TECOGEN INC. Form S-4/A April 11, 2017 Table of Contents

As filed with the Securities and Exchange Commission on April 10, 2017 Registration No. 333-215231

U.S. SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Amendment No. 3 to

Form S-4

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Tecogen Inc.

(Exact name of registrant as specified in its charter)

Delaware 3585 04-3536131

(State or other jurisdiction of (Primary Standard Industrial

incorporation or organization) Classification Code Number) (I.R.S. Employer Identification No.)

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)

John N. Hatsopoulos

Co-Chief Executive Officer

Tecogen Inc.

45 First Avenue

Waltham, MA 02451

(781) 466-6400

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of communications to:

David A. White Neil H. Aronson Edwin L. Miller Jr. White White & Van Etten PC Gennari Aronson, LLP Sullivan & Worcester LLP 45 School Street 300 First Avenue, Suite 102 One Post Office Square Boston, MA 02108 Needham, MA 02494 Boston, MA 02109 Tel: 617.350.9281 Tel: 781.719.9803 Tel: 617.338.2800 Fax: 617.225.0205 Fax: 781.719.9853

Fax: 617.338.2880 Email: daw@wwvlaw.com Email: naronson@galawpartners.com

Email: emiller@sandw.com

Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective and all other conditions to the transactions contemplated by the Agreement and Plan of Merger described in the included proxy statement/prospectus have been satisfied or waived.

If the securities being registered on this form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box.

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting

company. Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company If applicable, place an x in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third Party Tender Offer)

Title of each class

of Amount to Proposed maximum offering Proposed maximum aggregate Amount of securities to be be registered price per unit⁽¹⁾ price per unit⁽¹⁾ offering price⁽²⁾ registration fee⁽³⁾

Common Stock $\frac{5,098,950}{\text{shares}}$ Not applicable \$20,880,200 \$2,420.02

⁽¹⁾ Represents the estimated maximum number of shares of common stock of the registrant issuable to holders of common stock, options to purchase common stock, and warrants to purchase common stock of American DG Energy Inc. pursuant to the Merger Agreement described herein and assumes no adjustment to the exchange ratio described in the Merger Agreement. Pursuant to Rule 416, this registration statement also covers an indeterminate number of shares of common stock as may become issuable as a result of stock splits, stock dividends or similar transactions.

(2) Estimated solely for the purposes of calculating the registration fee pursuant to Rule 457(f) of the Securities Act of 1933. The proposed maximum aggregate offering price calculated pursuant to Rule 457(f) of the Securities Act represents the product of (a) the sum of (i) 50,684,095 issued and outstanding shares of American DG Energy Inc. ("ADGE") common stock as of March 21, 2017, (ii) an aggregate of 1,797,000 shares issuable in respect of outstanding ADGE stock options to purchase common stock; and (iii) an aggregate of 2,942,270 shares issuable upon exercise of outstanding ADGE common stock purchase warrants, and (b) 0.092 (which is the exchange ratio) and (c) \$4.095 (which is the average of the high and low trading prices for shares of the registrant's common stock, as reported on the Nasdaq Capital Market on December 19, 2016).

⁽³⁾ The registrant previously paid \$2,325.16 of the filing fee.

Table of Contents

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

Table of Contents

EXPLANATORY NOTE

Tecogen, Inc. is filing this Amendment No. 3 (this "Amendment") to its registration statement on Form S-4 Registration No. 333-215231 (the "Registration Statement") as an exhibit-only filing to file Exhibits 8.1, 99.1, and 99.2 to the Registration Statement. Accordingly, this Amendment consists of only the cover page, this explanatory note, Part II of the Registration Statement, the signature page to the Registration Statement and the filed exhibits. The joint proxy statement/prospectus contained in the Registration Statement is unchanged and has been omitted.

Part II

Information Not Required by Prospectus

Item 21. Exhibits and Financial Statement Schedules.

- (a) Exhibits. Reference is made to the Exhibit List filed as part of this registration statement.
- (b) Financial Statement Schedules. All schedules have been omitted because they are not applicable or because the required information is shown in the financial statements or notes thereto.
- (c) Reports, Opinions, Appraisals. The opinions of Scarsdale Equities and of Cassel Salpeter & Co LLC are furnished as part of the joint proxy statement/prospectus.

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-4 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 April 10, 2017.

TECOGEN INC.

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

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities on April 10, 2017.

Signature Title

* Director and Co-Chief Executive Officer

John N. Hatsopoulos (Principal Executive Officer)

* Co-Chief Executive Officer
Benjamin M. Locke (Principal Executive Officer)

* Treasurer, Secretary and Chief Financial Officer

David A. Garrison (Principal Financial and Accounting Officer)

* Chairman of the Board

Angelina Galiteva

* Director

Keith Davidson

* Director

Ahmed F. Ghoniem

* Director

Charles Maxwell

^{*} Signed by David A. Garrison, attorney-in-fact.

EXHIBIT LIST

Description of Document Agreement and Plan of Merger, dated as of November 1, 2016, by and among registrant, American DG Energy Inc. and Tecogen.ADGE Acquisition Corp.# (included as Annex A to the joint proxy statement/prospectus included in this registration statement) Amendment 1 to the Agreement and Plan of Merger, dated as of March 23, 2017, by and among registrant, American DG Energy Inc. and Tecogen.ADGE Acquisition Corp.# (included as Annex A to the joint proxy statement/prospectus included in this registration statement) Amended and Restated Certificate of Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Amended and Restated Bylaws of registrant (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Specimen Common Stock Certificate of registrant. (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on Dune 27, 2014). Form of Restricted Stock Purchase Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 18, 2016). Validity Opinion of Sullivan & Worcester LLP. Registrant's Opinion of Sullivan & Worcester LLP. Agreement by the SEC on June 27, 2014, Second Amendment to Lease Agreement of Statement on Form S-1, as amended, filed with the SEC on June 27,	Exhibit	LIS1
Agreement and Plan of Merger, dated as of November 1, 2016, by and among registrant, American DG Energy Inc. and Tecogen.ADGE Acquisition Corp.# (included as Annex A to the joint proxy statement/prospectus included in this registration statement) 2.2 registrant, American DG Energy Inc. and Tecogen.ADGE Acquisition Corp.# (included as Annex A to the joint proxy statement/prospectus included in this registration Statement) 3.1 Amended and Restated Certificate of Incorporation (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on June 27, 2014). 3.2 statement on Form S-1, as amended, filed with the SEC on June 27, 2014). 4.3 Specimen Common Stock Certificate of registrant (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). 4.2 Form of Restricted Stock Purchase Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on December 22, 2011). 4.3 Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). 4.4 Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration of Form S-1, as amended, filed with the SEC on December 22, 2011). 4.5 Warrant to Subscribe for Shares between Ultra Emissions Technology, Lid and registrant (Incorporated by reference to the registrant's Current Report on Form 10-K, filed with the SEC on March 30, 2016). 4.6 Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 10-K, filed with the SEC on March 30, 2016). 4.7 Validity Opinion of Sullivan & Worcester LLP 4.8 Popinion of Sullivan & Worcester LLP 4.9 Opinion of Sullivan & Worcester LLP 4.0 Opinion of Sullivan & Worcester LLP 4.1 Popinion of Sullivan & Worcester ILP 4.2 Registrant's 2006 Stock Incentive Pla		Description of Document
Amendment I to the Agreement and Plan of Merger, dated as of March 23, 2017, by and among registrant, American DG Energy Inc. and Tecogen.ADGE Acquisition Corp.# (included as Annex A to the joint proxy statement/prospectus included in this registration statement) Amended and Restated Certificate of Incorporation (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Amended and Restated Bylaws of registrant (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Specimen Common Stock Certificate of registrant (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Restricted Stock Purchase Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, Incorporated by reference to the registrant's Nanual Report on Form 10-K filed with the SEC on March 30, 2016). Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed wit		Energy Inc. and Tecogen.ADGE Acquisition Corp.# (included as Annex A to the joint proxy
Registration Statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Amended and Restated Bylaws of registrant (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Specimen Common Stock Certificate of registrant. (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Porm of Restricted Stock Durchase Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Warrant Agreement (Incorporated by reference to the registrant's Annual Report on Form 10-K filed with the SEC on March 30, 2016). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated Anuary 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-	2.2	Amendment 1 to the Agreement and Plan of Merger, dated as of March 23, 2017, by and among registrant, American DG Energy Inc. and Tecogen. ADGE Acquisition Corp.# (included as Annex A to
statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Specimen Common Stock Certificate of registrant. (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Restricted Stock Purchase Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Warrant Agreement (Incorporated by reference to the registrant's Annual Report on Form 10-K filed with the SEC on March 30, 2016). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014, Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on June 27, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Re	3.1	
Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Restricted Stock Purchase Agreement (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Warrant Agreement (Incorporated by reference to the registrant's Annual Report on Form 10-K filed with the SEC on March 30, 2016). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Registrant (Intratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP Opinion of Sullivan & Worcester LLP Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's	3.2	
Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Form of Stock Option Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Warrant Agreement (Incorporated by reference to the registrant's Annual Report on Form 10-K filed with the SEC on March 30, 2016). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP. Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant, and the Wisconsin Alumni R	4.1	Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).
Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Warrant Agreement (Incorporated by reference to the registrant's Annual Report on Form 10-K filed with the SEC on March 30, 2016). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP. Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amende	4.2	Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011).
filed with the SEC on March 30, 2016). Warrant to Subscribe for Shares between Ultra Emissions Technology, Ltd and registrant (Incorporated by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP. Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between tegistrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by referenc	4.3	Form S-1, as amended, filed with the SEC on June 27, 2014).
by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016). Registrant Ultratek Warrant signed August 2, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP Opinion of Sullivan & Worcester LLP Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporat	4.4	filed with the SEC on March 30, 2016).
Report on Form 8-K originally filed with the SEC on August 8, 2016). Validity Opinion of Sullivan & Worcester LLP 8.1* Opinion of Sullivan & Worcester LLP. Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	4.5	by reference to the registrant's Annual Report on Form 10-K, filed with the SEC on March 30, 2016).
 8.1* Opinion of Sullivan & Worcester LLP. Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). 		Report on Form 8-K originally filed with the SEC on August 8, 2016).
Registrant's 2006 Stock Incentive Plan, as amended and restated on June 30, 2014 with stockholder approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).		· · ·
approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014). Form of registrant Subscription Agreement for private placement of Common Stock (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	8.1*	•
reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011). Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated May 14, 2008 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	10.1	approval on July 15, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014).
10.7 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	10.2	reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the
Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	10.7	(Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with
Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Asset Purchase Agreement as of January 8, 2013 between registrant and Danotek, LLC (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant, and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	10.8	Second Amendment to Lease Agreement between Atlantic-Waltham Investment II, LLC, and registrant, dated January 16, 2013 (Incorporated by reference to the registrant's Registration statement on Form S-1,
reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	10.11	Form of Sales Representative Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).
Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014). Form of Common Stock Purchase Agreement (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	10.12#	reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June
statement on Form S-1, as amended, filed with the SEC on June 27, 2014).	10.13#	Exclusive License Agreement between registrant. and the Wisconsin Alumni Research Foundation, dated February 5, 2007 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).
	10.20	
	10.21	

Senior Convertible Promissory Note, dated December 23, 2013, by registrant in favor of Michaelson Capital Special Finance Fund LP (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).

Revolving Line of Credit Agreement between registrant and John N. Hatsopoulos, dated March 26, 2014 (Incorporated by reference to the registrant's Registration statement on Form S-1, as amended, filed with the SEC on June 27, 2014).

Exhibit	
Number	Description of Document
10.24	Facilities and Support Services Agreement between American DG Energy Inc. and registrant, dated August 8, 2014 (Incorporated by reference to the registrant's Quarterly Report on Form 10-Q, for the quarter ended June 30, 2014 as filed with the SEC on August 14, 2014).
10.26	Non-Revolving Line of Credit Agreement between registrant and John N. Hatsopoulos, dated July 1, 2015 (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on June 18, 2015).
10.28	Form of Common Stock Purchase Agreement dated August 3, 2015 (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on August 6, 2015).
10.29	Shelf Registration Rights Agreement dated August 3, 2015 (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on August 6, 2015).
10.30	First Amendment to the Facilities and Support Services Agreement between American DG Energy Inc. and registrant, dated August 7, 2015 (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on August 13, 2015).
10.31	Joint Venture Shareholder Agreement, dated December 28, 2015 between registrant and Ultra Emissions Technologies Limited (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on December 31, 2015).
10.32	License between registrant and Ultra Emissions Technologies Ltd., dated December 28, 2015 (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on December 31, 2015).
10.33	Form of subscription agreement between registrant and the several investors purchasing shares of registrant common stock and warrants, dated December 28, 2015 (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on December 31, 2015).
10.34	Form of warrants issued pursuant to the subscription agreements described in Exhibit 10.33 hereto (Incorporated by reference to the registrant's Current Report on Form 8-K, as filed with the SEC on December 31, 2015).
10.35	Form of Share Exchange Agreement dated April 11, 2016 and April 13, 2016 between registrant and certain shareholders of Ilios (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on April 15, 2016).
10.36	Amendment No. 1 to the Senior Convertible Promissory Note effective April 1, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on April 15, 2016). Joint Venture Agreement dated May 19, 2016 among registrant, Tedom a.s. and Tedom USA, Inc
10.37	(Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on May 24, 2016).
10.38	TTcogen LLC Operating Agreement dated as of May 19, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on May 24, 2016).
10.39	First Amendment to Warrant Agreement dated June 27, 2016 (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on June 30, 2016).
10.40+	Employment Agreement dated December 1, 2016 between registrant and David A. Garrison (Incorporated by reference to the registrant's Current Report on Form 8-K originally filed with the SEC on December 2, 2016).
21.1	List of Subsidiaries (Incorporated by reference to the registrant's Annual Report on Form 10-K originally filed with the SEC on March 22, 2017).
23.1*	Consent of Sullivan & Worcester LLP (included as part of the opinion filed as Exhibit 5.1 hereto)
23.2*	Consent of Wolf & Company, P.C. related to registrant.
23.3*	Consent of Wolf & Company, P.C. related to American DG Energy Inc.
23.4* 23.5*	Consent of Scarsdale Equities LLC. Consent of Cassel Salpeter & Co., LLC.
23.3	Conson of Cussel Surpeter & Co., LLC.

- 24.1 Power of Attorney (set forth on the registrant's Form S-4 filed on December 21, 2016).
- 99.1* Form of Proxy of registrant.
- 99.2* Form of Proxy of American DG Energy Inc.
- * Filed herewith.
- ** To be filed by amendment.
- *** Previously filed.
- + Management contract or compensatory plan or agreement.
- # Schedules and exhibits have been omitted from this exhibit pursuant to Item 601(b)(2) of Regulation S-K and are not filed herewith. The registrant hereby agrees to furnish a copy of any omitted schedule or exhibits to the U.S. Securities and Exchange Commission upon request.