PROSPECTUS DATED OCTOBER 5, 2015



4,968,839 Shares of Common Stock

This prospectus relates to the public offering, which is not being underwritten, of 4,968,839 shares of our common stock, \$0.001 par value, that are held by two of our current stockholders. The common stock being registered does not include any special rights or preferences. We will not receive any of the proceeds from the offer and sale of the shares.

Our common stock is traded on the NADSAQ Market under the symbol "TGEN". The last reported sales price of the common stock on the NADSAQ Market on August 26, 2015, was \$3.39 per share. Each selling stockholder may sell all or a portion of its shares on the NADSAQ Market at prices prevailing at the time of sale, or related to the market price at the time of sale, or it may otherwise sell its shares at negotiated prices.

Our business and an investment in the securities offered hereby involve significant risks. See "Risk Factors" beginning on page 3 of this prospectus, in our periodic reports filed from time to time with the Securities and Exchange Commission, or the SEC, including in our most recent Annual Report on Form 10-K for the year ended December 31, 2014, or the Annual Report, and in the applicable prospectus supplement.

Neither 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.

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

The date of this prospectus is October 5, 2015

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROSPECTUS. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION DIFFERENT FROM THAT CONTAINED IN THIS PROSPECTUS. WE ARE OFFERING TO SELL, AND SEEKING OFFERS TO BUY, SHARES OF COMMON STOCK ONLY IN JURISDICTIONS WHERE OFFERS AND SALES ARE PERMITTED. THE INFORMATION CONTAINED IN THIS PROSPECTUS IS ACCURATE ONLY AS OF THE DATE OF THIS PROSPECTUS, REGARDLESS OF THE TIME OF DELIVERY OF THIS PROSPECTUS OR OF ANY SALE OF OUR COMMON STOCK. IN THIS PROSPECTUS, REFERENCES TO THE "COMPANY," "TECOGEN," "WE," "US" AND "OUR" REFER TO TECOGEN INC., A DELAWARE CORPORATION, AND ITS SUBSIDIARIES.

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ABOUT THIS PROSPECTUS

In this prospectus, references to "the Company," "we," "us," "our," "the registrant" or other similar terms refer to Tecogen Inc., or Tecogen.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and the accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement and the documents incorporated by reference is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Our logo, trademarks and service marks are the property of the Company. Other trademarks or service marks appearing in this prospectus are the property of their respective holders.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference herein, contain "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995 and other federal securities laws. Such forward-looking statements involve substantial risks and uncertainties. All statements, other than statements of historical fact, included in this prospectus regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects and plans and objectives of management are forward-looking statements. The words "anticipates," "believes," "estimates," "expects," "intends," "may," "plans," "projects," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

We have based these forward-looking statements on our current expectations and projections about future events. Although we believe that the expectations underlying our forward-looking statements are reasonable, these expectations may prove to be incorrect, and all of these statements are subject to risks and uncertainties. Therefore, you should not place undue reliance on our forward-looking statements. We have included important risks and uncertainties in the cautionary statements included in this prospectus, particularly the section called "Risk Factors" below and incorporated by reference herein from our SEC filings. We believe these risks and uncertainties could cause actual results or events to differ materially from the forward-looking statements that we make. Should one or more of these risks and uncertainties materialize, or should underlying assumptions, projections or expectations prove incorrect, actual results, performance or financial condition may vary materially and adversely from those anticipated, estimated or expected. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

ABOUT THE COMPANY

Tecogen designs, manufactures, sells, and services systems that produce electricity, hot water, and air conditioning for commercial installations and buildings and industrial processes. These systems, powered by natural gas engines, are efficient because they drive electric generators or compressors, while also using the engine's waste heat for water heating, space heating, and/or air conditioning. This reduces the amount of electricity that customers purchase from utilities. We call this cogeneration technology CHP for combined heat and power.

Tecogen manufactures three types of CHP products:

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

These products are standardized, modular, small-scale CHP products that reduce energy costs, carbon emissions, and dependence on the electric grid. Market drivers include the price of natural gas, local electricity costs, and governmental energy policies, as well as customers' desire to become more socially responsible. Traditional customers for our cogeneration and chiller systems include hospitals and nursing homes, colleges and universities, health clubs and spas, hotels and motels, office and retail buildings, food and beverage processors, multi-unit residential buildings, laundries, ice rinks, swimming pools, factories, municipal buildings, and military installations; however, the economic feasibility of using our systems is not limited to these customer types. Through our factory-owned service centers in California, New York, Massachusetts, Connecticut, New Jersey, and Michigan our specialized technical staff maintain our products through long-term contracts. We have shipped approximately 2,000 units, some of which have been operating for almost 25 years. We have 75 full-time employees and 3 part-time employees, including 6 sales and marketing personnel and 41 service personnel.

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

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

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

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

Our principal executive offices are located at 45 First Avenue, Waltham, Massachusetts 02451, and our telephone number is 781-466-6400.

RISK FACTORS

Investing in our securities involves risk. Please see the risk factors under the heading "Risk Factors" in our Annual Report, as revised or supplemented by our quarterly reports on Form 10-Q filed with the SEC since the filing of our Annual Report, all of which are on file with the SEC and are incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus and any prospectus supplement. The risks and uncertainties we have described are not the only ones facing the Company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale by either selling stockholder of its common stock covered by this prospectus. The principal purpose of this offering is to register shares issued to John N. Hatsopoulos and Sea Shell Ltd. in multiple private placements.

SELLING STOCKHOLDERS

The following table sets forth the number of shares beneficially owned by each selling stockholder as of September 29, 2015 and the number of shares that may be offered by each selling stockholder pursuant to this prospectus. We have assumed, when calculating the numbers in the table, that all of the shares owned by each selling stockholder and offered pursuant to this prospectus will be sold, but each selling stockholder may not sell any or all of the shares that are being offered pursuant to this prospectus.

As of September 29, 2015, there were 17,588,782 shares of Company common stock outstanding.

		Shares owned before the offering		Shares offered pursuant to this prospectus		Shares owned after the offering	
Selling Stockholders	Number	Percent	Number	Percent	Number	Percent	
Sea Shell Limited ^{(1) (2)(3)}	1,250,000	7.1%	1,250,000	7.1%		<u>%</u>	
John N. Hatsopoulos (4)(5)	3,718,839	21.1%	3,718,839	21.1%	_	%	

- (1) The selling stockholder's address is c/o Cayman National Trust Co. Ltd. 2nd Floor, Suite 6201, Forum Lane, Camana Bay, PO Box 30239, KY1-1201, Cayman Islands
- ⁽²⁾ Sea Shell Limited is a Cayman Islands Exempt Company. Sea Shell Limited's directors have ultimate voting and investment control of its shares. The directors of Sea Shell Limited are Cayman National Trust (Directors) Ltd. and Cayman National Trust (Nominees) Ltd.
- (3) Barbara Ann Bernard is the Managing Director of Communications for the Company and an officer of Sea Shell Limited.
- (4) The selling stockholder's address is c/o Tecogen Inc., 45 First Ave, Waltham, MA 02451.
- (5) Includes: 2,135,210 shares of Common Stock held by J&P Enterprises LLC for the benefit of: John N. Hatsopoulos and Patricia L. Hatsopoulos. John N. Hatsopoulos is the Executive Member of J&P Enterprises LLC and has voting and investment power; 593,770 shares of Common Stock held by John N. Hatsopoulos and his wife, Patricia L. Hatsopoulos, as joint tenants with rights of survivorship, each of whom share voting and investment power; and 989,859 shares of Common Stock held by The John N. Hatsopoulos Family Trust 2007 for the benefit of: Patricia L. Hatsopoulos, Alexander J. Hatsopoulos, and Nia Marie Hatsopoulos, for which Dr. George N. Hatsopoulos and Ms. Patricia L. Hatsopoulos are the trustees. Mr. Hatsopoulos and his wife acquired all of the common stock mentioned in this footnote prior to the Company becoming a public company.

John N. Hatsopoulos is an affiliate of the Company through his positions with the Company, his ownership of the Company, and his relationships with certain affiliates of the Company.

Mr. Hatsopoulos is a Co-Chief Executive Officer and Director of the Company. Mr. Hatsopoulos's salary is \$1.00 per year. On average, Mr. Hatsopoulos spends approximately 50% of his business time on the affairs of the Company; however such amount varies widely depending on the needs of the business and is expected to increase as the business of the Company develops.

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

On July 22, 2013, Mr. Hatsopoulos personally pledged to support a bank credit facility of \$1,055,000 to support bank guarantees issued on certain construction contracts. This pledge was renewed on July 22, 2014 with an expiration date of July 22, 2015. On April 10, 2015, the performance obligation tied to this bond was relieved and the credit facility was canceled.

On January 6, 2014, the Company repaid in full a then owed demand note owned by Mr. Hatsopoulos. At the time of payment, the principal was \$1,750,000 and the accrued interest was \$175,311.

On March 26, 2014, the Company entered into a conditionally effective revolving line of credit agreement, or the 2014 Credit Agreement, with Mr. Hatsopoulos. Under the terms of the 2014 Credit Agreement, Mr. Hatsopoulos agreed to lend the Company up to an aggregate of \$3,500,000 from time to time, at the written request of the Company. Any amounts borrowed by the Company pursuant to the 2014 Credit Agreement would bear interest at the Bank Prime Rate as quoted from time to time in the Wall Street Journal plus 1.5% per year. Repayment of the principal amount borrowed pursuant to the 2014 Credit Agreement would be due on March 25, 2015. The conditions upon which the agreement became effective were never satisfied.

On June 15, 2015, the Company entered into a non-revolving line of credit agreement, or the 2015 Credit Agreement, with Mr. Hatsopoulos. Under the terms of the 2015 Credit Agreement, Mr. Hatsopoulos agreed to lend the Company up to \$250,000 per financial calendar quarter beginning in the third quarter 2015, for a period of two years with the aggregate maximum borrowed not to exceed \$2,000,000. The term of the 2015 Credit Agreement is from July 1, 2015 to July 1, 2017. Any amounts borrowed by the Company pursuant to the 2015 Credit Agreement bear interest at 6%. Repayment of the principal amount borrowed pursuant to the 2015 Credit Agreement will be due on June 15, 2017. The 2015 Credit Agreement is subordinated in right of payment to the Senior Convertible Promissory Note dated December 23, 2013, issued by the Company to and in favor of Michaelson Capital Special Finance Fund LP.

Ilios Dynamics Inc., or Ilios, is the Company's majority owned subsidiary. Mr. Hatsopoulos is a director of Ilios and holds approximately 7.2% of Ilios's common stock.

The Company has two affiliated companies, American DG Energy Inc., or American DG Energy, and EuroSite Power Inc., or EuroSite Power. Mr. Hatsopoulos is: (a) the Co-Chief Executive Officer and a director of American DG Energy and beneficially owns approximately 19.4% of American DG Energy's common stock; and (b) the Chairman of EuroSite Power and holds approximately 4.7% of EuroSite Power's common stock.

PLAN OF DISTRIBUTION

The shares offered in this prospectus may be offered and sold from time to time for the account of the applicable selling stockholder, including donees, transferees, pledgees, distributees or other successors in interest that receive such shares as a gift or through another non-sale related transfer from such selling stockholder.

Each selling stockholder will act independently of Tecogen and the other selling stockholder in making decisions with respect to the timing, manner and size of any sale. Each selling stockholder may sell the shares:

- at then-prevailing prices and terms:
- at prices related to the then-current market price;

or

• at negotiated prices.

The sales may be made in the over-the-counter market, on the NASDAQ Market, or on any exchange on which the shares are listed. Each selling stockholder may sell the shares in one or more of the following types of transactions:

- one or more block trades in which the broker or dealer will attempt to sell as agent or principal all or a portion of the shares held by such selling stockholder;
- purchases by a broker or dealer as principal and resale by such broker or dealer for its account pursuant to this
 prospectus;
- ordinary brokerage transactions and transactions in which a broker solicits purchasers;
- · in negotiated transactions;

or

• through other means.

Each selling stockholder may enter into hedging transactions when selling the shares. For example, each selling stockholder may:

- sell shares short and redeliver such shares to close out such selling stockholder's short positions;
- enter into transactions involving short sales by the brokers or dealers;
- enter into option or other types of transactions that require such selling stockholder to deliver shares to a broker or dealer, who then resells or transfer the shares under this prospectus; or
- loan or pledge the shares to a broker or dealer, who may sell the loaned shares or, in the event of default, sell the pledged shares.

Each selling stockholder may affect sales through brokers, dealers or agents, who in turn may arrange for other brokers or dealers to participate. The brokers, dealers or agents may receive discounts, concessions, commissions or fees from such selling stockholder and/or purchasers of the shares in amounts to be determined prior to the sale. Under the federal securities laws, these brokers or dealers and any other participating brokers or dealers may be deemed to be "underwriters" and any discounts, concessions or commissions received by them may be deemed to be "underwriting compensation" under the Securities Act. Because each selling stockholder may be deemed to be an "underwriter" within the meaning of the Securities Act, each selling stockholder will be subject to the prospectus delivery requirements of the Securities Act.

In addition to selling the shares, each selling stockholder may:

- sell its shares under Rule 144 of the Securities Act, if the transaction meets the requirements of Rule 144.
- transfer the shares by gift, distribution or other transfer not involving market makers or established trading markets;
 or
- agree to indemnify any broker, dealer or agent that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

No selling stockholder is subject to any underwriting agreement. Each selling stockholder, or any parties who receive the shares from the selling stockholder by way of a gift, donation, distribution or other transfer, may sell the shares covered by this prospectus.

Tecogen will pay all expenses incident to the offering and sale of the shares to the public other than any discounts, concessions, commissions or fees of underwriters, brokers, dealers or agents.

Some states require that any shares sold in that state only be sold through registered or licensed brokers or dealers. In addition, some states require that the shares be registered or qualified for sale in that state, or that there exists an exemption from the registration or qualification requirements and that the exemption has been complied with.

We intend to maintain the effectiveness of this prospectus until the shares registered pursuant to this prospectus may be resold by each selling stockholder without restriction. We may suspend each selling stockholder's right to resell shares under this prospectus.

We shall inform each selling stockholder 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 such selling stockholder and its respective affiliates.

We will not receive any proceeds from this offering. Each selling stockholder will pay or assume brokerage commissions or other similar charges and expenses incurred in the resale of the shares.

LEGAL MATTERS

Unless an applicable prospectus supplement indicates otherwise, the validity of the issuance of the securities offered by this prospectus will be passed upon for us by Sullivan & Worcester LLP, Boston, Massachusetts.

EXPERTS

The financial statements of Tecogen appearing in its Annual Report on Form 10-K for the years ended as of December 31, 2014 and December 31, 2013 and incorporated by reference in this prospectus, have been so incorporated in reliance on the respective reports of Wolf & Company P.C. and McGladrey LLP, independent registered public accountants, given on the authority of said firms as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room located at: 100 F Street N.E., Washington, DC 20549. You can request copies of these documents by writing to the Public Reference Section of the SEC, 100 F Street N.E., Washington, DC 20549 or by calling the SEC at 1-800-SEC-0330. Our SEC filings are also available at the SEC's website at http://www.sec.gov. This website address is included in this document as an inactive textual reference only.

You may also obtain information about us, including copies of our SEC reports, through our website at www.tecogen.com. This website address is not an active link to the registration statement of which this prospectus is a part, and any documents, references, links or other materials of any kind contained or referred to on such website are not part of the registration statement of which this prospectus is a part. Requests for documents may also be addressed in writing or by telephone to: David A. Garrison, Chief Financial Officer, Tecogen Inc., 45 First Avenue, Waltham, MA 02451, Phone: (781) 466-6400.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC requires us to "incorporate by reference" into this prospectus information that we file with the SEC in other documents. This means that we can disclose important information to you by referring you to other documents that contain that information. The information we incorporate by reference is considered to be part of this prospectus. Information contained in this prospectus and information that we file with the SEC in the future and that we incorporate by reference in this prospectus automatically updates and supersedes previously filed information. We incorporate by reference the documents listed below and any future filings we make after the date of the initial filing of the registration statement of which this prospectus is a part made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the offering of the securities made by this prospectus is completed or terminated:

- The Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the SEC on March 25, 2015.
- The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2015, filed with the SEC on May 11, 2015.
- The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2015, filed with the SEC on August 6, 2015.
- The Company's Current Report on Form 8-K filed with the SEC on January 2, 2015.
- The Company's Current Report on Form 8-K filed with the SEC on January 30, 2015.
- The Company's Current Report on Form 8-K filed with the SEC on May 11, 2015.
- The Company's Current Report on Form 8-K filed with the SEC on June 17, 2015
- The Company's Current Report on Form 8-K filed with the SEC on June 18, 2015.
- The Company's Current Report on Form 8-K filed with the SEC on August 6, 2015
- The Company's Current Report on Form 8-K filed with the SEC on August 13, 2015.

A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request a copy of these documents, which will be provided to you at no cost, by writing to or telephoning: David A. Garrison, Chief Financial Officer, Tecogen Inc., 45 First Avenue, Waltham, MA 02451, Phone: (781) 466-6400.

* * *

This information is part of a registration statement we filed with the SEC. You should rely only on the information and representations provided in this prospectus. We have authorized no one to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of the document.