

TECOGEN INC  
Form S-1  
December 22, 2011

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

FORM S-1  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

TECOGEN INC.  
(Exact name of Registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

3585  
(Primary Standard Industrial  
Classification Code Number)

04-3536131  
(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)

Copy to:

John N. Hatsopoulos  
Chief Executive Officer  
Tecogen Inc.  
45 First Avenue  
Waltham, MA 02451

(781) 622-1120/Fax: (781) 622-1027

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number,  
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As soon as practicable after the effective date of this Registration Statement.  
(Approximate date of commencement of proposed sale to the public)

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 of 1933, 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	Amount to be Registered <sup>1</sup>	Proposed Maximum Offering Price per Unit	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock	35,381,768	\$ 0.80	\$ 28,305,414	\$ 3,244

<sup>1</sup> The offering price is the stated, fixed price of \$0.80 per share until the securities are quoted on the OTC Bulletin Board, a national, or international securities exchange for the purpose of calculating the registration fee pursuant to Rule 457. This amount is only for purposes of determining the registration fee, the actual amount received by a selling stockholder will be based upon fluctuating market prices once the securities are quoted on the OTC Bulletin Board, a national, or international securities exchange. The shares being registered hereby consist of 35,381,768 outstanding shares.

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 the 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 DECEMBER 22, 2011

PROSPECTUS

35,381,768 SHARES OF COMMON STOCK

Initial Public Offering

This prospectus relates to the resale of up to 35,381,768 shares of Tecogen Inc. Common Stock. These shares will be resold from time to time by the investors listed in the section titled "Selling Security Holders", and we refer to the investors as the selling stockholders. The selling stockholders do not include any of our directors, officers or 10% holders and this prospectus may not be used by any such person or entity. We are not selling any securities under this prospectus and therefore will not receive any proceeds from the sale of securities by the selling stockholders. All costs associated with this registration will be borne by us.

We currently lack a public market for our Common Stock. Selling stockholders will sell at a price of \$0.80 per share until such time as our shares may be quoted on the OTC Bulletin Board or listed on a national or international securities exchange and thereafter at prevailing market prices or privately negotiated prices. The proposed maximum aggregate offering price is \$28,305,414.

You should rely only on the information provided in this prospectus or any supplement to this prospectus. We have not authorized anyone else to provide you with different information. Neither the delivery of this prospectus nor any distribution of the shares of Common Stock pursuant to this prospectus shall, under any circumstances, create any implication that there has been no change in our affairs since the date of this prospectus.

A current prospectus must be in effect at the time of the sale of the shares of Common Stock discussed above. The selling stockholders will be responsible for any commissions or discounts due to brokers or dealers. We will pay all of the other offering expenses.

Each selling stockholder or dealer selling the Common Stock is required to deliver a current prospectus upon the sale. In addition, for the purposes of the Securities Act of 1933, as amended, or the Securities Act, selling stockholders may be deemed underwriters.

**THIS INVESTMENT INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD PURCHASE SHARES ONLY IF YOU CAN AFFORD A COMPLETE LOSS. WE URGE YOU TO READ THE "RISK FACTORS" SECTION BEGINNING ON PAGE 4, ALONG WITH THE REST OF THIS PROSPECTUS BEFORE YOU MAKE YOUR INVESTMENT DECISION.**

**NEITHER THE SECURITIES AND EXCHANGE COMMISSION, OR THE SEC, NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES, OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.**



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You should rely only on the information contained in this Prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. No offers are being made hereby in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this Prospectus is accurate only as of the date on the cover. Our business, financial condition, results of operations and prospects may have changed since that date.

Unless otherwise indicated, information contained in this Prospectus concerning our industry, including our market opportunity, is based on information from independent industry analysts, third-party sources and management estimates. Management estimates are derived from publicly-available information released by independent industry analysts and third party sources, as well as data from our internal research, and are based on assumptions made by us using data and our knowledge of such industry and market, which we believe to be reasonable. In addition, while we believe the market opportunity information included in this Prospectus is generally reliable and is based on reasonable assumptions, such data involves risks and uncertainties and is subject to change based on various factors, including those discussed under the heading “Risk Factors.”

## 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.

Tecogen Inc. designs, manufactures and sells industrial and commercial cogeneration systems that produce combinations of electricity, hot water and air conditioning using automobile engines that have been specially adapted to burn natural gas. Our reliable and efficient cogeneration systems reduce energy costs, decrease greenhouse gas emissions and decrease reliance on utility-generated electricity. Cogeneration systems are efficient because in addition to supplying electric power or mechanical power for cooling, they recover engine heat to produce heat and hot water. 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.

The Company manufactures and supports two types of CHP products:

- Cogeneration units that supply electricity and heat, and
- Chillers that provide air-conditioning and heat or hot water

Tecogen’s CHP technology uses a low-cost, mass-produced, internal combustion engine manufactured by General Motors Company. We modify the engine to run on natural gas instead of gasoline, and it has a proven track record of reliability in commercial CHP systems. To produce electricity, the engine drives a generator. To produce air-conditioning, the engine drives a compressor. The working engine gives off heat, which is captured by a heat exchanger that feeds it into the building’s hot-water or space-heating system.

Tecogen’s products are sold directly to end-users by the Company’s in-house marketing team and by established sales agents and representatives. Various agreements are in place with distributors and sales representatives, including three affiliated companies. The Company’s 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. Tecogen has an installed base of more than 2,100 units. Many of these have been operating for almost 25 years.

Environmental concerns, economic viability, the country’s vast natural gas reserves, policy initiatives, and social responsibility all are factors driving the need for increased use of reliable, clean, and efficient on-site natural gas cogeneration systems with integral heat recovery.

In 2009 Tecogen created a majority-owned subsidiary, Ilios Inc., or 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 on management estimates, utilizing advanced thermodynamic principles. As of the date of this prospectus, Tecogen owns a 64.6% interest in Ilios.

The Company employs 54 active full-time employees and four part-time employees. The Company’s corporate, engineering and manufacturing operations are located in a 24,000 square foot facility in Waltham, Massachusetts.



Tecogen was formed in the early 1960's as the Research and Development New Business Center of Thermo Electron Corporation (which is now Thermo Fisher Scientific Inc.), or Thermo Electron, and 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 November 15, 2000. Our business and registered office is located at 45 First Avenue, Waltham, MA 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

Securities being offered: Up to 35,381,768 shares of Common Stock.

Common Stock to be outstanding after this offering: 53,993,882 shares

Offering price: The offering price of the Common Stock is \$0.80 per share. There is no public market for our Common Stock. We cannot give any assurance that the shares offered will have a market value, or that they can be resold at the offered price if and when an active secondary market might develop, or that a public market for our securities may be sustained even if developed. The absence of a public market for our stock will make it difficult to sell shares.

We intend to apply to the over-the-counter bulletin board, through a market maker that is a licensed broker dealer, to allow the trading of our Common Stock upon our becoming a reporting entity under the Exchange Act. If our Common Stock becomes so quoted and a market for the stock develops, the actual price of stock will be determined by prevailing market prices at the time of sale or by private transactions negotiated by the selling stockholders. The offering price would thus be determined by market factors and the independent decisions of the selling stockholders.

Securities issued and to be issued: 53,993,882 shares of our Common Stock are issued and outstanding as of the date of this prospectus, 35,381,768 of which are being offered pursuant to this prospectus. Because all of the Common Stock to be sold under this prospectus will be sold by existing shareholders, there will be no increase in our issued and outstanding shares as a result of this offering.

Use of proceeds: We will not receive any proceeds from the sale of the Common Stock by the selling stockholders.

## SUMMARY CONSOLIDATED FINANCIAL DATA

The summary consolidated statements of operations data for each of the years ended December 31, 2010 and 2009 have been derived from our audited consolidated financial statements that are included elsewhere in this prospectus. The summary consolidated balance sheet data as of September 30, 2011 and the summary consolidated statements of operations data for each of the nine months ended September 30, 2011 and 2010 have been derived from our unaudited condensed 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. Operating results for the nine months ended September 30, 2011 are not necessarily indicative of the results that may be expected for the year ended December 31, 2011.

Consolidated Statement of Operations Data:	December 31,		Nine Months Ended	
	2010	2009	2011 (unaudited)	2010 (unaudited)
Revenues	\$ 11,311,229	\$ 11,776,241	\$ 8,714,228	\$ 9,021,818
Cost of sales	6,597,205	6,864,086	4,818,318	5,289,986
Gross profit	4,714,024	4,912,155	3,895,910	3,731,832
Operating expenses				
General and administrative	4,973,794	4,919,023	4,495,533	3,487,754
Selling	290,505	534,957	381,617	428,289
	5,264,299	5,453,980	4,877,150	3,916,043
Loss from operations	(550,275 )	(541,825 )	(981,240 )	(184,211 )
Other income (expense)				
Interest and other income	23,574	22,581	25,262	14,859
Interest expense	(37,280 )	(63,514 )	(22,492 )	(30,728 )
	(13,706 )	(40,933 )	2,770	(15,869 )
Loss before income taxes	(563,981 )	(582,758 )	(978,470 )	(200,080 )
Provision for state income taxes	-	-	-	-
Consolidated net loss	(563,981 )	(582,758 )	(978,470 )	(200,080 )
Less: Loss attributable to the noncontrolling interest	208,673	117,161	192,359	123,772
Net loss attributable to Tecogen Inc.	(355,308 )	(465,597 )	(786,111 )	(76,308 )
Net loss per share - basic and diluted	\$(0.01 )	\$(0.01 )	\$(0.02 )	\$(0.00 )
Weighted average shares outstanding - basic and diluted	45,882,631	44,131,903	47,721,641	45,492,967
Consolidated Balance Sheet Data:	December 31,		September 30,	
	2010	2009	2011 (unaudited)	2010 (unaudited)
Cash and cash equivalents	\$ 1,913,173	\$ 1,244,681	\$ 1,712,864	\$ 1,191,614

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Working capital	2,324,501	2,046,998	2,667,330	2,155,402
Total assets	5,876,422	5,318,976	6,441,401	5,742,216
Total liabilities	2,884,743	3,019,046	3,355,500	2,937,954
Stockholders' equity	\$ 2,991,679	\$ 2,299,930	\$ 3,085,901	\$ 2,804,262

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## RISK FACTORS

The securities offered herein are highly speculative and should only be purchased by persons who can afford to lose their entire investment in us. You should carefully consider the following risk factors and other information in this prospectus before deciding to become a holder of 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 “Warning Concerning Forward-Looking Statements” before deciding whether to invest in our Common Stock.

Our operating history is characterized by net losses. We anticipate 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 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, or if available, may be on terms that are not favorable to us and could result in dilution to our stockholders and reduction of the trading price of our stock. 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.

If we experience growth in our business, our production capabilities or operational, financial and management information systems may become inadequate, which would impair our results of operations.

If we are successful in executing our business plan, we will experience growth in our business that could place a significant strain on our business operations, management and other resources. Our ability to manage such growth would require us to expand our production capabilities, continue to improve our operational, financial and management information systems, and to motivate and effectively manage our employees. We cannot provide assurance that our systems, procedures and controls or financial resources will be adequate, or that our management would keep pace with the growth that may occur.

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 recessionary condition of the general economy and limited availability of credit and liquidity could materially and adversely affect our business and results of operations. Purchasers of our systems may require third party financing. Given the recent recession and the restricted credit markets, certain of our customers 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 may also be difficult. These factors could materially and adversely affect our business and financial condition.

We expect significant competition for our products and services.

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. Some of our competitors and potential competitors are much larger than we are. 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. There can be no assurance that we will be successful in this competitive environment.

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 develop and provide innovative products that meet the changing needs of our customers. This requires that we successfully anticipate and respond to technological changes in design and manufacturing processes in a cost-effective and timely manner. As a result, we continually evaluate the advantages and feasibility of new product design and manufacturing processes. We cannot, however, assure you that our process improvement efforts will be successful. The introduction of products embodying new technologies and shifting of customer demands or changing industry standards could render our existing products obsolete and unmarketable. Our future success will depend upon our ability to continue to develop and introduce a variety of new products and product enhancements to address the increasingly sophisticated needs of our customers. 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.

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

We use third-party suppliers for components in many of our systems. 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 may not be able to maintain the confidentiality of our proprietary knowledge.

In addition to our patent rights, we also rely on treatment of our technology as trade secrets through confidentiality agreements, which our employees and vendors are required to sign. Our employees have agreed not to disclose any trade secrets or confidential information without our prior written consent. 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 believe that we do not infringe the proprietary rights of others and, to date, no third parties have asserted an infringement claim against us, but 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. Although we currently pay certain royalties, 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 may 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.

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 achieve rapid market penetration, we may be required to deliver even larger volumes of technically complex products or components to our customers on a timely basis at reasonable costs to us. We have limited experience in ramping up our manufacturing capabilities to meet large-scale production requirements and delivering large volumes of our power control products. If we were to commit to deliver large volumes of our power control products, we cannot assure you that we will be able to satisfy large-scale commercial production on a timely and cost-effective basis or that such growth will not strain our operational, financial and technical resources.

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, and 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 incurrence 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.

Businesses and consumers might not adopt cogeneration solutions as a means for obtaining their electricity and power needs.

On-site distributed power generation solutions, such as ours, provide an alternative means for obtaining electricity and are relatively new methods of obtaining electrical power that businesses may not adopt at levels sufficient to grow our business. Traditional electricity distribution is based on the regulated industry model whereby businesses and consumers obtain their electricity from a government regulated utility. For alternative methods of distributed power to succeed, businesses and consumers must adopt new purchasing practices and must be willing to rely upon less traditional means of purchasing electricity. We cannot assure you that businesses and consumers will choose to utilize on-site distributed power at levels sufficient to sustain our business in this area. The development of a larger market for our products may be impacted by many factors which are out of our control, including, market acceptance, cost competitiveness, regulatory requirements and the emergence of newer, more competitive technologies and products. If a larger market fails to develop or develops more slowly than we anticipate, we may be unable to recover the losses

we will have incurred to develop these products.

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

Our products are subject to federal, state, local and foreign laws and regulations governing, among other things, emissions and occupational health and safety. Regulatory agencies may impose special requirements for the implementation and operation of our products or that may significantly affect or even eliminate some of our target markets. We may incur material costs or liabilities in complying with government regulations. In addition, potentially significant expenditures could be required in order to comply with evolving environmental and health and safety laws, regulations and requirements that may be adopted or imposed in the future. Furthermore, our potential utility customers must comply with numerous laws and regulations. The deregulation of the utility industry may also create challenges for our marketing efforts. For example, as part of electric utility deregulation, federal, state and local governmental authorities may impose transitional charges or exit fees, which would make it less economical for some potential customers to switch to our products. We can provide no assurances that we will be able to obtain these approvals and changes in a timely manner, or at all. Non-compliance with applicable regulations could have a material adverse effect on our business and financial condition. The market for electricity and cogeneration products is influenced by federal and state government regulations and policies. The deregulation and restructuring of the electric industry in the United States and elsewhere may cause rule changes that may reduce or eliminate some of the advantages of such deregulation and restructuring. We cannot determine how any deregulation or restructuring of the electric utility industry 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.

Utility companies or governmental entities could place barriers to our entry into the marketplace, and we may not be able to effectively sell our products.

Utility companies or governmental entities could place barriers on the installation of our products or the interconnection of the products with the electric grid. Further, they may charge additional fees to customers who install on-site generation or have the capacity to use power from the grid for back-up or standby purposes. These types of restrictions, fees or charges could hamper the ability to install or effectively use our products or increase the cost to our potential customers for using our systems. This could make our systems less desirable, thereby adversely affecting our revenue and other operating results. In addition, utility rate reductions make our products less competitive. The cost of electric power generation bears a close relationship to natural gas and other fuels. However, changes to electric utility tariffs often require lengthy regulatory approval and include a mix of fuel types as well as customer categories. Potential customers may perceive the resulting swings in natural gas and electric pricing as an increased risk of investing in on-site generation.

We depend upon the development of new products and enhancements of existing products.

Our operating results depend on our ability to develop and introduce new products, enhance existing products and reduce the costs to produce our products. The success of our products is dependent on several factors, including proper product definition, product cost, timely completion and introduction of the products, differentiation of products from those of our competitors, meeting changing customer requirements, emerging industry standards and market acceptance of these products. 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.



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 provide assurance that we will be able to achieve any such production cost reductions. Our failure to achieve such cost reductions could have a material adverse effect on our business and results of operations.

We have granted sales representation rights to an affiliated company which restricts our distribution.

We have granted to American DG Energy Inc., or American DG Energy, an affiliated company, sales representation rights to our products and services in certain areas. In New England, American DG Energy has exclusive sales representation rights to our cogeneration products. American DG Energy also has exclusive rights to our advanced emissions system if it is applied to engines from other CHP manufacturers used for their specific energy projects. In other words, American DG Energy could purchase CHP products from suppliers other than us and license that supplier to incorporate our proprietary advanced emissions system as long as the CHP system is owned and operated American DG Energy. As a result of those agreements we have no control over our distribution in certain areas and this 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 the prices of these components creates a risk that our projects will be uneconomic.

The economic viability of our distributed generation products is dependent upon the price spread between fuel and electricity prices. Volatility in one component of the spread, the cost of natural gas and other fuels (e.g., propane or

distillate oil) can be managed to a greater or lesser extent by means of futures contracts. However, the regional rates charged for both base load and peak electricity services may decline periodically due to excess capacity arising from over-building of utility power plants or recessions in economic activity. Any sustained weakness in electricity prices could significantly limit the market for our 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.

In order 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 is limited because the financial markets are currently in a period of disruption and recession and the Company does not expect these conditions to improve in the near future.

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 markets in which we operate. The current economic conditions including the global recession could adversely impact our business in 2012 and beyond.

The current economic conditions including the global recession could adversely impact our business in 2012 and beyond, resulting in reduced demand for our products, increased rate of order cancellations 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 Ownership of our Common Stock

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 your percentage ownership interest, which would have the effect of reducing your influence on matters on which our stockholders vote, and might dilute the book value of our Common Stock. You 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.

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.



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.

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 existing stockholders of shares of Common Stock in the market or the perception that these sales could occur. 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 your sole source of gain 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 Hatsopoulos and John Hatsopoulos, who are brothers, beneficially own approximately 53.7% 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.

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 the end of the period covered by this report, our principal executive officer and principal accounting officer have 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 September 30, 2011. 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 which 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 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.

## 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 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;
- 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 will not receive any proceeds from the sale of shares of Common Stock by the selling stockholders which are offered in this prospectus.

## DETERMINATION OF OFFERING PRICE

The offering price for the shares in this offering was determined by our management. In determining the initial public 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;
- our future prospects and the experience of our management; and
- our capital structure.

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.

## DILUTION

We are not selling any of the shares of our Common Stock in this offering. All of the shares sold in this offering will be held by the selling stockholders at the time of the sale, so that no dilution will result from the sale of the shares.

## SELLING SECURITY HOLDERS

The 35,381,768 common shares being offered for resale pursuant to this registration statement, or Common Shares, may be sold from time to time for the account of the selling security holders named in the following table. However, the selling security holders are not obligated to sell any of our Common Shares offered by this prospectus.

Beneficial ownership is determined in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities. Except as otherwise indicated, all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws. The information is not necessarily indicative of beneficial ownership for any other purpose. With respect to selling stockholders that are entities, the individuals who have voting or investment power over the shares, as indicated, disclaim beneficial ownership of the securities except for their pecuniary interest therein.

None of the selling stockholders is in the business of buying and selling securities. However, Mr. Michael Zuk is affiliated with Oppenheimer & Co. The aforementioned investor purchased the securities in the ordinary course of his personal investment activities (or for his investment accounts) and at the time of the purchase he did not have any agreements or understandings directly or indirectly with any person to distribute the securities. If any shares of our Common Stock are sold by the aforementioned investor pursuant to this prospectus, he will be an underwriter with respect thereto under the Securities Act. No other selling stockholders are themselves, or are affiliated with, a broker-dealer.

The table below contains information, to our knowledge, regarding each selling security holder's beneficial ownership of our Common Shares as of the date of this prospectus, and as adjusted to reflect the sale of the shares offered hereby, assuming that all of the shares offered hereby will be sold.

Selling Stockholder	Shares Beneficially Owned			Shares Being Offered (1)	Shares Beneficially Owned		
	Prior to Offering Number	Percentage			After Offering Number (2)	Percentage	
John N. Hatsopoulos (3) + #	14,875,350	27.55	%	14,875,350	-	*	
George N. Hatsopoulos (4) +	14,206,077	26.16	%	14,206,077	-	*	
RBC Cees Nominees Ltd. (5)	3,616,418	6.70	%	2,847,188	769,230	1.42	%
Nettlestone Enterprises Limited (6)	1,394,231	2.58	%	625,000	769,231	1.42	%
Southern California Gas Company (7)	769,231	1.42	%	769,231	-	*	
Robert A. Panora (8) #	653,400	1.21	%	653,400	-	*	
Charles T. Maxwell (9) +	300,000	*		300,000	-	*	
John N. Hatsopoulos 1989 Family Trust f/b/o Nia Marie Hatsopoulos (10)	226,678	*		60,011	166,667	*	
John N. Hatsopoulos 1989 Family Trust f/b/o Alexander Hatsopoulos (11)	226,678	*		60,011	166,667	*	
Jeremy Benjamin	200,000	*		200,000	-	*	
Martin J. McDonough (12)	200,000	*		200,000	-	*	
Ahmed Ghoniem (13) +	100,000	*		100,000	-	*	
Angelina Galiteva (14) +	100,000	*		100,000	-	*	
Giordano Venzi	100,000	*		100,000	-	*	
Michael Zuk, Jr. & Gayle Line Zuk (15)	70,000	*		20,000	50,000	*	
Anthony S. Loumidis (16) #	60,000	*		60,000	-	*	

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Bonnie Brown (17) #	50,000	*	50,000	-	*
Ioannis Retsos	20,000	*	20,000	-	*
Jean Skeparnias	20,000	*	20,000	-	*
Sandro Reginelli	20,000	*	20,000	-	*
Vasileios Kakoulidis	20,000	*	20,000	-	*
Charlotte Maier	15,000	*	15,000	-	*
Fermin Alou	15,000	*	15,000	-	*
Franco Venzi	15,000	*	15,000	-	*
Nicola Bianchi	15,000	*	15,000	-	*
Stefano Venzi	10,000	*	10,000	-	*
Athanasios Kyranis	5,500	*	5,500	-	*
<b>Total</b>	<b>37,303,563</b>		<b>35,381,768</b>	<b>1,921,795</b>	

\* Represents beneficial ownership of less than 1% of our outstanding Common Stock.  
+ Member of our Board of Directors.  
# Executive Officer

1. Shares beneficially owned by our security holders and offered hereby consist of 35,381,768 outstanding shares of Common Stock.
2. The number assumes each selling security holder sells all of its shares being offered pursuant to this prospectus.
3. Includes: (a) 225,000 shares of Common Stock, directly held by Mr. John N. Hatsopoulos; (b) 4,948,165 shares of Common Stock; held by John N. Hatsopoulos and his wife, Patricia L. Hatsopoulos, as joint tenants, each of whom share voting and investment power; (c) 5,742,750 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 (d) 3,959,435 shares of Common Stock held by The John N. Hatsopoulos Family Trust 2008 for the benefit of: (1) Patricia L. Hatsopoulos, (2) Alexander J. Hatsopoulos, and (3) Nia Marie Hatsopoulos, for which Mr. John N. Hatsopoulos is the trustee. This amount does not include: (a) 333,334 shares of Common Stock issuable upon conversion of \$100,000 principal amount of 6% convertible debentures; and (b) 120,022 shares of Common Stock held by The John N. Hatsopoulos 1989 Family Trust for the benefit of: (1) Alexander J. Hatsopoulos, and (2) Nia Marie Hatsopoulos, for whom Mr. Paris Nikolaidis is the trustee. Mr. Hatsopoulos disclaims beneficial ownership of the shares held by that trust. Mr. John N. Hatsopoulos is the Chief Executive Officer of the Company and a director.



4. Includes: (a) 5,968,504 shares of Common Stock, directly held by Dr. George N. Hatsopoulos; (b) 7,934,350 shares of Common Stock; held by Dr. Hatsopoulos and his wife, Daphne Hatsopoulos, as joint tenants, each of whom share voting and investment power; and (c) 303,223 shares of Common Stock issuable upon conversion of \$90,967 principal amount of 6% convertible debentures. This amount does not include 2,272,391 shares held in the 1994 Hatsopoulos Family Trust for the benefit of Dr. and Mrs. Hatsopoulos' adult children, for whom Ms. Daphne Hatsopoulos and Mr. Gordon Erlich are the trustees. Dr. Hatsopoulos disclaims beneficial ownership of the shares held by this trust. Dr. George N. Hatsopoulos is a director of the Company.
5. Includes 3,616,418 shares of Common Stock 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. Messrs. Gordon Campbell and Michael James Evans are the authorized signatories of the company and may be deemed to exercise voting and/or dispositive power with respect to these shares.
6. Includes 1,394,231 shares of Common Stock held by Nettlestone Enterprises Limited. The address of Nettlestone Enterprises Limited is P.O. Box 665 Roseneath, The Grange, St. Peter Port, Guernsey GY1-3SJ, Channel Islands. Messrs. M.T.R Betley, M.S Heyworth and J.R Plimley are the directors of the company and may be deemed to exercise voting and/or dispositive power with respect to these shares.
7. Includes 769,231 shares of Common Stock held by the Southern California Gas Company. The address of the company is 8326 Centura park court, San Diego, California, 92123, and the directors of that company are the authorized signatories and may be deemed to exercise voting and/or dispositive power with respect to these shares.
8. Includes 653,400 shares of Common Stock, directly held by Mr. Panora, who is the Chief Operating Officer and President of the Company.
9. Includes 300,000 shares of Common Stock, directly held by Mr. Maxwell, who is a director of the Company.
10. Includes: (a) 60,011 shares of Common Stock; and (b) 166,667 shares of Common Stock issuable upon conversion of \$50,000 principal amount of 6% convertible debentures held by Paris and Aliko Nikolaidis as trustees for the John N. Hatsopoulos 1989 Family Trust for the benefit of Nia Marie Hatsopoulos. Mr. Hatsopoulos disclaims beneficial ownership of those shares.
11. Includes (a) 60,011 shares of Common Stock; and (b) 166,667 shares of Common Stock issuable upon conversion of \$50,000 principal amount of 6% convertible debentures held by Paris and Aliko Nikolaidis as trustees for the John N. Hatsopoulos 1989 Family Trust for the benefit of Alexander J. Hatsopoulos. Mr. Hatsopoulos disclaims beneficial ownership of those shares.
12. Includes 200,000 shares of restricted stock issued to Mr. McDonough that vest 25%, 180 days after an initial public offering and then an additional 25% of the shares vesting on each of the subsequent four anniversaries.
13. Includes 100,000 shares of Common Stock, directly held by Dr. Ghoniem, who is a director of the Company.
14. Includes 100,000 shares of Common Stock, directly held by Ms. Galiteva, who is the Chairperson of the Board of the Company.
15. Includes 70,000 shares of Common Stock held by Mr. Michael Zuk & Gayle Line Zuk. Mr. Michael Zuk is affiliated with Oppenheimer & Co. The seller purchased the securities to be resold in the ordinary course of business and at the time of the purchase, the seller had no agreements or understandings directly or indirectly, with any person to distribute the securities.
16. Includes 60,000 shares of Common Stock, directly held by Mr. Loumidis, who is a Vice President and Treasurer of the Company.
17. Includes 50,000 shares of Common Stock, directly held by Ms. Brown, who is the Chief Financial Officer of the Company.

Except for the current directors and officers as set forth in this Section and in the footnotes to the table above, other than Mr. Paris Nikolaidis, a former director of the Company who resigned from our Board of Directors on July 15, 2010, none of the selling stockholders has held any position or office, or had any other material relationship with the company within the past three years. See "Certain Relationships and Related Transactions" for a discussion of certain of the selling security holder's relationship to us and our affiliates.



## PLAN OF DISTRIBUTION

The selling security holders may, from time to time, sell, transfer, or otherwise dispose of any or all of their Common Shares on any stock exchange, market, or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The selling security holders will initially sell shares of our Common Stock at \$.80 per share, until such time as shares of our Common Stock may be quoted on the OTC Bulletin Board or listed on a national or international securities exchange. The selling security holders may use any one or more of the following methods when disposing of their Common Shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
  - purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
  - an exchange distribution in accordance with the rules of the applicable exchange;
  - privately negotiated transactions;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling security holders to sell a specified number of such shares at a stipulated price per share;
  - a combination of any such methods of sale; and
  - any other method permitted by applicable law

The selling security holders may, from time to time, pledge or grant a security interest in some or all of the Common Shares owned in their name and, if they default in the performance of the secured obligations, the pledgees or secured parties may offer and sell the Common Shares, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act to include the pledgee, transferee or other successors in interest as the selling security holders under this prospectus. The selling security holders also may transfer the Common Shares in other circumstances, in which case the transferees, pledges, or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our Common Shares, the selling security holders may enter into hedging transactions with broker-dealers or other financial institutions and may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of Common Shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling security holders from the sale of the Common Shares offered by them will be the purchase price of the Common Shares less discounts or commissions, if any. The selling security holders reserve the right to accept and, together with their respective agents from time to time, to reject, in whole or in part, any proposed purchase of Common Shares to be made directly or through agents.

The selling security holders also may resell all or a portion of the Common Shares in transactions on the OTC Bulletin Board or a national or international securities exchange, if and when our shares are quoted on the OTC Bulletin Board or listed on a national or international securities exchange, in reliance upon Rule 144 under the Securities Act, provided that such transaction meets the criteria and conforms to the requirements of that rule.

Any underwriters, broker-dealers, or agents that participate in the sale of the Common Shares may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions, or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act.

To the extent required, the Common Shares to be sold, the name of the selling stockholder, the respective purchase prices and public offering prices, the names of any agent, dealer, or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the Common Shares may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the Common Shares may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling security holders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling security holders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling security holders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling security holders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

## DESCRIPTION OF SECURITIES TO BE REGISTERED

Up to 35,381,768 shares of our Common Stock may be sold by the selling security holders pursuant to this prospectus. The shares of common shares being offered for resale pursuant to this prospectus may be sold from time to time for the account of the selling security holders named in the “Selling Security Holders” section of this prospectus.

### 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.

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

**General.** As of the date of this prospectus, there were 53,993,882 shares of our Common Stock outstanding, held of record by 106 stockholders.

**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 with the exception of the investment of Southern California Gas Company on June 13, 2011, which has 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 five years, whatever comes first. The rights, preferences and privileges of holders of Common Stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

### Stock Options

As of September 30, 2011, we had 4,401,000 options outstanding under our Stock Plan, each with a weighted average exercise price of \$0.47 per share.

## Warrants

As of September 30, 2011, there were no warrants outstanding.

## Registration Rights

The Company is not a party to any registration rights agreements.

## 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.

## Over-the-Counter (OTC) Bulletin Board and National or International Securities Exchange

Following the effectiveness of this registration statement, we intend to arrange for the quotation of our Common Stock on the OTC Bulletin Board or the listing of our Common Stock on a national or international securities exchange.

## 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 Continental Stock Transfer and Trust Company.

EXPERTS

The consolidated financial statements as of and for the period ended December 31, 2010, appearing in this Prospectus have been audited by McGladrey & Pullen, 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.

The consolidated financial statements as of and for the period ended December 31, 2009, appearing in this Prospectus have been audited by Caturano and Company, Inc., 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

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.

## BUSINESS

### Overview

Tecogen Inc. designs, manufactures and sells industrial and commercial cogeneration systems that produce combinations of electricity, hot water and air conditioning using automobile engines that have been specially adapted to burn natural gas. Our reliable and efficient cogeneration systems reduce energy costs, decrease greenhouse gas emissions and decrease reliance on utility-generated electricity. Cogeneration systems are efficient because in addition to supplying electric power or mechanical power for cooling, they recover engine heat to produce heat and hot water. 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.

The Company manufactures and supports two types of CHP products:

- Cogeneration units that supply electricity and heat, and
- Chillers that provide air-conditioning and heat or hot water

Tecogen's CHP technology uses a low-cost, mass-produced, internal combustion engine manufactured by General Motors Company. We modify the engine to run on natural gas instead of gasoline, and it has a proven track record of reliability in commercial CHP systems. To produce electricity, the engine drives a generator. To produce air-conditioning, the engine drives a compressor. The working engine gives off heat, which is captured by a heat exchanger that feeds it into the building's hot-water or space-heating system.

Tecogen's products are sold directly to end-users by the Company's in-house marketing team and by established sales agents and representatives. Various agreements are in place with distributors and sales representatives, including three affiliated companies. The Company's 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. Tecogen has an installed base of more than 2,100 units. Many of these have been operating for almost 25 years.

Environmental concerns, economic viability, the country's vast natural gas reserves, policy initiatives, and social responsibility all are factors driving the need for increased use of reliable, clean, and efficient on-site natural gas cogeneration systems with integral heat recovery.

In 2009 Tecogen created a majority-owned subsidiary, Ilios Inc., or 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 on management estimates, utilizing advanced thermodynamic principles. As of the date of this prospectus, Tecogen owns a 64.6% interest in Ilios.

The Company employs 52 active full-time employees and four part-time employees. The Company's corporate, engineering and manufacturing operations are located in a 24,000 square foot facility in Waltham, Massachusetts.

Tecogen was formed in the early 1960's as the Research and Development New Business Center of Thermo Electron and 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 November 15, 2000. Our business and registered office is located at 45 First Avenue, Waltham, MA 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.

## Industry background

The electricity generating industry in the U.S. is still only about 33% efficient<sup>1</sup>, even with recent improvements in power generation and transmission. This means that the energy released as wasted heat to the environment is twice as great as the amount of electrical energy delivered to end-users. Boilers and furnaces that burn natural gas or oil provide space heat and hot water to most buildings. This thermal energy supply remains separate from the building's electrical supply. However, the generation of heat and power together is much more energy-efficient than electrical generation alone. This technology is called CHP or cogeneration.

A CHP system burns natural gas or other fuel to produce two forms of energy – electricity and heat. Some systems also produce air-conditioning from the mechanical and electrical power generated by the system. Usually, CHP equipment is installed in the customer's building or nearby. Many large industrial plants have adopted CHP technology. However, its acceptance in the commercial sector has been limited, but is increasing due to a number of factors, including the following:

- The pressure to cut their operating costs, including energy costs, due to slow economic growth and weak consumer demand.
- Systems that reduce pollutants more easily, cheaply and quickly qualify under increasingly stringent national, regional, and local air quality rules.
- In-house energy generation capacity reduces the reliance on utility grids that have become more congested and hence unreliable.

One impediment to the commercial acceptance of CHP technology is that electric utilities have established many burdensome requirements for connecting CHP equipment to the grid. These requirements require expert familiarity with the utility interconnection process. Also, CHP systems are complex. They require significant design and installation expertise to operate cost-effectively. CHP technology is challenging to building managers who are used to simply purchasing electricity from their utility and relying on boilers and furnaces to supply hot water and heat.

## Tecogen's solution

Our CHP products address these market needs in several ways. Their high efficiency translates directly into lower energy consumption and operating costs. According to the Company's estimates and public sources, our cogeneration modules convert more than 90% of the natural gas fuel to useful energy in the form of electricity and hot water or space heat compared to 35% to 37% for conventional power plant production and our engine-driven chillers can reduce customer operating costs by 30% to 60% compared to electric chillers<sup>2</sup>. In addition, Tecogen has developed emission controls that meet the most rigorous air quality rules.

Lower energy consumption also reduces air pollutant emissions, and natural gas fuel produces far less greenhouse gases than coal or oil. Since the U.S. supply of natural gas has grown dramatically in the past few years, our natural gas engine-driven CHP systems contribute to energy security. They also help relieve grid congestion by minimizing peak demand on the utility system and by supplying electricity at customer sites, so utilities need not transmit the additional power.

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<sup>1</sup> See Energy Information Administration, Voluntary Reporting of Greenhouse Gases, 2004, Section 2, Reducing Emissions from Electric Power, Efficiency Projects: Definitions and Terminology, page 20.  
[http://www.eia.gov/oiaf/1605/archive/vr04data/pdf/0608\(04\).pdf](http://www.eia.gov/oiaf/1605/archive/vr04data/pdf/0608(04).pdf)

2 See International Energy Agency 2009 report on “Cogeneration and District Energy – Sustainable energy technologies for today and tomorrow” Figure 2.4, page 13. <http://www.iea.org/files/CHPbrochure09.pdf>

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Tecogen has 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 their site. The package incorporates the engine, generator, heat-recovery equipment, system controls, electrical switchgear, emission controls, and modem for remote monitoring and data logging.

To further overcome interconnection barriers, Tecogen introduced the first engine-driven product in the CHP market to be UL-certified as utility-safe. Our InVerde CHP module incorporates an inverter, which conditions the system's electricity to make it ideal for connecting with utility grids. Streamlining the interconnection process makes it easier for customers who want to generate clean energy, but have been discouraged by cumbersome utility requirements. The InVerde technology also meets growing customer demand for black-start capability, which means it can keep running during power outages. The inverter also improves the CHP system's efficiency at partial load, when less heat and power are needed by the customer.

## Our Products and Services

### Products

Tecogen manufactures natural gas engine-driven cogeneration modules and chillers, all of which are CHP systems that deliver more than one form of energy. Our commercial product line includes:

- Cogeneration modules in sizes of 60 and 75 kW (CM series) based on conventional induction generators. Customers can install multiple modules to address facilities with larger electrical load with two units being a typical installation and twelve being the Company's largest single installation (900 kW). The thermal output of our units ranges from about 500,000 to 700,000 Btu/hr.
- The 100-kW InVerde CHP module (INV-100), based on an inverter and a permanent-magnet generator, which has advantages over induction machines such as higher efficiency at part load. The InVerde module incorporates an inverter with power electronics to convert the generator's variable-frequency output to the high-quality, 60-Hertz power required for grid connection. Like the CM models, systems are commonly applied in multiples with twelve (1200 kW or 1.2 MW) being our largest installation on this model.
- Natural gas engine-driven air conditioners or chillers (TECOCHILLs) with capacities from 25 to 400 tons (sufficient to cool a 300 bed hotel). The smaller units are air-cooled, and the larger ones are water-cooled. Natural gas-powered air-conditioning lets customers avoid utilities' costly demand charges or time-of-day rates that utilities charge during periods of peak demand. This also frees up electric capacity to use for other building loads.

All of our cogeneration modules and most of our chillers use the same engine, the TecoDrive 7400 model supplied by General Motors and modified by us to use natural gas fuel. The 25-29 ton chillers use a similar, smaller engine, the 3000 model. Tecogen worked closely with General Motors and the gas industry (including The Gas Research Institute) in the 1980's and 1990's in funded research programs to develop the modifications to the engine and validate its durability.

Tecogen has recently developed an advanced technology for controlling engine emissions in conjunction with the California Energy Commission and the Southern California Gas Company. It's "Ultra" emission control product keeps our CHP systems compliant with air quality regulations over the long term, without costly monitoring or frequent manual analysis. After a successful field test of more than a year, we shipped our first commercial Ultra-equipped InVerde units to the Sacramento Municipal Utility District in California in mid-2011.

Tecogen's Ilios subsidiary is also developing a line of very high-efficiency heating products. Currently, Ilios is laboratory-testing a prototype water heater that could provide twice the efficiency of conventional boilers. If results are successful, the Ilios water heater could be introduced commercially in 2012. The modular product, with an output of 500,000-700,000 Btu/hr, would be designed to serve several common applications (potable water, space heating, pools, etc.). The water heater's energy cost savings could clearly benefit customers, and rebates or other incentives might apply.



The following is a diagram of our InVerde 100-kW product.

Figure 1

100-kW InVerde module

### Services

Tecogen provides long-term maintenance contracts, ongoing 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 office space and warehouse space for parts inventory.

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

### Summary of advantages of our products

- Our cogeneration modules and chillers use standard, well-proven equipment made by reputable, well-established manufacturers. These components include rugged automotive-type engines, standard induction generators, certified inverters, robust permanent-magnet generators, and conventional compressors. Certain key components are proprietary and have patent protection. Most notably, all software used in control is either proprietary (and copyright protected) or is used under exclusive license agreement. Our permanent magnet generator was developed exclusively for our InVerde as was the associated specialized inverter with these suppliers holding certain related patent protection.
- Our cogeneration 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 units offer many compelling advantages, including lower cost, better quality control, higher reliability, easier service, integrated emission controls, and complete system warranty and maintenance support.

- All of our CHP products, both cogeneration systems and chillers, 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 products are 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 (in terms of wave form, voltage, and power factor), which is required by operators of computer server farms and precision instrumentation, for example. The InVerde product line also overcomes barriers related to grid interconnection, since the product is UL-certified as utility-safe. Our standard cogeneration product lines are also designed to facilitate interconnection.
- Our optional Ultra emission control technology enables InVerde units to comply with California's most rigorous air quality regulations. Our ability to meet these criteria may give us a significant advantage in California markets. Our standard cogeneration and chiller emission controls already allow siting in most other markets nationwide and abroad and will be offered with the Ultra emissions option in 2012.
- Our extensive use of standardized components lets us manufacture CHP products at competitive prices, even at relatively low production volumes. Proven, well-understood hardware also 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 water heating product utilizes a reverse refrigeration cycle (i.e., heat pump cycle) powered by a natural gas engine to greatly improve heating efficiency relative to conventional "burner-based" systems. The heat pump cycle allows the system to reclaimed free heat from the local environment and add that energy to that which is contained in the fuel. The additive effect approximately doubles the efficiency relative to the conventional heating product. The system, now being tested, targets a large international market that is characterized by heavy, year-round use. This may increase fuel savings and maximize return on investment for the customer. These applications are also mostly centralized systems, rather than distributed, which allows easier integration of the new product into the facility. Also, the 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.

## 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 modules 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 ideal replacements for aging electric chillers, since they both take up about the same amount of floor space.

We believe 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 such customers in U.S. states with high electricity rates in the commercial sector, including California, Connecticut, Massachusetts, New Hampshire, New Jersey, and New York.

Two CHP market analysis reports sponsored by the Energy Information Administration, or EIA, in 2000 detailed the prospective CHP market in the commercial and institutional sectors<sup>3</sup> and in the industrial sectors<sup>4</sup>. These data sets were used to estimate the CHP market potential in the 100-1,000 kW size range for the hospitality, healthcare, institutional, recreational and light industrial facilities in California, Connecticut, Massachusetts, New Hampshire, New Jersey and New York, which are the states where commercial electricity rates are high. Based on those rates, those states define our market and comprise over 163,000 sites totaling approximately \$16.3 billion of market potential. The data used to calculate the Company's market potential are derived from the reports cited above; however, the calculation of the total market potential is estimated by the Company.

We plan to exploit the need for premium power in certain market segments – a new opportunity afforded by our InVerde product line. These segments include military bases, hospitals, nursing homes, and hotels. A smaller premium power system under development could open new market segments such as municipal waste, supermarkets, small data centers, and biotechnology laboratories.

#### Alliances and partnerships

Tecogen continues to forge alliances and partnerships with utilities, government agencies, universities, research facilities, and manufacturers. We have already succeeded in developing new technologies and products with such partners, including:

- Sacramento Municipal Utility District (SMUD)
- Southern California Gas Company, a subsidiary of Sempra Energy
- San Diego Gas & Electric Company, a subsidiary of Sempra Energy
- California Energy Commission
- Lawrence Berkeley National Laboratory
- Consortium for Electric Reliability Technology Solutions
- The AVL California Technology Center
- General Motors Company
- The Switch
- Danotek Motion Technologies

We also have an exclusive licensing agreement for proprietary control software from the Wisconsin Alumni Research Foundation. The software allows our products to be integrated as a micro grid – a group of interconnected loads powered by a group of power sources (such as multiple InVerde units) that can be seamlessly isolated (and returned) from the main utility grid in the event of an outage. The licensed software allows us to implement a micro grid, powered by one or more InVerde modules with minimal control devices and associated complexity and costs.

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 vary by utility, but could include simplified interconnection, joint marketing, ownership options, peak demand mitigation agreements, and customer services. We are currently installing a micro grid with SMUD at its headquarters in Sacramento CA, where the central plant will incorporate three InVerde modules equipped with our Ultra emission controls.

We also continue to leverage our resources with government and industry funding, which has yielded a number of successful developments. These include the Ultra emission control technology, which was sponsored by the California Energy Commission and Southern California Gas Company. Currently, we are testing the durability of a new engine technology that we developed with the California Energy Commission's support. If tests succeed, the engine could be applied in smaller CHP systems such as a 35-kW InVerde unit and in new, ultra-high-efficiency heating and air-conditioning products.

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3 See The Market and Technical Potential for Combined Heat and Power in the Commercial/Institutional Sector; Prepared for the Energy Information Administration; Prepared by ONSITE SYCOM Energy Corporation; January 2000.

4 See The Market and Technical Potential for Combined Heat and Power in the Industrial Sector; Prepared for the Energy Information Administration; Prepared by ONSITE SYCOM Energy Corporation; January 2000

## Competition

Most of Tecogen's product lines face competitors in the marketplace. Several competing companies have financial, marketing, and other resources greater than ours. Competition could intensify if our traditional markets develop more fully and become more attractive.

In the size range of 50-1,000 kW, our competition in cogeneration markets includes micro-turbines, fuel cells, and other systems based on reciprocating engines (industrial and automotive-derivative). Reciprocating engines have an economic advantage over other technologies that should continue for a number of years if their cost and performance continue to improve as expected.

Manufacturers sell reciprocating engines ranging from a few kilowatts to many megawatts in size, but most of these products are greater than 1 megawatt (1,000 kW). Manufacturers include Caterpillar Inc., Cummins Power Generation Inc., and Waukesha, a subsidiary of General Electric Company. Since we are targeting customers that need less than a megawatt of power, we view these companies as potential equipment suppliers rather than competitors.

In the alternative energy market that is emerging rapidly, many companies are developing alternative and renewable energy sources including solar power, wind power, fuel cells and micro-turbines. Some of the companies in this sector include General Electric Company, BP p.l.c, Royal Dutch Shell, SunEdison, a division of MEMC Electronic Materials, Inc. (in the solar energy space); Plug Power, Inc. and FuelCell Energy, Inc. (in the fuel cell space); and Capstone Turbine Corporation, Ingersoll Rand PLC and Elliott Turbomachinery, a division of the Elliott Group, Inc. (in the micro-turbine space), however since the products of those companies are not directly competing with our CHP products, the effect of these developing technologies on our business is difficult to predict.

Engine dealers and distributors generally do not offer pre-packaged CHP systems. Tecogen's advantage of factory packaging as opposed to custom-designed systems has been challenged in the past by numerous independent packagers. Many of these packagers have failed, leaving customers stranded without parts or support. Tecogen has demonstrated its longevity, giving small CHP customers predictable energy cost savings, ease of operation through a full-service maintenance contract, and minimal unscheduled downtime.

Tecogen's chiller products encounter competition from absorption air-conditioning systems and electric chillers. Other manufacturers of natural gas-fueled engine-driven cooling systems have also entered the market. We believe that our chillers compete favorably with electric equipment in terms of their relative operating costs during times of peak electric demand. We also believe that our engine-driven technology competes favorably with other natural gas-fueled systems, whether absorption or engine-driven, on the basis of quality, reliability, service, operational savings, and track record.

Our cogeneration unit sales are subject to intense direct competition from companies that sell products resembling ours. Also, some utilities offer customers a lower electric rate if they avoid installing a CHP system.

Indirect competitors for Tecogen's CHP systems include manufacturers of conventional water heaters, air conditioners, and generator sets. The economic value of our cogeneration and chiller systems depends on the cost of conventional systems that supply the same energy service. We believe that our products compete by virtue of their quality and reliability, operational savings, ease of installation, service availability, and price.

Developers of renewable energy and alternative power, which are rapidly emerging markets, could be considered competitors in the long run. These include multiple providers of solar energy, fuel cells and micro-turbines.



A few local cogeneration developers and contractors are emerging in an attempt to offer services similar to ours. To succeed as competitors, 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 may also have to overcome the prices of our products, which are competitive due to the use of standardized components throughout our product lines, despite the current low volume of our manufacturing operation.

#### Certain Related Party Contracts

In January 2006, Tecogen entered into the 2006 Facilities, Support Services and Business Agreement with American DG Energy, an affiliate of the Company, to provide American DG Energy with certain office and business support services for a period of one year, renewable annually by mutual agreement. Under this agreement, the Company 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 Tecogen to service its chiller and cogeneration products. Under the current agreement, as amended, Tecogen also provides American DG Energy with office space and utilities at a monthly rate of \$5,793.

American DG Energy has sales representation rights to Tecogen's products and services. In New England, American DG Energy has exclusive sales representation rights to the Tecogen cogeneration products. American DG Energy has granted Tecogen sales representation rights to its On-Site Utility energy service in California. American DG Energy also has exclusive rights to the Tecogen advanced emissions system if it is applied to engines from other CHP manufacturers used for their specific energy projects. In other words, American DG Energy could purchase CHP products from suppliers other than Tecogen and license that supplier to incorporate Tecogen's proprietary advanced emissions system as long as the CHP system is owned and operated American DG Energy.

In October 2009, Ilios, which is a majority-owned subsidiary of the Company, signed a five-year exclusive distribution agreement with American DG Energy. Under terms of the agreement, American DG Energy has exclusive rights to incorporate Ilios' ultra-high-efficiency heating products, such as a high efficiency water heater, in its energy systems throughout the European Union and New England. American DG Energy also has non-exclusive rights to distribute Ilios products in the remaining parts of the United States and the world using the On-Site Utility business model.

#### The Company and its Affiliates

The Company has three affiliated companies, namely American DG Energy, EuroSite Power Inc., or EuroSite Power, and GlenRose Instruments. 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 and GlenRose Instruments do not own any shares of the Company, and the Company does not own any shares of American DG Energy, EuroSite Power and GlenRose Instruments. The business of GlenRose Instruments is not related to the business of American DG Energy, the Company and their other corporate affiliates.

Tecogen currently owns a 64.6% interest in Ilios. American DG Energy and EuroSite Power purchase energy equipment from various suppliers. The primary types of equipment used are natural gas engine-driven cogeneration and air conditioning systems provided by Tecogen and Ilios. Both Tecogen and American DG Energy will distribute the Ilios products.

#### Intellectual Property



Tecogen currently holds several patents for its technologies, as well as a license agreement for the use of other technologies. The Company considers its patents and licenses to be important in the present operation of its business. The Company, however, does not consider any one of its patents or related group of patents to be of such importance that their expiration, termination, or invalidity would materially affect the Company's business.

Tecogen has filed for a patent for its newly developed emissions technology (Ultra). The outcome of the patent office application review is important because this technology will apply to all Tecogen engine-driven gas products and may have licensing application to other natural gas engines. The intellectual property relating to the Ultra system will require patent protection for the Company to retain exclusive use of the Ultra system as it can be readily duplicated.

#### Government Regulations

We are not subject to extensive government regulation. We are required to file for local construction permits (electrical, mechanical and the like) and utility interconnects, and we must make various local and state filings related to environmental emissions. The U.S. government has been developing and refining various funding opportunities related to its economic recovery or stimulus initiatives. The Company's CHP systems may benefit with some of these programs as CHP and mechanical CHP (the Ilios heat pump) are included in an Internal Revenue Service code for energy credit of 10%. In addition, our systems are eligible for the bonus depreciation included in the American Recovery and Reinvestment Act of 2009 (stimulus plan). Other than funding opportunities related to the economic recovery or stimulus initiatives, there do not appear to be any new government regulations that will materially affect the Company.

#### Employees

As of the date of this prospectus, the Company employs 54 active full-time employees and four part-time employees. We believe that our relationship with our employees is satisfactory. None of our employees are represented by a collective bargaining agreement; however, we are currently negotiating with a labor union in New Jersey and New York.

#### Properties

The Company's headquarters are located in Waltham, Massachusetts and consist of 24,000 square feet of office and storage space that are shared with American DG Energy and other tenants. The lease expires on March 31, 2014. We believe that our facilities are appropriate and adequate for our current needs.

## MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

No established public trading market exists for our Common Stock and the Company's Common Stock has never been quoted on any market or exchange. Except for this Offering, there is no Common Stock that is being, or has been proposed to be, publicly offered. As of the date of this prospectus, there were 53,993,882 shares of Common Stock issued and outstanding, held by 106 stockholders of record.

Market of and Dividends on the Registrant's Common Equity and Related Stockholder Matters.

### Market Information

Our Common Stock is not currently traded on any stock exchange or electronic quotation system. We expect that our Common Stock will be traded on the OTC Bulletin Board or a national or international securities exchange following the effectiveness of this registration statement and compliance with the procedures of the OTC Bulletin Board or a national or international securities exchange.

### Holders

As of the date of this prospectus, there were 106 holders of record of our Common Stock. See "Security Ownership of Certain Beneficial Owners and Management" for information on the holders of our Common Stock. Also see "Description of Securities" for a description of our outstanding and issued capital stock.

### Rule 144

In general, under Rule 144 under the Securities Act, a person who has beneficially owned shares of our Common Stock for at least one year would be entitled to sell within any three-month period 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 539,938 shares of our Common Stock; or
- the average weekly trading volume of our Common Stock, if and when our Common Stock is traded on the Over-the-Counter Bulletin Board, a national or international securities exchange, during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale.

Sales under Rule 144 are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us for at least 90 days.

Under Rule 144 under the Securities Act, a person who is not deemed to have been one of our affiliates at any time during the 90 days 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 complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144.

### Outstanding Common Stock

Under the unlimited resale provisions of Rule 144 no shares of our Common Stock are eligible for resale under Rule 144 without any additional holding period.

### Stock Options

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, beginning 90 days after the date of the effectiveness of this registration statement, 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.

As of September 30, 2011, we had 4,401,000 options outstanding under our Stock Plan at a weighted average exercise price of \$0.47. As of such date, 1,780,000 of those options were exercisable.

We intend to file one or more registration statements on Form S-8 under the Securities Act following the effectiveness of this registration statement to register all shares of our Common Stock which have been issued or are issuable upon exercise of outstanding stock options or other rights granted under our Stock Plan. These registration statements are expected to become effective upon filing. Shares of Common Stock covered by these registration statements will thereupon be eligible for sale in the public market, subject in certain cases to vesting of such shares.

#### 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.

## SELECTED FINANCIAL DATA

The summary consolidated statements of operations data for each of the years ended December 31, 2010 and 2009 have been derived from our audited consolidated financial statements that are included elsewhere in this prospectus. The summary consolidated balance sheet data as of September 30, 2011 and the summary consolidated statements of operations data for each of the nine months ended September 30, 2011 and 2010 have been derived from our unaudited condensed 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. Operating results for the nine months ended September 30, 2011 are not necessarily indicative of the results that may be expected for the year ended December 31, 2011.

Consolidated Statement of Operations Data:	December 31,		Nine Months Ended	
	2010	2009	2011 (unaudited)	2010 (unaudited)
Revenues	\$ 11,311,229	\$ 11,776,241	\$ 8,714,228	\$ 9,021,818
Cost of sales	6,597,205	6,864,086	4,818,318	5,289,986
Gross profit	4,714,024	4,912,155	3,895,910	3,731,832
Operating expenses				
General and administrative	4,973,794	4,919,023	4,495,533	3,487,754
Selling	290,505	534,957	381,617	428,289
	5,264,299	5,453,980	4,877,150	3,916,043
Loss from operations	(550,275 )	(541,825 )	(981,240 )	(184,211 )
Other income (expense)				
Interest and other income	23,574	22,581	25,262	14,859
Interest expense	(37,280 )	(63,514 )	(22,492 )	(30,728 )
	(13,706 )	(40,933 )	2,770	(15,869 )
Loss before income taxes	(563,981 )	(582,758 )	(978,470 )	(200,080 )
Provision for state income taxes	-	-	-	-
Consolidated net loss	(563,981 )	(582,758 )	(978,470 )	(200,080 )
Less: Loss attributable to the noncontrolling interest	208,673	117,161	192,359	123,772
Net loss attributable to Tecogen Inc.	(355,308 )	(465,597 )	(786,111 )	(76,308 )
Net loss per share - basic and diluted	\$(0.01 )	\$(0.01 )	\$(0.02 )	\$(0.00 )
Weighted average shares outstanding - basic and diluted	45,882,631	44,131,903	47,721,641	45,492,967
Consolidated Balance Sheet Data:	December 31,		September 30,	
	2010	2009	2011 (unaudited)	2010 (unaudited)
Cash and cash equivalents	\$ 1,913,173	\$ 1,244,681	\$ 1,712,864	\$ 1,191,614

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Working capital	2,324,501	2,046,998	2,667,330	2,155,402
Total assets	5,876,422	5,318,976	6,441,401	5,742,216
Total liabilities	2,884,743	3,019,046	3,355,500	2,937,954
Stockholders' equity	\$ 2,991,679	\$ 2,299,930	\$ 3,085,901	\$ 2,804,262

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

THIS DISCUSSION CONTAINS FORWARD-LOOKING STATEMENTS THAT RELATE TO FUTURE EVENTS OR OUR FUTURE FINANCIAL PERFORMANCE. THESE STATEMENTS INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS THAT MAY CAUSE OUR ACTUAL RESULTS, LEVELS OF ACTIVITY, PERFORMANCE OR ACHIEVEMENTS TO BE MATERIALLY DIFFERENT FROM ANY FUTURE RESULTS, LEVELS OF ACTIVITY, PERFORMANCE OR ACHIEVEMENTS EXPRESSED OR IMPLIED BY THESE FORWARD-LOOKING STATEMENTS. THESE RISKS AND OTHER FACTORS INCLUDE, AMONG OTHERS, THOSE LISTED UNDER "SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS" AND "RISK FACTORS" AND THOSE INCLUDED ELSEWHERE IN THIS REGISTRATION STATEMENT.

During the last two fiscal years there has been a slowdown in the economy, a decline in the availability of financing from the capital markets, and a widening of credit spreads which has, or may in the future, adversely affect us to varying degrees. Such conditions may impact our ability to meet obligations to our suppliers and other third parties. These market conditions could also adversely affect the amount of revenue we report, require us to increase our allowances for losses, result in impairment charges and valuation allowances that decrease our equity, increase our loss and reduce our cash flows from operations. In addition, these conditions or events could impair our credit rating and our ability to raise additional capital.

#### Overview

Tecogen Inc. designs, manufactures and sells industrial and commercial cogeneration systems that produce combinations of electricity, hot water and air conditioning using automobile engines that have been specially adapted to burn natural gas. Our reliable and efficient cogeneration systems reduce energy costs, decrease greenhouse gas emissions and decrease reliance on utility-generated electricity. Cogeneration systems are efficient because in addition to supplying electric power or mechanical power for cooling, they recover engine heat to produce heat and hot water. 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.

The Company manufactures and supports two types of CHP products:

- Cogeneration units that supply electricity and heat, and
- Chillers that provide air-conditioning and heat or hot water

Tecogen's CHP technology uses a low-cost, mass-produced, internal combustion engine manufactured by General Motors Company. We modify the engine to run on natural gas instead of gasoline, and it has a proven track record of reliability in commercial CHP systems. To produce electricity, the engine drives a generator. To produce air-conditioning, the engine drives a compressor. The working engine gives off heat, which is captured by a heat exchanger that feeds it into the building's hot-water or space-heating system.

Tecogen's products are sold directly to end-users by the Company's sales team and by established sales agents and representatives. Various agreements are in place with distributors and sales representatives, including three affiliated companies. The Company's 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. Tecogen has an installed base of more than 2,100 units. Many of these have been operating for almost 25 years.



Environmental concerns, economic viability, the country's vast natural gas reserves, policy initiatives, and social responsibility all are factors driving the need for increased use of reliable, clean, and efficient on-site natural gas cogeneration systems with integral heat recovery.

In 2009 Tecogen created a majority-owned subsidiary, Ilios Inc., or 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 on management estimates, utilizing advanced thermodynamic principles. As of the date of this prospectus, Tecogen owns a 64.6% interest in Ilios.

The Company employs 52 active full-time employees and four part-time employees. The Company's corporate, engineering and manufacturing operations are located in a 24,000 square foot facility in Waltham, Massachusetts.

#### Recent Accounting Pronouncements

In January 2010, The FASB issued ASU No. 2010-06, Improving Disclosures about Fair Value Measurements. This amends ASC 820 (formerly FAS 157-4) to require additional disclosures. The guidance requires entities to disclose transfers of assets in and out of Levels 1 and 2 of the fair value hierarchy, and the reasons for those transfers. ASU No. 2010-06 is effective January 2010. In addition, the guidance requires separate presentation of purchases and sales in the Level 3 asset reconciliation which will be effective for the year ending December 31, 2011. The adoption of the effective portions of this guidance did not have a material impact on the Company's consolidated financial statement position, results of operations or cash flows.

In June 2009, the FASB issued new guidance on consolidations which became effective for Tecogen Inc. on January 1, 2010. This guidance changes the definition of a variable interest entity and changes the methodology to determine who is the primary beneficiary of, or in other words, who consolidates, a variable interest entity. The guidance replaces the quantitative-based risks and rewards calculation for determining which enterprise, if any, has a controlling financial interest in a variable interest entity with an approach focused on identifying which enterprise has the power to direct the activities of a variable interest entity that most significantly affect the entity's economic performance and (i) the obligation to absorb losses of the entity or (ii) the right to receive benefits from the entity. The adoption of this new guidance did not have an impact on the Company's consolidated financial statement position, results of operations or cash flows.

#### Critical Accounting Policies

##### 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 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 are granted.

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 related to the delivered item and 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 fair value 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. 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.

#### 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 periods ended September 30, 2011 and 2010, advertising expense was approximately \$49,000 and \$9,000, respectively.

#### Cash and Cash Equivalents

The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. The Company has cash balances in certain financial institutions in amounts which occasionally exceed current federal deposit insurance limits. The financial stability of these institutions is continually reviewed by senior management. The Company believes it is not exposed to any significant credit risk on cash and cash equivalents.

#### Concentration of Credit Risk

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist of highly liquid cash equivalents and trade receivables. The Company's cash equivalents are placed with certain financial institutions and issuers. As of September 30, 2011, the Company had a balance of \$1,462,864 in cash and cash equivalents that exceeded the Federal Deposit Insurance Corporation limit of \$250,000.

#### 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 are recorded at fair value.



#### 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 period. Bad debts are written off against the allowance when identified.

#### 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 net realizable value. 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. For the periods ended September 30, 2011, and 2010, there was a reserve against inventory in the amount of \$355,500 and \$422,000, respectively.

#### Property, Plant and Equipment and Depreciation and Amortization

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 seven 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 and certain patent costs. These costs are amortized on a straight-line basis over the estimated economic life of the intangible asset, which range from seven to ten years. The Company reviews intangible assets for impairment when the circumstances warrant.

#### 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. For the periods ended September 30, 2011 and 2010, amounts received were approximately \$184,200 and \$656,700, respectively, which offset the Company's total research and development expenditures for each of the respective periods.

#### 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 consolidated statements of operations over the requisite service period. The fair value of stock options granted is estimated using the Black-Scholes option pricing valuation model. The Company recognizes compensation on a straight-line basis for each separately vesting portion of the option award. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs. The determination of the fair value of share-based payment awards is affected by the Company's stock price. Since the Company is not publicly traded, 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 average expected life is estimated

using the simplified method for “plain vanilla” options. The simplified method determines the expected life in years based on the vesting period and contractual terms as set forth when the award is made. The Company uses the simplified method for awards of stock-based compensation since it does not have the necessary historical exercise and forfeiture data to determine an expected life for stock options. 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. When options are exercised the Company normally issues new shares (see “Note 4 – Stock-based compensation”.)

### Common Stock Subscriptions

Outstanding proceeds for Common Stock transactions appear as Common Stock subscriptions in the accompanying consolidated balance sheets and consolidated statements of changes in stockholders' equity until received.

### 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.

### Other Comprehensive Net Loss

The comprehensive net loss for the periods ended September 30, 2011 and 2010 does not differ from the reported loss.

### 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.

Effective January 1, 2009, the Company 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 2007.

### Fair Value of Financial Instruments

The Company's financial instruments are cash and cash equivalents, accounts receivable, accounts payable, capital lease obligations and notes due from related party convertible debentures. The recorded values of cash and cash equivalents, accounts receivable and accounts payable approximate their fair values based on their short-term nature. At September 30, 2011, the current value on the consolidated balance sheet of the debentures and capital lease obligations approximates fair value as the terms approximate those available for similar instruments.



## Results of Operations

Nine Months Ended September 30, 2011 Compared to Nine Months Ended September 30, 2010

### Revenues

Revenues for the nine months ended September 30, 2011 were \$8,714,228 compared to \$9,021,818 for the same period in 2010, a decrease of \$307,590, or 3.4%. The decrease in total revenue was due to a decrease in product sales in the first quarter of 2011 and due to orders not being booked. Product revenue for the first nine months of 2011 was \$3,721,388, compared to \$4,656,546, for the same period in 2010, a decrease of \$935,158, or 20.1%. Shipments of chiller modules during 2011 accounted for 49.2% of product revenues. For the same period in 2010, chiller modules represented 12.1% of product revenues. Service revenue for the first nine months of 2011 was \$4,992,840, compared to 4,365,272, for the same period in 2010, an increase of \$627,568, or 14.4%. Our service operation focused on the installation business whereby Tecogen service personnel installed the company's equipment rather than only selling and servicing the modules. This strategy has worked well in the past as many of the company's installed sites became our best performing sites.

### Cost of Sales

Cost of sales for the first nine months of 2011 was \$4,818,318, compared to 5,289,986, for the same period in 2010, a decrease of \$471,668, or 8.9%. Our gross profit margin for the first nine months of 2011 was 44.7% compared to 41.4% for the same period in 2010. The improvement in gross margin is attributable to the sale of more chillers that carry a higher margin, in the product mix versus sales of cogeneration devices, offset by an increase in additional payroll costs incurred by Ilios, our majority owned subsidiary, as the company ramped up research and development of its new product.

Contract research and development income, which is classified as an offset to applicable expenses, for the first nine months of 2011 and 2010 was \$184,177 and \$656,733, respectively. This decrease is due to the small engine development contract with the California Energy Commission, which included significant subcontract research work in 2010. The subcontractor's activity was substantially completed during 2010. This income offset cost of sales of \$170,213 and operating expenses of \$13,964 for the first nine months of 2011 and \$537,514 and \$119,219 for the first nine months of 2010.

### Operating Expenses

Operating expenses increased in the first nine months of 2011 to \$4,877,150 compared to \$3,916,043 for the same period in 2010, an increase of 961,107 or 24.5%. The increase was due to the addition of personnel to support the growth of the service and installation operations and non-cash compensation expense related to the issuance of restricted stock and option awards to our employees.

### Loss from Operations

Loss from operations for the nine months ended September 30, 2011 was \$981,240 compared to \$184,211 for the same period in 2010. This decrease is largely due to an increase in stock compensation expense and an increase in costs incurred by Ilios, our majority owned subsidiary.

### Other Income (Expense), Net

Other income, net, for the first nine months of 2011 was \$2,770 compared to an expense, net, of \$15,869 for the same period in 2010. Other income, net includes interest income on cash balances and notes receivable from stockholder of \$25,262 net of interest expense of \$22,492 for the first nine months of 2011. For the same period in 2010, interest income was \$14,859 and interest expense was \$30,728. The increase in interest income is the result of a note receivable from a stockholder in the first nine months of 2011, compared to just one quarter for the same period in 2010.

#### Provision for Income Taxes

The Company did not record any benefit or provision for income taxes for the first nine months ended September 30, 2011 and 2010, respectively. As of September 30, 2011 and 2010, the income tax benefits generated from the Company's net losses have been fully reserved.

#### Noncontrolling Interest

The noncontrolling interest share in the losses in Ilios was \$192,359 for the first nine months of 2011 compared to \$123,772 for the same period in 2010. The increase is due to additional payroll costs that Ilios incurred in 2011 as the company ramped up research and development of its new product.

#### Year Ended December 31, 2010 Compared to Year Ended December 31, 2009

##### Revenues

Revenues in 2010 were \$11,311,229 compared to \$11,776,241 in 2009, a decrease of \$465,012 or 3.9%. The decrease is due to an overall decrease in product sales. Product revenue in 2010 was \$5,543,605, compared to \$6,442,169, in 2009, a decrease of \$898,564, or 13.9%. Shipments of InVerde modules during 2010 accounted for 73.4% of product revenue. In 2009, InVerde modules represented 32.7% of product revenues. Service revenue in 2010 was \$5,767,624 compared to 5,334,072, in 2009, an increase of \$433,552, or 8.1%. This increase is due to the growth in modules serviced under contract.

##### Cost of Sales

Cost of sales in 2010 was \$6,597,205, compared to 6,864,086, in 2009, a decrease of \$266,881, or 3.9%. Our gross profit margin remained flat between the two periods at 41.7% as our product sales mix was similar from year to year.

Contract research and development income, which is classified as an offset to applicable expenses, for the years ended December 31, 2010 and 2009 was \$917,148 and \$349,214, respectively. This increase is due to the small engine development contract with the California Energy Commission, which included significant subcontract research work in 2010. This income offset cost of sales of \$753,126 and \$255,500, respectively and operating expenses of \$164,022 and \$94,214, respectively for the years ended December 31, 2010 and 2009.

##### Operating Expenses

Operating expenses were \$5,264,299 in 2010, compared to \$5,453,980 in 2009, a decrease of \$189,681, or 3.5%. This decrease is largely due to a larger percentage of product sales being sold without commission.

##### Loss from Operations

Loss from operations in 2010 was \$550,275 compared to \$541,825 for the same period in 2009, a difference of \$8,450. This difference is a result of the reduction in sales commissions, offset by an increase in payroll costs incurred by Ilios, our majority owned subsidiary.

##### Other Income (Expense), Net

Other expense, net, for 2010 was \$13,706 compared to \$40,933 for the same period in 2009. Other expense, net includes interest income on cash balances and notes receivable from stockholder of \$23,574 net of interest expense of

\$37,280 for 2010. For the same period in 2009, interest income was \$22,581 and interest expense was \$63,514. The decrease in interest expense is the result of payments made on demand notes payable of during 2010.

#### Provision for Income Taxes

The Company did not record any benefit or provision for income taxes for the year ended December 31, 2010 and 2009, respectively. As of December 31, 2010 and 2009, the income tax benefits generated from the Company's net losses have been fully reserved.

#### Noncontrolling Interest

The noncontrolling interest share in the losses in Ilios was \$208,673 in 2010 compared to \$117,161 in 2009. The increase was due to additional payroll costs incurred by Ilios, our majority owned subsidiary, in 2010.

#### Liquidity and Capital Resources

Consolidated working capital at September 30, 2011 was \$2,667,330, compared to \$2,324,501 at December 31, 2010. Included in working capital were cash and cash equivalents of \$1,211,287 and short-term investments of \$501,577 at September 30, 2011, compared to \$1,828,173 and \$85,000, respectively, at December 31, 2010. The increase in working capital was a result of cash raised from the sale of Common Stock, from the conversion of accrued interest on our convertible debentures and the issuance of a demand note payable, offset by cash used to purchase inventory.

Cash used in operating activities was \$1,566,159 in the first nine months of 2011 compared to cash provided by operating activities of \$341,870 for the year ended December 31, 2010. The Company's receivables balance increased to \$1,837,784 at September 30, 2011 compared to \$1,788,323 at December 31, 2010, using \$49,461 of cash due to the timing of billing, shipments and collections. The Company's inventory increased to \$2,158,717 as of September 30, 2011 compared to \$1,324,415 as of December 31, 2010, using \$834,302 to purchase inventory to build modules in backlog. Amount due to the Company from related parties decreased to \$40,982 as of September 30, 2011 from \$98,230 at December 31, 2010, providing \$57,248 from services performed.

Accounts payable decreased to \$626,026 at September 30, 2011, from \$705,406 at December 31, 2010 using \$79,377 in cash to purchase inventory. Accrued expenses decreased to \$748,296 as of September 30, 2011 from \$895,884 as of December 31, 2010, using \$147,588 of cash. Interest payable, related party decreased to \$43,260 as of September 30, 2011 from \$93,727 as of December 31, 2010 using \$50,467 from a non-cash conversion to equity.

During the first nine months of 2011, the Company's investing activities included expenditures for property and equipment of \$55,966, purchases of short-term investments of \$501,577 and sales of short-term investments of \$85,000. The Company's financing activities provided \$1,423,697 of cash in the first nine months of 2011 from the issuance of a demand note payable to a stockholder as well as the sale of Common Stock to various investors.

At September 30, 2011, the Company's commitments included various leases for office and warehouse facilities of \$1,287,378. 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.

The Company believes that its existing resources, including the \$2,937,750 in cash the Company raised on November 30, 2011, through a private placement of Common Stock, and including cash and cash equivalents and future cash flows from operations, are sufficient to meet the working capital requirements of its existing business for at least the next 12 months. Beyond October 1, 2012, as we continue to grow our business our cash requirements may increase. 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.



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. If these conditions continue and we cannot raise funds through a public or private debt financing, or an equity offering, our ability to grow our business may be negatively affected and the Company may need to suspend and significantly reduce its operating costs until market conditions improve.

#### 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.

#### Inflation

Inflation should cause an increase in the rates charged by conventional utility suppliers, and since we will bill our customers based on the electric utility rates, our pricing would be expected to increase in tandem and positively affect our revenue. However, inflation might cause both our investment and cost of goods sold to increase, therefore lowering our return on investment and depressing our gross margins.

#### Quantitative and Qualitative Disclosures about Market Risk

The company's exposure to market risk from changes in interest rates, and equity prices, has not changed materially from its exposure at December 31, 2010.

#### Off Balance Sheet Arrangements

The Company currently has no material off balance sheet arrangements and has no plans to enter into any such arrangements.

#### CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

## 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	44	Chairperson of the Board and Director
John N. Hatsopoulos	77	Chief Executive Officer and Director
Robert A. Panora	57	Chief Operating Officer and President
Bonnie J. Brown	48	Chief Financial Officer and Secretary
Anthony S. Loumidis	47	Vice President and Treasurer
George N. Hatsopoulos	84	Director
Ahmed F. Ghoniem	60	Director
Charles T. Maxwell	80	Director
Joseph E. Aoun	58	Director

Angelina M. Galiteva, age 44, has been our Chairperson of the Board 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. Ms. Galiteva is the governor's appointee to 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 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 qualify her to be a member of the board of directors in light of the Company's business and structure.

John N. Hatsopoulos, age 77, 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 Amex: ADGE), a publicly traded company in the cogeneration business since 2000, and the Chairman of EuroSite Power Inc., a subsidiary of American DG Energy Inc. since 2009. Since 2000, he has also been a partner and Managing Director of Alexandros Partners LLC, a financial advisory firm providing consulting services to early stage entrepreneurial ventures. 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, EuroSite Power, GlenRose Instruments and Ilios, 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.

Our board of directors has determined that Mr. Hatsopoulos's prior experience as co-founder, president and Chief Financial Officer of Thermo Electron, 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 57, has been our Chief Operating Officer and President since the organization of the Company in 2000. 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 module, 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 48, has been our Chief Financial Officer since 2007 and our Secretary since 2010. 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.

Anthony S. Loumidis, age 47, has been our Vice President since 2007 and Treasurer since 2001. Mr. Loumidis has been the Chief Financial Officer of the Company's affiliates, American DG Energy, EuroSite Power and GlenRose Instruments. He has been the Chief Financial Officer of GlenRose Instruments since 2006; GlenRose Instruments provides analytical services to the federal government and its prime contractors. He also has been a partner and President of Alexandros Partners LLC since 2000; Alexandros Partners is a financial advisory firm providing consulting services to early stage entrepreneurial ventures, and he is Treasurer of Ilios Inc., a high-efficiency heating products company. Mr. Loumidis was previously with Thermo Electron, where he held various positions including National Sales Manager for Thermo Capital Financial Services, Manager of Investor Relations and Manager of Business Development of Tecomet, a subsidiary of Thermo Electron. Mr. Loumidis is a FINRA registered representative, holds a bachelor's degree in business administration from the American College of Greece in Athens and a master's degree in business administration from Northeastern University.

George N. Hatsopoulos, age 84, 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 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 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's prior experience as founder, chairman and Chief Executive Officer of Thermo Electron, 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 60, 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 80, 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. He is currently Senior Energy Analyst with Weeden & Co. of Greenwich, Connecticut, 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 Inc., an affiliated company by virtue of common ownership. Since the early 1980's, he has been an active member of an Oxford-based organization comprised of the Organization of the Petroleum Exporting Countries (OPEC) and other industry executives from 30 countries who meet twice annually to analyze trends within the global energy industries and markets. He is a member of the board of directors of Chesapeake Energy Corp. (NYSE: CHK). 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 58, has been a member of our Board since 2011. He is President of Northeastern University, a preeminent global, experiential, research 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 other family relationships among members of our Board of Directors and executive officers other than George N. Hatsopoulos and John N. Hatsopoulos who are brothers.

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## 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 (6) by resolution of the Board of Directors. The directors are elected to serve for one (1) 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 75% 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 Governance Committee.

The members of the Audit Committee are 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 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 NYSE Amex 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, acting upon recommendations of the independent auditors and taking such further actions as the Audit Committee deems necessary to complete an audit of the books and accounts of the Company. The charter of the Audit Committee will be available on the Company's website at [www.tecogen.com](http://www.tecogen.com) and is included as Exhibit 10.1 hereto.

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 will be available on the Company's website at [www.tecogen.com](http://www.tecogen.com) and is included as Exhibit 10.2 hereto.



The Nominating and Governance Committee functions are to identify persons qualified to serve as members of the Board of Directors, to recommend to the Board of Directors persons to be nominated by the board for election as directors at the annual meeting of stockholders and persons to be elected by the board to fill any vacancies, and recommend to the Board the Directors to be appointed to each of its committees. In addition, the Nominating and 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 Governance Committee is available on the Company's website at [www.tecogen.com](http://www.tecogen.com) and is included as Exhibit 10.3 hereto.

#### Director Compensation

Each director who is not also one of our employees will receive a fee of \$500 per day for service on our Board of Directors and on each of the Audit, Compensation or Nominating and Governance Committees. Non-employee directors also will be eligible to receive stock or options awards under our 2011 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 have not received any cash compensation for serving as directors during 2010 or to date in 2011.

#### 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 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](http://www.tecogen.com) and is included as Exhibit 14.1 hereto.

## EXECUTIVE OFFICER AND DIRECTOR COMPENSATION

## Executive 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.

## Executive Compensation

The following table sets forth information with respect to the compensation of our executive officers as of December 31, 2010:

Name and principal position	Year	Summary Compensation Table					Total (\$)
		Salary (\$)	Bonus (\$)	Stock awards (\$)	Option awards (\$)	All other compensation (\$)	
John N. Hatsopoulos Chief Executive Officer (Principal Executive Officer)	2010	1	-	-	-	-	1
	2009	1	-	-	-	-	1
Robert A. Panora (1) Chief Operating Officer and President	2010	163,770	-	-	-	1,032	164,802
	2009	163,770	-	-	-	1,032	164,802
Bonnie J. Brown (2)(3) Chief Financial Officer and Secretary (Principal Financial Officer)	2010	156,000	-	-	24,446	360	180,806
	2009	156,000	-	-	36,446	360	192,806
Anthony S. Loumidis Vice President and Treasurer	2010	-	-	-	-	-	-
	2009	-	-	-	-	-	-

(1) Includes group life insurance of \$1,032 for 2010 and 2009, respectively.

(2) Includes: (a) stock option award to purchase 100,000 shares of Common Stock at a purchase price of \$0.65 per share granted on February 18, 2010, with 25,000 of the shares vesting on February 18, 2011 and then an additional 25,000 shares on each of the subsequent three anniversaries, subject to acceleration of vesting upon a change in

control; and (b) stock option award to purchase 200,000 shares of Common Stock at a purchase price of \$0.50 per share granted on March 11, 2009, with 50,000 the shares vesting on March 11, 2010 and then an additional 50,000 shares on each of the subsequent three anniversaries, subject to acceleration of vesting upon a change in control.

(3) Includes group life insurance of \$360 for 2010 and 2009.

## 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 22, 2011:

Name	Option awards				Stock awards	
	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)	-	500,000	0.65	2/14/2021	553,400	387,380
Bonnie J. Brown (4)(5)	75,000	25,000	0.30	2/13/2013	50,000	35,000
Bonnie J. Brown (6)	100,000	100,000	0.50	3/11/2019	-	-
Bonnie J. Brown (7)	25,000	75,000	0.65	2/18/2015	-	-
Anthony S. Loumidis (8)(9)	20,000	-	0.30	2/24/2014	30,000	21,000
Anthony S. Loumidis (10)	100,000	-	0.30	9/29/2015	-	-
Anthony S. Loumidis (11)	56,250	18,750	0.30	2/13/2013	-	-
Anthony S. Loumidis (12)	-	150,000	0.65	2/14/2021	-	-

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- (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 at May 31, 2011, which was \$0.70 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 553,400 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 50,000 shares of restricted Common Stock at a purchase price of \$.001 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.
- (8) Includes stock option award granted on February 24, 2004, with 25% of the shares vesting on February 24, 2005 and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, subject to Mr. Loumidis continued employment and subject to acceleration of vesting upon a change in control.



- (9) Includes 30,000 shares of restricted Common Stock at a purchase price of \$.001 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.
- (10) Includes stock option award granted on September 29, 2005, with 25% of the shares vesting on September 29, 2006 and then an additional 25% of the shares vesting on each of the subsequent three anniversaries, subject to continued employment of Mr. Loumidis and subject to acceleration of vesting upon a change in control.
- (11) 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 continued employment of Mr. Loumidis and subject to acceleration of vesting upon a change in control.
- (12) 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 continued employment of Mr. Loumidis 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 our Board, or a fee of \$500 per day for serving on each of the Audit, Compensation, or Nominating and Governance Committees. Non-employee directors also will be eligible to receive stock or options 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.

Our non-employee directors have not received any cash compensation for serving as directors prior to, or during 2010.

### Outstanding Equity Awards at Fiscal Year-End Table

The following table summarizes the outstanding equity awards held by each director as of December 31, 2010.

Name	Number of securities underlying unexercised options (#) exercisable	Option awards			Stock awards	
		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)	100,000	-	0.03	10/20/2013	100,000	80,000
Angelina M. Galiteva (4)	-	100,000	0.65	2/14/2021	-	-
John N. Hatsopoulos	-	-	-	-	-	-
George N. Hatsopoulos	-	-	-	-	-	-
Ahmed F. Ghoniem (5)(6)	-	100,000	0.65	2/14/2021	100,000	80,000
Charles T. Maxwell (7)(8)	-	100,000	0.65	2/14/2021	100,000	80,000
Joseph E. Aoun	-	-	-	-	-	-

(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 in November 30, 2011, which was \$0.80 per share.

(2) Includes stock option award granted on October 20, 2003, with 100% of the shares vesting on the date of the option grant.



- (3) Includes 100,000 shares of restricted Common Stock at a purchase price of \$.001 per share granted on December 13, 2006, with 100% of the shares vesting one year after the Company's initial public offering.
- (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 four anniversaries, provided that Ms. Galiteva serves as a director or consultant to the Company.
- (5) 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 four anniversaries, provided that Mr. Ghoniem serves as a director or consultant to the Company.
- (6) Includes 100,000 shares of restricted Common Stock at a purchase price of \$.001 per share granted on October 1, 2008, with 100% of the shares vesting 180 days after the Company's initial public offering.
- (7) 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 four anniversaries, provided that Mr. Maxwell serves as a director or consultant to the Company.
- (8) Includes 100,000 shares of restricted Common Stock at a purchase price of \$.001 per share granted on October 1, 2008, with 100% of the shares vesting 180 days after the Company's initial public offering.

There have been no other stock awards granted to date and none of such options have been exercised.

#### 2011 Stock Option and Incentive Plan

The Company's Stock Plan provides for the grant of stock-based awards to employees, officers and directors of, and consultants or advisors to, the Company and its subsidiaries. The Stock Plan is included as Exhibit 10.4 hereto.

Under the Stock Plan, the Company may grant stock options, restricted stock and other stock-based awards. As of September 30, 2011, a total of 7,000,000 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. Unless otherwise determined by the Board of Directors (on the same basis or on different bases as the Board of Directors shall specify), any repurchase rights or other rights of the Company that relate to a stock option or other award shall continue to apply to consideration, including cash, that has been substituted, assumed or amended for a stock option or other award pursuant to these provisions. The Company may hold in escrow all or any portion of any such consideration in order to effectuate any continuing restrictions.

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 22, 2011, 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	4,401,000	\$ 0.47	270,732
Equity compensation plans not approved by security holders	-	-	-
Total	4,401,000	\$ 0.47	270,732

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 units 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

Our Chief Executive Officer and director, John Hatsopoulos, is a director and Chief Executive Officer of American DG Energy. Other than that, none of our executive officers serves 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 its 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 September 30, 2011, Robert A. Panora, our Chief Operating Officer and President, had 500,000 stock options and 533,400 shares of restricted stock that had not vested, Bonnie J. Brown, our Chief Financial Officer, had 200,000 stock options and 50,000 shares of restricted stock that had not vested and Anthony S. Loumidis, our Vice President and Treasurer, had 186,750 stock options and 30,000 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 fifty percent (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 this option has not fully vested, this 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:

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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 and/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 ninety (90) days of completion of the transaction for resale to the public pursuant to the Securities Act.

#### Director Independence

The Company's policy is that a majority of our Board of Directors shall be "independent" in accordance with NYSE Amex rules (even though the Company is not currently subject to those requirements) including, in the judgment of the Board of Directors, the requirement that such directors have no material relationship with the Company (either directly or as a partner, stockholder or officer of an organization that has a relationship with the Company). The Board of Directors has adopted the following standards to assist it in determining whether a director has a material relationship with the Company. Under these standards, a director will not be considered to have a material relationship with the Company if he or she is not:

- A director who is a current employee, or whose immediate family member is a current executive officer, of a Company that has made payments to, or received payments from, the Company for property or services in an amount which, in any of the last three fiscal years, exceeds the greater of \$1 million, or 2% of such other Company's consolidated gross revenues;
- A director who is (or was within the last three years) an employee, or whose immediate family member is (or was within the last three years) an executive officer, of the Company;
- A director who has received, or whose immediate family member has received, during any twelve-month period within the last three years, more than \$120,000 in direct compensation from the Company, other than director and committee fees and pension or other forms of deferred compensation for prior service (provided such compensation is not contingent in any way on continued service);
- A director who is, or whose immediate family member is, a current partner of a firm that is the Company's internal or external auditor; (B) a director who is a current employee of a firm that is the Company's internal or external auditor; (C) a director whose immediate family member is a current employee of a firm that is the Company's internal or external auditor and personally works on the Company's audit; or (D) a director who was, or whose immediate family member was, within the last three years (but is no longer) a partner or employee of a firm that is the Company's internal or external auditor and personally worked on the Company's audit within that time;
- A director who is (or was within the last three years), or whose immediate family member is (or was within the last three years), an executive officer of another Company where any of the Company's current executive officers at the same time serve or served on the other Company's compensation committee;
- A director who is (or was within the last three years) an executive officer of another Company that is indebted to the Company, or to which the Company is indebted, in an amount that exceeds one percent (1%) of the total consolidated assets of the other Company; and
- A director who is a current executive officer of a tax exempt organization that, within the last three years, received discretionary contributions from the Company in an amount that, in any single fiscal year, exceeded the greater of \$1 million or 2% of such tax exempt organization's consolidated gross revenues. (Any automatic matching by the Company of employee charitable contributions will not be included in the amount of the Company's contributions for this purpose.)



Ownership of a significant amount of the Company's stock, by itself, does not constitute a material relationship. For relationships not covered by these standards, the determination of whether a material relationship exists shall be made by the other members of the Board of Directors who are independent (as defined above).



## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of December 22, 2011, certain information with respect to the beneficial ownership of the Company's Common Stock by (1) any person including any "group" as set forth in Section 13(d)(3) of the Exchange Act, known by us to be the beneficial owner of more than 5% of our Common Stock, (2) each director, (3) each of our executive officers and (4) all of our current directors and executive officers as a group. The percentages in the following table are based on 53,993,882 shares of Common Stock issued and outstanding as of the date of this prospectus.

Name and address of beneficial owner (1)	Amount and Nature of Beneficial Ownership	Percent of Class
<b>5% Stockholders:</b>		
John N. Hatsopoulos (2)	14,875,350	27.6 %
George N. Hatsopoulos (3)	14,206,077	26.2 %
RBC Cees Nominees Limited (4)	3,616,418	6.7 %
Joseph J. Ritchie (5)	3,586,449	6.6 %
<b>Directors and Officers:</b>		
John N. Hatsopoulos (2)	14,875,350	27.6 %
George N. Hatsopoulos (3)	14,206,077	26.2 %
Robert A. Panora (6)	653,400	1.2 %
Charles T. Maxwell (7)	300,000	0.6 %
Bonnie J. Brown (8)	250,000	0.5 %
Anthony S. Loumidis (9)	236,250	0.4 %
Angelina M. Galiteva (10)	200,000	0.4 %
Ahmed F. Ghoniem (11)	100,000	0.2 %
Joseph E. Aoun	-	0.0 %
All executive officers and directors as a group (9 persons)	30,821,077	56.9 %

- (1) The address of the directors and officers listed in the table above is: c/o Tecogen Inc., 45 First Avenue, Waltham, Massachusetts 02451.
- (2) Includes: (a) 225,000 shares of Common Stock, directly held by Mr. John N. Hatsopoulos; (b) 4,948,165 shares of Common Stock; held by John N. Hatsopoulos and his wife, Patricia L. Hatsopoulos, as joint tenants, each of whom share voting and investment power; (c) 5,742,750 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 (d) 3,959,435 shares of Common Stock held by The John N. Hatsopoulos Family Trust 2008 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. This amount does not include: (a) 333,334 shares of Common Stock issuable upon conversion of \$100,000 principal amount of 6% convertible debentures; and (b) 120,022 shares of Common Stock held by The John N. Hatsopoulos 1989 Family Trust for the benefit of: (1) Alexander J. Hatsopoulos, and (2) Nia Marie Hatsopoulos, for whom Mr. Paris Nikolaidis is the trustee. Mr. Hatsopoulos disclaims beneficial ownership of the shares held by that trust.
- (3) Includes: (a) 5,968,504 shares of Common Stock, directly held by Dr. George N. Hatsopoulos; (b) 7,934,350 shares of Common Stock; held by Dr. Hatsopoulos and his wife, Daphne Hatsopoulos, as joint tenants, each of

whom share voting and investment power; and (c) 303,223 shares of Common Stock issuable upon conversion of \$90,967 principal amount of 6% convertible debentures. This amount does not include 2,272,391 shares held in the 1994 Hatsopoulos Family Trust for the benefit of Dr. and Mrs. Hatsopoulos' adult children, for whom Ms. Daphne Hatsopoulos and Mr. Gordon Erlich are the trustees. Dr. Hatsopoulos disclaims beneficial ownership of the shares held by this trust.

- (4) Includes 3,616,418 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 3,586,449 shares of Common Stock, directly held by Mr. Ritchie. The address of Mr. Ritchie is 2100 Enterprise Avenue, Geneva, IL 60134.
  - (6) Includes 653,400 shares of Common Stock, directly held by Mr. Panora.
  - (7) Includes 300,000 shares of Common Stock, directly held by Mr. Maxwell.
- (8) Includes: (a) 50,000 shares of Common Stock, and (b) options to purchase 200,000 shares of Common Stock exercisable within 60 days of the date of this prospectus.
- (9) Includes: (a) 60,000 shares of Common Stock, and (b) options to purchase 176,250 shares of Common Stock exercisable within 60 days of the date of this prospectus.
- (10) Includes: (a) 100,000 shares of Common Stock, and (b) options to purchase 100,000 shares of Common Stock exercisable within 60 days of the date of this prospectus.
  - (11) Includes 100,000 shares of Common Stock.

## CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The Company has three affiliated companies, namely American DG Energy, EuroSite Power and GlenRose Instruments. 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 and GlenRose Instruments do not own any shares of the Company, and the Company does not own any shares of American DG Energy, EuroSite Power or GlenRose Instruments. The common stockholders include John N. Hatsopoulos, the Company's Chief Executive Officer who is the Chairman of GlenRose Instruments, the Chief Executive Officer of American DG Energy and a director of EuroSite Power. Also, Dr. George N. Hatsopoulos, who is John N. Hatsopoulos' brother, is a director of the Company, is the Chairman of American DG Energy and an investor in GlenRose Instruments. The business of GlenRose Instruments is not related to the business of the Company, American DG Energy and their other corporate affiliates.

American DG Energy, GlenRose Instruments, Tecogen and Ilios, are affiliated companies by virtue of common ownership. Specifically, John N. Hatsopoulos who is the Chief Executive Officer of the Company is: (a) the Chief Executive Officer and a director of American DG Energy and holds 12.1% of the company's Common Stock, (b) a Director of Ilios and holds 8.6% of the company's Common Stock, and (c) 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, is: (a) a Director of American DG Energy and holds 14.7% of the company's Common Stock, (b) an investor in Ilios and holds 3.4% of the company's Common Stock and (c) a director of GlenRose Instruments and holds 15.7% of the company's Common Stock.

American DG Energy has sales representation rights to the Company's products and services in New England, and the Company has sales representation rights to the American DG Energy On-Site Utility solution in California.

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, a director of the Company, 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 the holder, into shares of Common Stock at a conversion price of \$0.30 per share.

On September 24, 2007, the holders of the debentures agreed to extend their 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 \$0.50 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 \$0.50 per share. The difference between the Company's purchase price of the Ilios, Inc. shares and the amount of debt forgiveness was recorded as additional paid-in capital.

On September 30, 2009, a holder of the Company's convertible debentures elected to convert \$30,000 of the outstanding principal amount of the debenture, plus accrued interest of \$14,433, into 148,111 shares of Common

Stock at a conversion price of \$0.30 per share. On September 24, 2011 the remaining holders of the debentures 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 \$0.50 per share (which was the average price of the Company's stock from September 24, 2001 to September 24, 2011).

On September 10, 2008 the Company entered into a demand note agreement with John N. Hatsopoulos, the Company's Chief Executive Officer, 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%. Unpaid principal and interest on the demand notes is due upon demand by the note holder.

John N. 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. His salary is \$1.00 per year. On average, Mr. Hatsopoulos spends approximately 20% 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.

The Company signed a Facilities and Support Services Agreement with American DG Energy on January 1, 2006, as amended, included as Exhibit 10.6 hereto. The term of the agreement commences as of the start of each year and certain portions of the agreement, including office space allocation, get renewed annually upon mutual written agreement.

The Company subleases portions of its corporate offices and manufacturing facility to sub-tenants under annual sublease agreements, and several of the sub-tenants are related to the Company through common ownership. In addition to sublease payments for the years ended December 31, 2010 and 2009 of \$196,466 and \$198,322, respectively received from American DG Energy, Levitronix LLC and Alexandros Partners LLC, the Company received \$142,050 and \$127,196 from these related parties to offset common operating expenses incurred in the administration and maintenance of the Company's corporate office and warehouse facility for the years ended December 31, 2010 and 2009, respectively.

The Company's headquarters are located in Waltham, Massachusetts and consist of 24,000 square feet of office and storage space that are shared with American DG Energy and other tenants. The lease expires on March 31, 2014. We believe that our facilities are appropriate and adequate for our current needs.

#### 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, 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.



WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of Common Stock being offered by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our Common Stock, you should refer to the registration statement and to its exhibits. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

We are subject to the reporting and information requirements of the Exchange Act and, as a result, we will intend to file periodic and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements, or other information we file at the SEC's Public Reference Room at 100 F. Street, N.E., Washington D.C. 20549, on official business days during the hours of 10:00 am to 3:00 pm. You can request copies of these documents, upon payment of a duplicating fee by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. Our SEC filings are also available to the public on the SEC's Internet site at [http\\www.sec.gov](http://www.sec.gov).

## 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.

## Unaudited Interim Financial Statements

Consolidated Balance Sheets as of September 30, 2011 and December 31, 2010	F-2
Consolidated Statements of Operations for the nine months ended September 30, 2011 and 2010	F-3
Consolidated Statements of Changes in Stockholders' Equity for the nine months ended September 30, 2011	F-4
Consolidated Statements of Cash Flows for the nine months ended September 30, 2011 and 2010	F-5
Notes to Consolidated Notes to Financial Statements	F-6

## Audited Financial Statements

Report of Independent Registered Public Accounting Firm McGladrey and Pullen, LLP	F-19
Consolidated Balance Sheets as of December 31, 2010 and 2009	F-20
Consolidated Statements of Operations for the years ending December 31, 2010 and 2009	F-21
Consolidated Statements of Changes in Stockholders' Equity for the years ending December 31, 2010 and 2009	F-22
Consolidated Statements of Cash Flows for the years ending December 31, 2010 and 2009	F-23
Consolidated Notes to Financial Statements	F-24

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.

## Unaudited Interim Financial Statements

TECOGEN INC.  
 CONDENSED CONSOLIDATED BALANCE SHEETS  
 As of September 30, 2011 and December 31, 2010  
 (unaudited)

	September 30, 2011	December 31, 2010
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 1,211,287	\$ 1,828,173
Short-term investments	501,577	85,000
Accounts receivable, net	1,837,784	1,788,323
Inventory, net	2,158,717	1,324,415
Due from related party	40,982	98,230
Prepaid and other current assets	81,516	85,103
Total current assets	5,831,863	5,209,244
Property, plant and equipment, net	363,050	404,888
Intangible assets, net	211,063	226,865
Other assets	35,425	35,425
<b>TOTAL ASSETS</b>	<b>6,441,401</b>	<b>5,876,422</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Demand notes payable, related party	1,037,500	287,500
Current portion of convertible debentures, related party	-	190,967
Accounts payable	626,029	705,406
Accrued expenses	748,296	895,884
Deferred revenue	709,448	711,259
Interest payable, related party	43,260	93,727
Total current liabilities	3,164,533	2,884,743
Long-term liabilities:		
Convertible debentures, related party, net of current portion	190,967	-
Total liabilities	3,355,500	2,884,743
Commitments and contingencies (Note 7)	-	-
Redeemable Common stock, \$0.001 par value	500,000	-
Stockholders' equity:		
Tecogen Inc. stockholders' equity:		
Common stock, \$0.001 par value; 50,000,000 shares authorized; 50,321,694 and 48,931,046 issued and outstanding at September 30, 2011 and December 31, 2010, respectively	50,322	48,931
Additional paid-in capital	12,213,613	11,652,516
Common stock subscription	-	(53 )
Receivable from stockholder	(345,000 )	(345,000 )

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Accumulated deficit	(9,334,376 )	(8,548,265 )
Total Tecogen Inc. stockholders' equity	2,584,559	2,808,129
Noncontrolling interest	1,342	183,550
Total stockholders' equity	2,585,901	2,991,679
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 6,441,401	