delivered to the Investor on or prior to the date hereof (the "*Issuer Free Writing Prospectus*"), containing certain supplemental information regarding the Shares, the terms of the Offering and the Company and (3) a final prospectus (the "*Prospectus*") that has been or will be filed with the Commission and delivered to the Investor (or made available to the Investor by the filing by the Company of an electronic version thereof with the Commission).

4. The Company and the Investor agree that at the Closing (as defined in Section 3.1 of Annex I), the Investor will purchase from the Company and the Company will issue and sell to the Investor the Shares set forth below for the aggregate Purchase Price set forth below. The Shares shall be purchased pursuant to the Terms and Conditions for Purchase of Securities attached hereto as Annex I and incorporated herein by this reference as if fully set forth herein. The Investor acknowledges that the Offering is not being underwritten by the placement agent (the "*Placement Agent*") named in the Prospectus and that there is no minimum offering amount.

5. The manner of settlement of the Shares purchased by the Investor shall be determined by such Investor as follows (check one):

[ ] A. [____] A. Delivery by crediting the account of the Investor's prime broker (as specified by such Investor on Exhibit A annexed hereto) with the Depository Trust Company ("*DTC*") through its Deposit/Withdrawal At Custodian ("*DWAC*") system, whereby Investor's prime broker shall initiate a DWAC transaction on the Closing Date using its DTC participant identification number, and released by VStock Transfer LLC, the Company's transfer agent (the "*Transfer Agent*"), at the Company's direction. **NO LATER THAN ONE (1) BUSINESS DAY AFTER THE EXECUTION OF THIS AGREEMENT BY THE INVESTOR AND THE COMPANY, THE INVESTOR SHALL:**

(I) DIRECT THE BROKER-DEALER AT WHICH THE ACCOUNT OR ACCOUNTS TO BE CREDITED WITH THE SHARES ARE MAINTAINED TO SET UP A DWAC INSTRUCTING THE TRANSFER AGENT TO CREDIT SUCH ACCOUNT OR ACCOUNTS WITH THE SHARES, AND

(II) REMIT BY WIRE TRANSFER THE AMOUNT OF FUNDS EQUAL TO THE AGGREGATE PURCHASE PRICE FOR THE SHARES BEING PURCHASED BY THE INVESTOR TO THE FOLLOWING ACCOUNT:

[To be separately provided to the Investor]

—OR—

[ ] B. [____] B. Delivery versus payment ("*DVP*") through DTC (i.e., on the Closing Date, the Company shall issue Shares registered in the Investor's name and address as set forth below and released by the Transfer Agent directly to the account(s) at Scarsdale Equities LLC (the "*Placement Agent*") identified by the Investor; upon receipt of such Shares, Agent shall promptly electronically deliver such Shares to the Investor, and simultaneously therewith payment shall be made by the Placement Agent by wire transfer to the Company). **NO LATER THAN ONE (1) BUSINESS DAY AFTER THE EXECUTION OF THIS AGREEMENT BY THE INVESTOR AND THE COMPANY, THE INVESTOR SHALL:**

(I) NOTIFY AGENT OF THE ACCOUNT OR ACCOUNTS AT THE PLACEMENT AGENT TO BE CREDITED WITH THE SHARES BEING PURCHASED BY SUCH INVESTOR, AND

(II) CONFIRM THAT THE ACCOUNT OR ACCOUNTS AT THE PLACEMENT AGENT TO BE CREDITED WITH THE SHARES BEING PURCHASED BY THE INVESTOR HAVE A MINIMUM BALANCE EQUAL TO THE AGGREGATE PURCHASE PRICE FOR THE SHARES BEING PURCHASED BY THE INVESTOR.

IT IS THE INVESTOR'S RESPONSIBILITY TO (A) MAKE THE NECESSARY WIRE TRANSFER OR CONFIRM THE PROPER ACCOUNT BALANCE IN A TIMELY MANNER AND (B) ARRANGE FOR SETTLEMENT BY WAY OF DWAC OR DVP IN A TIMELY MANNER. IF THE INVESTOR DOES NOT DELIVER THE AGGREGATE PURCHASE PRICE FOR THE SHARES OR DOES NOT MAKE PROPER ARRANGEMENTS FOR SETTLEMENT IN A TIMELY MANNER, THE SHARES MAY NOT BE DELIVERED AT CLOSING TO THE INVESTOR OR THE INVESTOR MAY BE EXCLUDED FROM THE CLOSING ALTOGETHER.

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6. The Investor represents that, except as set forth below, (a) it has had no position, office or other material relationship within the past three years with the Company or persons known to it to be affiliates of the Company, (b) it is not a member of the Financial Industry Regulatory Authority, Inc. ("*FINRA*") or an Associated Person (as such term is defined under the FINRA's NASD Membership and Registration Rules Section 1011) as of the Closing, and (c) neither the Investor nor any group of Investors (as identified in a public filing made with the Commission) of which the Investor is a part in connection with the Offering, acquired, or obtained the right to acquire, 20% or more of the Common Stock (or securities convertible into or exercisable for Common Stock) or the voting power of the Company on a post-transaction basis. Exceptions:

(If no exceptions, write "none." If left blank, response will be deemed to be "none.")

7. The Investor represents that it has received (or otherwise had made available to it by the filing by the Company of an electronic version thereof with the Commission) the Preliminary Prospectus, dated April ●, 2014, which is a part of the Company's Registration Statement, the documents incorporated by reference therein and any free writing prospectus (collectively, the "*Disclosure Package*"), prior to or in connection with the receipt of this Agreement. The Investor acknowledges that, prior to the delivery of this Agreement to the Company, the Investor will receive certain additional information regarding the Offering, including pricing information (the "*Offering Information*"). Such information may be provided to the Investor by any means permitted under the Securities Act, including the Prospectus, a free writing prospectus and oral communications.

8. No offer by the Investor to buy Shares will be accepted and no part of the Purchase Price will be delivered to the Company until the Investor has received the Offering Information and the Company has accepted such offer by countersigning a copy of this Agreement, and any such offer may be withdrawn or revoked, without obligation or commitment of any kind, at any time prior to the Company (or Agent on behalf of the Company) sending (orally, in writing or by electronic mail) notice of its acceptance of such offer. An indication of interest will involve no obligation or commitment of any kind until the Investor has been delivered the Offering Information and this Agreement is accepted and countersigned by or on behalf of the Company.

Number of Shares: ______________________

Purchase Price per Share: $ ______________________

Aggregate Purchase Price: $ ______________________

Please confirm that the foregoing correctly sets forth the agreement between us by signing in the space provided below for that purpose.

Dated as of: April ●, 2014

____

INVESTOR

By: ______________________

Print Name: ______________________

Title: ______________________

Address: ______________________

____

Agreed and Accepted
this ●th day of April, 2014:

TECOGEN INC.

By: ______________________________

Title:

ANNEX I

TERMS AND CONDITIONS FOR PURCHASE OF SECURITIES

1. Authorization and Sale of the Shares. Subject to the terms and conditions of this Agreement, the Company has authorized the sale of the Shares.

2. Agreement to Sell and Purchase the Shares; Placement Agent.

2.1 At the Closing (as defined in Section 3.1), the Company will sell to the Investor, and the Investor will purchase from the Company, upon the terms and conditions set forth herein, the number of Shares set forth on the last page of the Agreement to which these Terms and Conditions for Purchase of Securities are attached as Annex I (the "*Signature Page*") for the aggregate purchase price therefor set forth on the Signature Page.

2.2 The Company proposes to enter into substantially this same form of Subscription Agreement with certain other investors (the "*Other Investors*") and expects to complete sales of Shares to them. The Investor and the Other Investors are hereinafter sometimes collectively referred to as the "*Investors,*" and this Agreement and the Subscription Agreements executed by the Other Investors are hereinafter sometimes collectively referred to as the "*Agreements.*"

2.3 Investor acknowledges that the Company has agreed to pay Scarsdale Equities LLC (the "*Placement Agent*") a fee (the "*Placement Fee*") and to reimburse the Placement Agent for certain expenses in respect of the sale of the Shares to the Investor.

2.4 The Company has entered into a Placement Agent Agreement, dated the date hereof, (the " *Placement Agreement*"), with the Placement Agent that contains certain representations, warranties, covenants and agreements of the Company that may be relied upon by the Investor, which shall be a third party beneficiary thereof.

3. Closings and Delivery of the Securities and Funds.

3.1 **Closing.** The completion of the purchase and sale of the Shares (the "*Closing*") shall occur at a place and time (the "*Closing Date*") to be specified by the Company and the Placement Agent, and of which the Investors will be notified in advance by the Placement Agent, in accordance with Rule 15c6-l promulgated under the Securities Exchange Act of 1934, as amended (the "*Exchange Act*"). At the Closing, (a) the Company shall cause VStock Transfer LLC, the Company's " *Transfer Agent*", to deliver to the Investor the number of Shares purchased by the Investor as set forth on the Signature Page registered in the name of the Investor or, if so indicated on the Investor Questionnaire attached hereto as Exhibit A, in the name of a nominee designated by the Investor, and (b) the aggregate purchase price for the Shares being purchased by the Investor will be delivered by or on behalf of the Investor to the Company.

3.2 **Conditions to the Obligations of the Parties.**

(a) **Conditions to the Company's Obligations**. The Company's obligation to issue and sell the Shares to the Investor shall be subject to: (i) the receipt by the Company of the purchase price for the Shares being purchased hereunder as set forth on the Signature Page and (ii) the accuracy of the representations and warranties made by the Investor and the fulfillment of those undertakings of the Investor to be fulfilled prior to the Closing Date.

(b) **<u>Conditions to the Investor's Obligations</u>**. The Investor's obligation to purchase the Shares will be subject to the accuracy of the representations and warranties made by the Company and the fulfillment of those undertakings of the Company to be fulfilled prior to the Closing Date, including without limitation, those contained in the Placement Agreement, and to the condition that the Placement Agent shall not have: (a) terminated the Placement Agreement pursuant to the terms thereof or (b) determined that the conditions to the closing in the Placement Agreement have not been satisfied. The Investor's obligations are expressly not conditioned on the purchase by any or all of the Other Investors of the Shares that they have agreed to purchase from the Company. The Investor understands and agrees that, in the event that the Placement Agent in its sole discretion determines that the conditions to closing in the Placement Agreement have not been satisfied or if the Placement Agreement may be terminated for any other reason permitted by such Placement Agreement, then the Placement Agent may, but shall not be obligated to, terminate such Agreement, which shall have the effect of terminating this Subscription Agreement pursuant to <u>Section 14</u> below.

3.3 Delivery of Funds.

(a) <u>DWAC Delivery</u>. If the Investor elects to settle the Shares purchased by such Investor through DTC's Deposit/Withdrawal at Custodian ("DWAC") delivery system, **<u>no later than one (1) business day after the execution of this Agreement by the Investor and the Company</u>**, the Investor shall remit by wire transfer the amount of funds equal to the aggregate purchase price for the Shares being purchased by the Investor to the following account designated by the Company:

[To be separately provided to the Investor]

(b) <u>Delivery Versus Payment through The Depository Trust Company</u>. If the Investor elects to settle the Shares purchased by such Investor by delivery versus payment through DTC, **<u>no later than one (1) business day after the execution of this Agreement by the Investor and the Company,</u>** the Investor shall confirm that the account or accounts at the Placement Agent to be credited with the Shares being purchased by the Investor have a minimum balance equal to the aggregate purchase price for the Shares being purchased by the Investor.

3.4 Delivery of Shares.

(a) <u>DWAC Delivery</u>. If the Investor elects to settle the Shares purchased by such Investor through DTC's DWAC delivery system, **<u>no later than one (1) business day after the execution of this Agreement by the Investor and the Company ,</u>** the Investor shall direct the broker-dealer at which the account or accounts to be credited with the Shares being purchased by such Investor are maintained, which broker/dealer shall be a DTC participant, to set up a DWAC instructing the Transfer Agent to credit such account or accounts with the Shares. Such DWAC instruction shall indicate the settlement date for the deposit of the Shares, which date shall be provided to the Investor by the Placement Agent. Upon the closing of the Offering, the Company shall direct the Transfer Agent to credit the Investor's account or accounts with the Shares pursuant to the information contained in the DWAC.

(b) Delivery Versus Payment through The Depository Trust Company. If the Investor elects to settle the Shares purchased by such Investor by delivery versus payment through DTC, **no later than one (1) business day after the execution of this Agreement by the Investor and the Company,** the Investor shall notify the Placement Agent of the account or accounts at the Placement Agent to be credited with the Shares being purchased by such Investor. On the Closing Date, the Company shall deliver the Shares to the Investor through DTC directly to the account(s) at the Placement Agent identified by Investor. Upon receipt of such Shares, the Placement Agent shall promptly electronically deliver such Shares to the Investor, and simultaneously therewith payment shall be made by the Placement Agent by wire transfer to the Company.

4. Representations, Warranties and Covenants of the Investor.

The Investor acknowledges, represents and warrants to, and agrees with, the Company and the Placement Agent that:

4.1 The Investor (a) is knowledgeable, sophisticated and experienced in making, and is qualified to make decisions with respect to, investments in securities presenting an investment decision like that involved in the purchase of the Shares, including investments in securities issued by the Company and investments in comparable companies, (b) has answered all questions on the Signature Page and the Investor Questionnaire and the answers thereto are true and correct as of the date hereof and will be true and correct as of the Closing Date and (c) in connection with its decision to purchase the Shares set forth on the Signature Page, has received and is relying only upon the Disclosure Package and the documents incorporated by reference therein and the Offering Information.

4.2 (a) No action has been or will be taken in any jurisdiction outside the United States by the Company or the Placement Agent that would permit an offering of the Shares, or possession or distribution of offering materials in connection with the issue of the Shares in any jurisdiction outside the United States where action for that purpose is required, (b) if the Investor is outside the United States, it will comply with all applicable laws and regulations in each foreign jurisdiction in which it purchases, offers, sells or delivers Shares or has in its possession or distributes any offering material, in all cases at its own expense and (c) the Placement Agent is not authorized to make and has not made any representation, disclosure or use of any information in connection with the issue, placement, purchase and sale of the Shares, except as set forth or incorporated by reference in the Preliminary Prospectus, the Prospectus or any free writing prospectus.

4.3 (a) The Investor has full right, power, authority and capacity to enter into this Agreement and to consummate the transactions contemplated hereby and has taken all necessary action to authorize the execution, delivery and performance of this Agreement, and (b) this Agreement constitutes a valid and binding obligation of the Investor enforceable against the Investor in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' and contracting parties' rights generally and except as enforceability may be subject to general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law) and except as to the enforceability of any rights to indemnification or contribution that may be violative of the public policy underlying any law, rule or regulation (including any federal or state securities law, rule or regulation).

4.4 The Investor understands that nothing in this Agreement, the Preliminary Prospectus, the Disclosure Package, the Offering Information, the Prospectus or any other materials presented to the Investor in connection with the purchase and sale of the Shares constitutes legal, tax or investment advice. The Investor has consulted such legal, tax and investment advisors and made such investigation as it, in its sole discretion, has deemed necessary or appropriate in connection with its purchase of Shares.

5. Survival of Representations, Warranties and Agreements; Third Party Beneficiary. Notwithstanding any investigation made by any party to this Agreement or by the Placement Agent, all covenants, agreements, representations and warranties made by the Company and the Investor herein will survive the execution of this Agreement, the delivery to the Investor of the Shares and the payment therefor. The Placement Agent shall be a third party beneficiary with respect to the representations, warranties and agreements of the Investor in Section 4 hereof.

6. Notices. All notices, requests, consents and other communications hereunder will be in writing, will be mailed (a) if within the domestic United States by first-class registered or certified airmail, or nationally recognized overnight express courier, postage prepaid, or by facsimile or (b) if delivered from outside the United States, by International Federal Express or facsimile, and will be deemed given (i) if delivered by first-class registered or certified mail domestic, three business days after so mailed, (ii) if delivered by nationally recognized overnight carrier, one business day after so mailed, (iii) if delivered by International Federal Express, two business days after so mailed and (iv) if delivered by facsimile, upon electronic confirmation of receipt and will be delivered and addressed as follows:

(a) if to the Company, to:

Tecogen Inc.
45 First Avenue
Waltham, MA 02451
Attention: Chief Executive Officer
Fax: (781) 622-1027

with a copy (which shall not constitute notice) to:

Sullivan & Worcester LLP
One Post Office Square
Boston, MA 02109

Attention: Edwin L. Miller, Jr.
Fax: (617) 338-2880

(b) if to the Investor, at its address on the Signature Page hereto, or at such other address or addresses as may have been furnished to the Company in writing.

7. Changes. This Agreement may not be modified or amended except pursuant to an instrument in writing signed by the Company and the Investor.

8. Headings. The headings of the various sections of this Agreement have been inserted for convenience of reference only and will not be deemed to be part of this Agreement.

9. Severability. In case any provision contained in this Agreement should be invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein will not in any way be affected or impaired thereby.

10. Governing Law. This Agreement will be governed by, and construed in accordance with, the internal laws of the State of New York, without giving effect to the principles of conflicts of law that would require the application of the laws of any other jurisdiction.

11. Counterparts. This Agreement may be executed in two or more counterparts, each of which will constitute an original, but all of which, when taken together, will constitute but one instrument, and will become effective when one or more counterparts have been signed by each party hereto and delivered to the other parties. The Company and the Investor acknowledge and agree that the Company shall deliver its counterpart to the Investor along with the Prospectus (or the filing by the Company of an electronic version thereof with the Commission).

12. Confirmation of Sale. The Investor acknowledges and agrees that such Investor's receipt of the Company's signed counterpart to this Agreement, together with the Prospectus (or the filing by the Company of an electronic version thereof with the Commission), shall constitute written confirmation of the Company's sale of the Shares to such Investor.

13. [Reserved]

14. Termination. In the event that the Placement Agreement is terminated by the Placement Agent pursuant to the terms thereof, this Agreement shall terminate without any further action on the part of the parties hereto.

EXHIBIT A

TECOGEN INC.

INVESTOR QUESTIONNAIRE

Pursuant to Section 3 of Annex I to the Agreement, please provide us with the following information:

1. The exact name that your Shares are to be registered in. You may use a nominee name if appropriate: ________________

2. The relationship between the Investor and the registered holder listed in response to item 1 above: ________________

3. The mailing address of the registered holder listed in response to item 1 above: ________________

4. The Social Security Number or Tax Identification Number of the registered holder listed in the response to item 1 above: ________________

5. Name of DTC Participant (broker-dealer at which the account or accounts to be credited with the Shares are maintained): ________________

6. DTC Participant Number: ________________

7. Name of Account at DTC Participant being credited with the Shares: ________________

8. Account Number at DTC Participant being credited with the Shares: ________________

Exhibit 5.1

Sullivan & Worcester LLP
One Post Office Square
Boston, MA 02109

April 17, 2014

Tecogen Inc.
45 First Avenue
Waltham, MA 02451

Re: Registration Statement on Form S-1, File No. 333-193823

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Registration Statement on Form S-1 (the "Registration Statement"), filed by Tecogen Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") for the purpose of registering with the Commission under the Securities Act of 1933, as amended (the "Securities Act"), shares of the Company's common stock, par value $0.001 per share (the "Common Stock"), as specified in the Registration Statement.

We are acting as counsel for the Company in connection with the proposed issue and sale by the Company of the Common Stock. We have examined and relied upon the Registration Statement and the Prospectus, in the form being filed with the Commission, the minutes of meetings of the Board of Directors of the Company as provided to us by the Company, the amended and restated Certificate of Incorporation and By-Laws of the Company, originals or copies of such records, agreements and instruments of the Company, certificates of public officials and of officers of the Company and such other documents and records, and such matters of law, as we have deemed appropriate as a basis for the opinion expressed herein. In rendering such opinion, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals and the conformity to the authentic original documents of all documents submitted to us as copies. As to any facts material to the opinion expressed herein, we have relied without independent verification upon certificates of public officials, upon statements of officers or other representatives of the Company and statements of fact contained in documents we have examined.

We express no opinion herein as to the laws of any jurisdiction other than the laws of The Commonwealth of Massachusetts, the laws of the State of New York, the corporate laws of the State of Delaware and the federal laws of the United States of America, and we express no opinion as to state securities or blue sky laws.

Our opinion set forth below with respect to the validity or binding effect of any security or obligation may be limited by (i) bankruptcy, insolvency, reorganization, fraudulent conveyance, marshaling, moratorium or other similar laws affecting the enforcement generally of the rights and remedies of creditors and secured parties or the obligations of debtors, and (ii) general principles of equity (whether considered in a proceeding in equity or at law), including but not limited to principles limiting the availability of specific performance or injunctive relief, and concepts of materiality, reasonableness, good faith and fair dealing.

Based upon and subject to the foregoing, we are of the opinion that when (i) specifically authorized for issuance and sale by final resolutions adopted by the Company's Board of Directors or an authorized committee thereof as contemplated in the Registration Statement which have not been modified or rescinded (the "Authorizing Resolutions"), (ii) the Registration Statement has become effective under the Securities Act and an appropriate Prospectus has been filed with the Commission describing the Common Stock offered thereby, (iii) the terms of the sale of the Common Stock have been duly established in conformity with the Company's Certificate of Incorporation and By-laws, each as restated and/or amended to date, and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding on the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (iv) the Common Stock has been issued and sold as contemplated by the Registration Statement and (v) the Company has received the consideration provided for in the Authorizing Resolutions and such consideration per share is not less than the par value per share of the Common Stock, the Common Stock will be validly issued, fully paid and non-assessable.

The opinion set forth herein is rendered as of the date hereof, and we assume no obligation to update such opinion to reflect any facts or circumstances which may hereafter come to our attention or any changes in the law which may hereafter occur (which may have retroactive effect).

This opinion is rendered to you in connection with the filing of the Registration Statement. This opinion may not be relied upon for any other purpose, or furnished to, quoted or relied upon by any other person, firm or corporation for any purpose, without our prior written consent, except that (A) this opinion may be furnished or quoted to judicial or regulatory authorities having jurisdiction over you, and (B) this opinion may be relied upon by purchasers and holders of the Common Stock currently entitled to rely on it pursuant to applicable provisions of federal securities law.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to our firm under the caption “Legal Matters” in the Prospectus. In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or under the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Sullivan & Worcester LLP

SULLIVAN & WORCESTER LLP

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Amendment No. 1 to the Registration Statement (No. 333-193823) on Form S-1 of Tecogen Inc. of our report dated March 31, 2014, relating to our audits of the consolidated financial statements, appearing in the Prospectus, which is part of this Registration Statement. We also consent to the reference to our firm under the caption “Experts” in such Prospectus.

/s/ McGladrey LLP

Boston, Massachusetts
April 17, 2014

April 17, 2014

Via EDGAR

Pamela A. Long, Assistant Director
Securities and Exchange Commission
Division of Corporation Finance
100 F Street, NE
Washington, DC 20549

Re: **Tecogen Inc. (the "Company")**
Registration Statement on Form S-1 Filed February 7, 2014 - File No. 333-193823

Dear Ms. Long:

The purpose of this letter is to respond to your letter of February 27, 2014 regarding the above registration statement. For your convenience, your original comments appear in bold text, followed by our response. We are concurrently filing Amendment No. 1 to the Form S-1. The Registration Statement on Form S-1, originally filed on February 7, 2014 (File No. 333-193823), as amended, is referred to herein as the "Registration Statement".

General

1. **To the extent applicable, please observe the updating requirements of Rule 8-08(b) of Regulation S-X.**

   We have observed the updating requirements of Rule 8-08(b) of Regulation S-X in the Registration Statement.

2. **We note that you intend to file by amendment certain exhibits, including the placement agent agreement, form of securities purchase agreement and the legal opinion. We may have comments on the opinion and other exhibits after they are filed. Please allow sufficient time for staff review of these materials before requesting acceleration of effectiveness of the registration statement.**

   All exhibits have now been filed.

3. **We will process this registration statement and any amendment without a price range. Since the price range triggers a number of disclosure matters, we will need sufficient time to process the amendment in which it is included. Note that the price range's effect on disclosure throughout the registration statement may cause us to raise issues on areas upon which we have not commented previously.**

   The price range and the aggregate offered amount are now included on the cover page of the prospectus.

4. **As indicated in the comment above, we note that you have omitted certain pricing-related information as well as other information. If you intend to rely on Rule 430A of Regulation C under the Securities Act, please note that Rule 430A does not allow for the omission before effectiveness of amounts that may be computed based on the maximum number of shares offered and the midpoint of the offering price range or the number of shares to be offered on the cover page. Also, please confirm that you will not circulate copies of the registration statement or the preliminary prospectus until you include an estimated price range, maximum number of shares, dollar amounts dependent upon the offering price that are based on the midpoint of the offering price range, and all other information except information that you may exclude in reliance upon Rule 430A. For additional guidance, please see Compliance and Disclosure Interpretations Securities Act Rules Question 227.02.**

   All pricing related information has been included. The preliminary prospectus included in Amendment No. 1 will be circulated, and the prospectus in the original filing has not been circulated.

5. **We note that the placement agent will use its "commercially reasonable efforts to solicit offers to purchase shares of Common Stock" and that the placement agent "is not purchasing or selling any shares of Common Stock pursuant to this offering, nor are [you] requiring any minimum purchase of any specific number of shares." As there is no minimum offering amount required as a condition to the closing of the offering, please provide us with your analysis as to why this is not a delayed or continuous offering pursuant to Rule 415 under the Securities Act.**

   Please be advised that we intend to request effectiveness only after the marketing effort is complete. There will be a standard T+3 closing.

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6. **Please revise your prospectus to remove the statement, "[t]he information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our Common Stock." This statement may suggest to investors that you are not responsible for omissions of material facts necessary to make your statements not misleading at the time of sale or contract of sale. Information that is conveyed after the time of sale or contract of sale is not taken into account for purposes of section 12(a)(2) or 17(a)(2) of the Securities Act.**

   The statement has been removed.

Use of Proceeds, page 20

7. **Please discuss your plans if substantially less than the maximum proceeds are obtained. Refer to Instruction 1 to Item 504 of Regulation S-K.**

   We have revised our disclosure as requested to include the following:

   "If substantially less than the maximum proceeds are obtained in this offering, we anticipate being able to enter into a working capital line of credit for up to the shortfall."

* * *

The Company acknowledges that the Company and its management are responsible for the adequacy and accuracy of the disclosures they have made.

We appreciate your comments and welcome the opportunity to discuss with you our responses provided above. Please call me at (781) 466-6440 or our attorney, Edwin Miller of Sullivan & Worcester LLP in Boston, at (617) 338-2447 if you have any questions or require additional information.

Sincerely,

TECOGEN INC.

/s/ Bonnie J. Brown

By: Bonnie J. Brown
Chief Financial Officer

cc: Kamyar Daneshvar, Staff Attorney
Craig Slivka, Special Counsel