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

FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933



(Exact name of registrant as specified in its charter)

Delaware

27-5250881

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

Tecogen Inc. 45 First Avenue Waltham, MA 02451 (781) 466-6400

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

David A. Garrison Chief Financial Officer Tecogen Inc. 45 First Avenue Waltham, MA 02451 Copies to:
Edwin L. Miller Jr.
Sullivan & Worcester LLP
One Post Office Square
Boston, MA 02109

Tel: (781) 466-6400/Fax: (781) 622-1027 Tel: (617) 338-2800/Fax: (617) 338-2880 (Name, address, including zip code, and telephone number, including area code, of agent for service)

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. \Box

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, other than securities offered only in connection with dividend or interest reinvestment plans, 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, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment filed p Securities Act registration statement number of the				
If this Form is a registration statement pursuant effective upon filing with the Commission pursuant				
If this Form is a post-effective amendment to a reg securities or additional classes of securities pursuan				
Indicate by check mark whether the registrant is a l company. See the definitions of "large accelerate Exchange Act. (Check one)				
Large accelerated filer: ☐ Accelerate	ed filer: □ N	on-accelerated filer:	☐ Smaller reportin	g company: 🗵
CALCU	LATION OF I	REGISTRATION	FEE	
Title of Each Class of Securities to be Registered (1)	Amount to be Registered (1)	Proposed Maximum Offering Price Per Unit (1)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$.001 par value per share				
Warrants to purchase Common Stock	#50 000 000	(2)	Φ50,000,000 (2)(4)	Φ5 010 (4)
Total:	\$50,000,000	(2)	\$50,000,000 (3)(4)	\$5,810 (4)
as amended, or the Securities Act, such an inde shares being registered hereunder as a result of may be sold separately or as units with other se issued from time to time pursuant to this registr (2) The proposed maximum offering price per unit determined from time to time by the registrant is and is not specified as to each class of security (3) Pursuant to General Instruction I.B.6. of Form S common equity held by non-affiliates of the registration statement, then the aggregate offeri pursuant to this registration statement in any 12 and non-voting common equity held by non-affiregistration statement, the aggregate market val exceeds \$75,000,000, then the one-third limitat registration statement. (4) Calculated pursuant to Rule 457(o) based on an price.	stock splits, stock curities registered ation statement ex and proposed max n connection with pursuant to Genera S-3, if the aggregatistrant does not econg price of all type—month period mailliates of the registrantion on sales shall restimate of the pr	dividends, or similar hereby. In no event we ceed \$50,000,000. Limum aggregate offer the issuance by the real Instruction II.D of the market value of the qual or exceed \$75,00 es of securities that they not exceed one-thir trant. In the event that it's outstanding common apply to additional oposed maximum aggregate.	transactions. Any securivill the aggregate offering ring price per class of seegistrant of the securities. Form S-3 under the Securities of the securities o	ties registered hereunder g price of all securities ecurity will be s registered hereunder urities Act. voting and non-voting effective date of this a primary offerings et value of the voting tive date of this filiates equals or offerings pursuant to this
The registrant hereby amends this registration s the registrant shall file a further amendment s effective in accordance with Section 8(a) of the s such date as the Commission, acting pursuant to	which specifically Securities Act of	y states that this re 1933 or until the re	gistration statement s	hall thereafter become

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 where the offer or sale is not permitted.

Subject to Completion
Preliminary Prospectus dated October 28, 2014

PROSPECTUS \$50,000,000



We may from time to time sell shares of our common stock, par value \$0.001 per share, or common stock, and warrants to purchase common stock in one or more offerings for an aggregate initial offering price of \$50,000,000. We refer to the common stock and the warrants to purchase common stock collectively as the securities. This prospectus describes the general manner in which our securities may be offered using this prospectus. We will specify in an accompanying prospectus supplement the terms of the securities to be offered and sold.

We may sell these securities directly to our stockholders or to purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters, any applicable fees, commissions, or discounts and the terms of the plan of distribution. In addition, selling shareholders to be named in a prospectus supplement may offer and sell from time to time our common stock in such amounts as set forth in a prospectus supplement. Unless otherwise set forth in a prospectus supplement, we will not receive any proceeds from the sale of shares of common stock by any selling shareholders.

Our common stock is traded on the NADSAQ Market under the symbol "TGEN". As of October 24, 2014, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately \$46,295,584 which was calculated based on 7,589,440 shares of our outstanding common stock held by non-affiliates and on a price of \$6.10 per share, the closing price of our common stock on October 24, 2014. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our securities in a public primary offering with a value exceeding one-third of our public float in any 12-month period unless our public float subsequently rises to \$75,000,000 or more. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus.

Our business and an investment in the securities offered hereby involve significant risks. See "Risk Factors" beginning on page 4 of this prospectus, in our periodic reports filed from time to time with the Securities and Exchange Commission, including our most recent Annual Report on Form 10-K, and in the applicable prospectus supplement.

Neither the Securities and Exchange Commission 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	, 2014

TABLE OF CONTENTS

ABOUT PROSPECTUS	<u>2</u>
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	<u>2</u>
THE COMPANY	<u>3</u>
RISK FACTORS	<u>4</u>
<u>DIVIDEND POLICY</u>	<u>4</u>
USE OF PROCEEDS	<u>4</u>
<u>DILUTION</u>	<u>4</u>
THE SECURITIES WE MAY OFFER	<u>4</u>
DESCRIPTION OF CAPITAL STOCK	<u>5</u>
DESCRIPTION OF WARRANTS	<u>7</u>
PLAN OF DISTRIBUTION	<u>8</u>
<u>LEGAL MATTERS</u>	<u>9</u>
<u>EXPERTS</u>	<u>9</u>
INCORPORATION OF DOCUMENTS BY REFERENCE	<u>10</u>
WHERE YOU CAN FIND MORE INFORMATION	11

ABOUT THIS PROSPECTUS

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

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$50,000,000. We may offer any of the following securities: common stock or warrants to purchase common stock.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the headings "Where You Can Find More Information" and "Incorporation of Documents by Reference" below.

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, which reduce the amount of electricity purchased from the utility, plus they use the engine's waste heat for water heating, space heating, and/or air conditioning at the customer's building. We call this cogeneration technology CHP for combined heat and power.

Tecogen manufactures three types of CHP products:

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

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

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

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

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

Our 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 most recent annual report on Form 10-K, as revised or supplemented by our quarterly reports on Form 10-Q filed with the SEC since the filing of our most recent annual report on Form 10-K, all of which are on file with the SEC and are incorporated herein 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.

DIVIDEND POLICY

We have never declared or paid any cash dividends on shares of our common stock. We currently intend to retain earnings, if any, to fund the development and growth of our business and do not anticipate paying cash dividends in the foreseeable future. Our payment of any future dividends will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, cash needs and growth plans.

USE OF PROCEEDS

Except as described in any prospectus supplement, we currently intend to use the net proceeds from the sale of our securities for product development and general corporate purposes. We may also use a portion of the net proceeds to acquire or invest in businesses, products and technologies that are complementary to our own. We currently are not negotiating any such transactions nor do we have any commitments for which the proceeds or any shares registered herein are allocated. We will set forth in the prospectus supplement our intended use for the net proceeds received from the sale of any securities. Pending these uses, the net proceeds will be invested in investment-grade, interest-bearing securities.

DILUTION

We will set forth in a prospectus supplement the following information regarding any material dilution of the equity interests of investors purchasing securities in an offering under this prospectus:

- the net tangible book value per share of our equity securities before and after the offering:
- the amount of the increase in such net tangible book value per share attributable to the cash payments made by purchasers in the offering; and
- the amount of the immediate dilution from the public offering price which will be absorbed by such purchasers.

THE SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize all the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we so indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We may also include in the prospectus supplement information, where applicable, about material United States federal income tax considerations relating to the securities, and the securities exchange or market, if any, on which the securities will be listed.

We may sell from time to time, in one or more offerings the following securities:

- common stock;
- warrants to purchase common stock;
- any combination of the foregoing.

In this prospectus, we refer to the common stock and warrants collectively as "securities." The total dollar amount of all securities that we may sell will not exceed \$50,000,000.

DESCRIPTION OF CAPITAL STOCK

Under our certificate of incorporation, we are authorized to issue 100,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of preferred 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 consulting our certificate of incorporation and by-laws, each as amended to date, as well as the Delaware General Corporation Law.

The following is a description of our capital stock and is a summary only. We refer in this section to our amended and restated certificate of incorporation as our charter, and we refer to our amended and restated by-laws as our by-laws.

Common Stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders and do not have any cumulative voting rights. Holders of our common stock are entitled to receive proportionally any dividends declared by our board of directors, subject to any preferential dividend rights of outstanding preferred stock.

In the event of our liquidation or dissolution, holders of our common stock are entitled to share ratably in all assets remaining after payment of all debts and other liabilities, subject to the prior rights of any outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. All outstanding shares of our common stock are validly issued, fully paid and nonassessable.

The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of holders of shares of any series of preferred stock that we may designate and issue in the future.

Also, please see the description of common stock under the heading "Description of Common Stock" in the prospectus included in the Company's Registration Statement on Form S-1, initially filed with the Commission on February 7, 2014 (Registration No. 333-193823), as amended from time to time thereafter, and is incorporated herein by reference. Any form of prospectus subsequently filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act of 1933, as amended, that constitutes part of the aforementioned Registration Statement shall be deemed to be incorporated herein by reference.

Preferred Stock

Our charter provides that we may issue up to 10,000,000 shares of preferred stock in one or more series as may be determined by our board of directors. Our board has broad discretionary authority with respect to the rights of any new series of preferred stock and may establish the following with respect to the shares to be included in each series, without any vote or action of the stockholders:

- the number of shares:
- the designations, preferences and relative rights, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences; and
- any qualifications, limitations or restrictions.

We believe that the ability of our board of directors to issue one or more series of preferred stock will provide us with flexibility in structuring possible future financings and acquisitions, and in meeting other corporate needs that may arise. The authorized shares of preferred stock, as well as authorized and unissued shares of common stock, will be available for issuance without action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange or automated quotation system on which our securities may be listed or traded.

Our board of directors may authorize, without stockholder approval, the issuance of preferred stock with voting and conversion rights that could adversely affect the voting power and other rights of holders of common stock. Although our board has no current intention of doing so, it could issue a series of preferred stock that could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt of the Company. Our board could also issue preferred stock having terms that could discourage an acquisition attempt through which an acquiror may be able to change the composition of our board, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price. Any issuance of preferred stock therefore could have the effect of decreasing the market price of our common stock.

Our board of directors will make any determination to issue such shares based on its judgment as to our best interests of the Company and stockholders. We have no current plans to issue any preferred stock.

Options

As of June 30, 2014, we had 1,233,125 options outstanding under our stock incentive plan at a weighted average exercise price of \$2.31 per share. At June 30, 2014, there were 926,125 exercisable stock options outstanding at a weighted average exercise price of \$1.92 per share.

Warrants and Registration Rights

As of June 30, 2014, the Company has no warrants outstanding and is not a party to any registration rights.

Anti-Takeover Effects of Provisions of Delaware Law and Our Charter and By-Laws

We are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly-held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. 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.

Our charter provides that the directors elected may be removed only for cause and only by the affirmative vote of the holders of at least two-thirds of the votes which all our stockholders would be entitled to cast in any annual election of directors. Under our charter, any vacancy or newly created directorships on the board of directors can be filled only by vote of a majority of our directors then in office. The limitations on the ability of our stockholders to remove directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of the Company.

Our charter provides that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our charter and our by-laws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our chief executive officer, president, our chairman of the board, or a majority of our board of directors. In addition, our by-laws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying stockholder actions that are favored by the holders of a majority of our outstanding voting securities until the next stockholder meeting.

The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or by-laws, unless a corporation's certificate of incorporation or by-laws, as the case may be, requires a greater percentage. 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 the votes which all our stockholders would be entitled to cast in any annual election of directors.

Potential Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may utilize these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, to facilitate corporate acquisitions or payment as a dividend on the capital stock.

The existence of unissued and unreserved common stock and preferred stock may enable the board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, the board has the discretion to determine designations, rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock, all to the fullest extent permissible under the Delaware General Corporation Law and subject to any limitations set forth in our charter. The purpose of authorizing the board to issue preferred stock and to determine the rights and preferences applicable to such preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible financings, acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from acquiring, a majority of our outstanding voting stock.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this prospectus.

General

We may issue warrants for the purchase of common stock in one or more series. We may issue warrants independently or together with common stock, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We will enter into the warrant agreement with a warrant agent. Each warrant agent will be a bank that we select, which has its principal office in the United States and a combined capital and surplus of at least \$50,000,000. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise.

Additional Information

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered:
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable:
- the number of shares of common stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants:
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified:
- a discussion on any material or special United States federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants;
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5 p.m., Eastern Time, on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

PLAN OF DISTRIBUTION

We may sell securities:

- through underwriters:
- through
 - dealers;
- through agents;
- directly to purchasers;
- through a combination of any of these methods of sale.

In addition, we may issue the securities as a dividend or distribution to our existing security holders.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act, and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions:

- at a fixed price, or prices, which may be changed from time to time;
- at market prices prevailing at the time of sale:
- · at prices related to such prevailing market prices;
 - or
- at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price;
- any discounts and commissions to be allowed or paid to the agent or underwriters:
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or paid to dealers;
 and
- any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which the prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

Agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may over allot in connection with the offering, creating a short position for their own accounts. In addition, to cover overallotments or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. The underwriters may conduct these transactions on the NASDAQ, in the over-the-counter market or otherwise. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than three scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the third business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than three scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of any offering pursuant to this prospectus and any applicable prospectus supplement.

Transfer Agent

Our transfer agent is VStock Transfer, LLC, 18 Lafayette Place, Woodmere, NY 11598; telephone: 212-828-8436.

LEGAL MATTERS

Unless the 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 Inc. appearing in its Annual Report on Form 10-K for the year ended December 31, 2013, incorporated by reference in this prospectus, have been so incorporated in reliance on the report of McGladrey LLP, independent registered public accountants, given on the authority of said firm as experts in auditing and accounting.

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, 2013, filed with the SEC on March 31, 2014, as amended by Amendment No. 1 to Form 10-K, filed with the SEC on April 1, 2014.
- The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2014, filed with the Commission on August 14, 2014.
- The Company's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2014, filed with the Commission on May 15, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on October 9, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on September 17, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on August 29, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on August 15, 2014, as amended by the Company's Current Report on Form 8-K/A filed with the SEC on August 19, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on July 14, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on July 3, 2014
- The Company's Current Report on Form 8-K filed with the SEC on June 3, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on May 20, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on May 15, 2014.
- The Company's Current Report on Form 8-K filed with the SEC on April 1, 2014.
- The description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on May 8, 2014 and including all amendments and reports filed for the purpose of updating such description.

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 or telephoning us using the following contact information: 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.

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: 100F Street N.E., Washington, DC 20549. You can request copies of these documents by writing to the Public Reference Section of the SEC, 100F 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.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth an estimate of the expenses we expect to incur and pay in connection with the issuance and distribution of the securities being registered:

	 mount
Securities and Exchange Commission registration fee	\$ 5,810
Legal fees and expenses	5,000
Accounting fees and expenses	5,000
Printing and miscellaneous	
Total	\$ 15,810

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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

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

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

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

Our charter also provides that:

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

The indemnification provisions contained in our Restated Certificate of Incorporation and Amended and Restated Bylaws are not exclusive of any other rights to which a person may be entitled by law, agreement, vote of stockholders or disinterested directors or otherwise.

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

ITEM 16. EXHIBITS.

The following exhibits, required by Item 601 of Regulation S-K, are filed as a part of this registration statement. Exhibit numbers, where applicable, in the left column correspond to those of Item 601 of Regulation S-K.

Exhibit	
Number	Description of Exhibit
3.1	Amended and Restated Certificate of Incorporation (1)
3.2	Amended and Restated Bylaws (1)
4.1	Specimen Common Stock Certificate of Tecogen Inc. (1)
5.1	Legal Opinion of Sullivan & Worcester LLP (filed herewith)
23.1	Consent of McGladrey LLP (filed herewith)
23.2	Consent of Sullivan & Worcester LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on Signature Page)

(1) Incorporated by reference to the exhibit with the same exhibit number in Amendment No. 3 to the Company's Form S-1 Registration Statement (No. 333-193791) filed with the SEC on June 27, 2014.

ITEM 17. UNDERTAKINGS

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933:
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;
 - (iv) Provided, however, that paragraphs (a)(1)(i), (ii) and (iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.
 - (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
 - (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Waltham, Commonwealth of Massachusetts on October 28, 2014.

TECOGEN INC.

By: /s/ David A. Garrison David A. Garrison Chief Financial Officer

POWER OF ATTORNEY

The undersigned officers and directors of the Company hereby constitute and appoint John N. Hatsopoulos and David Garrison, and each of them singly, with full power of substitution, our true and lawful attorneys-in-fact and agents to take any actions to enable the Company to comply with the Securities Act of 1933, and any rules, regulations and requirements of the Securities and Exchange Commission, in connection with this registration statement, including the power and authority to sign for us in our names in the capacities indicated below any and all amendments to this registration statement and any other registration statement filed pursuant to the provisions of Rule 462 under the Securities Act of 1933.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ John N. Hatsopoulos John N. Hatsopoulos	Director, President and Chief Executive Officer (Principal Executive Officer)	October 28, 2014
/s/ David A. Garrison David A. Garrison	Treasurer, Secretary and Chief Financial Officer (Principal Financial and Accounting Officer)	October 28, 2014
/s/ Angelina Galiteva Angelina Galiteva	Chairman of the Board	October 28, 2014
/s/ Ahmed F. Ghoniem Ahmed F. Ghoniem	Director	October 28, 2014
/s/ Joseph Aoun Joseph Aoun	Director	October 28, 2014
/s/ Charles Maxwell Charles Maxwell	Director	October 28, 2014
/s/ Earl Lewis Earl Lewis	Director	October 28, 2014
	15	

EXHIBIT INDEX

Exhibit	
Number	Description of Exhibit
3.1	Amended and Restated Certificate of Incorporation (1)
3.2	Amended and Restated Bylaws (1)
4.1	Specimen Common Stock Certificate of Tecogen Inc. (1)
5.1	Legal Opinion of Sullivan & Worcester LLP (filed herewith)
23.1	Consent of McGladrey LLP (filed herewith)
23.2	Consent of Sullivan & Worcester LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on Signature Page)

⁽¹⁾ Incorporated by reference to the exhibit with the same exhibit number in Amendment No. 3 to the Company's Form S-1 Registration Statement (No. 333-193791) filed with the SEC on June 27, 2014.

Sullivan & Worcester LLP One Post Office Square Boston, MA 02109

October 28, 2014

Tecogen Inc. 45 First Avenue Waltham, Massachusetts 02451

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

This opinion is furnished to you in connection with a Registration Statement on Form S-3 (the "Registration Statement"), filed by Tecogen Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") for the purpose of registering with the Commission under the Securities Act of 1933, as amended (the "Securities Act"), shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), and warrants to purchase Common Stock (the "Warrants" and together with the Common Stock, the "Securities"), all of which may be issued from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act for an aggregate initial offering price not to exceed the amount specified in the Registration Statement. As set forth in the final prospectus that forms a part of the Registration Statement (the "Prospectus") and as to be set forth in one or more final supplements to the Prospectus (the "Prospectus Supplement"), the Securities may be offered separately or in combination with other Securities and the Warrants will be issued pursuant to warrant agreements between the Company and bank or trust companies as warrant agents or pursuant to warrant agreements with the purchasers of the Warrants.

We are acting as counsel for the Company in connection with the proposed issue and sale by the Company of the Securities. We have examined and relied upon the Registration Statement and the Prospectus, in the form being filed with the Commission, the minutes of meetings of the Board of Directors of the Company as provided to us by the Company, the amended and restated Certificate of Incorporation and By-Laws of the Company, originals or copies of such records, agreements and instruments of the Company, certificates of public officials and of officers of the Company and such other documents and records, and such matters of law, as we have deemed appropriate as a basis for the opinions expressed herein. In rendering such opinions, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all documents submitted to us as originals and the conformity to the authentic original documents of all documents submitted to us as copies. As to any facts material to the opinions expressed herein, we have relied without independent verification upon certificates of public officials, upon statements of officers or other representatives of the Company and statements of fact contained in documents we have examined.

We express no opinion herein as to the laws of any jurisdiction other than the laws of The Commonwealth of Massachusetts, the laws of the State of New York, the corporate laws of the State of Delaware and the federal laws of the United States of America, and we express no opinion as to state securities or blue sky laws.

Our opinions set forth below with respect to the validity or binding effect of any security or obligation may be limited by (i) bankruptcy, insolvency, reorganization, fraudulent conveyance, marshaling, moratorium or other similar laws affecting the enforcement generally of the rights and remedies of creditors and secured parties or the obligations of debtors, and (ii) general principles of equity (whether considered in a proceeding in equity or at law), including but not limited to principles limiting the availability of specific performance or injunctive relief, and concepts of materiality, reasonableness, good faith and fair dealing.

Based upon and subject to the foregoing, we are of the opinion that:

1. With respect to the Common Stock, when (i) specifically authorized for issuance and sale by final resolutions adopted by the Company's Board of Directors or an authorized committee thereof as contemplated in the Registration Statement, Prospectus and applicable Prospectus Supplement, which have not been modified or rescinded (the "Authorizing Resolutions"), (ii) the Registration Statement has become effective under the Securities Act and an appropriate Prospectus Supplement has been filed with the Commission describing the Securities offered thereby, (iii) the terms of the sale of the Common Stock have been duly established in conformity with the Company's Certificate of Incorporation and By-laws, each

as restated and/or amended to date, and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding on the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (iv) the Common Stock has been issued and sold as contemplated by the Registration Statement, the Prospectus and the applicable Prospectus Supplement and (v) the Company has received the consideration provided for in the Authorizing Resolutions and such consideration per share is not less than the par value per share of the Common Stock, the Common Stock will be validly issued, fully paid and non-assessable.

2. With respect to the Warrants, when (i) specifically authorized for issuance by the Authorizing Resolutions, (ii) the Registration Statement has become effective under the Securities Act and an appropriate Prospectus Supplement has been filed with the Commission describing the Securities offered thereby, (iii) the warrant agreement or agreements relating to the Warrants have been duly authorized, executed and delivered, (iv) the terms of the Warrants and of their issuance and sale have been duly established in conformity with the warrant agreement or agreements and do not violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company and comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company, (v) the Warrants have been duly executed and countersigned in accordance with the warrant agreement or agreements and issued and sold as contemplated by the Registration Statement, the Prospectus and the applicable Prospectus Supplement and (vi) the Company has received the consideration provided for in the Authorizing Resolutions, the Warrants will constitute valid and legally binding obligations of the Company.

The opinions set forth herein are rendered as of the date hereof, and we assume no obligation to update such opinions to reflect any facts or circumstances which may hereafter come to our attention or any changes in the law which may hereafter occur (which may have retroactive effect).

This opinion is rendered to you in connection with the filing of the Registration Statement. This opinion may not be relied upon for any other purpose, or furnished to, quoted or relied upon by any other person, firm or corporation for any purpose, without our prior written consent, except that (A) this opinion may be furnished or quoted to judicial or regulatory authorities having jurisdiction over you, and (B) this opinion may be relied upon by purchasers and holders of the Securities currently entitled to rely on it pursuant to applicable provisions of federal securities law.

We hereby consent to the filing of this opinion letter as Exhibit 5.1 to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Prospectus. In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or under the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ Sullivan & Worcester LLP

Sullivan & Worcester LLP Boston, Massachusetts

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of Tecogen Inc. of our report dated March 31, 2014, relating to our audits of the consolidated financial statements, included in the Annual Report on Form 10-K of Tecogen Inc. for the years ended December 31, 2013 and 2012. We also consent to the reference to our firm under the caption "Experts" in such prospectus.

McGladrey LLP

Boston, Massachusetts October 28, 2014