

TECOGEN INC.
Form S-4
December 21, 2016
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As filed with the Securities and Exchange Commission on December 21, 2016
Registration No. 333-

U.S. SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

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:

| | | |
|--------------------------|----------------------------|-----------------------------------|
| Edwin L. Miller Jr. | David A. White | Neil H. Aronson |
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Approximate date of commencement of proposed sale to the public: As soon as practicable after this registration statement becomes effective.

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)

CALCULATION OF REGISTRATION FEE

| Title of each class of securities to be registered | Amount to be registered ⁽¹⁾ | Proposed maximum offering price per unit ⁽¹⁾ | Proposed maximum aggregate offering price ⁽²⁾ | Amount of registration fee |
|--|--|---|--|----------------------------|
| Common Stock | 4,662,937 shares | Not applicable | \$20,061,818 | \$2,325.16 |

⁽¹⁾ Represents the estimated maximum number of shares of common stock of the registrant issuable to holders of 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.

⁽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) 50,684,095 shares of American DG Energy Inc. common stock (includes the number of outstanding shares as of December 19, 2016 plus shares issuable in respect of outstanding stock awards being assumed multiplied by (b) 0.092 (which is the exchange ratio) multiplied by (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).

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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.

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The information in this preliminary joint proxy statement/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 preliminary joint proxy statement/prospectus is not an offer to sell these securities nor should it be considered a solicitation of an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. Subject to completion, dated [*]

JOINT PROXY STATEMENT/PROSPECTUS

To: The Stockholders of Tecogen Inc. and American DG Energy Inc.

Tecogen Inc, or Tecogen, American DG Energy Inc., or ADGE, and Tecogen.ADGE Acquisition Corp Inc., a Delaware corporation and a wholly-owned subsidiary of Tecogen formed for the purpose of effecting the merger described herein, or Merger Sub, have entered into a Merger Agreement dated November 1, 2016, or the Merger Agreement, pursuant to which Merger Sub will merge with and into ADGE, or the Merger. Following the Merger, ADGE will be the surviving entity in its Merger with Merger Sub and will become a wholly-owned subsidiary of Tecogen. The Tecogen Board of Directors and the ADGE Board of Directors have unanimously approved the Merger Agreement and the transactions contemplated by the Merger Agreement. A copy of the Merger Agreement is attached as Annex A to this joint proxy statement/prospectus.

This document is a prospectus relating to the proposed issuance by Tecogen of shares of its common stock to ADGE stockholders pursuant to the Merger Agreement. If the Merger is completed, each share of ADGE common stock issued and outstanding immediately prior to the merger effective time will be exchanged for the right to receive 0.092 of a share, or the Exchange Ratio, of Tecogen common stock. The Exchange Ratio is fixed and will not be adjusted to reflect stock price changes prior to the closing of the Merger. No fractional shares will be issued in the Merger, and cash will be paid in lieu thereof. Tecogen common stock is listed and traded on the Nasdaq Capital Market under the ticker symbol "TGEN" and ADGE common stock is listed and traded on the NYSE MKT under the ticker symbol "ADGE." Based on the closing price of Tecogen common stock on the Nasdaq Capital Market on November 1, 2016 of \$4.03, the last trading day before public announcement of the Merger, the Exchange Ratio represented approximately \$0.37 in Tecogen common stock for each share of ADGE common stock. Tecogen stockholders will continue to own their existing Tecogen shares of common stock following the consummation of the Merger. Based on the closing price of Tecogen common stock on the Nasdaq Capital Market of \$3.84 on December 19, 2016, the last practicable date before the date of this joint proxy statement/prospectus, the exchange represented approximately \$0.35 in Tecogen common stock for each share of ADGE common stock.

Based on the number of shares of ADGE common stock outstanding on the record date for the stockholder meetings related to the Merger, Tecogen expects to issue approximately 4,662,937 shares of Tecogen common stock to ADGE stockholders in the Merger, and expects to reserve approximately 236,164 additional shares of Tecogen common stock for issuance in connection with equity awards and other arrangements that Tecogen will assume in connection with the Merger. Upon completion of the Merger, Tecogen estimates that current Tecogen stockholders will own approximately 81% of the combined company and former ADGE stockholders will own approximately 19% of the combined company.

This document is also a joint proxy statement of Tecogen and ADGE for soliciting proxies for their respective special meetings of stockholders. At Tecogen's special meeting, Tecogen common stockholders will be asked to consider and vote on a proposal to approve the issuance of Tecogen common stock pursuant to the Merger and the other transactions contemplated by the Merger Agreement, or the Tecogen Merger Approval Proposal.

At ADGE's special meeting, ADGE common stockholders will be asked to consider and vote on a proposal to approve the Merger and the other transactions contemplated by the Merger Agreement, or the ADGE Merger Approval Proposal.

The Tecogen special meeting of stockholders will be held on [*], at [*], local time, at Tecogen's principal executive offices at 45 First Avenue, Waltham, MA 02451.

The Tecogen Board of Directors unanimously recommends that Tecogen stockholders vote "FOR" the Tecogen Merger Approval Proposal.

The ADGE special meeting of stockholders will be held on [*], at [*], local time, at ADGE's principal executive offices at 45 First Avenue, Waltham, MA 02451.

The ADGE Board of Directors unanimously recommends that ADGE common stockholders vote "FOR" the ADGE Merger Approval Proposal.

This joint proxy statement/prospectus contains important information about Tecogen, ADGE, the Merger and the matters to be voted upon by Tecogen stockholders and ADGE stockholders as part of the special meetings. We encourage you to read this joint proxy statement/prospectus carefully before voting, including the section entitled "Risk Factors" beginning on page 31.

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YOUR VOTE IS IMPORTANT. Whether or not you plan to attend Tecogen's special meeting or ADGE's special meeting, as applicable, please authorize a proxy to vote your shares as promptly as possible. To authorize a proxy, please complete, sign, date and mail your proxy in the pre-addressed postage-paid envelope provided or authorize your proxy by one of the other methods specified in this joint proxy statement/prospectus or the accompanying notices. If your shares of common stock are held in "street name" by your broker or other nominee, only your broker or other nominee can vote your shares and the vote cannot be cast unless you provide instructions to your broker or other nominee on how to vote or you obtain a legal proxy from your broker or other nominee. You should follow the directions provided by your broker or other nominee regarding how to instruct your broker or other nominee to vote your shares. You may revoke your proxy at any time before it is voted. Please review this joint proxy statement/prospectus for more complete information regarding the merger and the special meetings.

We look forward to the successful combination of Tecogen and ADGE.

Sincerely,

Sincerely,

John N. Hatsopoulos

Benjamin Locke

Co-Chief Executive Officer Co-Chief Executive Officer

American DG Energy Inc. Tecogen Inc.

Neither the Securities and Exchange Commission nor any state securities regulatory authority has approved or disapproved of the merger or the securities to be issued under this joint proxy statement/prospectus or has passed upon the adequacy or accuracy of the disclosure in this joint proxy statement/prospectus. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated [*], and is first being mailed to the Tecogen and ADGE common stockholders on or about [*].

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TECOGEN INC.
45 First Avenue
Waltham, Massachusetts 02451
(781) 466-6400

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
TO BE HELD ON [*]

To the Stockholders of Tecogen Inc.:

We are pleased to invite you to attend a special meeting of the stockholders of Tecogen Inc., or Tecogen, a Delaware corporation, which will be held at our corporate headquarters at 45 First Avenue, Waltham, Massachusetts on [*], commencing at [*] a.m., local time, to consider and vote upon a proposal, or the Tecogen Merger Approval Proposal, to approve the merger of American DG Energy Inc. with and into a wholly-owned subsidiary of Tecogen, or the Merger, pursuant to the Agreement and Plan of Merger dated as of November 1, 2016, or the Merger Agreement. This joint proxy statement/prospectus contains important information about the matters to be voted upon at the Tecogen special meeting. We encourage you to read this joint proxy statement/prospectus carefully before voting, including the section entitled “Risk Factors” beginning on page 31.

The Tecogen Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (ii) determined and declared that the Merger and the other transactions contemplated by the Merger are advisable, fair to and in the best interest of Tecogen, and (iii) directed that the Tecogen Merger Approval Proposal be submitted for consideration at the Tecogen special meeting. The Tecogen Board of Directors unanimously recommends that the Tecogen stockholders vote “FOR” the Tecogen Merger Approval Proposal. The Merger cannot be completed without the approval by the Tecogen stockholders of the Tecogen Merger Approval Proposal.

The Tecogen Board of Directors has fixed the close of business on [*], as the record date for determination of Tecogen common stockholders entitled to receive notice of, and to vote at, Tecogen’s special meeting and any postponements or adjournments of the special meeting.

The Tecogen Merger Approval Proposal requires the affirmative vote of the holders of a majority of the votes cast.

YOUR VOTE IS IMPORTANT

Whether or not you plan to attend the special meeting, please authorize a proxy to vote your shares as promptly as possible. To authorize a proxy, complete, sign, date and mail your proxy card in the pre-addressed postage-paid envelope provided or, if the option is available to you, call the toll free telephone number listed on your proxy card or use the Internet as described in the instructions on the enclosed proxy card to authorize your proxy. Authorizing a proxy will assure that your vote is counted at the special meeting if you do not attend in person. If your shares of Tecogen common stock are held in “street name” by your broker or other nominee, only your broker or other nominee can vote your shares of Tecogen common stock and the vote cannot be cast unless you provide instructions to your broker or other nominee on how to vote or obtain a legal proxy from your broker or other nominee. You should follow the directions provided by your broker or other nominee regarding how to instruct your broker or other nominee to vote your shares of Tecogen common stock. You may revoke your proxy at any time before it is voted. Please review the joint proxy statement/prospectus accompanying this notice for more complete information regarding the Merger and Tecogen’s special meeting.

By Order of the Board of Directors,

Benjamin Locke
Co-Chief Executive Officer

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AMERICAN DG ENERGY INC.

45 First Avenue
Waltham, Massachusetts 02451
(781) 522-6000

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON [*]

To the Stockholders of American DG Energy Inc.:

We are pleased to invite you to attend a special meeting of the stockholders of American DG Energy Inc., or ADGE, a Delaware corporation, which will be held at , on [*], commencing at [*] a.m., local time, to consider and vote upon a proposal, or the ADGE Merger Approval Proposal, to approve the merger of ADGE with and into ADGE.Tecogen Merger Sub Inc., a Delaware corporation formed for the purpose of effecting the merger and a wholly-owned subsidiary of Tecogen Inc., a Delaware corporation, or the Merger, with ADGE continuing as the surviving entity, pursuant to the Agreement and Plan of Merger dated as of November 1, 2016, or the Merger Agreement, by and among ADGE, Tecogen Inc and ADGE.Tecogen Merger Sub Inc., or the ADGE Merger Approval Proposal, and the other transactions contemplated by the Merger Agreement.

This joint proxy statement/prospectus contains important information about the matters to be voted upon at the ADGE special meeting. We encourage you to read this joint proxy statement/prospectus carefully before voting, including the section entitled “Risk Factors” beginning on page 31.

The ADGE Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (ii) determined and declared that the Merger and the other transactions contemplated by the Merger are advisable, fair to and in the best interest of ADGE, and (iii) directed that the foregoing proposals be submitted for consideration at the ADGE special meeting. The ADGE Board of Directors unanimously recommends that the ADGE stockholders vote “FOR” the ADGE Merger Approval Proposal. The Merger cannot be completed without the approval by ADGE stockholders of the ADGE Merger Approval Proposal.

The ADGE Board of Directors has fixed the close of business on [*] as the record date for the determination of ADGE common stockholders entitled to receive notice of, and to vote at, ADGE’s special meeting and any postponements or adjournments of the special meeting.

The ADGE Merger Approval Proposal requires the affirmative vote of the holders of a majority of the votes entitled to be cast.

YOUR VOTE IS IMPORTANT

Whether or not you plan to attend the special meeting, please authorize a proxy to vote your shares as promptly as possible. To authorize a proxy, complete, sign, date and mail your proxy card in the pre-addressed postage-paid envelope provided or, if the option is available to you, call the toll free telephone number listed on your proxy card or use the Internet as described in the instructions on the enclosed proxy card to authorize your proxy. If your shares of ADGE common stock are held in “street name” by your broker or other nominee, only your broker or other nominee can vote your shares of ADGE common stock and the vote cannot be cast unless you provide instructions to your broker or other nominee on how to vote or obtain a legal proxy from your broker or other nominee. You should follow the directions provided by your broker or other nominee regarding how to instruct your broker or other nominee to vote your shares of ADGE common stock. You may revoke your proxy at any time before it is voted. Please review the joint proxy statement/prospectus accompanying this notice for more complete information regarding the Merger and ADGE’s special meeting.

By Order of the Board of Directors

John N. Hatsopoulos
Co-Chief Executive Officer

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ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about Tecogen and ADGE from other documents that are not included in or delivered with this joint proxy statement/prospectus. See “Where You Can Find More Information; Incorporation by Reference.” This information is available from the Securities and Exchange Commission’s, or the SEC’s, website at www.sec.gov. You can also obtain the documents incorporated by reference into this joint proxy statement/prospectus, without charge, by requesting them in writing or by telephone from the appropriate company at the following addresses and telephone numbers:

Tecogen common stockholders: ADGE common stockholders:

| | |
|--|--|
| Tecogen Inc. | American DG Energy Inc. |
| Attention: Investor Relations | Attention: Investor Relations |
| 45 First Avenue | 45 First Avenue |
| Waltham, MA 02451 | Waltham, MA 02451 |
| (781) 466-6413 | (781) 522-6000 |
| www.tecogen.com | www.americandg.com |

Information included on the companies’ respective websites is not incorporated by reference into this joint proxy statement/prospectus except where specific content is expressly set forth herein.

To receive timely delivery of the requested documents in advance of the applicable special meeting, please make your request no later than , 2017.

ABOUT THIS JOINT PROXY STATEMENT/PROSPECTUS

This joint proxy statement/prospectus, which forms part of a registration statement on Form S-4 (Registration No. 333-) filed with the SEC by Tecogen, constitutes a prospectus of Tecogen under the Securities Act of 1933, as amended, or the Securities Act, with respect to the shares of Tecogen common stock to be issued to ADGE stockholders pursuant to the Merger Agreement. This joint proxy statement/prospectus also constitutes a proxy statement under the Securities Exchange Act of 1934, as amended, or the Exchange Act, with respect to the Tecogen special meeting and the ADGE special meeting. It also constitutes a notice of meeting with respect to each of the Tecogen and the ADGE special meetings.

You should rely only on the information contained or incorporated by reference into this joint proxy statement/prospectus. No one has been authorized to provide you with information that is different from that contained in, or incorporated by reference into, this joint proxy statement/prospectus. This joint proxy statement/prospectus is dated [*]. You should not assume that the information contained in, or incorporated by reference into, this joint proxy statement/prospectus is accurate as of any date other than the date of this document. Neither our mailing of this joint proxy statement/prospectus to Tecogen stockholders or ADGE stockholders nor the issuance by Tecogen of common stock in connection with the Merger will create any implication to the contrary.

This joint proxy statement/prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction in which or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction. Information contained in this joint proxy statement/prospectus regarding Tecogen has been provided by Tecogen, and information contained in this joint proxy statement/prospectus regarding ADGE has been provided by ADGE.

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QUESTIONS AND ANSWERS

The following are some questions that you may have regarding the proposals being considered at Tecogen and the ADGE special meetings and brief answers to those questions. You should carefully read this entire joint proxy statement/prospectus, including the Annexes and the other documents to which this joint proxy statement/prospectus refers or which it incorporates by reference because the information in this section does not provide all the information that might be important to you.

Q: What is the proposed transaction?

A: Tecogen, ADGE and ADGE.Tecogen Merger Sub Inc., or Merger Sub, a wholly-owned subsidiary of Tecogen formed for the purpose of effecting the Merger, have entered into a Merger Agreement dated November 1, 2016, pursuant to which Merger Sub will merge with and into ADGE. Following the Merger, ADGE will be the surviving entity in the Merger and will become a wholly-owned subsidiary of Tecogen. See “The Merger Agreement - Form, Effective Time and Closing.”

Q: Why is Tecogen proposing the Merger?

A: Tecogen believes that the integration of the operations of ADGE, its affiliated company, will enhance the value of the shares of Tecogen common stock held by its stockholders.

Q: Why is ADGE proposing the Merger?

A: ADGE believes that the shares of Tecogen common stock to be received by ADGE stockholders will enhance the value of the equity interest of ADGE stockholders by participation in the growth of Tecogen.

Q: If I am an ADGE stockholder, what will I receive in the proposed transaction?

A: If the Merger is completed, ADGE stockholders will receive 0.092 of a share of Tecogen common stock for each share of ADGE common stock, subject to adjustment as set forth in the Merger Agreement. You will not receive any fractional shares of Tecogen common stock in the Merger. Instead, you will be paid cash (without interest) in lieu of any fractional share interest to which you would otherwise be entitled. See “The Merger Agreement - Consideration to be Received in the Merger.”

Q: What happens if the market price of Tecogen common stock or ADGE common stock changes before the closing of the Merger?

A: No change will be made to the exchange ratio due to a change in the market price of Tecogen common stock or ADGE common stock before the Merger. Because the exchange ratio is fixed, the value of the consideration to be received by ADGE stockholders in the Merger will not depend on the market price of shares of Tecogen common stock at the time of the Merger. See “The Merger Agreement - Consideration to be Received in the Merger Agreement.”

Q: If I am a Tecogen stockholder how will I be affected by the Merger and the issuance of shares of Tecogen common stock to ADGE stockholders in the Merger?

A: After the Merger, each Tecogen stockholder will continue to own the shares of Tecogen common stock that the stockholder held immediately prior to the Merger effective time. As a result, each Tecogen stockholder will own shares of common stock in a larger company with more assets. Because Tecogen will be issuing new shares of Tecogen common stock to ADGE stockholders in the Merger, each outstanding share of Tecogen common stock immediately prior to the Merger effective time will represent a smaller percentage of the aggregate number of shares of the combined company common stock outstanding after the Merger. Upon completion of the Merger, Tecogen estimates that Tecogen stockholders will own approximately 81% of the outstanding Tecogen common stock on a fully diluted basis and former ADGE stockholders will own approximately 19% of Tecogen common stock on a fully diluted basis after giving effect to various assumptions regarding share issuances by Tecogen prior to the Merger effective time. See “Risk Factors - Risks Relating to the Merger.”

Q: Who will be the Board of Directors and management of Tecogen if the Merger is completed?

A: It is not anticipated that the Board of Directors of Tecogen will not change.

Concurrent with the closing, Tecogen’s Chief Financial Officer will be replaced.

Q: Do ADGE stockholders have appraisal rights in connection with the Merger?

A: No. Under the appraisal rights provisions of the Delaware General Corporation Law, or the DGCL, ADGE stockholders are not entitled to exercise the right of objecting stockholders to receive payment of the fair value of their

shares because shares of ADGE common stock are listed on a national securities exchange. See “The Merger - No Appraisal Rights.”

Q: When is the proposed transaction expected to close?

A: The closing of the Merger will take place shortly after both ADGE and Tecogen stockholder meetings have taken place, assuming that the requisite stockholder approvals have been obtained and the other conditions to closing have been satisfied or waived (See “The Merger Agreement - Conditions to Completion of the Merger”) or such other date as agreed to by ADGE and Tecogen in writing. The Merger is expected to close in approximately 90 days on or about March 21, 2017.

Q: Why am I receiving this joint proxy statement/prospectus?

A: To complete the Merger, ADGE stockholders must vote to approve the Merger and the other transactions contemplated by the Merger Agreement, or the ADGE Merger Approval Proposal, and Tecogen stockholders must vote to approve the issuance of the shares of Tecogen common stock to be issued in connection with the Merger, or the Tecogen Merger Approval Proposal.

Tecogen and ADGE will hold separate special meetings to obtain the approval of the foregoing proposals. This joint proxy statement/prospectus contains important information about the Merger and the special meetings, which you should read carefully. The enclosed voting materials allow you to vote your shares without attending your respective meeting.

Your vote is important. Please authorize a proxy to vote your shares as promptly as possible.

Q: When and where is the Tecogen special meeting?

A: The Tecogen special meeting will be held on [*], beginning at [*], local time, at Tecogen’s principal executive offices at 45 First Avenue, Waltham, MA 02451, unless postponed to a later date or dates. See “The Tecogen Special Meeting - Date, Time, Place and Purpose of Tecogen’s Special Meeting.”

Q: When and where is the ADGE special meeting?

A: The ADGE special meeting will be held on [*], beginning at [*], local time, at ADGE’s principal executive offices at 45 First Avenue, Waltham, MA 02451, unless postponed to a later date or dates. See “The ADGE Special Meeting - Date, Time, Place and Purpose of ADGE’s Special Meeting.”

Q: Who can vote at the Tecogen special meeting?

A: All holders of record of Tecogen common stock as of the close of business on [*], the record date for determining Tecogen stockholders entitled to notice of and to vote at the Tecogen special meeting, are entitled to receive notice of and to vote at the Tecogen special meeting.

As of the record date, there were [*] shares of Tecogen common stock issued and outstanding and entitled to vote at the Tecogen special meeting, held by approximately [*] holders of record. Each share of Tecogen common stock is entitled to one vote on each proposal presented at the Tecogen special meeting. See “The Tecogen Special Meeting - Record Date; Who Can Vote at Tecogen’s Special Meeting.”

Q: Who can vote at the ADGE special meeting?

A: All holders of record of ADGE common stock as of the close of business on [*], the record date for determining ADGE stockholders entitled to notice of and to vote at the ADGE special meeting, are entitled to receive notice of and to vote at the ADGE special meeting.

As of the record date, there were [*] shares of ADGE common stock issued and outstanding and entitled to vote at the ADGE special meeting, held by approximately [*] holders of record. Each share of ADGE common stock is entitled to one vote on each proposal presented at the ADGE special meeting. See “The ADGE Special Meeting - Record Date; Who Can Vote at ADGE’s Special Meeting.”

Q: What constitutes a quorum for the Tecogen special meeting?

A: At the Tecogen special meeting, the presence in person or by proxy of stockholders entitled to cast a majority of all of the votes entitled to be cast at such meeting shall constitute a quorum. Abstentions will be counted in determining whether a quorum is present at the Tecogen special meeting. Failures to vote, which include failure to provide instructions to your broker or other nominee if your shares are held in “street name,” will not be counted in determining whether a quorum is present. See “The Tecogen Special Meeting - Vote Required for Approval; Quorum.”

Q: What constitutes a quorum for the ADGE special meeting?

A: At the ADGE special meeting, the presence in person or by proxy of stockholders entitled to cast a majority of all of the votes entitled to be cast at such meeting on any matter shall constitute a quorum. Abstentions will be counted in

determining whether a quorum is present at the ADGE special meeting. Failures to vote, which include a failure to provide instructions to your broker or other nominee if your shares are held in “street name,” will not be counted in determining whether a quorum is present. See “The ADGE Special Meeting - Vote Required for Approval: Quorum.”

Q: What vote is required to approve each proposal at the Tecogen special meeting?

A: The Tecogen Merger Approval Proposal requires the affirmative vote of holders of a majority of the shares of Tecogen common stock voting on such proposal, assuming that a quorum is present at the Tecogen special meeting. See “The Tecogen special meeting - Vote Required for Approval: Quorum.”

Q: What vote is required to approve each proposal at the ADGE special meeting?

A: The ADGE Merger Approval Proposal requires the affirmative vote of holders of a majority of the outstanding shares of ADGE common stock entitled to vote on such proposal. See “The ADGE special meeting - Vote Required for Approval: Quorum.”

Concurrently with the execution of the Merger Agreement, Tecogen stockholders holding approximately 24.76% of Tecogen’s outstanding common stock and ADGE stockholders holding approximately 18.03% of ADGE’s outstanding common stock have indicated that they intend to vote FOR the Merger. No binding voting agreements, however, have been signed by such stockholders.

Q: How do I vote?

A: If you are a stockholder of record of Tecogen as of the record date for the Tecogen special meeting or a stockholder of record of ADGE as of the record date for the ADGE special meeting, you may vote in person by attending your special meeting or, to ensure your shares are represented at the meeting, you may authorize a proxy by:

- accessing the Internet website specified on your proxy card;
- calling the toll-free number specified on your proxy card; or
- signing and returning the enclosed proxy card in the postage-paid envelope provided.

If you hold shares of common stock of Tecogen or ADGE in the name of a broker, bank or nominee, please follow the voting instructions provided by your broker, bank or nominee to ensure that your shares are represented at the applicable special meeting. If you are a Tecogen stockholder, see “The Tecogen Special Meeting - Manner of Voting.” If you are an ADGE stockholder, see “The ADGE Special Meeting - Manner of Voting.”

Q: If my shares of Tecogen common stock are held in “street name” by my broker or other nominee, will my broker or other nominee vote my shares of Tecogen common stock for me? What happens if I abstain or my broker does not vote my shares?

A: Your shares will NOT be voted unless you instruct your broker or other nominee how to vote your shares of Tecogen common stock held in street name. If you hold your shares in a stock brokerage account or if your shares are held by a bank or other nominee (that is, in street name), you must provide your broker or other nominee with instructions on how to vote your shares. Please follow the voting instructions provided by your broker or other nominee on the enclosed voting instruction card. You may not vote shares of Tecogen common stock held in street name by returning a proxy card directly to Tecogen or by voting in person at the Tecogen special meeting unless you provide a “legal proxy,” which you must obtain from your broker or other nominee.

If you are a Tecogen stockholder, abstentions will be counted in determining the presence of a quorum. Abstentions and failures to vote, which include failures to provide instructions to your broker or other nominee if your shares are held in “street name,” will have no effect on the Tecogen Merger Approval Proposal assuming that a majority of a quorum votes FOR the Tecogen Merger Approval Proposal. See “The Tecogen Special Meeting - Abstentions and Broker Non-Votes.”

Q: If my shares of ADGE common stock are held in “street name” by my broker or other nominee, will my broker or other nominee vote my shares of ADGE common stock for me? What happens if I abstain or my broker does not vote my shares?

A: Your shares will NOT be voted unless you instruct your broker or other nominee how to vote your shares of ADGE common stock held in street name. If you hold your shares in a stock brokerage account or if your shares are held by a bank or other nominee (that is, in street name), you must provide your broker or other nominee with instructions on how to vote your shares. Please follow the voting instructions provided by your broker or other nominee on the enclosed voting instruction card. You may not vote shares of ADGE common stock held in street name by returning a proxy card directly to ADGE or by voting in person at the ADGE special meeting unless you provide a “legal proxy,” which you must obtain from your broker or other nominee.

If you are an ADGE stockholder, abstentions will be counted in determining the presence of a quorum. Abstentions will have the same effect as a vote "AGAINST" the ADGE Merger Approval Proposal. Failures to vote, which include failures to provide instructions to your broker or other nominee if your shares are held in "street name," will have the same effect as a vote "AGAINST" the ADGE Merger Approval Proposal. See "The ADGE Special Meeting - Abstentions and Broker Non-Votes."

Q: What are the anticipated material United States federal income tax consequences of the proposed Merger?

A: The Merger is intended to qualify as a reorganization, within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code. Assuming the Merger qualifies as a reorganization, a U.S. holder of ADGE common stock generally will not recognize any gain or loss upon receipt of Tecogen common stock in exchange for ADGE common stock in the Merger. It is a condition to the completion of the Merger that Tecogen and ADGE receive written opinions from their respective counsel to the effect that the Merger will qualify as a reorganization, within the meaning of Section 368(a) of the Internal Revenue Code.

Tax matters are very complicated and the tax consequences of the Merger to each ADGE stockholder may depend on such stockholder's particular facts and circumstances. ADGE stockholders are urged to consult their tax advisors to understand fully the tax consequences of the Merger. See "Material U.S. Federal Income Tax Consequences of the Merger."

Q: Where will my shares of Tecogen common stock be traded?

A: The shares of Tecogen common stock currently trade on the Nasdaq Capital Market under the symbol "TGEN." Tecogen will apply to have the new shares of Tecogen common stock issued as consideration in the Merger listed on the Nasdaq Capital Market prior to the Merger effective time, subject to official notice of issuance.

Q: How does the Tecogen Board of Directors recommend that Tecogen stockholders vote on the Merger proposal?

A: The Tecogen Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously approved the Merger Agreement and the transactions contemplated by the Merger Agreement, and directed that the Merger proposal described herein be submitted for consideration at the Tecogen special meeting.

The Tecogen Board of Directors unanimously recommends that Tecogen stockholders vote "FOR" the Tecogen Merger Approval Proposal. The Merger cannot be completed without the approval by the Tecogen stockholders of the Tecogen Merger Approval Proposal. See "The Tecogen Special Meeting - Recommendation of the Tecogen Board."

Q: How does the ADGE Board of Directors recommend that ADGE stockholders vote on the ADGE merger Approval Proposal?

A: The ADGE Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (ii) determined and declared that the Merger and the other transactions contemplated by the Merger are advisable, fair to and in the best interest of ADGE, and (iii) directed that the ADGE Merger Approval Proposal be submitted for consideration at the ADGE special meeting.

The ADGE Board of Directors unanimously recommends that ADGE stockholders vote "FOR" the ADGE Merger Approval Proposal. The Merger cannot be completed without the approval by ADGE stockholders of the ADGE Merger Approval Proposal. See "The ADGE Special Meeting - Recommendation of the ADGE Board."

Q: Are there risks associated with the Merger that I should consider in deciding how to vote?

A: Yes. There are a number of risks related to the Merger that are discussed in this joint proxy statement/prospectus described under "Risk Factors."

Q: Will my rights as a stockholder of Tecogen or ADGE change as a result of the Merger?

A: The rights of Tecogen stockholders will be unchanged as a result of the Merger. Because the governing documents of Tecogen and ADGE are the same in all material respects, the rights of ADGE stockholders will not be changed, in any material respect, as a result of the Merger. At the Merger effective time, the existing charter and bylaws of Tecogen will continue to be the charter and bylaws governing all Tecogen stock. For more information regarding stockholder rights, see "Comparison of Rights of Tecogen Stockholders and ADGE Stockholders."

Q: What do I need to do now?

A: After you have carefully read this joint proxy statement/prospectus, please complete, sign and date your proxy card or voting instruction form and return it in the enclosed pre-addressed postage-paid envelope or, by authorizing your proxy by one of the other methods specified in your proxy card or voting instruction form as promptly as possible so that your shares of Tecogen common stock or ADGE common stock will be represented and voted at the Tecogen

special meeting or the ADGE special meeting, as applicable.

Please refer to your proxy card, which is included with this joint proxy statement/prospectus, or the voting instruction form forwarded by your broker or other nominee to see which voting options are available to you.

The method by which you authorize your proxy will in no way limit your right to vote at the Tecogen special meeting or the ADGE special meeting if you later decide to attend the meeting in person. However, if your shares of Tecogen common stock or ADGE common stock are held in the name of a broker or other nominee, you must obtain a “legal proxy,” executed in your favor, from your broker or other nominee, to be able to vote in person at the Tecogen special meeting or the ADGE special meeting, as applicable. Obtaining a legal proxy may take several days.

Q: How will my proxy be voted?

A: All shares of Tecogen common stock entitled to vote and which are represented by properly completed proxies received prior to the Tecogen special meeting, which are not revoked, will be voted at the Tecogen special meeting as instructed on the proxies. If you properly submit a proxy card, but do not indicate how your shares of Tecogen common stock should be voted on a matter, the shares of Tecogen common stock represented by your proxy card will be voted as the Tecogen Board of Directors unanimously recommends and therefore “FOR” the Tecogen Merger Approval Proposal. If you do not provide voting instructions to your broker or other nominee, your shares of Tecogen common stock will NOT be voted at the Tecogen special meeting and will be considered broker non-votes. See “The Tecogen Special Meeting - Manner of Voting.”

All shares of ADGE common stock entitled to vote and which are represented by properly completed proxies received prior to the ADGE special meeting, which are not revoked, will be voted at the ADGE special meeting as instructed on the proxies. If you properly submit a proxy card, but do not indicate how your shares of ADGE common stock should be voted on a matter, the shares of ADGE common stock represented by your proxy card will be voted as ADGE Board of Directors unanimously recommends and therefore “FOR” the ADGE Merger Approval Proposal.

Failures to vote, which include failures to provide instructions to your broker or other nominee if your shares are held in “street name,” will have the same effect as a vote “AGAINST” the ADGE Merger Approval Proposal. See “The ADGE Special Meeting - Manner of Voting.”

Q: Can I change my vote after I have returned a proxy or voting instruction card?

A: Yes. You may revoke your proxy or change your vote at any time before your proxy is voted at the Tecogen special meeting or the ADGE special meeting, as applicable. If you are a holder of record, you can do this in any of the three following ways:

by sending a written notice to the Secretary of Tecogen or the Secretary of ADGE, as applicable, at the applicable address set forth below, in time to be received before the Tecogen special meeting or the ADGE special meeting, as applicable, stating that you would like to revoke your proxy;

by completing, signing and dating another proxy card and returning it by mail in time to be received before the Tecogen special meeting or the ADGE special meeting, as applicable, or by completing a later dated proxy over the Internet or by telephone, in which case your later dated proxy will be recorded and your earlier proxy revoked; or if you are a holder of record, you can attend the Tecogen special meeting or the ADGE special meeting, as applicable, and vote in person, which will automatically cancel any proxy previously given, or you may revoke your proxy in person, but your attendance alone at the special meeting will not revoke any proxy that you have previously given.

If you choose either of the first two methods, you must submit your notice of revocation or your new proxy to the Corporate Secretary of Tecogen or the Corporate Secretary of ADGE, as appropriate, no later than the beginning of the applicable special meeting. If your shares are held in street name by your broker or nominee, you should contact them to change your vote. If you are a Tecogen stockholder see “The Tecogen Special Meeting - Revocation of Proxies or Voting Instructions.” If you are an ADGE stockholder see “The ADGE Special Meeting - Revocation of Proxies or Voting Instructions.”

Q: If I am an ADGE stockholder that holds certificated shares of ADGE common stock, do I need to do anything now with my common stock certificates?

A: Not at the present time. After the Merger is completed, if you held certificates representing shares of ADGE common stock prior to the completion of the Merger, Tecogen’s exchange agent will send you a letter of transmittal and instructions for exchanging your shares of ADGE common stock for shares of Tecogen common stock. Upon surrender of the certificates for cancellation along with the executed letter of transmittal and other required documents described in the instructions, you will receive whole shares of Tecogen common stock and cash in lieu of any

fractional shares of ADGE common stock. Unless you specifically request to receive Tecogen stock certificates, the shares of Tecogen common stock you receive in the Merger will be issued in book-entry form. See “The Merger Agreement - Consideration to be Received in the Merger - Procedures for Surrendering of ADGE Shares.”

Q: If I am a Tecogen stockholder, do I need to do anything with respect to my common stock certificates or book-entry shares?

A: No, you are not required to take any action with respect to your Tecogen shares.

Q: What should I do if I receive more than one set of voting materials for Tecogen’s special meeting and/or ADGE’s special meeting?

A: You may receive more than one set of voting materials for Tecogen’s special meeting and/or ADGE’s special meeting, including multiple copies of this joint proxy statement/prospectus and multiple proxy cards or voting instruction cards. For example, if you hold your shares of Tecogen common stock and/or ADGE common stock in more than one brokerage account, you will receive a separate voting instruction card for each brokerage account in which you hold shares of Tecogen common stock and/or ADGE common stock. If you are a holder of record and your shares of Tecogen common stock or ADGE common stock are registered in more than one name, you may receive more than one proxy card. Please complete, sign, date and return each proxy card and voting instruction card that you receive or, please authorize your proxy by telephone, or over the Internet.

Q: What happens if I am a stockholder of both Tecogen and ADGE?

A: You will receive separate proxy cards for each of Tecogen and ADGE and you must complete, sign and date each proxy card and return each proxy card in the appropriate pre-addressed postage-paid envelope or, by authorizing a proxy by one of the other methods specified in your proxy card or voting instruction card for each of Tecogen and ADGE.

Q: Do I need identification to attend Tecogen or the ADGE special meeting in person?

A: Yes. Please bring proper identification, together with proof that you are a record owner of Tecogen or ADGE common stock, as the case may be. If your shares are held in street name, please bring acceptable proof of ownership, such as a letter from your broker or an account statement showing that you beneficially owned shares of Tecogen or ADGE common stock, as applicable, on the record date.

Q: Who can help answer my questions?

A: If you have questions about the Merger or the other matters to be voted on at the special meetings or desire additional copies of this joint proxy statement/prospectus or additional proxy or voting instruction cards, please contact:

| | |
|-------------------------------|-------------------------------|
| Tecogen common stockholders: | ADGE common stockholders: |
| Tecogen Inc. | American DG Energy Inc. |
| Attention: Investor Relations | Attention: Investor Relations |
| 45 First Avenue | 45 First Avenue |
| Waltham, MA 02451 | Waltham, MA 02451 |
| (781) 466-6413 | (781) 522-6000 |
| www.tecogen.com | www.americandg.com |

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SUMMARY

The following summary highlights some of the information contained elsewhere in this joint proxy statement/prospectus and may not contain all the information that is important to you. For a more complete description of the Merger Agreement and the transactions contemplated by the Merger Agreement, Tecogen and ADGE encourage you to carefully read this entire joint proxy statement/prospectus, including the attached Annexes. We also encourage you to read the information incorporated by reference into this joint proxy statement/prospectus, which includes important business and financial information filed with the SEC regarding Tecogen and ADGE. You may obtain the information incorporated by reference into this joint proxy statement/prospectus without charge by following the instructions described under “Where You Can Find More Information: Incorporation by Reference.”

The Companies

Tecogen Inc.

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

Tecogen manufactures three types of CHP products:

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

All of Tecogen’s products are standardized, modular, small-scale CHP products that reduce energy costs, carbon emissions, and dependence on the electric grid. Market drivers include the price of natural gas, local electricity costs, and governmental energy policies, as well as customers’ desire to become more socially responsible. Traditional customers for our cogeneration and chiller systems include hospitals and nursing homes, colleges and universities, health clubs and spas, hotels and motels, office and retail buildings, food and beverage processors, multi-unit residential buildings, laundries, ice rinks, swimming pools, factories, municipal buildings, and military installations; however, the economic feasibility of using our systems is not limited to these customer types. Tecogen has shipped approximately 2,500 units, some of which have been operating for over 30 years. Tecogen has 79 full-time employees and three part-time employees, including six sales and marketing personnel and 40 service personnel.

Tecogen was incorporated in the State of Delaware on September 15, 2000. Its offices are located at 45 First Avenue, Waltham, Massachusetts 02451, and its telephone number is 781-466-6400. Tecogen’s Internet address is www.tecogen.com. That website address is a textual reference only and the information on the website is not incorporated by reference herein.

American DG Energy Inc.

ADGE distributes, owns and operates clean, on-site energy systems that produce electricity, hot water, heat and cooling. ADGE’s business model is to own the equipment that it installs at customers’ facilities and to sell the energy produced by these systems to the customer on a long-term contractual basis. ADGE calls this business the ADGE “On-Site Utility”.

ADGE offers natural gas powered cogeneration systems that are highly reliable and energy efficient. Its cogeneration systems produce electricity from an internal combustion engine driving a generator, and the heat from the engine and exhaust is recovered and typically used to produce heat and hot water for use at the site. ADGE also distributes and operates water chiller systems for building cooling applications that operate in a similar manner, except that the engine’s power drives a large air-conditioning compressor while recovering heat for hot water. Cogeneration systems reduce the amount of electricity that the customer must purchase from the local utility and produce valuable heat and hot water for the site to use as required. By simultaneously providing electricity, hot water and heat, cogeneration systems also have a significant, positive impact on the environment by reducing the carbon, or CO₂, produced by

offsetting the traditional energy supplied by the electric grid and conventional hot water boilers.

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Distributed Generation of electricity, or DG, often referred to as cogeneration systems, or combined heat and power systems, or CHP, is an attractive option for reducing energy costs and increasing the reliability of available energy. DG has been successfully implemented by others in large industrial installations over 10 Megawatts, or MW, where the market has been growing for several years, and is increasingly being accepted in smaller size units because of technology improvements, increased energy costs and better economics. ADGE believes that its target market (users of up to 1 MW) has been barely penetrated and that the reduced reliability of the utility grid, increasing cost pressures experienced by energy users, advances in new, low cost technologies and DG-favorable legislation and regulation at the state and federal level will drive our near-term growth and penetration into our target market. ADGE maintains a website at www.americandg.com, but that website address is a textual reference only and the information on the website is not incorporated by reference herein.

ADGE was incorporated as a Delaware corporation on July 24, 2001 to install, own, operate and maintain complete DG systems, or energy systems, and other complementary systems at customer sites and sell electricity, hot water, heat and cooling energy under long-term contracts at prices guaranteed to the customer to be below conventional utility rates. As of December 31, 2015, ADGE had installed energy systems, representing approximately 5,445 kilowatts, or kW, 59 million British thermal units, or MMBtu's, of heat and hot water and 4,525 tons of cooling. kW is a measure of electricity generated, MMBtu is a measure of heat generated and a ton is a measure of cooling generated. Due to the high efficiency CHP systems, the Environmental Protection Agency, or EPA, has recognized them as a means to improve the environment.

Merger Sub

Merger Sub is a recently organized Delaware corporation formed for the purpose of effecting the Merger. Upon completion of the Merger, Merger Sub will be merged with and into ADGE and the name of the combined company will be unchanged. Merger Sub has not conducted any activities other than those incidental to its formation and the matters contemplated by the Merger Agreement.

The Merger and the Merger Agreement

Subject to the terms and conditions of the Merger Agreement, at the Merger effective time, Merger Sub will merge with and into ADGE. ADGE will be the surviving entity in the Merger and, following completion of the Merger, ADGE will become a wholly-owned subsidiary of Tecogen.

Upon completion of the Merger, each share of ADGE common stock issued and outstanding immediately prior to the Merger effective time will be exchanged for the right to receive 0.092 of a share of Tecogen common stock, or the Exchange Ratio. The Exchange Ratio is fixed and will not be adjusted to reflect stock price changes prior to the closing of the Merger. No fractional shares will be issued in the Merger, and cash will be paid in lieu thereof. See “The Merger Agreement - Consideration to be Received in the Merger”. Tecogen common stock is listed and traded on the Nasdaq Capital Market, and ADGE common stock is listed and traded on the NYSE MKT under the ticker symbols “TGEN” and “ADGE,” respectively. Based on the closing price of Tecogen common stock on the Nasdaq National Market of \$4.03 on November 1, 2016, the last trading day before public announcement of the Merger, the Exchange Ratio represented approximately \$0.37 in Tecogen common stock for each share of ADGE common stock. Based on the closing price of Tecogen common stock on the Nasdaq Capital Market of \$3.84 on December 19, 2016, the last practicable date before the date of this joint proxy statement/prospectus, the Exchange Ratio represented approximately \$0.35 in Tecogen common stock for each share of ADGE common stock. Tecogen stockholders will continue to own their existing Tecogen shares of common stock following the consummation of the Merger. See “Comparative Tecogen and ADGE Market Price and Distribution Information” below. The value of the Merger consideration will fluctuate with changes in the market price of Tecogen and ADGE common stock. We urge you to obtain current market quotations of Tecogen common stock and ADGE common stock.

Each option to acquire shares of ADGE common stock, and each restricted stock award relating to ADGE common stock, granted before the Merger closing date under ADGE’s equity plans to an employee or a non-employee director, or a participant, will remain in effect and will be exercisable for or relate to shares of Tecogen common stock based on the Exchange Ratio (with similar adjustment to the exercise price per share of each stock option). All restricted stock awards and all stock options will become 100% vested.

For a description of the treatment of all outstanding ADGE equity awards, see “The Merger Agreement - Consideration to be Received in the Merger - Treatment of Stock Options and Restricted Stock Awards.”

A copy of the Merger Agreement is attached as Annex A to this joint proxy statement/prospectus and is incorporated herein by reference. We encourage you to carefully read the Merger Agreement in its entirety as it is the principal document governing the Merger.

Directors Following the Merger

The Board of Directors of Tecogen is not expected to change as a result of the Merger.

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Recommendation of the Tecogen Board of Directors

The Tecogen Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, and (ii) directed that the Tecogen Merger Approval Proposal be submitted for consideration at the Tecogen special meeting.

The Tecogen Board of Directors unanimously recommends that Tecogen stockholders vote “FOR” the Tecogen Merger Approval Proposal. The Merger cannot be completed without the approval by Tecogen stockholders of the Tecogen Merger Approval Proposal.

Recommendation of ADGE Board of Directors

The ADGE Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (ii) determined and declared that the Merger and the other transactions contemplated by the Merger are advisable, fair to and in the best interest of ADGE, and (iii) directed that the ADGE Merger Approval Proposal be submitted for consideration at the ADGE special meeting.

The ADGE Board of Directors unanimously recommends that ADGE stockholders vote “FOR” the ADGE Merger Approval Proposal. The Merger cannot be completed without the approval by ADGE stockholders of the ADGE Merger Approval Proposal.

Summary of the Risk Factors Related to the Merger

You should consider carefully all of the risk factors and other information included or otherwise incorporated by reference in this joint proxy statement/prospectus before deciding how to vote. Certain of the risks related to the Merger and the related transactions are described under “Risk Factors.” The principal risks relating to the Merger include the following:

• The exchange ratio is fixed and will not be adjusted in the event of any change in either Tecogen’s or ADGE’s stock price.

• Completion of the Merger is subject to certain conditions and if these conditions are not satisfied or waived, the Merger will not be completed. Failure to complete the Merger could have material adverse effects on Tecogen and ADGE.

• Failure to complete the Merger could negatively impact the stock prices and future business and financial results of Tecogen and ADGE.

• The pendency of the Merger could adversely affect the business and operations of Tecogen and ADGE.

• The ownership percentage of Tecogen and ADGE common stockholders will be diluted by the Merger.

• Certain of Tecogen’s and ADGE’s respective directors and officers have interests in the transactions contemplated by the Merger Agreement that are different from, or in addition to, the interests of Tecogen’s and ADGE’s stockholders generally, which may create potential conflicts of interest or the appearance thereof.

• If the Merger is approved, the date on which ADGE common stockholders will receive the Merger consideration is uncertain.

The Special Meetings

Tecogen

Holders of shares of Tecogen common stock at the close of business on [*], or the Tecogen record date, are entitled to notice of, and to vote at, the Tecogen special meeting. On the Tecogen record date, there were [*] shares of Tecogen common stock outstanding and entitled to vote at the Tecogen special meeting, held by approximately [*] holders of record. Each share of Tecogen common stock is entitled to one vote.

At the Tecogen special meeting, the presence in person or by proxy of stockholders entitled to cast a majority of all of the votes entitled to be cast at such meeting shall constitute a quorum. Abstentions will be counted in determining whether a quorum is present at the Tecogen special meeting. Failures to vote, which include failure to provide instructions to your broker or other nominee if your shares are held in “street name,” will not be counted in determining whether a quorum is present.

At the Tecogen special meeting, Tecogen stockholders will be asked to consider and vote on the Tecogen Merger Approval Proposal. The Tecogen Merger Approval Proposal requires the affirmative vote of the holders of a majority of the votes cast on the proposal.

Your vote is very important. You are encouraged to authorize your proxy to vote your shares as promptly as possible. If you are a stockholder of record and you properly sign, date and return a proxy card, but do not indicate how your shares of Tecogen stock should be voted on a matter, the shares of Tecogen stock represented by your proxy cannot be voted. If you are a "street name" holder and you do not provide voting instructions to your broker or other nominee, your shares of Tecogen stock will NOT be voted at the Tecogen special meeting will NOT be counted towards the presence of a quorum, and will have no effect on the Tecogen Merger Approval Proposal.

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ADGE

Holders of shares of ADGE common stock at the close of business on [*], or the ADGE record date, are entitled to notice of, and to vote at, the ADGE special meeting. On the ADGE record date, there were [*] shares of ADGE common stock outstanding and entitled to vote at the ADGE special meeting, held by approximately [*] holders of record. Each share of ADGE common stock is entitled to one vote on each proposal to be voted on at the ADGE special meeting.

At the ADGE special meeting, the presence in person or by proxy of stockholders entitled to cast a majority of all of the votes entitled to be cast at such meeting on any matter shall constitute a quorum. Abstentions will be counted in determining whether a quorum is present at the ADGE special meeting. Failures to vote, which include failure to provide instructions to your broker or other nominee if your shares are held in “street name,” will not be counted in determining whether a quorum is present.

At the ADGE special meeting, ADGE stockholders will be asked to consider and vote on the ADGE Merger Approval Proposal. The ADGE Merger Approval Proposal requires the affirmative vote of holders of a majority of the outstanding shares of ADGE common stock entitled to vote on such proposal.

Your vote is very important. You are encouraged to authorize your proxy to vote your shares as promptly as possible. If you are a stockholder of record and you properly sign, date and return a proxy card, but do not indicate how your shares of ADGE stock should be voted on a matter, the shares of ADGE stock represented by your proxy cannot be voted. If you are a “street name” holder and you do not provide voting instructions to your broker or other nominee, your shares of ADGE stock will NOT be voted at the ADGE special meeting and will NOT be counted towards the presence of a quorum and will have the same effect as a vote “AGAINST” the ADGE Merger Approval Proposal.

Opinion of Tecogen’s Financial Advisor Regarding the Merger

In connection with the Merger, at the meeting of the Tecogen Board of Directors on November 1, 2016, Tecogen’s financial advisor, Scarsdale Equities LLC, or Scarsdale, delivered to the Tecogen Board of Directors its oral opinion, later confirmed by delivery of a written opinion dated November 10, 2016, that, based upon and subject to the various assumptions made, procedures followed, matters considered and qualifications and limitations on the scope of review undertaken by Scarsdale as set forth in its written opinion, the Exchange Ratio of 0.092 of a share of Tecogen common stock for each share of ADGE common stock pursuant to the Merger Agreement was fair, from a financial point of view, to Tecogen.

The full text of the written opinion of Scarsdale is attached to this proxy statement/prospectus as Annex B and is incorporated herein by reference. The summary of the opinion of Scarsdale in this proxy statement/prospectus is qualified in its entirety by reference to the full text of the opinion and you should read the opinion in its entirety for a discussion of the assumptions made, procedures followed, matters considered and qualifications and limitations upon the review undertaken by Scarsdale in rendering its opinion. Scarsdale’s opinion addresses only the fairness from a financial point of view of the exchange ratio pursuant to the Merger Agreement to Tecogen as of the date of such opinion and does not address any other aspect of the Merger. The opinion did not in any manner address the prices at which Tecogen common stock will trade following consummation of the Merger or at any time. Scarsdale’s opinion does not constitute a recommendation to any holder of Tecogen common stock or ADGE common stock as to how to vote at the special meetings to be held in connection with the Merger or whether to take any other action with respect to the Merger. See “The Merger - Opinion of Tecogen’s Financial Advisor.”

Opinion of Financial Advisor to the ADGE Special Committee

At the meeting of the ADGE Special Committee on October 31, 2016, the financial advisor to the ADGE Special Committee, Cassel Salpeter & Co., LLC, or Cassel Salpeter, delivered its oral opinion to the ADGE Special Committee, which was later confirmed by delivery of a written opinion dated October 31, 2016, that, as of such date, and based upon and subject to the factors, assumptions and limitations set forth therein, the Exchange Ratio of 0.092 of a share of Tecogen common for each share of ADGE common stock in the Merger pursuant to the Merger Agreement was fair from a financial point of view to the holders ADGE common stock other than John Hatsopoulos, George Hatsopoulos and their respective affiliates (the “Unaffiliated Holders”).

The full text of the written opinion of Cassel Salpeter, dated October 31, 2016, which sets forth assumptions made, procedures followed, matters considered and limitations on the review undertaken in connection with the opinion, is attached to this proxy statement as Annex C. The summary of the Cassel Salpeter opinion provided in this proxy statement is qualified in its entirety by reference to the full text of the written opinion. Cassel Salpeter provided its opinion for the information and assistance of the ADGE Special Committee and, with the consent of the ADGE Special Committee, ADGE's Board of Directors in connection with the ADGE Special Committee's and, as applicable, the ADGE Board of Directors' consideration of the Merger. The Cassel Salpeter opinion is not a recommendation as to how any holder of ADGE's common stock should vote with respect to the transaction contemplated by the Merger Agreement or any other matter. See "The Merger - Opinion of Financial Advisor to the ADGE."

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Stock Ownership of Directors and Executive Officers of Tecogen

At the close of business on Tecogen's record date, Tecogen's directors and executive officers and their affiliates held and were entitled to vote 4,940,330 shares of Tecogen common stock, collectively representing 24.76% of the shares of Tecogen common stock issued and outstanding and entitled to vote on that date. Tecogen's directors and executive officers have indicated that they expect to vote "FOR" the Tecogen Merger Approval Proposal. See "The Tecogen Special Meeting - Vote Required for Approval: Quorum."

Stock Ownership of Directors and Executive Officers of ADGE

At the close of business on the ADGE record date, ADGE's directors and executive officers and their affiliates held and were entitled to vote 9,139,239 shares of ADGE common stock, collectively representing 18.03 % of the shares of ADGE common stock issued and outstanding and entitled to vote on that date. ADGE's directors and executive officers have indicated that they expect to vote "FOR" the ADGE Merger Approval Proposal. See "The ADGE Special Meeting - Vote Required for Approval: Quorum."

Interests of Tecogen's Directors and Executive Officers in the Merger

A director of Tecogen may have interests in a transaction with ADGE that are different from, or in addition to, the interests of Tecogen stockholders generally. The Tecogen Board of Directors was aware of and considered these interests, among other matters, in evaluating and negotiating the Merger Agreement and the Merger, approving the Merger Agreement, and recommending that Tecogen stockholders approve the Tecogen Merger Approval Proposal. See "The Merger - Interests of Tecogen's Directors and Executive Officers in the Merger."

Interests of ADGE's Directors and Executive Officers in the Merger

In considering the recommendation of ADGE's Board of Directors to approve the ADGE Merger Approval Proposal, ADGE's stockholders should be aware that ADGE's directors and executive officers have financial interests in the Merger that are different from, or in addition to, the interests of ADGE stockholders generally. These interests may create potential conflicts of interest. ADGE's Board of Directors was aware of and considered these interests, among other matters, in evaluating and negotiating the Merger Agreement and the Merger, and in reaching its decision to approve the Merger Agreement and recommend that ADGE stockholders approve the ADGE Merger Approval Proposal. See "The Merger - Interests of ADGE's Directors and Executive Officers in the Merger."

Listing of Tecogen Common Shares

Approval of the listing on the Nasdaq Capital Market of the shares of Tecogen common stock to be issued as consideration for the Merger, subject to official notice of issuance, is a condition precedent to each party's obligation to complete the Merger. Tecogen has agreed to use its reasonable best efforts to cause such shares of Tecogen common stock to be approved for listing on the Nasdaq Capital Market prior to the Merger effective time, subject to official notice of issuance. If the Merger is completed, shares of ADGE common stock will cease to exist and will be deregistered under the Exchange Act. See "The Merger - Listing of Tecogen Common Stock" and "The Merger - Deregistration of ADGE Common Stock."

No Appraisal Rights

No appraisal, dissenters or similar rights will be available in connection with the Merger or other transactions contemplated by the Merger Agreement. See "The Merger - No Appraisal Rights."

Expected Timing of the Merger

Tecogen and ADGE currently expect to complete the Merger by approximately March 21, 2017, subject to receipt of required stockholder approvals and the satisfaction or waiver of other closing conditions.

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Conditions to Completion of the Merger

As more fully described elsewhere in this joint proxy statement/prospectus and in the Merger Agreement, the completion of the Merger depends on a number of conditions being satisfied or, where legally permissible, waived. These conditions include, among others:

- ADGE stockholder approval of the ADGE Merger Approval Proposal;
- Tecogen stockholder approval of the Tecogen Merger Approval Proposal;
- the absence of any law or order prohibiting the Merger;
- the SEC having declared effective the registration statement of which this joint proxy statement/prospectus is a part;
- and
- the approval for listing on the Nasdaq Capital Market of the shares of Tecogen common stock to be issued in connection with the Merger.

Neither Tecogen nor ADGE can give any assurance as to when or if all of the conditions to the completion of the Merger will be satisfied or waived, or that the Merger will occur. See “The Merger Agreement - Conditions to Completion of the Merger.”

Regulatory Approvals Required for the Merger

Neither Tecogen nor ADGE is aware of any regulatory approvals that are expected to prevent the consummation of the Merger. See “The Merger Agreement - Covenants and Agreements - Consents and Approvals.”

No Deal Protection Devices; Termination of the Merger Agreement

The Merger Agreement does not contain any so-called “deal protection devices” such as a no-shop provision or a termination fee. Prior to obtaining ADGE stockholder approval, ADGE may withdraw or modify its recommendation to ADGE stockholders with respect to the Merger, terminate the Merger Agreement and enter into an agreement with respect to a competing acquisition proposal with a third party. In addition, Tecogen and ADGE may mutually agree to terminate the Merger Agreement at any time prior to the Merger effective date, regardless of whether Tecogen or ADGE stockholder approval has been obtained. See “The Merger Agreement - Termination of the Merger Agreement by Either Tecogen or ADGE.”

Expenses; No Termination Fees

Generally, all fees and expenses incurred in connection with the Merger and the transactions contemplated by the Merger Agreement will be paid by the party incurring those expenses. See “The Merger Agreement - Termination of the Merger Agreement by Either Tecogen or ADGE.”

Certain United States Federal Income Tax Consequences of the Merger

The Merger is intended to qualify as a reorganization, within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, which we refer to as the Internal Revenue Code. Assuming the Merger qualifies as a reorganization, a U.S. holder of ADGE common stock generally will not recognize any gain or loss upon receipt of Tecogen common stock in exchange for ADGE common stock in the Merger. It is a condition to the completion of the Merger that Tecogen and ADGE receive written opinions from their respective counsel to the effect that the Merger will qualify as a reorganization, within the meaning of Section 368(a) of the Internal Revenue Code.

Tax matters are very complicated and the tax consequences of the Merger to each ADGE stockholder may depend on such stockholder’s particular facts and circumstances. ADGE stockholders are urged to consult their tax advisors to understand fully the tax consequences of the Merger. For more information see “Material U.S. Federal Income Tax Consequences of the Merger.”

Accounting Treatment of the Merger

In accordance with U.S. generally accepted accounting principles, or GAAP, Tecogen will account for the Merger as a business combination with Tecogen treated as the acquirer of ADGE for accounting purposes. Under business combination accounting rules, the assets acquired and liabilities assumed will be recorded as of the Merger effective time at their respective fair values, which may be more or less than the book value, and added to those of Tecogen. Any excess of purchase price over the fair values will be recorded as goodwill. Tecogen’s consolidated financial statements issued after the Merger will include ADGE assets acquired and retained by Tecogen in the Merger from the

Merger effective time, but not for periods prior to the completion of the Merger. See “The Merger - Accounting Treatment.”

Comparison of Rights of Tecogen and ADGE Stockholders

ADGE stockholders will have substantially the same rights once they become Tecogen stockholders following the Merger due to similarity between the governing documents of Tecogen and ADGE. See “Comparison of Rights of Tecogen Stockholders and ADGE Stockholders.”

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Selected Historical Financial Information of Tecogen

The following selected historical financial information of Tecogen as of December 31, 2015 and 2014 and for each of the years in the two year period ended December 31, 2015 has been derived from Tecogen's audited consolidated financial statements contained in its Annual Report on Form 10-K for the year ended December 31, 2015, which has been filed with the SEC and which is incorporated by reference into this joint proxy statement/prospectus. The selected historical financial information as of September 30, 2016 and for the nine months ended September 30, 2016 and 2015 is unaudited and has been derived from Tecogen's unaudited condensed consolidated financial statements contained in Tecogen's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2016, which has been filed with the SEC and which is incorporated by reference into this joint proxy statement/prospectus. Interim results for the nine months ended September 30, 2016 are not necessarily indicative of, and are not projections for, the results to be expected for the fiscal year ending December 31, 2016 or of the combined company following the Merger.

You should read this selected historical financial information together with the financial statements filed with the SEC and incorporated by reference into this joint proxy statement/prospectus and their accompanying notes and management's discussion and analysis of operations and financial condition of Tecogen. See "Where You Can Find More Information: Incorporation by Reference."

| | Year Ended December 31, | | Nine Months Ended | |
|---|-------------------------|----------------|-----------------------|----------------|
| | 2015 | 2014 | September 30, 2016 | 2015 |
| Statements of Operations Data: | | | | |
| Revenues | \$21,442,657 | \$19,342,664 | \$17,379,278 | \$17,163,307 |
| Cost of sales | 13,809,431 | 12,943,600 | 10,782,222 | 11,128,511 |
| Gross profit | 7,633,226 | 6,399,064 | 6,597,056 | 6,034,796 |
| Operating expenses | 10,276,576 | 10,102,381 | 7,640,459 | 7,892,846 |
| Loss from operations | (2,643,350) | (3,703,317) | (1,043,403) | (1,858,050) |
| Other expense, net | (157,610) | (167,635) | (122,398) | (116,681) |
| Consolidated net loss | (2,800,960) | (3,870,952) | (1,165,801) | (1,974,731) |
| Loss attributable to the noncontrolling interest | 73,547 | 125,140 | 64,962 | 45,587 |
| Net loss attributable to Tecogen Inc. | \$(2,727,413) | \$(3,745,812) | \$(1,100,839) | \$(1,929,144) |
| Net loss attributable to Tecogen Inc. per share - basic and diluted | \$(0.16) | \$(0.24) | \$(0.06) | \$(0.12) |
| Weighted average shares outstanding - basic and diluted | 16,860,453 | 15,607,897 | 19,071,497 | 16,575,879 |

| | As of September 30, 2016 | As of December 31, 2015 | As of December 31, 2014 |
|--------------------------------|-----------------------------------|-------------------------------|-------------------------------|
| Financial Position Data: | | | |
| Cash and cash equivalents | \$3,502,057 | \$5,486,526 | \$1,186,033 |
| Working capital ⁽¹⁾ | 14,264,031 | 14,027,370 | 7,217,583 |
| Total Assets | 23,190,670 | 21,090,640 | 14,121,531 |
| Total current liabilities | 5,236,663 | 5,375,610 | 5,091,042 |
| Total non-current liabilities | 3,576,725 | 3,273,162 | 3,207,153 |
| Total shareholders' equity | 14,377,282 | 12,441,868 | 5,823,336 |

⁽¹⁾ Tecogen defines working capital as total current assets minus total current liabilities

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Selected Historical Financial Information of ADGE

The following selected historical financial information of ADGE as of December 31, 2015 and 2014 and for each of the years in the two year period ended December 31, 2015 has been derived from ADGE's audited consolidated financial statements contained in ADGE's Forms 8-K and 8-K/A filed on December 5, 2016 and December 7, 2016, respectively, with the SEC and which are incorporated by reference into this joint proxy statement/prospectus. The audited consolidated financial statements contained in ADGE's Annual Report on Form 10-K for the year ended December 31, 2015 have been retroactively reclassified to reflect amounts attributable to a component of ADGE's business disposed of in 2016 as discontinued operations. The retroactively reclassified financial statements and related notes are included in the aforementioned Forms 8-K and 8-K/A. The selected historical financial information as of September 30, 2016 and for the nine months ended September 30, 2016 and 2015 is unaudited and has been derived from ADGE's unaudited condensed consolidated financial statements contained in ADGE's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2016, which has been filed with the SEC and which is incorporated by reference into this joint proxy statement/prospectus. Interim results for the nine months ended September 30, 2016 are not necessarily indicative of, and are not projections for, the results to be expected for the fiscal year ending December 31, 2016 or of the combined company following the Merger.

You should read this selected historical financial information together with the financial statements filed with the SEC and incorporated by reference into this joint proxy statement/prospectus and their accompanying notes and management's discussion and analysis of operations and financial condition of ADGE.

| | Year Ended December 31, | | Nine Months Ended | |
|--|-------------------------|--------------------|-------------------|---------------|
| | 2015 | 2014 | September 30, | 2015 |
| Statements of Operations Data: | | | | |
| Revenues | \$6,358,196 | \$6,989,680 | \$4,567,023 | \$5,038,393 |
| Cost of sales | 6,411,568 | 6,682,496 | 4,060,735 | 4,365,120 |
| Gross profit (loss) | (53,372) | 307,184 | 506,288 | 673,273 |
| Operating expenses | 3,386,362 | 3,733,308 | 1,679,740 | 2,529,218 |
| Loss from operations | (3,439,734) | (3,426,124) | (1,173,452) | (1,855,945) |
| Other income (expense), net | (1,034,254) | (1,150,252) | 3,330,343 | (723,243) |
| Income (loss) from continuing operations | (4,501,593) | (4,580,253) | 2,096,603 | (2,595,341) |
| Loss from discontinued operations | (1,384,122) | (1,945,105) | (1,219,256) | (1,143,143) |
| Consolidated net income (loss) | (5,885,715) | (6,525,358) | 877,347 | (3,738,484) |
| Loss attributable to the noncontrolling interest | 455,312 | 636,464 | 682,267 | 331,356 |
| Net income (loss) attributable to ADGE Inc. | \$(5,430,403) | \$(5,888,894) | \$1,559,614 | \$(3,407,128) |
| Income (loss) per share from continuing operations - basic and diluted | \$(0.09) | \$(0.09) | \$0.04 | \$(0.05) |
| Net income (loss) per share - basic and diluted | \$(0.11) | \$(0.12) | \$0.03 | \$(0.07) |
| Weighted average shares outstanding - basic and diluted | 50,689,633 | 50,999,408 | 50,684,095 | 50,687,355 |
| | As of | As of December 31, | | |
| | September 30, | 2015 | 2014 | |
| | 2016 | | | |
| Financial Position Data: | | | | |
| Cash and cash equivalents | \$3,187,634 | \$4,999,709 | \$8,049,063 | |
| Working capital ⁽¹⁾ | 4,530,953 | 6,210,765 | 13,303,032 | |
| Total Assets | 23,652,127 | 34,022,378 | 40,005,840 | |
| Total current liabilities | 786,465 | 2,291,735 | 1,721,905 | |
| Total non-current liabilities | 3,005,369 | 20,615,334 | 20,518,666 | |
| Total shareholders' equity | 19,860,293 | 11,115,309 | 17,765,269 | |

(1) ADGE defines working capital as total current assets minus total current liabilities

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Summary Unaudited Pro Forma Condensed Combined Financial Information

The following table shows summary unaudited pro forma condensed combined financial information, which we refer to as the summary pro forma financial information, about the financial position and results of operations of Tecogen, after giving effect to the merger, which were prepared using the acquisition method of accounting with Tecogen designated as the accounting acquirer of ADGE. See “Unaudited Pro Forma Condensed Combined Financial Information” for more information.

The summary pro forma financial information is presented for informational purposes only and are not necessarily indicative of what the combined company’s financial position actually would have been had the merger been completed on date indicated or what the combined company's results of operations actually would have been had the merger been completed as of the beginning of the periods indicated. In addition, the pro forma financial statements do not purport to project the future financial position or operating results of the combined company. The summary pro forma financial information includes adjustments which are preliminary and may be revised. There can be no assurance that such revisions will not result in material changes to the information presented.

The summary pro forma financial information has been derived from and should be read in conjunction with the consolidated financial statements and the related notes of Tecogen Inc., as filed with its Annual Report on Form 10-K for the fiscal year ended December 31, 2015; of American DG Energy Inc., as filed on Forms 8-K and 8-K/A dated December 5, 2016 and December 7, 2016, respectively, and their respective Quarterly Reports on Form 10-Q for the nine months ended September 30, 2016, which are incorporated by reference in this joint proxy statement/prospectus, and the more detailed unaudited pro forma condensed combined financial information, including the notes thereto, appearing elsewhere in this joint proxy statement/prospectus. See “Where You Can Find More Information; Incorporation by Reference” and see “Unaudited Pro Forma Condensed Combined Financial Information.”

| | As of or for the Nine Months Ended September 30, 2016 (Unaudited) | For the Year Ended December 31, 2015 (Unaudited) |
|---|---|--|
| Pro Forma Condensed Combined Statement of Operation Data: | | |
| Net sales and gross revenues | \$21,218,166 | \$25,959,326 |
| Net loss from continuing operations | (1,788,823) | (5,352,972) |
| Net loss attributable to Tecogen Inc. shareholders | (1,775,442) | (5,503,252) |
| Loss per share - basic and diluted | \$(0.07) | \$(0.26) |
| Pro Forma Condensed Combined Balance Sheet | | |
| Data: | | |
| Total assets | \$53,435,415 | |
| Total liabilities | 20,316,732 | |
| Total equity | \$33,118,683 | |

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Unaudited Pro Forma Condensed Combined Financial Information

On November 1, 2016, Tecogen, Merger Sub and ADGE entered into the Merger Agreement. Subject to the terms and conditions of the Merger Agreement, Merger Sub will merge with and into ADGE with ADGE surviving as a wholly-owned subsidiary of Tecogen.

The following unaudited pro forma condensed combined financial statements, which we refer to as the pro forma financial statements, present the combination of the historical consolidated financial statements of Tecogen and ADGE, adjusted to give effect to the Merger.

The unaudited pro forma condensed combined balance sheet, which we refer to as the pro forma balance sheet, combines the unaudited historical condensed consolidated balance sheets of Tecogen and ADGE as of September 30, 2016, giving effect to the Merger as if it had been consummated on September 30, 2016.

The unaudited pro forma condensed combined statement of operations for the fiscal year ended December 31, 2015 combines the audited consolidated statements of operations of Tecogen and ADGE for the fiscal year ended December 31, 2015, giving effect to the Merger as if it had been consummated on January 1, 2015 and the unaudited pro forma condensed combined statement of operations for the nine months ended September 30, 2016 combines the unaudited consolidated statements of operations of Tecogen and ADGE for the nine months ended September 30, 2016, giving effect to the Merger as if it had been consummated on January 1, 2015. We refer to these unaudited pro forma condensed combined statements of operations, collectively, as the pro forma statements of operations.

The historical consolidated financial information of Tecogen and ADGE has been adjusted in the pro forma financial statements to give effect to pro forma events that are (1) directly attributable to the Merger, (2) factually supportable, and (3) with respect to the pro forma statements of income, expected to have a continuing impact on the combined results. The pro forma financial statements should be read in conjunction with the accompanying notes to the pro forma financial statements. In addition, the pro forma financial statements were based on and should be read in conjunction with the following historical consolidated financial statements and accompanying notes of Tecogen and ADGE for the applicable periods, which are incorporated by reference in this joint proxy statement/prospectus:

• Separate historical financial statements of Tecogen as of and for the fiscal year ended December 31, 2015 and the related notes included in Tecogen's Annual Report on Form 10-K for the year ended December 31, 2015.

• Separate historical financial statements of Tecogen as of and for the nine months ended September 30, 2016 and the related notes included in Tecogen's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016.

• Separate historical financial statements of ADGE as of and for the fiscal year ended December 31, 2015 and the related notes included in ADGE's Forms 8-K and 8-K/A dated December 5, 2016 and December 7, 2016, respectively.

• Separate historical financial statements of ADGE as of and for the nine months ended September 30, 2016 and the related notes included in ADGE's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016.

The pro forma financial statements have been presented for informational purposes only and are not necessarily indicative of what the combined company's financial position or results of operations actually would have been had the Merger been completed as of the dates indicated. In addition, the pro forma financial statements do not purport to project the future financial position or operating results of the combined company. Transactions between Tecogen and ADGE during the periods presented in the pro forma financial statements have been eliminated as if Tecogen and ADGE were consolidated affiliates during the periods.

The pro forma financial statements have been prepared using the acquisition method of accounting under existing U.S. GAAP, which requires that one of the two companies in a merger be designated as the acquirer for accounting purposes. Based on the evidence available, Tecogen has been designated as the acquirer in the Merger for accounting purposes. The acquisition accounting is dependent upon certain valuations and other studies that have yet to progress to a stage where there is sufficient information for a definitive measurement. Tecogen intends to complete the valuations and other studies upon completion of the Merger and will finalize the allocation of consideration as soon as practicable within the measurement period in accordance with ASC 805, but in no event later than one year following the closing date of the Merger. The assets and liabilities of ADGE have been measured based on various preliminary estimates using assumptions that Tecogen believes are reasonable based on information that is currently available. In

addition, the proposed Merger has not yet received all necessary approvals from governmental authorities. Under the HSR Act and other relevant laws and regulations, there are significant limitations regarding the information Tecogen and ADGE can share with each other prior to the closing. Accordingly, the pro forma adjustments are preliminary and have been made solely for the purpose of providing pro forma financial statements prepared in accordance with the rules and regulations of the SEC. Differences between these preliminary estimates and the final acquisition accounting may occur and these differences could have a material impact on the accompanying pro forma financial statements and the combined company's future results of operations and financial position.

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The unaudited pro forma condensed combined financial statements set forth below primarily give effect to the following:

- application of the acquisition method of accounting in connection with the Merger to reflect the aggregate purchase consideration;
- the issuance of Tecogen common shares to the shareholders of ADGE as a portion of the merger consideration;
- the issuance of equity replacement awards to holders of ADGE's outstanding equity awards; and
- transaction costs in connection with the Merger.

Upon completion of the Merger, Tecogen will perform a detailed review of ADGE's accounting policies. As a result of that review, Tecogen may identify differences between the accounting policies of the two companies that, when conformed, could have a material impact on the consolidated financial statements of the combined company. At this time, Tecogen is not aware of any significant accounting policy differences.

The pro forma financial statements do not reflect any cost or growth synergies that the combined company may achieve as a result of the Merger, or the costs to combine the operations of Tecogen and ADGE, or the costs necessary to achieve these cost or growth synergies.

Additional Events

Additionally, the historical consolidated financial information of Tecogen and ADGE has been adjusted in the pro forma financial statements to give effect to the extinguishment of indebtedness of ADGE through a series of exchange transactions which occurred during the nine month period ended September 30, 2016. Those transactions resulted in the elimination of a significant majority of ADGE's outstanding convertible indebtedness in exchange for a significant majority of ADGE's interest in one of its previously consolidated subsidiaries. The operating results of that previously consolidated subsidiary are reflected as discontinued operations in ADGE's historical financial statements. The historical consolidated financial information of Tecogen and ADGE has been adjusted in the pro forma financial statements to give effect to the exchange transactions as if they had occurred on January 1, 2015. The effects of those adjustments are separately identified in the unaudited pro forma condensed combined financial statements set forth below.

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TECOGEN INC.
Pro Forma Condensed Combined Balance Sheet
As of September 30, 2016
(Unaudited)

| | Historical | | Merger Related Pro Forma Adjustments | Notes | Tecogen Pro |
|---|--------------|--------------|---|-------|--------------------------------|
| | Tecogen | ADGE | | | Forma Condensed Combined |
| Assets | | | | | |
| Current assets: | | | | | |
| Cash and cash equivalents | \$3,502,057 | \$3,187,634 | \$— | | \$6,689,691 |
| Accounts receivable, net | 7,957,325 | 748,080 | (425,284) | 5(a) | 8,280,121 |
| Unbilled revenue | 2,096,667 | 14,147 | — | | 2,110,814 |
| Inventory, net | 5,058,147 | 850,535 | (367,974) | 5(b) | 5,540,708 |
| Due from related party | 432,995 | 80,380 | — | | 513,375 |
| Prepaid and other current assets | 453,503 | 436,642 | — | | 890,145 |
| Total current assets | 19,500,694 | 5,317,418 | (793,258) | | 24,024,854 |
| Property, plant and equipment, net | 548,357 | 17,677,724 | (1,366,672) | 5(c) | 16,859,409 |
| Intangible assets, net | 1,042,324 | — | — | | 1,042,324 |
| Excess of cost over fair value of net assets acquired | 40,870 | — | 7,135,520 | 3,4 | 7,176,390 |
| Investment in Ultra Emissions Technologies Limited | 2,000,000 | — | — | | 2,000,000 |
| Investment securities | — | 645,539 | — | | 645,539 |
| Other assets | 58,425 | 11,446 | — | | 69,871 |
| Total assets | \$23,190,670 | \$23,652,127 | \$4,975,590 | | \$51,818,387 |
| Liabilities and stockholders' equity | | | | | |
| Current liabilities: | | | | | |
| Accounts payable | \$3,032,613 | \$171,525 | \$(49,139) | 5(a) | \$3,154,999 |
| Accrued expenses | 1,189,669 | 238,795 | 520,000 | 5(d) | 1,948,464 |
| Due to related party | — | 376,145 | (376,145) | 5(a) | — |
| Deferred revenue | 1,014,381 | — | — | | 1,014,381 |
| Total current liabilities | 5,236,663 | 786,465 | 94,716 | | 6,117,844 |
| Deferred revenue, net of current portion | 439,825 | — | — | | 439,825 |
| Unfavorable contract liability | — | — | 7,631,794 | 5(e) | 7,631,794 |
| Senior convertible promissory note, related party | 3,136,900 | 3,005,369 | — | | 6,142,269 |
| Total liabilities | 8,813,388 | 3,791,834 | 7,726,510 | | 20,331,732 |
| Stockholders' equity: | | | | | |
| Tecogen Inc shareholders' equity | 14,377,282 | — | 17,473,393 | 5(f) | 31,850,675 |
| American DG Energy Inc. shareholders' equity | — | 19,791,457 | (19,791,457) | 5(g) | — |
| Noncontrolling interest | — | 68,836 | (432,856) | 5(h) | (364,020) |
| Total stockholders' equity | 14,377,282 | 19,860,293 | (2,750,920) | | 31,486,655 |
| Total liabilities and stockholders' equity | \$23,190,670 | \$23,652,127 | \$4,975,590 | | \$51,818,387 |

The accompanying notes are an integral part of the unaudited pro forma condensed combined financial statements.

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TECOGEN INC.
Pro Forma Condensed Combined Statement of Operations
For the Nine Months Ended September 30, 2016
(Unaudited)

| | Historical | | Merger Related Pro Forma Adjustments | Notes | Pro Forma Results of Acquisition of American DG | Exchange Transactions Pro Forma Adjustments | Notes | Tecogen Pro Forma Condensed Combined |
|--|-----------------|--------------|---|-------|---|--|-------|---|
| | Tecogen | ADGE | | | | | | |
| Net sales and gross revenues | \$ 17,379,278 | \$ 4,567,023 | \$ (728,135) | 6(a) | \$ 21,218,166 | \$— | | \$ 21,218,166 |
| Cost and expenses applicable to sales and revenues | 10,782,222 | 4,060,735 | (1,436,413) | 6(b) | 13,406,544 | — | | 13,406,544 |
| Gross profit | 6,597,056 | 506,288 | 708,278 | | 7,811,622 | — | | 7,811,622 |
| Selling, general and administrative expenses | 7,115,763 | 1,679,740 | (107,581) | 6(c) | 8,687,922 | — | | 8,687,922 |
| Research and development | 524,696 | — | — | | 524,696 | — | | 524,696 |
| Loss from operations | (1,043,403) | (1,173,452) | 815,859 | | (1,400,996) | — | | (1,400,996) |
| Interest and other income | 9,575 | 19,702 | — | | 29,277 | — | | 29,277 |
| Interest expense | (131,973) | (759,344) | — | | (891,317) | 534,501 | 8 | (356,816) |
| Gain on extinguishment of debt | — | 182,887 | — | | 182,887 | (182,887) | 8 | — |
| Gain on deconsolidation of subsidiary | — | 3,887,098 | — | | 3,887,098 | (3,887,098) | 8 | — |
| Income (loss) from continuing operations before income taxes | (1,165,801) | 2,156,891 | 815,859 | | 1,806,949 | (3,535,484) | | (1,728,535) |
| Provision for income taxes on continuing operations | — | (60,288) | — | | (60,288) | | | (60,288) |
| Net income (loss) from continuing operations | (1,165,801) | 2,096,603 | 815,859 | | 1,746,661 | (3,535,484) | | (1,788,823) |
| (Income) loss attributable to noncontrolling interest | 64,962 | (51,581) | — | | 13,381 | | | 13,381 |
| | \$ (1,100,839) | \$ 2,045,022 | \$ 815,859 | | \$ 1,760,042 | \$ (3,535,484) | | \$ (1,775,442) |

Net income (loss)
 attributable to
 Tecogen Inc.
 shareholders

Per common share
 data (Note 7)

| | | | |
|--|------------|---------|------------|
| Net income (loss) per share - basic | \$ (0.06) | \$ 0.07 | \$ (0.07) |
|--|------------|---------|------------|

| | | | |
|--|------------|---------|------------|
| Net income (loss) per share - diluted | \$ (0.06) | \$ 0.07 | \$ (0.07) |
|--|------------|---------|------------|

| | | | |
|--|------------|------------|------------|
| Weighted average shares outstanding - basic | 19,071,497 | 23,734,434 | 23,734,434 |
|--|------------|------------|------------|

| | | | |
|--|------------|------------|------------|
| Weighted average shares outstanding - diluted | 19,071,497 | 24,130,412 | 23,734,434 |
|--|------------|------------|------------|

The accompanying notes are an integral part of the unaudited pro forma condensed combined financial statements.

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TECOGEN INC.
Pro Forma Condensed Combined Statement of Operations
For the Year Ended December 31, 2015
(Unaudited)

| | Historical | | Merger Related Pro Forma Adjustments | Notes | Pro Forma Results of Acquisition of ADGE | Exchange Transactions Pro Forma Adjustments | Notes | Tecogen Pro Forma Condensed Combined |
|---|---------------|---------------|---|-------|---|--|-------|---|
| | Tecogen | ADGE | | | | | | |
| Net sales and gross revenues | \$21,442,657 | \$6,358,196 | \$(1,841,527) | 6(a) | \$25,959,326 | \$— | | \$25,959,326 |
| Cost and expenses applicable to sales and revenues | 13,809,431 | 6,411,568 | (2,800,956) | 6(b) | 17,420,043 | — | | 17,420,043 |
| Gross profit | 7,633,226 | (53,372) | 959,429 | | 8,539,283 | — | | 8,539,283 |
| Selling, general and administrative expenses | 9,684,991 | 3,386,362 | — | | 13,071,353 | — | | 13,071,353 |
| Research and development | 591,585 | — | — | | 591,585 | — | | 591,585 |
| Loss from operations | (2,643,350) | (3,439,734) | 959,429 | | (5,123,655) | — | | (5,123,655) |
| Interest and other income | 14,334 | 193,691 | — | | 208,025 | — | | 208,025 |
| Interest expense | (171,944) | (1,234,725) | — | | (1,406,669) | 990,152 | 8 | (416,517) |
| Other income (expense) | — | 6,780 | — | | 6,780 | — | 8 | 6,780 |
| Loss from continuing operations before income taxes | (2,800,960) | (4,473,988) | 959,429 | | (6,315,519) | 990,152 | | (5,325,367) |
| Provision for income taxes on continuing operations | — | (27,605) | — | | (27,605) | — | | (27,605) |
| Net loss from continuing operations | (2,800,960) | (4,501,593) | 959,429 | | (6,343,124) | 990,152 | | (5,352,972) |
| (Income) loss attributable to noncontrolling interest | 73,547 | (223,827) | — | | (150,280) | — | | (150,280) |
| Net loss attributable to Tecogen Inc. shareholders | \$(2,727,413) | \$(4,725,420) | \$959,429 | | \$(6,493,404) | \$990,152 | | \$(5,503,252) |

Per common share
data (Note 7)

| | | | |
|---|------------|------------|------------|
| Net loss per share - basic and diluted | \$ (0.16) | \$ (0.30) | \$ (0.26) |
| Weighted average shares outstanding - basic and diluted | 16,860,453 | 21,523,390 | 21,523,390 |

The accompanying notes are an integral part of the unaudited pro forma condensed combined financial statements.

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Notes to Unaudited Pro Forma Condensed Combined Financial Statements

Note 1. Description of the Transaction

Tecogen Inc. and ADGE have agreed to the strategic combination of Tecogen and ADGE under the terms of the Merger Agreement that is described in this joint proxy statement/prospectus. On November 1, 2016, Tecogen Inc. (NASDAQ: TGEN), a Delaware corporation ("Tecogen"), entered into an Agreement and Plan of Merger, dated as of November 1, 2016 (the "Merger Agreement") by and among, Tecogen and American DG Energy Inc. (NYSE MKT: ADGE), a Delaware corporation ("ADGE"), and Tecogen.ADGE Acquisition Corp Inc., a Delaware corporation and a wholly-owned subsidiary of Tecogen ("Merger Subsidiary").

Under the terms of the Merger Agreement, Merger Subsidiary will merge with and into ADGE, with ADGE becoming a wholly-owned subsidiary of Tecogen, and the surviving corporation of the transaction (the "Merger"). The Merger is intended to qualify for federal income tax purposes as a tax-free reorganization under the provisions of Section 368(a) of the Internal Revenue Code of 1986. Subject to the terms and conditions of the Merger Agreement and shareholder approval, at the closing of the Merger, each outstanding share of ADGE common stock will be converted into the right to receive approximately 0.092 shares of common stock of Tecogen ("the Exchange Ratio"). Consummation of the Merger is subject to customary closing conditions, including, among other things, approval by the stockholders of Tecogen and ADGE. The Merger Agreement does not contain any termination, prohibitions on termination, no-shop clause, or reimbursements of Merger related expenses. As part of the Merger Agreement, ADGE and Tecogen have made customary mutual representations and warranties.

Also in connection with the Merger, Tecogen will, at the effective time of the Merger, assume the (a) outstanding stock options of ADGE and (b) outstanding warrants of ADGE, each as adjusted pursuant to the Exchange Ratio and subject to the terms of the Merger Agreement. All outstanding stock options and restricted stock units of ADGE will be cancelled and extinguished at the effective time of the Merger without any right to receive any consideration in ADGE.

Note 2. Basis of Pro Forma Presentation

The accompanying pro forma financial statements were prepared in accordance with Article 11 of Regulation S-X using the acquisition method of accounting in accordance with ASC 805, and are based on the historical consolidated financial information of Tecogen and ADGE. The historical consolidated financial information has been adjusted in the accompanying pro forma financial statements to give effect to pro forma events that are (i) directly attributable to the merger, (ii) factually supportable, and (iii) with respect to the unaudited pro forma condensed combined statements of operation, expected to have a continuing impact on the consolidated results.

U.S. GAAP requires that one of the two companies in the merger be designated as the acquirer for accounting purposes based on the evidence available. In identifying Tecogen as the acquiring entity for accounting purposes, the companies took into account the voting rights of all equity instruments, the intended corporate governance structure of the combined company, and the size of each of the companies. In assessing the size of each of the companies, the companies evaluated various metrics, including, but not limited to: assets, revenue, operating income (loss), EBITDA, adjusted EBITDA, market capitalization and enterprise value. No single factor was the sole determinant in the overall conclusion that Tecogen is the acquirer for accounting purposes; rather, all factors were considered in arriving at the conclusion. Under ASC 805, Tecogen, as the accounting acquirer, will account for the transaction by using Tecogen historical information and accounting policies and adding the assets and liabilities of ADGE as of the closing date at their respective fair values.

The acquisition method of accounting uses the fair value concepts defined in ASC 820, Fair Value Measurements and Disclosures (ASC 820). Fair value is defined in ASC 820 as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value measurements can be highly subjective and it is possible the application of reasonable judgment could develop different assumptions resulting in a range of alternative estimates using the same facts and circumstances. The allocation of the estimated consideration is preliminary, pending finalization of various estimates and analyses. Since these pro forma financial statements have been prepared based on preliminary estimates of consideration and fair values attributable to the Merger, the actual amounts eventually recorded for the Merger, including goodwill, may

differ materially from the information presented.

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The initial allocation of the preliminary consideration in these pro forma financial statements is based upon an estimated preliminary consideration of approximately \$19.5 million. This amount is based on approximately 4.7 million shares of common stock that Tecogen would expect to issue to holders of ADGE common stock in connection with the Merger, based on the number of shares of ADGE common stock outstanding as of December 19, 2016 and the ADGE Exchange Ratio of 0.092 provided in the Merger Agreement. The preliminary consideration has been prepared based on the share price of Tecogen common stock on December 19, 2016 (the latest practicable date prior to the date of this document), equal to \$3.84 per share. The actual number of shares of Tecogen common stock issued to holders of ADGE common stock will be based upon the actual number of ADGE shares issued and outstanding immediately prior to the effective time. Additional consideration, currently estimated at approximately \$100,000 is expected for equity-based awards of ADGE as all awards will vest immediately upon the close of the Merger under a preexisting provision and Tecogen is obligated in the Merger Agreement to replace the awards. The Merger Agreement does not contain any provision that would adjust the Exchange Ratio based on the fluctuations in the market value of either the Tecogen common stock or ADGE common stock. As a result, the implied value of the Merger consideration to the Tecogen stockholders and ADGE stockholders will fluctuate between now and the closing date of the Merger.

One-time transaction-related expenses anticipated to be incurred prior to, or concurrent with, the closing are not included in the pro forma statements of operations. However, the impact of such transaction expenses is reflected in the pro forma balance sheet as an increase to accumulated deficit and an increase to accrued expenses and other current liabilities.

The pro forma statement of operations for the fiscal year ended December 31, 2015 combines the audited historical consolidated statements of operations of Tecogen and ADGE for the fiscal year ended December 31, 2015, giving effect to the Merger as if it had been consummated on January 1, 2015, and the pro forma statement of operations for the nine months ended September 30, 2016 combines the unaudited historical consolidated statements of operations of Tecogen and ADGE for the nine months ended September 30, 2016, giving effect to the Merger as if it had been consummated on January 1, 2015.

The pro forma balance sheet combines the unaudited historical consolidated balance sheets of Tecogen and ADGE as of September 30, 2016, giving effect to the Merger as if it had been consummated on September 30, 2016.

Note 3. Preliminary Consideration

The preliminary consideration is calculated as follows:

| | |
|--|--------------|
| ADGE common shares outstanding as of December 19, 2016 | 50,684,095 |
| ADGE exchange ratio | 0.092 |
| Tecogen common shares issued in exchange | 4,662,937 |
| Tecogen closing share price on December 19, 2016 | 3.84 |
| Fair value of Tecogen common shares issued in exchange | 17,905,678 |
| Fair value of ADGE vested equity awards | 67,715 |
| Preliminary consideration | \$17,973,393 |

As there is no required service condition in the replacement equity-based awards, 100% of the fair value of the ADGE equity-based awards at the date of the Merger is considered attributable to pre-combination service and accordingly is included in the preliminary consideration.

The preliminary value of the consideration does not purport to represent the actual value of the total consideration that will be received by the ADGE stockholders when the Merger is completed. In accordance with U.S. GAAP, the fair value of the equity securities comprising the consideration will be measured on the closing date of the merger at the then-current market price per share of Tecogen common stock. This requirement will likely result in a difference from the \$3.84 per share on December 19, 2016, assumed in the calculation, and that difference may be material. For example, an increase or decrease of 30% in the price of Tecogen's common stock on the closing date of the merger from the price of Tecogen common stock assumed in these pro forma financial statements would change the value of the preliminary consideration by approximately \$5.9 million, which would be reflected as a corresponding increase or decrease to goodwill. Based on Tecogen's annual historical stock price volatility of approximately 32%, a 30% change

in Tecogen common share price is reasonably possible during the period between the date of this joint proxy statement/prospectus and the expected closing date of the Merger.

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Note 4. Fair Value Estimate of Assets to be Acquired and Liabilities to be Assumed

The table below represents an initial allocation of the preliminary consideration to ADGE's tangible and intangible assets acquired and liabilities assumed based on management's preliminary estimate of their respective fair values as of September 30, 2016:

| | ADGE | Fair Value Adjustment | Fair Value | Goodwill Calculation | Notes |
|--|--------------|--------------------------|--------------|-------------------------|-------|
| Preliminary consideration | \$— | \$— | \$17,973,393 | | 3 |
| Noncontrolling interest | 68,836 | (432,856) | (364,020) | | 5(h) |
| Total | \$68,836 | \$(432,856) | \$17,609,373 | \$17,609,373 | |
| Inventories | \$850,535 | \$(367,974) | \$482,561 | | 5(b) |
| Net properties | 17,677,724 | (1,366,672) | 16,311,052 | | 5(c) |
| All other assets (excluding goodwill) (i) | 5,123,868 | — | 5,123,868 | | |
| Total assets (excluding goodwill) | \$23,652,127 | \$(1,734,646) | \$21,917,481 | | |
| Accrued expenses and other current liabilities | \$238,795 | \$20,000 | \$258,795 | | 5(d) |
| Unfavorable contract liability | — | 7,631,794 | 7,631,794 | | 5(e) |
| All other liabilities (i) | 3,553,039 | — | 3,553,039 | | |
| Total liabilities | \$3,791,834 | \$7,651,794 | \$11,443,628 | | |
| Fair value of net assets (excluding goodwill) | | | | 10,473,853 | |
| Tecogen goodwill attributable to ADGE | | | | \$7,135,520 | 3 |

(i) Management determined the carrying values approximated fair value.

Note 5. Adjustments to Pro Forma Balance Sheet

Explanations of the adjustments to the pro forma balance sheet are as follows:

(a) Represents elimination of amounts due to and amounts due from and between Tecogen and ADGE as if they were intercompany balances normally subject to elimination in consolidation.

(b) Represents an estimate of the amount required to decrease the historical carrying value of ADGE's inventory to net realizable value less a margin for the selling effort. Following the Merger, this one time adjustment to inventory will be recognized in cost of sales as the inventory is sold, which for purposes of these pro forma financial statements is assumed to occur in the first year following the Merger. As there is no continuing impact of the fair value adjustment to inventory on Tecogen's results, it has not been reflected in the pro forma statement of operations.

(c) Represents the preliminary fair value and resulting adjustment to net property. The preliminary amounts assigned to net property and estimated weighted average useful lives are as follows:

| | Preliminary Fair Value | Estimated Weighted Average Useful Life (in years) |
|---------------------------------------|---------------------------|---|
| Energy systems | \$13,560,356 | 10.6 |
| Computer equipment and software | 17,585 | 1.4 |
| Furniture and fixtures | 24,361 | 1.5 |
| Vehicles | 28,800 | 3 |
| Construction in process | 2,679,950 | NA |
| Total fair value of ADGE net property | \$16,311,052 | |
| Less: ADGE's historical net property | (17,677,724) | |
| Pro forma adjustment | \$(1,366,672) | |

The preliminary fair values of the net property were estimated by asset group using a replacement-cost approach which considered the depreciated cost of a replacement equivalent and factors for functional obsolescence.

(d) Represents an estimate of the fair value of the liability of ADGE's guarantee of certain outstanding obligations of one of its former subsidiaries of \$20,000 and an estimate of merger related costs of \$500,000 to be incurred subsequent to September 30, 2016. The obligations guaranteed include: 1.) certain long term unsecured convertible indebtedness, with a remaining principal amount outstanding subject to the guarantee at September 30, 2016 of

\$300,000 with a maturity date of June 17, 2017; 2.) certain collateralized equipment financing loans; and 3.) certain performance obligations in respect of customer contracts.

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(e) Represents the estimated fair value of ADGE's customer contracts, which was determined as the present value of the difference between the contractual operating results of the executory contracts based on existing terms and under current market conditions and the estimated operating results had the contracts been executed at the Merger date on market terms. The estimated amount generally reflects the unfavorable to current market terms of existing non-cancelable executory contracts which are primarily a result of existing terms which do not provide adequate returns due to changes in market conditions since the inception of the contracts such as utility rates and load requirements of the sites.

The pro forma adjustment includes amounts related to contracts with terms favorable to the current market as well as contracts with terms unfavorable to the current market as follows:

| | |
|--|--------------|
| Contracts with terms unfavorable to market | \$9,122,440 |
| Less: Contracts with terms favorable to market | (1,490,646) |
| Unfavorable contract liability | \$7,631,794 |

Amortization of the unfavorable contract liability is calculated using the straight line method by year and is estimated to be as follows:

| | |
|---------|-------------|
| Year 1 | \$877,789 |
| Year 2 | 862,730 |
| Year 3 | 791,543 |
| Year 4 | 731,889 |
| Year 5 | 731,889 |
| Year 6 | 722,979 |
| Year 7 | 681,353 |
| Year 8 | 665,881 |
| Year 9 | 563,542 |
| Year 10 | 353,611 |
| Year 11 | 219,995 |
| Year 12 | 165,615 |
| Year 13 | 108,661 |
| Year 14 | 90,494 |
| Year 15 | 63,823 |
| | \$7,631,794 |

(f) Represents the preliminary consideration above in Note 3, less expected merger costs to be incurred and expensed subsequent to September 30, 2016 as follow:

| | |
|------------------------------|--------------|
| Preliminary consideration | \$17,973,393 |
| Less: Estimated merger costs | (500,000) |
| Pro forma adjustment | \$17,473,393 |

(g) Represents elimination of ADGE's historical equity.

(h) Represents the noncontrolling interest's share of pro forma adjustments affecting the assets and liabilities of less than wholly-owned subsidiaries.

No deferred tax assets have been included as an adjustment in the pro forma balance sheet related to the foregoing fair value adjustments as it not considered more likely than not that any such deferred tax assets would be realizable.

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Note 6. Adjustments to Pro Forma Income Statements

Explanations of the adjustments to the pro forma income statements are as follows:

(a) Represents elimination of sales and service revenue by Tecogen to ADGE as if they were intercompany transactions normally subject to elimination in consolidation.

(b) Represents amortization of the unfavorable contract liability in Note 5(e), elimination of purchase and operating cost from Tecogen recognized by ADGE (see Note 6(a)), and an adjustment to depreciation expense related to the fair value adjustment to net property (see Note 5(c)) as follows:

| | Nine months Ended September 30, 2016 | Year Ended December 31, 2015 |
|---|---|------------------------------------|
| Amortization of unfavorable contract liability | \$(647,048) | \$(877,789) |
| Elimination of ADGE purchases and service costs from Tecogen | (728,135) | (1,841,527) |
| Adjustment for depreciation for fair value adjustment to net property | (61,230) | (81,640) |
| Pro forma adjustment | \$(1,436,413) | \$(2,800,956) |

(c) Represents the elimination of one-time transaction costs incurred and expensed during the nine months ended September 30, 2016 directly attributable to the Merger as such costs are not expected to have a continuing impact on combined results.

Note 7. Tecogen Earnings Per Share Information

The weighted average shares used in determining earnings or loss per share in the accompanying pro forma statements of operations are shown in the following table.

| | Tecogen Historical | Pro Forma Results of Acquisition of ADGE | Tecogen Pro Forma Condensed Combined |
|---|-----------------------|---|---|
| Nine months ended September 30, 2016: | | | |
| Historical Tecogen Inc. weighted average shares outstanding | 19,071,497 | 19,071,497 | 19,071,497 |
| Tecogen shares issuable to the shareholders of ADGE in connection with the merger | — | 4,662,937 | 4,662,937 |
| Denominator for basic earnings (loss) per share | 19,071,497 | 23,734,434 | 23,734,434 |
| Common stock equivalents related to stock options | — | 395,978 | — |
| Common stock equivalents related to convertible debt | — | — | — |
| Denominator for diluted earnings (loss) per share | 19,071,497 | 24,130,412 | 23,734,434 |
| Year ended ended December 31, 2015: | | | |
| Historical Tecogen Inc. weighted average shares outstanding | 16,860,453 | 16,860,453 | 16,860,453 |
| Tecogen shares issuable to the shareholders of ADGE in connection with the merger | — | 4,662,937 | 4,662,937 |
| Denominator for basic earnings (loss) per share | 16,860,453 | 21,523,390 | 21,523,390 |
| Common stock equivalents related to stock options | — | — | — |
| Common stock equivalents related to convertible debt | — | — | — |
| Denominator for diluted earnings (loss) per share | 16,860,453 | 21,523,390 | 21,523,390 |

Common stock equivalents are anti-dilutive in a period of loss.

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Note 8 . Exchange Transactions

These adjustments to the pro forma statements of operations for the nine months ended September 30, 2016 and the year ended December 31, 2015 are not related to or directly attributable to the merger of Tecogen and ADGE. Rather they relate to certain events and transactions which occurred with ADGE during the nine month period ended September 30, 2016. Through a series of exchange transactions, ADGE extinguished a significant majority of its convertible indebtedness in exchange for a significant majority of ADGE's interest in one of its previously consolidated subsidiaries. The operating results of that previously consolidated subsidiary are reflected as discontinued operations in ADGE's historical financial statements. The historical financial statements of ADGE also include a gain related to the extinguishment of that convertible indebtedness as a result of the exchange transactions as well as the historical interest expense related to the indebtedness which was extinguished as a result of the exchange transactions. The pro forma statements of operations include only amounts relating to the the continuing operations of ADGE as required by Article 11 of regulation S-X. Additionally, during the period between the exchange transactions, ADGE ceased to be the primary beneficiary of the same consolidated subsidiary causing it to deconsolidate that subsidiary resulting in a gain on deconsolidation. These adjustments serve to eliminate the gains recognized in ADGE's historical financial statements that were a result of these transactions and events and the interest cost associated with the convertible indebtedness which was extinguished in order to reflect the continuing impact of that extinguishment as if the exchange transactions had occurred on January 1, 2015.

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Equivalent and Comparative Per Share Information

The following tables set forth, for the nine months ended September 30, 2016 and for the fiscal year ended December 31, 2015, selected per share information for shares of Tecogen common stock on a historical and pro forma combined basis and for shares of ADGE common stock on a historical and pro forma equivalent basis, each on an unaudited basis for the nine months ended September 30, 2016 and after giving effect to the Merger. Tecogen will account for the Merger as a business combination with Tecogen treated as the acquirer of ADGE for accounting purposes. The data is derived from and should be read in conjunction with Tecogen and ADGE audited consolidated financial statements and related notes, the unaudited condensed consolidated interim financial statements of Tecogen and ADGE and related notes, and the unaudited pro forma condensed combined financial information and related notes, which are incorporated by reference and included elsewhere in this joint proxy statement/prospectus.

The pro forma consolidated ADGE equivalent information shows the effect of the Merger from the perspective of an owner of shares of ADGE common stock and was calculated by multiplying the Tecogen pro forma combined per share amounts by the Exchange Ratio.

The unaudited pro forma combined per share data is presented for illustrative purposes only and is not necessarily indicative of the operating results or financial position that would have occurred if the transactions had been completed at the beginning of the earliest period presented, nor is it necessarily indicative of future operating results or financial position. The pro forma adjustments are estimates based upon information and assumptions available at the time of the filing of this joint proxy statement/prospectus.

The pro forma income from continuing operations per share includes the combined income (loss) from continuing operations of Tecogen and ADGE on a pro forma basis as if the transactions were completed on January 1, 2015.

| | Tecogen | | ADGE | |
|--|------------|--------------------|------------|----------------------|
| | Historical | Pro Forma Combined | Historical | Pro Forma Equivalent |
| For the nine months ended September 30, 2016 | | | | |
| Income (loss) from continuing operations attributable to common shareholders per share - basic | \$(0.06) | \$ (0.07) | \$0.04 | \$ (0.01) |
| Income (loss) from continuing operations attributable to common shareholders per share - diluted | (0.06) | (0.07) | 0.04 | (0.01) |
| Dividends per common share | — | NA | — | NA |
| Book value per common share | \$0.72 | \$ 1.35 | \$0.39 | \$ 0.12 |
| | | | | |
| | Tecogen | | ADGE | |
| | Historical | Pro Forma Combined | Historical | Pro Forma Equivalent |
| For the year ended December 31, 2015 | | | | |
| Income (loss) from continuing operations attributable to common shareholders per share - basic | \$(0.16) | \$ (0.26) | \$(0.09) | \$ (0.02) |
| Income (loss) from continuing operations attributable to common shareholders per share - diluted | (0.16) | (0.26) | (0.09) | (0.02) |
| Dividends per common share | — | NA | — | NA |
| Book value per common share | \$0.69 | NA | \$0.18 | NA |

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Comparative Tecogen and ADGE Market Price and Distribution Information

Tecogen's Market Price Data

The shares of Tecogen common stock are listed on the Nasdaq Capital Market under the symbol "TGEN." This table sets forth, for the periods indicated, the high and low closing per share sales prices of Tecogen common stock, as reported on the Nasdaq Capital Market composite transaction reports. No distributions were made by Tecogen during the periods presented.

| | Price Per | |
|-----------------------------------|----------------------------|--------|
| | Tecogen Common Share | |
| | High | Low |
| 2015 | | |
| 1st Quarter | \$5.65 | \$4.55 |
| 2nd Quarter | 5.19 | 3.90 |
| 3rd Quarter | 4.40 | 2.80 |
| 4th Quarter | 4.10 | 2.46 |
| 2016 | | |
| 1st Quarter | \$6.50 | \$2.80 |
| 2nd Quarter | 5.75 | 3.50 |
| 3rd Quarter | 5.20 | 4.00 |
| 4th Quarter (through December 19) | 4.80 | 3.75 |

Tecogen Recent Closing Prices

The closing per share sales prices of shares of Tecogen common stock as reported on the Nasdaq Capital Market on November 1, 2016, the last full trading day before the public announcement of the execution and delivery of the Merger Agreement by Tecogen and ADGE and on December 19, 2016, the latest practicable trading day before the date of this joint proxy statement/prospectus was:

| | Tecogen Common Stock |
|-------------------|----------------------------|
| November 1, 2016 | \$ 4.03 |
| December 19, 2016 | 3.84 |

The market price of shares of Tecogen common stock will fluctuate between the date of this joint proxy statement/prospectus and the Merger effective time.

ADGE's Market Price Data

The shares of ADGE common stock are listed on the NYSE MKT under the symbol "ADGE." This table sets forth, for the periods indicated, the high and low closing per share sales prices of ADGE common stock, as reported on the NYSE MKT composite transaction reports. No distributions were made by ADGE during the periods presented.

| | Price Per | |
|-------------|-------------------------|--------|
| | ADGE Common Share | |
| | High | Low |
| 2015 | | |
| 1st Quarter | \$0.65 | \$0.42 |
| 2nd Quarter | 0.88 | 0.28 |
| 3rd Quarter | 0.43 | 0.28 |
| 4th Quarter | 0.58 | 0.32 |
| 2016 | | |

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| | | |
|-----------------------------------|--------|--------|
| 1st Quarter | \$0.42 | \$0.30 |
| 2nd Quarter | 0.41 | 0.23 |
| 3rd Quarter | 0.33 | 0.22 |
| 4th Quarter (through December 12) | 0.34 | 0.23 |

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ADGE Recent Closing Prices

The closing per share sales price of shares of ADGE common stock as reported on the NYSE MKT on November 1, 2016, the last full trading day before the public announcement of the execution and delivery of the Merger Agreement by Tecogen and ADGE and on December 19, 2016, the latest practicable trading day before the date of this joint proxy statement/prospectus was:

ADGE
Common
Stock

November 1, 2016 \$ 0.30

December 19, 2016 0.29

The market price of shares of ADGE common stock will fluctuate between the date of this joint proxy statement/prospectus and the Merger effective time.

Table of Contents**RISK FACTORS**

In addition to the other information included and incorporated by reference into this joint proxy statement/prospectus, including the matters addressed under “Cautionary Statement Concerning Forward-Looking Statements,” you should carefully consider the following risks before deciding how to vote your shares of Tecogen or ADGE common stock, as applicable. In addition, you should read and consider the risks associated with each of the businesses of Tecogen and ADGE because these risks will also affect Tecogen following the Merger. These risks can be found in Tecogen’s and ADGE’s respective Annual Reports on Form 10-K, as amended, for the year ended December 31, 2015, and other reports filed by Tecogen and ADGE with the SEC, which are incorporated by reference into this joint proxy statement/prospectus. You should also read and consider the other information in this joint proxy statement/prospectus and the other documents incorporated by reference into this joint proxy statement/prospectus. See “Where You Can Find More Information; Incorporation by Reference.”

Risk Factors Relating to the Merger

The exchange ratio is fixed and will not be adjusted in the event of any change in either Tecogen’s or ADGE’s stock price.

Upon the closing of the Merger, each share of ADGE common stock will be converted into the right to receive 0.092 of a share of Tecogen common stock, with cash paid in lieu of fractional shares. This Exchange Ratio was fixed in the Merger Agreement and will not be adjusted for changes in the market price of either Tecogen common stock or ADGE common stock. Changes in the price of Tecogen common stock prior to the Merger will affect the market value of the Merger consideration that ADGE stockholders will receive on the date of the Merger. Stock price changes may result from a variety of factors (many of which are beyond either company’s control), including the following factors:

- market reaction to the announcement of the Merger and Tecogen’s prospects following the Merger effective time;
- changes in the business, operation, assets, liabilities, financial position and prospects of either company or in market assessments thereof;
- changes in the operating performance of Tecogen, ADGE or similar companies;
- changes in market valuations of similar companies;
- market assessments of the likelihood that the Merger will be completed;
- interest rates, general market and economic conditions and other factors generally affecting the price of Tecogen’s and ADGE’s common stock;
- federal, state and local legislation, governmental regulation and legal developments in the businesses in which ADGE and Tecogen operate;
- dissident stockholder activity;
- changes that affect Tecogen’s and ADGE’s industry, the U.S. or global economy, or capital, financial or securities markets generally; and
- other factors beyond the control of either Tecogen or ADGE, including those described or referred to elsewhere in “Risk Factors.”

The price of Tecogen common stock at the closing of the Merger may vary from its price on the date the Merger Agreement was executed, on the date of this joint proxy statement/prospectus and on the date of the Tecogen and the ADGE special meetings. As a result, the market value of the Merger consideration represented by the Exchange Ratio will also vary. For example, based on the range of closing prices of Tecogen common stock during the period from November 1, 2016, the last trading day before public announcement of the Merger, through December 19, 2016, the latest practicable date before the date of this joint proxy statement/prospectus, the exchange ratio represented a market value ranging from a low of \$0.35 to a high of \$0.44.

Because the Merger will be completed after the date of the special meetings, at the time of your special meeting, you will not know the exact market value of Tecogen common stock that ADGE stockholders will receive upon completion of the Merger. As a result, you should consider the following two risks:

If the market price of Tecogen common stock declines between the date the Merger Agreement was signed or the date of the ADGE special meeting and the Merger effective time, ADGE stockholders will receive shares of Tecogen common stock that have a market value upon completion of the Merger that is less than the market value of such shares calculated pursuant to the Exchange Ratio on the date the Merger Agreement was signed or on the date of the ADGE special meeting, respectively.

If the market price of Tecogen common stock increases between the date the Merger Agreement was signed or the date of the Tecogen special meeting and the Merger effective time, ADGE stockholders will receive shares of Tecogen common stock that have a market value upon completion of the Merger that is greater than the market value of such shares calculated pursuant to the Exchange Ratio when the Merger Agreement was signed or the date of the Tecogen special meeting, respectively.

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Completion of the Merger is subject to certain conditions and if these conditions are not satisfied or waived, the Merger will not be completed. The Merger Agreement is also terminable by either company if its Board of Directors makes an adverse recommendation change. Failure to complete the Merger could have material adverse effects on Tecogen and ADGE.

The completion of the Merger is subject to certain conditions, including the approval by Tecogen stockholders of the Tecogen Merger Approval Proposal and the approval by the ADGE stockholders of the ADGE Merger Approval Proposal, which make the completion and the timing of the completion of the Merger uncertain. See “The Merger Agreement - Conditions to Completion of the Merger.” In addition, either Tecogen or ADGE may terminate the Merger Agreement if its Board of Directors has made an adverse recommendation change.

There can be no assurance that the conditions to closing of the Merger will be satisfied or waived or that the Merger will be completed. Failure to consummate the Merger may adversely affect Tecogen’s or ADGE’s results of operations and business prospects for the following reasons, among others:

- each of Tecogen and ADGE will incur certain transaction costs, regardless of whether the Merger closes; the proposed Merger, whether or not it closes, will divert the attention of certain management and other key employees of Tecogen and ADGE from ongoing business activities, including the pursuit of other opportunities that could be beneficial to Tecogen or ADGE, respectively; and
- the market price of shares of Tecogen and ADGE common stock could decline to the extent that the current market price reflects, and is positively affected by, a market assumption that the transactions contemplated by the Merger Agreement will be completed.

There may be unexpected delays in the consummation of the Merger, which could impact the ability to timely achieve the benefits associated with the Merger.

Certain events may delay the consummation of the Merger. One of the events that could delay the consummation of the Merger, for example, is failure to timely receive stockholder approval. Neither Tecogen nor ADGE can assure you that the conditions to the completion of the Merger will be satisfied or waived, if permitted, or that any adverse effect, event, development or change will not occur, or provide any assurances as to whether or when the Merger will be completed. Any delay in the completion of the Merger could materially reduce the benefits expected to be obtained by Tecogen and ADGE in the Merger.

The pendency of the Merger could adversely affect the business and operations of Tecogen and ADGE.

In connection with the pending Merger, some customers and potential customers may delay or defer decisions related to their business dealings with ADGE, which could negatively impact the revenues, earnings, cash flows or expenses of ADGE, regardless of whether the Merger is completed. Similarly, employees of ADGE may experience uncertainty about their future roles with the combined company following the Merger, which may materially adversely affect the ability of ADGE to attract and retain key personnel during the pendency of the Merger.

Certain of Tecogen’s and ADGE’s respective directors and officers have interests in the transactions contemplated by the Merger Agreement that are different from, or in addition to, the interests of Tecogen’s and ADGE’s stockholders generally, which may create potential conflicts of interest or the appearance thereof.

Certain of Tecogen’s and ADGE’s respective directors and officers have interests in the transactions contemplated by the Merger Agreement that are different from, or in addition to, the interests of Tecogen’s and ADGE’s stockholders generally, which may create potential conflicts of interest or the appearance thereof. See “The Merger - Interests of ADGE’s Directors and Executive Officers in the Merger.” The Tecogen and the ADGE Boards of Directors, as applicable, were aware of these interests, among other matters, in approving the Merger Agreement and the Merger, and in recommending that Tecogen stockholders vote for the Tecogen Merger Approval Proposal and ADGE stockholders vote for the ADGE Merger Approval Proposal. See “The Merger - Interests of Tecogen’s Directors and Executive Officers in the Merger” and “The Merger - Interests of ADGE’s Directors and Executive Officers in the Merger.”

The ownership percentage of Tecogen and ADGE common stockholders will be diluted by the Merger.

The Merger will dilute the ownership percentage of Tecogen common stockholders and result in ADGE common stockholders having an ownership stake in Tecogen following the Merger effective time that is smaller in percentage

terms than their current stake in ADGE. Immediately upon completion of the Merger, Tecogen estimates that Tecogen stockholders as such will own approximately 81% of the outstanding Tecogen common stock on a fully diluted basis of the combined company, and former ADGE stockholders will own approximately 19% of the outstanding Tecogen common stock on a fully diluted basis. Consequently, ADGE stockholders, as a general matter, may have less influence over the management and policies of Tecogen after the Merger effective time than they currently exercise over the management and policies of ADGE.

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The unaudited pro forma condensed combined financial information in this joint proxy statement/prospectus is presented for illustrative purposes only and the operating results and financial condition of Tecogen following completion of the transactions contemplated by the Merger Agreement may differ and such differences may be material.

The unaudited pro forma condensed combined financial information in this joint proxy statement/prospectus is presented for illustrative purposes only and is not necessarily indicative of what Tecogen's actual financial position or results of operations would have been had the transactions contemplated by the Merger Agreement been completed on the dates indicated. Further, Tecogen's actual results and financial position following the completion of the Merger may differ materially and adversely from the unaudited pro forma condensed combined financial data that is included in this joint proxy statement/prospectus. The unaudited pro forma condensed combined financial information reflects adjustments based upon preliminary estimates of the fair value of assets to be acquired and liabilities to be assumed. The final acquisition accounting will be based upon the actual purchase price and the fair value of the assets and liabilities of Tecogen as of the Merger effective time. In addition, subsequent to the Merger closing date, there will be further refinements of the acquisition accounting as additional information becomes available. Accordingly, the final acquisition accounting may differ materially from the pro forma condensed combined financial information reflected in this document. See "Summary - Unaudited Pro Forma Condensed Combined Financial Information."

Risks Relating to an Investment in Tecogen Common Stock Following the Merger

Tecogen expects to incur substantial expenses related to the Merger.

Tecogen will incur substantial expenses in connection with consummating the Merger and integrating ADGE's business, operations, networks, systems, technologies, policies and procedures with its own. While Tecogen expects to incur a certain level of transaction and integration expenses, factors beyond Tecogen's control could affect the total amount or the timing of its integration expenses. Many of the expenses that will be incurred, by their nature, are difficult to estimate accurately at the present time. As a result, the transaction and integration expenses associated with the Merger could, particularly in the near term, exceed the savings that Tecogen expects to achieve from the elimination of duplicative expenses and the realization of economies of scale and cost savings related to the integration of the businesses following the completion of the Merger.

The future results of Tecogen will suffer if Tecogen does not effectively manage the changes in its business operations following the Merger.

The Merger is expected to result in certain benefits to Tecogen, including, among others, the continuing revenue stream based on ADGE's business model, and the integration of the sales and marketing function. There can be no assurance, however, regarding when or the extent to which Tecogen will be able to realize these benefits, which may be difficult, unpredictable and subject to delays. The combined company will be required to devote significant management attention and resources to integrating the business of ADGE. It is possible that the integration process could result in the distraction of Tecogen's management or the disruption of Tecogen's ongoing business, which could result in the loss of prospective customers. There may also be potential unknown or unforeseen liabilities, increased expenses, delays or regulatory conditions associated with integrating ADGE's portfolio into Tecogen's.

Following the Merger, the combined company may be unable to retain key employees.

The success of Tecogen after the Merger will depend in part upon its ability to retain key ADGE and Tecogen employees. Key employees may depart either before or after the Merger because of issues relating to the uncertainty and difficulty of integration or a desire not to remain with the combined company following the Merger. Accordingly, no assurance can be given that Tecogen, ADGE and, following the Merger, the combined company will be able to retain key employees to the same extent as in the past.

The market price of Tecogen common stock may decline as a result of the Merger.

The market price of Tecogen common stock may decline as a result of the Merger for a number of reasons, including if Tecogen does not achieve the perceived benefits of the Merger as rapidly or to the extent anticipated by financial or industry analysts, or the effect of the Merger on Tecogen's financial results is not consistent with the expectations of financial or industry analysts. In addition, if the Merger is consummated, Tecogen's stockholders will own interests in a company operating an expanded business with a different mix of properties, risks and liabilities. Current

stockholders may not wish to continue to invest in Tecogen if the Merger is consummated, or for other reasons may wish to dispose of some or all of their shares of Tecogen common stock. If, following the consummation of the Merger, there is selling pressure on Tecogen common stock that exceeds demand at the market price, the price of Tecogen common stock could decline.

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Legal Risks Related to the Merger

Stockholders of Tecogen or ADGE may file lawsuits challenging the Merger, and an adverse judgment in a lawsuit challenging the Merger may prevent the Merger from becoming effective or from becoming effective within the expected time frame.

Stockholders of ADGE or Tecogen may file lawsuits challenging the Merger, which may name Tecogen as a defendant. As of [*], the date of this joint proxy statement/prospectus, no such lawsuits have been filed to the knowledge of management.

Tecogen and ADGE cannot assure you as to the outcome of such lawsuits if any should be brought, including the amount of costs associated with defending claims or any other liabilities that may be incurred in connection with the litigation. If plaintiffs are successful in obtaining an injunction prohibiting the parties from completing the Merger on the agreed-upon terms, such an injunction may delay the completion of the Merger in the expected time frame, or may prevent it from being completed altogether. Whether or not any plaintiff's claim is successful, this type of litigation is often expensive and diverts management's attention and resources, which could adversely affect the operation of Tecogen's and ADGE's businesses.

Other Risks

Tecogen and ADGE face other risks.

The foregoing risks are not exhaustive, and you should be aware that, following the Merger, the combined company will face various other risks, including those discussed in reports filed by Tecogen and ADGE with the SEC. See "Where You Can Find More Information; Incorporation by Reference."

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus, including information included or incorporated by reference into this joint proxy statement/prospectus, includes forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. All statements regarding Tecogen's, or ADGE's expected future financial position, results of operations, cash flows, funds from operations, dividends and dividend plans, financing plans, business strategy, budgets, projected costs, operating metrics, capital expenditures, competitive positions, acquisitions, investment opportunities, merger integration, growth opportunities, and dispositions, and the objectives of management for future operations and statements that include words such as "anticipate," "if," "believe," "plan," "estimate," "expect," "intend," "may," "could," "should," "seek," "target," "goal," "project," "estimate," "will" and other similar expressions in negative form of the same are forward-looking statements. Such forward-looking statements are inherently uncertain, and security holders must recognize that actual results may differ from the companies' expectations.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, most of which are difficult to predict and many of which are beyond Tecogen's and ADGE's control. These include the factors described under "Risk Factors," as well as:

- the possibility that the proposed transactions will not close, including by the failure to obtain applicable stockholder approvals or the failure to satisfy other closing conditions under the Merger Agreement or by the termination of the Merger Agreement;
- the possibility that the anticipated benefits from the Merger may not be realized or may take longer to realize than expected;
- unexpected costs or unexpected liabilities that may arise from the transactions contemplated by the Merger Agreement, whether or not completed;
- each company's success in implementing its business strategy and its ability to identify, underwrite, finance, consummate and integrate diversifying acquisitions or investments;
- increases in each company's cost of borrowing as a result of changes in interest rates and other factors;
- each company's ability to pay down, refinance, restructure and/or extend its indebtedness as it becomes due;
- the outcome of any legal proceedings that may be instituted against Tecogen, ADGE or others following announcement of the Merger;
- the nature and extent of future competition; and

changes in general economic conditions and/or economic conditions in the markets in which each company may, from time to time, compete and the effect of those changes on the company's revenues and its ability to access the capital markets or other sources of funds.

The foregoing list of factors is not exhaustive. Additional information concerning these and other risk factors is contained in Tecogen's and ADGE's respective Annual Reports on Form 10-K for the fiscal year ended December 31, 2015, subsequent Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, as well as other SEC filings, as such filings may be amended from time to time. All subsequent written and oral forward looking statements concerning Tecogen, ADGE and the transactions contemplated by the Merger Agreement or other matters attributable to Tecogen or ADGE or any person acting on their behalf are expressly qualified in their entirety by the cautionary statements above.

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All forward looking statements, expressed or implied, included in this joint proxy statement/prospectus are expressly qualified in their entirety by this cautionary statement. This cautionary statement should also be considered in connection with any subsequent written or oral forward looking statements that Tecogen, ADGE or persons acting on their behalf may issue.

Except as otherwise required by applicable law, Tecogen and ADGE disclaim any duty to update any forward looking statements, all of which are expressly qualified by the statements in this section. See “Where You Can Find More Information; Incorporation by Reference.”

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THE TECOGEN SPECIAL MEETING

Date, Time, Place and Purpose of Tecogen's Special Meeting

The special meeting of the stockholders of Tecogen will be held at Tecogen's principal executive offices at 45 First Avenue, Waltham, MA 02451, on [*], commencing at [*], local time. At the Tecogen special meeting, Tecogen stockholders will be asked to approve the Tecogen Merger Approval Proposal, including the issuance of shares of Tecogen common stock pursuant to the Merger Agreement.

Recommendation of the Tecogen Board

Tecogen Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously approved the Merger Agreement and the transactions contemplated by the Merger Agreement, and directed that the foregoing proposals be submitted for consideration at the Tecogen special meeting. The Tecogen Board of Directors unanimously recommends that Tecogen stockholders vote "FOR" the Tecogen Merger Approval Proposal. The Merger cannot be completed without the approval by Tecogen stockholders of the Tecogen Merger Approval Proposal. See "The Merger - Tecogen's Reasons for the Merger: Recommendation by the Tecogen Board of Directors."

Record Date; Who Can Vote at Tecogen's Special Meeting

The Tecogen Board of Directors has fixed the close of business on [*], as the record date for the determination of the Tecogen common stockholders entitled to receive notice of, and to vote at, Tecogen's special meeting and any postponements or adjournments of the special meeting. Only holders of record of Tecogen common stock at the close of business on the record date are entitled to receive notice of, and to vote at, Tecogen's special meeting. As of Tecogen's record date, there were [*] shares of Tecogen common stock outstanding and entitled to be voted at Tecogen's special meeting, held by approximately [*] holders of record.

Each holder of record of common stock on the record date will be entitled to one vote for each share held on all matters to be voted upon at the Tecogen special meeting.

Vote Required for Approval; Quorum

The Tecogen Merger Approval Proposal requires the affirmative vote of the holders of a majority of the votes cast on such proposal.

At the Tecogen special meeting, the presence in person or by proxy of stockholders entitled to vote a majority of the outstanding shares of Tecogen common stock entitled to vote at such meeting shall constitute a quorum. Abstentions will be counted in determining whether a quorum is present at the Tecogen special meeting. Failures to vote, which include failure to provide instructions to your broker or other nominee if your shares are held in "street name," will not be counted in determining whether a quorum is present.

Abstentions and Broker Non-Votes

Abstentions will only have an effect on the quorum requirements.

Manner of Voting

Tecogen stockholders may submit their votes for or against the proposals to be voted on at the Tecogen special meeting in person or by proxy. Tecogen stockholders can vote in advance in the following ways:

• **Internet.** Tecogen stockholders may vote over the Internet by going to the website listed on their proxy card or voting instruction form. Once at the website, they should follow the instructions to vote.

• **Telephone.** Tecogen stockholders may vote using the toll-free number listed on their proxy card or voting instruction form.

• **Mail.** Tecogen stockholders may vote by completing, signing, dating and returning their proxy card or voting instruction form in the pre-addressed postage paid envelope provided.

Tecogen common stockholders should refer to their proxy cards or the information forwarded by their broker or other nominee to see which options are available to them.

The Internet and telephone voting procedures are designed to authenticate stockholders and to allow them to confirm that their instructions have been properly recorded. If you vote over the Internet or by telephone, then you do not need to return a written proxy card or voting instruction card by mail.

The method by which Tecogen common stockholders vote will in no way limit their right to vote at Tecogen's special meeting if they later decide to attend the meeting and vote in person. If shares of Tecogen common stock are held in the name of a broker or other nominee, Tecogen common stockholders must obtain a "legal proxy," executed in their favor, from the broker or other nominee (which may take several days), to be able to vote in person at Tecogen's special meeting.

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All shares of Tecogen common stock entitled to vote and which are represented by properly completed proxies received prior to the Tecogen special meeting, which are not revoked, will be voted at the Tecogen special meeting as instructed on the proxies. If you properly submit a proxy card, but do not indicate how your shares of Tecogen common stock should be voted on a matter, the shares of Tecogen common stock represented by your proxy card will be voted as Tecogen Board of Directors unanimously recommends and therefore “FOR” the Tecogen Merger Approval Proposal. If you do not provide voting instructions to your broker or other nominee, your shares of Tecogen common stock will NOT be voted at the Tecogen special meeting and will be considered broker non-votes.

Shares Held in “Street Name”

If your shares are held in “street name,” the availability of telephone and internet voting will depend on the voting processes of the applicable bank or brokerage firm. Therefore, it is recommended that you follow the voting instructions on the form you receive from your bank or brokerage firm.

Revocation of Proxies or Voting Instructions

You may revoke your proxy or change your vote at any time before your proxy is voted at the Tecogen special meeting or the ADGE special meeting, as applicable. If you are a holder of record, you can do this in any of the three following ways:

• by sending a written notice to the Secretary of Tecogen at 45 First Ave, Waltham, MA 02451 in time to be received before the Tecogen special meeting stating that you would like to revoke your proxy;

• by completing, signing and dating another proxy card and returning it by mail in time to be received before the Tecogen special meeting or by completing a later dated proxy over the Internet or by telephone, in which case your later dated proxy will be recorded and your earlier proxy revoked; or

• if you are a holder of record, you can attend the Tecogen special meeting and vote in person, which will automatically cancel any proxy previously given, or you may revoke your proxy in person, but your attendance alone at the special meeting will not revoke any proxy that you have previously given.

If you choose either of the first two methods, you must submit your notice of revocation or your new proxy to the Corporate Secretary of Tecogen no later than the beginning of the applicable special meeting. If your shares are held in street name by your broker or nominee, you should contact them to change your vote.

Tabulation of the Votes

Tecogen will appoint an Inspector of Election for Tecogen’s special meeting to tabulate affirmative and negative votes and abstentions.

Stockholder Proposals for the Next Annual Meeting

A stockholder who, in accordance with Rule 14a-8, or Rule 14a-8, under the Securities Exchange Act of 1934, as amended, or the Exchange Act, wants to present a proposal for inclusion in the Company's 2017 Proxy Statement and proxy card relating to the 2017 Annual Meeting of Stockholders must submit the proposal by December 30, 2016. In order for the proposal to be included in the Proxy Statement, the stockholder submitting the proposal must meet certain eligibility standards and comply with certain regulations established by the SEC.

Stockholders who wish to present a business proposal or nominate persons for election as directors at the Company's 2017 Annual Meeting of Stockholders must provide a notice of the business proposal or nomination in accordance with Section 1.11 of our Bylaws, in the case of business proposals, or Section 1.10 of our Bylaws, in the case of director nominations. In order to be properly brought before the 2017 Annual Meeting of Stockholders, Sections 1.10 and 1.11 of our Bylaws require that a notice of the business proposal the stockholder wishes to present (other than a matter brought pursuant to Rule 14a-8), or the person or persons the stockholder wishes to nominate as a director, must be received at our principal executive office not less than 90 days, and not more than 120 days, prior to the first anniversary of the Company's prior year's annual meeting. Therefore, any notice intended to be given by a stockholder with respect to the Company's 2017 Annual Meeting of Stockholders pursuant to our Bylaws must be received at our principal executive office no earlier than February 23, 2017 and no later than March 25, 2017. However, if the date of our 2017 Annual Meeting of Stockholders occurs more than 30 days before or 30 days after June 23, 2016, the anniversary of the 2016 Annual Meeting of Stockholders, a stockholder notice will be timely if it is received at our

principal executive office by the later of (1) the 120th day prior to such annual meeting or (2) the close of business on the tenth day following the day on which public disclosure of the date of the meeting was made. To be in proper form, a stockholder's notice must include the specified information concerning the stockholder and the business proposal or nominee, as described in Sections 1.10 and 1.11 of our Bylaws.

All proposals must be mailed to the Company's principal executive office, at the address stated herein, and should be directed to the attention of the Secretary of the Company.

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PROPOSAL SUBMITTED TO TECOGEN STOCKHOLDERS

Approval of the Tecogen Merger Approval Proposal

Tecogen is asking its stockholders to approve the Tecogen Merger Approval Proposal. For a detailed discussion of the terms and conditions of the Merger, see “The Merger Agreement.” As discussed in the section entitled “The Merger - Tecogen’s Reasons for the Merger: Recommendation by the Tecogen Board of Directors,” after careful consideration, the Tecogen Board of Directors, by a unanimous vote of all directors, unanimously approved the Merger Agreement and the transactions contemplated by the Merger Agreement. The approval of the Tecogen Merger Approval Proposal is a condition precedent to the completion of the Merger.

Required Vote

The proposal to approve the Tecogen Merger Approval Proposal requires the affirmative vote of the holders of a majority of the votes cast on such proposal. For purposes of this proposal, a failure to vote, a failure to instruct your broker, bank or nominee to vote or an abstention from voting will have no effect.

The Tecogen Board of Directors unanimously recommends that Tecogen stockholders vote “FOR” the Tecogen Merger Approval Proposal.

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THE ADGE SPECIAL MEETING

Date, Time, Place and Purpose of ADGE's Special Meeting

The special meeting of the stockholders of ADGE will be held at ADGE's principal executive offices at 45 First Avenue, Waltham, MA 02451, on [*], commencing at [*], local time. At the ADGE special meeting, ADGE stockholders will be asked to approve the ADGE Merger Approval Proposal.

Recommendation of ADGE Board

The ADGE Board of Directors has carefully considered the terms of the Merger Agreement and has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (ii) determined and declared that the Merger and the other transactions contemplated by the Merger are advisable, fair to and in the best interest of ADGE, and (iii) directed that the foregoing proposals be submitted for consideration at the ADGE special meeting. The ADGE Board of Directors unanimously recommends that ADGE stockholders vote "FOR" the ADGE Merger Approval Proposal. The Merger cannot be completed without the approval by the ADGE stockholders of the ADGE Merger Approval Proposal. See "The Merger - ADGE's Reasons for the Merger; Recommendation by the ADGE Board of Directors."

Record Date; Who Can Vote at ADGE's Special Meeting

The ADGE Board of Directors has fixed the close of business on [*], as the record date for determination of ADGE common stockholders entitled to receive notice of, and to vote at, ADGE's special meeting and any postponements or adjournments of the special meeting. Only holders of record of ADGE common stock at the close of business on the record date are entitled to receive notice of, and to vote at, ADGE's special meeting. On ADGE record date, there were [*] shares of ADGE common stock outstanding and entitled to vote at the ADGE special meeting, held by approximately [*] holders of record.

Each share of ADGE common stock is entitled to one vote on each proposal to be voted on at the ADGE special meeting.

Vote Required for Approval: Quorum

The ADGE Merger Approval Proposal requires the affirmative vote of the holders of a majority of the outstanding common stock of ADGE.

At the ADGE special meeting, the presence in person or by proxy of stockholders entitled to vote a majority of the outstanding shares of ADGE common stock entitled vote at such meeting on any matter shall constitute a quorum. Abstentions will be counted in determining whether a quorum is present at the ADGE special meeting. Failures to vote, which include failure to provide instructions to your broker or other nominee if your shares are held in "street name," will not be counted in determining whether a quorum is present.

Abstentions and Broker Non-Votes

Abstentions will have the same effect as a vote AGAINST the ADGE Merger Approval Proposal.

Manner of Voting

ADGE stockholders may submit their votes for or against the proposals to be voted on at the ADGE special meeting in person or by proxy. ADGE stockholders can vote in advance in the following ways:

• **Internet.** ADGE stockholders may vote over the Internet by going to the website listed on their proxy card or voting instruction form. Once at the website, they should follow the instructions to vote.

• **Telephone.** ADGE stockholders may vote using the toll-free number listed on their proxy card or voting instruction form.

• **Mail.** ADGE stockholders may vote by completing, signing, dating and returning their proxy card or voting instruction form in the pre-addressed postage paid envelope provided.

ADGE common stockholders should refer to their proxy cards or the information forwarded by their broker or other nominee to see which options are available to them.

The Internet and telephone voting procedures are designed to authenticate stockholders and to allow them to confirm that their instructions have been properly recorded. If you vote over the Internet or by telephone, then you do not need to return a written proxy card or voting instruction card by mail.

The method by which ADGE common stockholders vote will in no way limit their right to vote at ADGE's special meeting if they later decide to attend the meeting and vote in person. If shares of ADGE common stock are held in the name of a broker or other nominee, ADGE common stockholders must obtain a "legal proxy," executed in their favor, from the broker or other nominee (which may take several days), to be able to vote in person at ADGE's special meeting.

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All shares of ADGE common stock entitled to vote and which are represented by properly completed proxies received prior to the ADGE special meeting, which are not revoked, will be voted at the ADGE special meeting as instructed on the proxies. If you properly submit a proxy card, but do not indicate how your shares of ADGE common stock should be voted on a matter, the shares of ADGE common stock represented by your proxy card will be voted as the ADGE Board of Directors unanimously recommends and therefore “FOR” the ADGE Merger Approval Proposal. If you do not provide voting instructions to your broker or other nominee, your shares of ADGE common stock will NOT be voted at the ADGE special meeting and will be considered broker non-votes.

Shares Held in “Street Name”

If your shares are held in “street name,” the availability of telephone and internet voting will depend on the voting processes of the applicable bank or brokerage firm. Therefore, it is recommended that you follow the voting instructions on the form you receive from your bank or brokerage firm.

Revocation of Proxies or Voting Instructions

You may revoke your proxy or change your vote at any time before your proxy is voted at the ADGE special meeting. If you are a holder of record, you can do this in any of the three following ways:

- by sending a written notice to the Secretary of ADGE at 45 First Avenue, Waltham, MA 02451 in time to be received before the ADGE special meeting stating that you would like to revoke your proxy;
- by completing, signing and dating another proxy card and returning it by mail in time to be received before the ADGE special meeting or by completing a later dated proxy over the Internet or by telephone, in which case your later dated proxy will be recorded and your earlier proxy revoked; or
- if you are a holder of record, you can attend the ADGE special meeting and vote in person, which will automatically cancel any proxy previously given, or you may revoke your proxy in person, but your attendance alone at the special meeting will not revoke any proxy that you have previously given.

If you choose either of the first two methods, you must submit your notice of revocation or your new proxy to the Corporate Secretary of ADGE no later than the beginning of the special meeting. If your shares are held in street name by your broker or nominee, you should contact them to change your vote.

Tabulation of the Votes

ADGE will appoint an Inspector of Election for ADGE’s special meeting to tabulate affirmative and negative votes and abstentions.

Stockholder Proposals for the Next Annual Meeting

A stockholder who, in accordance with Rule 14a-8, or Rule 14a-8, under the Securities Exchange Act of 1934, as amended, or the Exchange Act, wants to present a proposal for inclusion in the Company's 2017 Proxy Statement and proxy card relating to the 2017 Annual Meeting of Stockholders must submit the proposal by December 30, 2016. In order for the proposal to be included in the Proxy Statement, the stockholder submitting the proposal must meet certain eligibility standards and comply with certain regulations established by the SEC.

Stockholders who wish to present a business proposal or nominate persons for election as directors at the Company's 2017 Annual Meeting of Stockholders must provide a notice of the business proposal or nomination in accordance with Section 1.11 of our Bylaws, in the case of business proposals, or Section 1.10 of our Bylaws, in the case of director nominations. In order to be properly brought before the 2017 Annual Meeting of Stockholders, Sections 1.10 and 1.11 of our Bylaws require that a notice of the business proposal the stockholder wishes to present (other than a matter brought pursuant to Rule 14a-8), or the person or persons the stockholder wishes to nominate as a director, must be received at our principal executive office not less than 90 days, and not more than 120 days, prior to the first anniversary of the Company's prior year's annual meeting. Therefore, any notice intended to be given by a stockholder with respect to the Company's 2017 Annual Meeting of Stockholders pursuant to our Bylaws must be received at our principal executive office no earlier than February 28, 2017 and no later than March 30, 2017. However, if the date of our 2017 Annual Meeting of Stockholders occurs more than 30 days before or 30 days after June 28, 2016, the anniversary of the 2016 Annual Meeting of Stockholders, a stockholder notice will be timely if it is received at our principal executive office by the later of (1) the 120th day prior to such annual meeting or (2) the close of business on

the tenth day following the day on which public disclosure of the date of the meeting was made. To be in proper form, a stockholder's notice must include the specified information concerning the stockholder and the business proposal or nominee, as described in Sections 1.10 and 1.11 of our Bylaws.

All proposals must be mailed to the Company's principal executive office, at the address stated herein, and should be directed to the attention of the Secretary of the Company.

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PROPOSAL SUBMITTED TO ADGE STOCKHOLDERS

Approval of the Merger

ADGE is asking its stockholders to approve the Merger and the other transactions contemplated by the Merger Agreement. For a detailed discussion of the terms and conditions of the Merger, see “The Merger Agreement.” As discussed in the section entitled “The Merger - ADGE’s Reasons for the Merger; Recommendation by the ADGE Board of Directors.” After careful consideration, the ADGE Board of Directors, by a unanimous vote of all directors, unanimously approved the Merger Agreement and the transactions contemplated by the Merger Agreement. The Merger cannot be completed without the approval by ADGE stockholders of the ADGE Merger Approval Proposal.

Required Vote

The ADGE Merger Approval Proposal requires the affirmative vote of holders of a majority of the outstanding shares of ADGE common stock entitled to vote on such proposal. For purposes of this proposal, a failure to vote, a failure to instruct your bank, broker or nominee to vote or an abstention from voting will have the same effect as a vote “AGAINST” the Merger and the other transactions contemplated by the Merger Agreement.

The ADGE Board of Directors unanimously recommends that ADGE stockholders vote “FOR” the ADGE Merger Approval Proposal.

In considering the recommendation of the ADGE Board of Directors, ADGE stockholders should be aware that the directors and executive officers of ADGE have interests in the proposed transaction that are in addition to, or different from, any interests they might have as stockholders. See “The Merger - Interests of ADGE’s Directors and Executive Officers in the Merger.”

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THE MERGER

The following is a description of the material aspects of the Merger. While Tecogen and ADGE believe that the following description covers the material terms of the Merger, the description may not contain all of the information that may be important to you. You should read this joint proxy statement/prospectus carefully and in its entirety, including the Merger Agreement attached to this joint proxy statement/prospectus as Annex A and incorporated herein by reference, for a more complete understanding of the Merger.

Effects of the Merger

The Merger Agreement provides for the Merger of Merger Sub with and into ADGE. ADGE will thereby become a wholly-owned subsidiary of Tecogen.

In the Merger, each outstanding share of ADGE common stock (other than shares of ADGE common stock owned by ADGE or any wholly-owned subsidiary of ADGE, which will be cancelled) will be exchanged for the right to receive 0.092 of a share of Tecogen common stock. The Exchange Ratio is fixed and will not be adjusted to reflect stock price changes prior to the closing of the Merger. No fractional shares will be issued in the Merger, and cash will be paid in lieu thereof. Tecogen stockholders will continue to own their existing Tecogen shares of common stock following the consummation of the Merger.

Background of the Merger

ADGE

In March, 2016, the Board of Directors of ADGE appointed a Special Committee of independent and disinterested directors to advise the Board of Directors with respect to the possibility of pursuing a merger with Tecogen. Initially, Ms. Deanne Peterson and Mr. John Rowe were appointed to serve as members of the Special Committee. Shortly after its formation, Ms. Christine Klaskin was added as a member of the Special Committee. The Special Committee met formally 16 times over a period from March through October of 2016 and communicated on numerous other occasions through e-mails. The Special Committee engaged Cassel Salpeter as its financial advisor in connection with any potential strategic transaction between ADGE and Tecogen. The Special Committee also engaged Gennari Aronson, LLP as legal counsel to the Special Committee.

During the period from March through September 2016, the Special Committee reviewed reasons for the transaction and the anticipated benefits and potential adverse consequences of a merger. Based upon these analyses, and after meetings with ADGE's officers, the Special Committee determined that a merger with Tecogen was in the best interests of the stockholders of ADGE, provided that the Special Committee could negotiate terms of the transaction fair to the ADGE stockholders.

Tecogen subsequently made an initial offer to the ADGE Special Committee on September 16, 2016 to acquire ADGE at a price of \$0.30 per share in Tecogen stock. Upon receipt of the initial offer, the Special Committee met to discuss the terms of the initial offer with the assistance of its legal and financial advisors. At the meeting, Cassel Salpeter discussed with the Special Committee its preliminary financial analyses with respect to ADGE and Tecogen. After several negotiation sessions with the Tecogen Special Committee, and seven meetings of the ADGE Special Committee after receipt of the initial Tecogen offer, the ADGE Special Committee met on October 31, 2016 to discuss the proposed merger with Tecogen, including the proposed exchange ratio of 0.092 of a share of Tecogen common stock for each share of ADGE common stock, representing an implied value per share of ADGE common stock of \$0.38 based on the volume-weighted average closing price of the Tecogen Common Stock for the 20 trading days ending October 28, 2016. At the meeting, Gennari Aronson, LLP reviewed with the Special Committee the proposed draft Merger Agreement and Cassel Salpeter reviewed its financial analyses with respect to ADGE, Tecogen and the proposed merger. Thereafter, at the request of the Special Committee, Cassel Salpeter rendered its opinion as to the fairness, from a financial point of view, to the Unaffiliated ADGE Holders, as defined below, of the Exchange Ratio in the Merger pursuant to the Merger Agreement. After further discussion of ADGE, Tecogen and the proposed merger, the Special Committee resolved to recommend to the ADGE Board of Directors that it agree to the proposal by which Tecogen would acquire ADGE in exchange for Tecogen Common Stock. During the period from October 26, 2016 through October 31, 2016, the two Special Committees and their legal counsel negotiated the Merger Agreement. After agreeing on the proposed exchange ratio and the negotiated Merger Agreement, the ADGE Special

Committee recommended to the ADGE Board of Directors at its meeting on November 1, 2016 that the Board approve the Merger and the Merger Agreement, which the Board did, unanimously.

Tecogen

In March, 2016, the Board of Directors of Tecogen appointed a Special Committee of independent and disinterested directors to advise the Board of Directors with respect to the possibility of pursuing a merger with ADG. The original Special Committee met 16 times over a period of five months, and engaged Scarsdale Equities as its advisor with respect to the fairness, from a financial point of view, of any potential offer that the Special Committee might make on behalf of Tecogen to acquire ADG. Due to the travel commitments of the original two members of the Special Committee, the original Special Committee was disbanded in August, 2016 prior to making a recommendation to the Board of Directors.

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In August, 2016, a new Special Committee was appointed comprising Ms. Angelina Galiteva and Dr. Ahmed Ghoniem. The new Special Committee built upon the work of the original Special Committee, reviewing the memoranda prepared by counsel to the committee and by Tecogen management and continuing to work with Scarsdale Equities, which had prepared a presentation for the new Special Committee at its initial meeting. Ms. Galiteva and Dr. Ghoniem met 11 times in the next two months, including four meetings attended by representatives of Scarsdale Equities, and communicated on numerous other occasions through e-mails.

The Special Committee analyzed the reasons for the proposed transaction and met with Tecogen's officers to discuss the potential merger. Following the analysis and discussions, the Special Committee determined that a merger with ADG was in the best interests of the stockholders of Tecogen and made an initial offer to the ADG Special Committee to acquire ADG at a price of \$0.30 per share in Tecogen stock. After several negotiation sessions with the ADG Special Committee, the two committees agreed to recommend to their respective Boards of Directors that Tecogen acquire ADG in exchange for Tecogen Common Stock valued at \$0.38 per share based on the volume-weighted average closing price of the Tecogen Common Stock for the 20 trading days ending October 28, 2016. The Tecogen Special Committee received the oral opinion of Scarsdale Equities that the offer to ADG was fair from a financial point of view. The two Special Committees then negotiated the Merger Agreement. After agreeing on the proposed purchase price and the negotiated Merger Agreement, the Tecogen Special Committee recommended to the Tecogen Board of Directors at its meeting on November 1, 2016 that the Board approve the merger and the Merger Agreement, which the Board did, unanimously.

Tecogen's Reasons for the Merger; Recommendation by the Tecogen Board of Directors

After careful consideration and based in part on the recommendation of Tecogen Special Committee, the Tecogen Board of Directors, by a unanimous vote, at a meeting held on November 1, 2016, approved the Merger, the Merger Agreement and the transactions contemplated thereby, and determined to recommend that Tecogen's stockholders approve the Merger. The Tecogen Board, with the assistance of management and Tecogen's legal and financial advisors, considered a number of positive factors in its deliberations, as described below.

The Tecogen Board of Directors believes that the Merger will create value for the existing Tecogen stockholders. It believes that the Merger is important for competitive reasons and will also enhance Tecogen's financial stability and growth prospects. The following factors were considered by Tecogen Special Committee and the Board in coming to its decision:

Competition. A number of competitors in the distributed generation and CHP business have recently launched Power Purchase Agreement (PPA) companies, or Yield Co. structured subsidiaries, in an effort to offer in-house financing for their equipment installations. These companies not only expand their potential customer base by eliminating financing impediments, but also tend to operate at attractive margins. Blue Earth Inc. (NASDAQ: BBLU) and Capstone Turbine (NASDAQ: CPST) are among those who have created PPA companies.

With ADGE as a wholly-owned subsidiary, Tecogen will be able to offer directly, and not through an affiliated company, this same cost-free-installation option to customers with no or limited access to financing or without sufficient capital on hand to purchase the equipment, or for those that may not want to own and maintain the equipment. While Tecogen in the past has offered customer referrals to ADGE, it has not benefited directly from the long-term contracted revenue stream generated by these referred projects. Similarly, Tecogen may have made referrals in the past to ADGE that ADGE (for whatever reason) did not manage to secure as contracted customers, representing a possible loss of business for Tecogen. With ADGE as a wholly-owned subsidiary, Tecogen expects to improve its success rate in securing customers with financing needs.

Stable Revenue Stream. ADGE brings a stable, long-term contracted, annuity-like revenue stream to Tecogen. This predictable and reliable stream of revenue is generated from the operation of on-site energy installations, which has generated upwards of \$6 million annually that can be used to fund Tecogen's growth initiatives. When added to Tecogen's stable base of service revenue, more than half of total projected combined company revenue would be generated by stable long-term contracted revenue streams (Tecogen service revenue plus ADGE revenue).

Expense Elimination. It is anticipated that the transaction will eliminate significant inter-company expense in consolidation and the financial performance of ADGE's assets will improve in consolidation. In other words, ADGE's

history of losses would not directly carry over to the combined company because of pro forma adjustments to duplicative administrative functions, SEC reporting and other expenses that will be eliminated. Also, ADGE's assets are expected to be written down as a result of the Merger. The post-Merger company will benefit from Unfavorable Contract Liability (UCL) accounting methodology which will offset approximately 65% of ADGE's pre-Merger annual depreciation expense (from \$1.7 million to ~\$0.7 million).

For more information regarding the combined company's pro forma financial information

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Negative Considerations to be Considered by Tecogen Stockholders

In considering the Merger, Tecogen stockholders should consider the following potential negative considerations.

Potential for Contract Renegotiations. Because ADGE will be the surviving corporation in the Merger, the parties do not believe that the Merger will trigger contractual provisions prohibiting the assignment of ADGE's on-site utility customer contracts. It is possible, however, that some customers may seek to renegotiate their contracts on the basis that the Merger constitutes a prohibited assignment or that the Merger triggers change of control provisions.

EuroSite Installation Guarantees. ADGE has provided an operational and warranty-type guarantee for the seven EuroSite Power Inc., or Eurosite Power, installations that utilize Tecogen equipment. Despite the transfer of ADGE's interest in EuroSite Power, ADGE will still be bound by this guarantee of site performance. An off balance sheet reserve may need to be set up to account for this contingent liability.

EuroSite Convertible Debt Guarantee. ADGE guaranteed on a subordinated basis all amounts payable for EuroSite Power's 4% Senior Unsecured Convertible Notes. These notes, totaling \$300,000, are due in April 2018. Among other things, the guarantees provide that in the event of EuroSite Power's failure to pay principal or interest, the noteholder, subject to the terms and conditions set forth in an Amended Noteholder Agreement, may proceed directly against ADGE, as guarantor, to enforce the guarantee without first proceeding against EuroSite Power. If ADGE were required to pay the debt, however, it would be subrogated to the note holders' rights.

EuroSite Power Project Financing Guarantees. In conjunction with EuroSite Power's project financing agreement with Société Générale Equipment Finance (SGEF), ADGE provided a parent company guarantee of EuroSite Power's repayment obligations. This guarantee is for an initial 12 month term (ending March 2017) and is cancelable by advance notice given by ADGE to SGEF. Such notice has been given to SGEF by ADGE and will become effective February 2017. This guarantee would require payment by ADGE only after efforts to collect from EuroSite Power's customer and EuroSite Power itself have failed. Total amount borrowed to date under this financing arrangement is approximately \$280,000. An off balance sheet reserve may be set up to account for the contingent liability.

Potential Conflicts of Interest

Stockholders and regulators may subject the transaction to additional scrutiny to ensure there are no concerns of self-dealing or conflict of interest. The Board has a fiduciary duty to put the interests of stockholders first and to recuse themselves from situations that may lead to the appearance of conflict. Some concerns may be raised by outside parties reviewing the proposed transaction based on the following senior leadership, board, and ownership overlap.

Senior Leadership Overlap

John Hatsopoulos is the co-Chief Executive Officer of both Tecogen and ADGE.

Benjamin Locke is the co-Chief Executive Officer of both Tecogen and ADGE.

Robert Panora is the President and Chief Operation Officer of Tecogen and General Manager of ADGE.

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Board Overlap

John Hatsopoulos is a member of the Board of Directors for both Tecogen and ADGE

Charles Maxwell is a member of the Board of Directors for Tecogen and Chairman of the Board of Directors of ADGE.

Ownership Overlap

John Hatsopoulos together with his family beneficially owns more than 22% of Tecogen and 20% of ADGE.

George Hatsopoulos together with his family beneficially owns more than 21% of Tecogen and 19% of ADGE.

Contracts and Business Relationship

On August 7, 2015, ADGE entered into a Facilities, Support Services and Business Agreement with the Company, or the Facilities Agreement. The Facilities Agreement replaced and amended version of the Facilities and Support Service Agreement, dated as of January 1, 2006 with ADGE. The Facilities Agreement provides that, in exchange for agreed upon fees, the Company will provide American DG with, among other things; (1) certain office space; (2) certain business support services; (3) certain rights to purchase cogeneration products directly from the Company at a discounted price; (4) certain rights to purchase Company services at a discounted price; (5) certain rights that allow the ADGE to purchase Company products from Company sales representatives; and (6) the right to certain royalty fees. Absent required notice, the Facilities Agreement will automatically renew for one-month periods. Under this agreement, ADGE leases approximately 2,400 square feet of office space from the Company. Under the terms of the Facilities Agreement ADGE pays the Company a monthly fee \$5,122 per month.

The Company is the primary supplier of cogeneration equipment and cogeneration maintenance services to ADGE.

Company revenue from sales of cogeneration parts and service to ADGE during the years ended December 31, 2015 and 2014 amounted to \$1,903,427 and \$1,410,639, respectively.

Additional Considerations

Fixed Exchange Ratio. The Tecogen Board of Directors required that the Exchange Ratio be fixed and that it will not fluctuate as a result of changes in the price of Tecogen common stock or ADGE common stock. A fixed exchange ratio limits the impact of external factors on the transaction.

Opinion of Financial Advisor. The Tecogen Board of Directors considered the opinion of Scarsdale, dated November 10, 2016, that, as of the date of the Merger Agreement and based upon and subject to the various assumptions made, procedures followed, matters considered and qualifications and limitations on the scope of review undertaken by Scarsdale as set forth in its opinion, the Exchange Ratio of 0.092 of a share of Tecogen common stock for one share of ADGE common stock pursuant to the Merger Agreement was fair, from a financial point of view, to the unaffiliated Tecogen stockholders, as more fully described elsewhere in this joint proxy statement/prospectus.

Familiarity with Business. The Tecogen Board of Directors considered its knowledge of the business, operations, financial condition, earnings and prospects of Tecogen and ADGE, taking into account the results of Tecogen's due diligence review of ADGE, as well as its knowledge of the current and prospective environment in which Tecogen and ADGE operate, including economic and market conditions.

High Likelihood of Consummation. The Tecogen Board of Directors considered the commitment on the part of both parties to complete the business combination between Tecogen and ADGE pursuant to their respective obligations under the terms of the Merger Agreement. Although there are no voting agreements of any Tecogen or ADGE stockholders to vote for the Merger, given the large insider holdings of both companies, it is believed there is a high likelihood of completion of the transaction.

The Tecogen Board of Directors also considered a variety of risks and other potentially negative factors concerning the Merger Agreement and the Merger, including the following:

- the risk that failure to complete the Merger may negatively affect the price of Tecogen common stock and future business and financial results of Tecogen;

- the potential risk of diverting management focus and resources from operational matters and other strategic opportunities while working to implement the Merger and related transactions;

the risk of not capturing all of the anticipated operational synergies and cost savings between Tecogen and ADGE and the risk that other anticipated benefits might not be realized within the expected timeframe or at all;
the substantial costs to be incurred in connection with the Merger and related transactions, including the costs of integrating the businesses of Tecogen and ADGE and the transaction expenses to be incurred in connection with the Merger and related transactions;
the ability to refinance ADGE's existing indebtedness and the impact of uncertainty in the capital markets; and
the other factors described under "Risk Factors."

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In addition to considering the factors described above, the Tecogen Board of Directors considered the fact that a director of Tecogen may have interests in the transaction that are different from, or in addition to, the interests of Tecogen's stockholders generally. See "Interests of Tecogen's Directors and Executive Officers in the Merger" below. The above discussion of the factors considered by the Tecogen Board of Directors is not intended to be exhaustive, but does set forth the material factors considered by the Tecogen Board of Directors. In reaching its determination, the Tecogen Board of Directors did not quantify or assign any relative weights to the factors considered, and individual directors may have given different weights to different factors. The Tecogen Board of Directors considered all these factors as a whole, including its discussion with, and inquiry of, Tecogen's management and financial and legal advisors, and overall considered these factors to be favorable to, and to support, its determination.

In evaluating the Merger and the other transactions contemplated by the Merger Agreement, the Tecogen Board of Directors consulted with ADGE's legal and financial advisors, as well as management and, after careful consideration in light of the above factors, the Tecogen Board of Directors has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (ii) determined and declared that the Merger and the other transactions contemplated by the Merger are advisable, fair to and in the best interest of Tecogen and its stockholders, and (iii) directed that the Tecogen Merger Approval Proposal be submitted for consideration at the Tecogen special meeting.

Accordingly, the Tecogen Board of Directors unanimously recommends that Tecogen stockholders vote "FOR" the Tecogen Merger Approval Proposal. The Merger cannot be completed without the approval by Tecogen stockholders of the Tecogen Merger Approval Proposal.

ADGE's Reasons for the Merger; Recommendation by the ADGE Board of Directors

After careful consideration and based in part on the recommendation of the ADGE Special Committee, the ADGE Board of Directors, by a unanimous vote, at a meeting held on November 1, 2016, declared the Merger to be advisable and in the best interests of ADGE's stockholders, and approved the Merger, the Merger Agreement and the transactions contemplated thereby. In deciding to declare advisable and approve the Merger and the other transactions contemplated by the Merger Agreement and to recommend that ADGE stockholders approve the Merger, the ADGE Board of Directors, with the assistance of management and ADGE's legal and financial advisors, considered a number of factors in its deliberations. These factors, both positive and negative, are substantially the same as the factors described above under "Tecogen's Reasons for the Merger; Recommendation by Tecogen Board of Directors."

The decision made by the ADGE Board of Directors was based on an analysis of whether, in its opinion, the value of each ADGE share of common stock on a stand-alone basis would increase after conversion to Tecogen common stock at the Exchange Ratio.

Critical negative factors in evaluating the prospects for ADGE as a stand-alone company were ADGE's uninterrupted history of major operating losses and the overhang of its debt obligations for borrowed money. Without significant additional financing, which is likely not to be feasible, ADGE would be unable to repay this debt and either would be forced to seek relief under the bankruptcy laws or negotiate the conversion of the debt into ADGE common stock at an unfavorable conversion ratio. The first alternative would likely wipe out the value of the equity of ADGE, and the second alternative would likely significantly dilute the interests of the other ADGE stockholders and largely destroy the value of their equity.

Critical benefits to ADGE stockholders include the following:

Competitive Advantage. Bringing ADGE under the Tecogen umbrella would allow a more seamless customer referral process and presents a unified approach to the marketplace in offering clean energy solutions, Tecogen would be able to directly offer customers financing alternatives to an outright equipment purchase. While Tecogen in the past has offered customer referrals to ADGE, the relationship between the two companies was not always clear to customers. With ADGE as a wholly-owned subsidiary, it expected that Tecogen should be able to eliminate customer concerns related to transparency and potential conflicts-of-interest between the two companies, and verify that every appropriate lead is pursued and closed where possible.

Financial Advantage. It is anticipated that the transaction will eliminate significant inter-company expense in consolidation such that the performance of ADGE's assets will improve in consolidation. Financial advantage is based

on the following factors:

Improved Profitability of ADGE Assets. ADGE's assets are expected to be written down as a result of the Merger. The post-Merger company will benefit from Unfavorable Contract Liability (UCL) accounting methodology which will offset approximately 65% of the annual depreciation expense (from \$1.7 million to ~\$0.7 million)

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Operating cost improvements. The transaction would create operating cost improvements, as follows:

Remove duplicative accounting functions;
Remove duplicative auditing/corporate expenses;
Reduce duplicative engineering and service efforts;
More efficient service inventory; and

As wholly-owned subsidiary, ADGE will no longer incur the expenses of being a publicly traded company.

These cost savings include significant cost-savings in the costs of: (a) director and officer insurance, (b) public relations and stockholder relations services, (c) transfer agent fees (d) audit fees, (e) legal fees and (e) state registration fees.

Enhanced ability to pay off remaining
debt

Merged company has better prospects of paying remaining debt; and

Merged company has ability to raise money via equity offering to pay off debt.

More Diversified and Stable Revenue Profile. It is expected that a significant portion of total combined company revenue would be generated by stable long-term contracted revenue streams (Tecogen service revenue plus ADGE energy revenue).

Investment Advantages. As stockholders of Tecogen, ADGE's stockholders will participate in possible share price appreciation driven by the growth initiatives related to other Tecogen businesses. Among other things, these Tecogen growth initiatives include development and commercialization of Tecogen's vehicle emissions control technology, geographic expansion, sales growth related to newly launched products (including the InVerde e+ and the Ilios line of heat pumps).

Eliminate Inefficient Organizational Complexities.

ADGE and Tecogen Serve the Same Markets and Customers. The combination of the companies provides a more compelling value proposition to potential customers. The combination of the two companies into a single company will provide a larger, more economically sound company, which will allow the merged entity to compete more effectively against third parties for new business.

ADGE Purchases Substantially All of its CHP Units from Tecogen. As Tecogen purchases substantially all of its CHP units from ADGE, combining the companies allows TGEN/ADGE to operate in a more cost efficient manner and to better compete on a cost basis for potential customers.

ADGE and Tecogen Share a Management Team. John Hatsopoulos and Benjamin Locke serve as co-CEOs of each of Tecogen and ADGE. In addition, Bonnie Brown, ADGE's CFO, previously served as CFO of Tecogen. Several of the directors of ADGE also serve as members of the Board of Directors of Tecogen.

ADGE and Tecogen Share Resources. ADGE and Tecogen entered into a Facilities and Support Services Agreement on July 1, 2012 and share facilities, office and other resources. Thus, there will be little disruption in operations caused by the proposed Merger.

For more information regarding the combined company's pro forma financial information, see Exhibit A. For information on the senior leadership overlap between the two companies and a detailed discussion of the benefits of the Merger to Tecogen, see "The Merger - Potential Conflicts of Interest" For a detailed discussion of the benefits of the Merger to Tecogen and the senior leadership overlap between the two companies, see "Tecogen's Reasons for the Merger; Recommendation by the Tecogen Board of Directors."

The ADGE Board of Directors also identified and considered various risks and potentially negative factors concerning the Merger Agreement, the Merger and the other transactions contemplated by the Merger Agreement. These factors included:

that ADGE did not run a competitive auction and weighed against this consideration the views of ADGE's management, advisors and the Board of Directors that it was highly unlikely that other parties would be interested in acquiring ADGE;

that attempting to close the proposed transaction and integrate the two companies may impact ADGE's ability to conduct its business in the ordinary course;

the impact on ADGE if the transaction does not close once announced; and

the interests that directors and management have in the transaction.

The foregoing discussion is not intended to be an exhaustive list of the information and factors considered by the ADGE Board of Directors in its consideration of the Merger and the other transactions contemplated by the Merger Agreement, but is merely a summary of the material positive factors and material drawbacks and risks considered by the ADGE Board of Directors in that regard. In view of the number and variety of factors and the amount of information considered, the ADGE Board of Directors did not find it practicable to, and did not make specific assessments of, quantify or otherwise assign relative weights to, the specific factors considered in reaching its determination. In addition, the ADGE board did not undertake to make any specific determination as to whether any particular factor, or any aspect of any particular factor, was favorable or unfavorable to its ultimate determination, and individual members of the ADGE Board of Directors may have given different weights.

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In evaluating the Merger and the other transactions contemplated by the Merger Agreement, the ADGE Board of Directors consulted with ADGE's legal and financial advisors, as well as management and, after careful consideration in light of the above factors, the ADGE Board of Directors has unanimously (i) approved the Merger Agreement and the transactions contemplated by the Merger Agreement, (ii) determined and declared that the Merger and the other transactions contemplated by the Merger are advisable, fair to and in the best interest of ADGE and its stockholders, and (iii) directed that the ADGE Merger Approval Proposal be submitted for consideration at the ADGE special meeting.

Accordingly, the ADGE Board of Directors unanimously recommends that ADGE stockholders vote "FOR" the ADGE Merger Approval Proposal. The Merger cannot be completed without the approval by ADGE stockholders of the ADGE Merger Approval Proposal.

Opinion of Tecogen's Financial Advisor

Tecogen retained Scarsdale to provide it with services in connection with the proposed Merger. Tecogen selected Scarsdale based on Scarsdale's qualifications, expertise and reputation, and its knowledge of the business and affairs of Tecogen. As part of this engagement, the Tecogen Board requested that Scarsdale evaluate the fairness to Tecogen, from a financial point of view, of the Exchange Ratio pursuant to the Merger Agreement. On November 1, 2016, at a meeting of the Tecogen Board of Directors, Scarsdale rendered its oral opinion, later confirmed by delivery of a written opinion, that, based upon and subject to the various assumptions made, procedures followed, matters considered and qualifications and limitations on the scope of review undertaken by Scarsdale as set forth in its written opinion, the Exchange Ratio of 0.092 of a share of Tecogen common stock for one share of ADGE common stock pursuant to the Merger Agreement was fair to Tecogen from a financial point of view.

The full text of the written opinion of Scarsdale (the "Scarsdale Opinion"), is attached to this proxy statement/prospectus as Annex B and is incorporated herein by reference. The summary of the Scarsdale Opinion in this proxy statement/prospectus is qualified in its entirety by reference to the full text of the opinion, and you should read the opinion in its entirety for a discussion of the assumptions made, procedures followed, matters considered and qualifications and limitations upon the review undertaken by Scarsdale in rendering its opinion. Scarsdale's opinion addresses only the fairness to Tecogen from a financial point of view of the exchange ratio pursuant to the Merger Agreement as of the date of such opinion and does not address any other aspect of the Merger. The opinion did not in any manner address the prices at which Tecogen common stock will trade following consummation of the Merger or at any time. Scarsdale's opinion does not constitute a recommendation to any holder of Tecogen common stock or ADGE common stock as to how to vote at the special meetings to be held in connection with the Merger.

In connection with rendering its opinion, Scarsdale, among other things:

- reviewed a draft of the Merger Agreement dated November 1, 2016;
- reviewed certain publicly available business and financial information concerning Tecogen, ADGE, and the industries in which they operate;
- compared the proposed financial terms of the Merger with the publicly available financial terms of certain transactions involving companies we deemed relevant and the consideration paid for such companies;
- compared the financial and operating performance of Tecogen and ADGE with publicly available information concerning certain other companies we deemed relevant and reviewed the current and historical market prices of Tecogen and ADGE common stock and certain publicly traded securities of such other companies;
- reviewed certain internal financial analyses and forecasts prepared by or at the direction of the managements of Tecogen and ADGE relating to their respective businesses, as well as the expected amount and timing of the cost savings, related expenses, and synergies expected to result from the Merger; and
- performed such other financial studies and analyses and considered other information we deemed appropriate for the purposes of this opinion.

In addition, Scarsdale held discussions with certain members of the management of Tecogen and ADGE with respect to certain aspects of the Merger, the past and current business operations of Tecogen and ADGE, the financial condition and future prospects and operations of Tecogen and ADGE, the effects of the Merger on the financial condition and future prospects of Tecogen and ADGE, and certain other matters it believed necessary or appropriate to

its inquiry.

In giving its opinion, Scarsdale relied upon and assumed the accuracy and completeness of all information that was publicly available or was furnished to or discussed with Scarsdale by Tecogen and ADGE or otherwise reviewed by or for it, and Scarsdale did not independently verify (nor did it assume responsibility or liability for independently verifying) any such information or its accuracy or completeness. Scarsdale did not conduct and did not provide any valuation or appraisal of any assets or liabilities, nor did it evaluate the solvency of Tecogen and ADGE under any state or federal laws relating to bankruptcy, insolvency, or similar matters. In relying on financial analyses and forecasts provided to it or derived therefrom, Scarsdale assumed that they had been reasonably prepared based on assumptions reflecting the best currently available estimates and judgments by management as to the expected future results of operations and financial condition of Tecogen and ADGE to which such analyses or forecasts relate. Scarsdale expressed no view as to such analyses or forecasts or the assumptions on which they were based.

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Scarsdale also assumed that the Merger and other transactions contemplated by the Merger Agreement will qualify as a tax-free reorganization for United States federal income tax purposes, and will be consummated as described in the Merger Agreement, and that the definitive Merger Agreement would not differ in any material respect from the draft Merger Agreement furnished to it. In addition, Scarsdale assumed that in connection with the receipt of all the necessary approvals of the proposed Merger, if any, no delays, limitations, conditions, or restrictions would be imposed that could have an adverse effect on the transaction. Scarsdale is not a legal, regulatory, or tax expert and relied on the assessments made by advisors to Tecogen with respect to such issues. Scarsdale further assumed that all material governmental, regulatory, or other consents and approvals necessary for the consummation of the Merger would be obtained without any adverse effect on Tecogen, ADGE, or on the contemplated benefits of the Merger. The Scarsdale Opinion is necessarily based on economic, market, and other conditions as in effect on, and the information made available to it as of, the date thereof. It should be understood that subsequent developments may affect the opinion and that Scarsdale does not have any obligation to update, revise, or reaffirm its opinion. The Scarsdale Opinion is limited to the fairness, from a financial point of view, to the holders of Tecogen common stock of the exchange ratio in the proposed Merger, and Scarsdale expressed no opinion as to the fairness of any consideration to be paid in connection with the Merger to the holders of any other class of securities, creditors, or other constituencies of Tecogen or as to the underlying decision by Tecogen to engage in the Merger. Scarsdale was not been asked to, nor has it, offered any opinion with respect to the amount or nature of any compensation to any officers, directors, or employees of any party to the Merger, or any class of such persons relative to the exchange ratio applicable to the holders of Tecogen common stock in the Merger, or with respect to the fairness of any such compensation. Scarsdale expressed no opinion as to the price at which Tecogen or ADGE common stock would trade at any future time, if at all. Scarsdale also expressed no opinion as to the impact of the Merger on the solvency or viability of Tecogen or ADGE, or the ability of Tecogen or ADGE to pay their respective obligations when they come due.

The Scarsdale Opinion does not address the underlying business decision of Tecogen to enter into the Merger or the relative merits of the Merger as compared with any other strategic alternative that might be available to Tecogen. Scarsdale was not authorized to and did not solicit any expressions of interest from any other parties with respect to any other alternative transaction, sale, or business combination.

In relation to the proposed Merger, Scarsdale was engaged by Tecogen only to the extent of preparing its opinion and presenting and discussing the analysis outlined herein with a Special Committee of the Board of Directors of Tecogen. Scarsdale has received fees for these services. In addition, Tecogen has agreed to indemnify Scarsdale for certain liabilities arising out of Scarsdale's engagement. In the ordinary course of our business activities, Scarsdale and its affiliates may trade or otherwise effect transactions in the debt and equity securities of Tecogen and ADGE for their own account or for the accounts of customers or clients and, accordingly, Scarsdale may at any time hold long or short positions in such securities.

The Scarsdale Opinion was provided to the Board of Directors of Tecogen in connection with and solely for the purposes of its evaluation of the Merger. The Scarsdale Opinion does not constitute a recommendation to any shareholder of Tecogen as to how such shareholder should vote with respect to the Merger or any other matter, if applicable.

Summary of Financial Analyses of Scarsdale

In accordance with customary investment banking practice, Scarsdale employed generally accepted valuation methods in reaching its opinion. The following is a summary of the material financial analyses utilized by Scarsdale in connection with providing its opinion. The financial analyses summarized below include information presented in tabular format. The tables are not intended to stand alone, and in order to more fully understand the financial analyses used by Scarsdale, the tables must be read together with the full text of this summary of Scarsdale's financial analyses. Considering the data set forth herein without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of Scarsdale's financial analyses.

For each of the analyses performed, Scarsdale utilized the treasury stock method to calculate fully diluted shares outstanding, treating ADGE's restricted stock and outstanding options with a strike price of \$0.38 or lower as if they had been converted to ADGE common stock.

Selected Publicly Traded Company Analysis

Using publicly available information, Scarsdale compared selected financial data of ADGE with similar data for selected publicly traded companies engaged in businesses that Scarsdale judged to be similar to those of ADGE. Although none of the selected companies used in this analysis was either identical or directly comparable to ADGE, these companies were selected, among other reasons, because they are publicly traded companies with operations and businesses that, for purposes of analysis, may be considered similar to those of ADGE based on business sector participation, form of operations, and, in certain instances, inclusion in the Competition section of ADGE's Form 10-K for the fiscal year ended December 31, 2015.

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Using publicly available information, Scarsdale calculated for each of the companies: (1) the enterprise value as of October 28, 2016, as a multiple of revenue for the last twelve months (EV/LTM Revenue), (2) the enterprise value as of October 28, 2016, as a multiple of Adjusted Earnings before Interest, Taxes, Depreciation, and Amortization (EBITDA) for the last twelve months (EV/LTM EBITDA), (3) the enterprise value as of October 28, 2016, as a multiple of estimated revenue for calendar year 2017 (EV/2017 Revenue), and (4) the enterprise value as of October 28, 2016, as a multiple of projected Adjusted EBITDA for calendar year 2017 (EV/2017 EBITDA), based on such company's public filings with the SEC, publicly available equity research estimates, and Thomson Reuters data. The analysis indicated the following trading multiples:

| Company | EV / Revenue | | EV / EBITDA | |
|---------------------------------|--------------|-------------|-------------|-------------|
| | LTMCY 2017E | LTMCY 2017E | LTMCY 2017E | LTMCY 2017E |
| Independent Power | | | | |
| Ameresco | 0.5 | 0.5 | 7.3 | 6.1 |
| Atlantic Power | 3.5 | 3.0 | 9.0 | 6.5 |
| EnerNOC | 0.4 | 0.5 | NM | NA |
| Genie Energy | 0.6 | NA | 11.1 | NA |
| Spark Energy | 0.6 | 0.4 | 4.1 | 2.9 |
| Median | 0.6 | 0.5 | 8.2 | 6.1 |
| Mean | 1.1 | 1.1 | 7.9 | 5.2 |
| Utilities | | | | |
| Avangrid | 3.0 | 2.7 | 9.5 | 8.2 |
| Consolidated Edison | 2.1 | 2.0 | 7.2 | 6.3 |
| Eversource Energy | 3.9 | 3.5 | 11.9 | 10.7 |
| Exelon | 2.2 | 2.3 | 8.0 | 8.6 |
| National Grid | 3.9 | 4.3 | 10.4 | 12.2 |
| NRG Energy | 1.8 | 1.8 | 8.1 | 8.7 |
| Public Service Enterprise Group | 3.3 | 3.1 | 8.4 | 7.8 |
| Unitil | 2.7 | 2.3 | 9.3 | 8.2 |
| Median | 3.0 | 2.7 | 8.4 | 8.6 |
| Mean | 2.9 | 2.8 | 9.1 | 8.9 |

Based on the selected public market multiples described above and other factors deemed appropriate, Scarsdale applied the following range of multiples for purposes of calculating the equity value per share of ADGE: 6.0x to 9.0x projected 2017 Adjusted EBITDA, resulting in an implied per share equity range for ADGE of \$0.18 to \$0.27, or an implied exchange ratio of 0.0436 to 0.0654 share of Tecogen common stock for each share of ADGE common stock.

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Selected Precedent Transaction Analysis

Using publicly available information, Scarsdale reviewed the following precedent transactions involving companies that engaged in businesses judged to be reasonably similar to those of ADGE. Scarsdale selected these transactions, among other reasons, because the businesses involved in these transactions share similar business characteristics to ADGE based on business sector participation, operational characteristics, and financial metrics. It should be emphasized that none of the companies involved in the selected transactions is either identical or directly comparable to ADGE and none of the selected transactions is either identical or directly comparable to the proposed transaction. The transactions considered and the date each transaction was announced are as follows:

| Announcement Date | Target Company Name | Acquirer Company Name | EV/ Revenue | EV / EBITDA |
|---------------------------------------|--------------------------------------|----------------------------------|-------------|-------------|
| 6/15/2016 | Atlas Power (Fossil Fuel JV) | Dynegy | NA | 4.7 |
| 6/3/2016 | Talen Energy | Riverstone Holdings | 1.6 | 8.1 |
| 5/16/2016 | ENER-G Cogen | Centrica | NA | NA |
| 4/26/2016 | EnergySouth | Spire | NA | 12.8 |
| 2/24/2016 | PowerSecure | Southern Company | 1.0 | 19.3 |
| 2/9/2016 | Empire District Electric | Liberty Utilities | 3.9 | 10.7 |
| 1/21/2016 | Prairie State Energy Campus Mgmt. | Wabash Valley Power Ass'n | NA | NA |
| 5/12/2015 | Oasis Power* | Nudevco Partners Holdings | NA | 2.5 |
| 2/26/2015 | UIL Holdings | Iberdrola SA | 2.6 | 10.5 |
| 10/20/2014 | Cleco | Macquarie; BC Inv. Mgmt.; et al. | 4.0 | 10.8 |
| 7/29/2014 | Wheelabrator Technologies | Energy Capital Partners | 2.3 | NA |
| 6/23/2014 | Integrus Energy Group | Wisconsin Energy | 1.3 | 12.5 |
| 12/11/2013 | UNS Energy | Fortis (Canada) | 2.9 | 9.4 |
| 10/23/2013 | GE Power & Water (Power Rental Bus.) | APR Energy | NA | NA |
| 7/12/2013 | Bounce Energy | Direct Energy | 0.5 | NA |
| 3/25/2013 | Blythe Energy | Altogas Power Holdings | NA | NA |
| * Forward estimates for EV and EBITDA | | | | |
| | Median | | 2.3 | 10.7 |
| | Mean | | 2.2 | |