

TECOGEN INC.
Form S-4
December 21, 2016
Table of Contents

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
Sullivan & Worcester LLP	White White & Van Etten PC	Gennari Aronson, LLP
One Post Office Square	45 School Street	300 First Avenue, Suite 102
Boston, MA 02109	Boston, MA 02108	Needham, MA 02494
Tel: 617.338.2800	Tel: 617.350.9281	Tel: 781.719.9803
Fax: 617.338.2880	Fax: 617.225.0205	Fax: 781.719.9853
Email: emiller@sandw.com	Email: daw@wwvllaw.com	Email: naronson@galawpartners.com

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).

Table of Contents

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

Table of Contents

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.

Table of Contents

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 [*].

Table of Contents

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

Table of Contents

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

Table of Contents

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.

Table of Contents

TABLE OF CONTENTS

	Page #
<u>Questions and Answers</u>	<u>1</u>
<u>SUMMARY</u>	<u>2</u>
<u>The Companies</u>	<u>2</u>
<u>The Merger and the Merger Agreement</u>	<u>3</u>
<u>Recommendation of the Tecogen Board of Directors</u>	<u>4</u>
<u>Recommendation of the ADGE Board of Directors</u>	<u>4</u>
<u>Summary of the Risk Factors Related to the Merger</u>	<u>4</u>
<u>The Special Meetings</u>	<u>4</u>
<u>Opinion of Tecogen's Financial Advisor Regarding the Merger</u>	<u>5</u>
<u>Opinion of ADGE's Financial Advisor Regarding the Merger</u>	<u>5</u>
<u>Stock Ownership of Directors and Executive Officers of Tecogen</u>	<u>6</u>
<u>Stock Ownership of Directors and Executive Officers of ADGE</u>	<u>6</u>
<u>Interests of Tecogen's Directors and Executive Officers in the Merger</u>	<u>6</u>
<u>Interests of ADGE's Directors and Executive Officers in the Merger</u>	<u>6</u>
<u>Listing of Tecogen Common Shares</u>	<u>6</u>
<u>No Appraisal Rights</u>	<u>6</u>
<u>Expected Timing of the Merger</u>	<u>6</u>
<u>Conditions to Completion of the Merger</u>	<u>7</u>
<u>Regulatory Approvals Required for the Merger</u>	<u>7</u>
<u>No Deal Protection Devices: Termination of the Merger Agreement</u>	<u>7</u>
<u>Expenses: No Termination Fees</u>	<u>7</u>
<u>Certain United States Federal Income Tax Consequences of the Merger</u>	<u>7</u>
<u>Accounting Treatment of the Merger</u>	<u>7</u>
<u>Comparison of Rights of Tecogen and ADGE Stockholders</u>	<u>7</u>
<u>Selected Historical Financial Information of Tecogen</u>	<u>8</u>
<u>Selected Historical Financial Information of ADGE</u>	<u>9</u>
<u>Summary Unaudited Pro Forma Condensed Combined Financial Information</u>	<u>10</u>
<u>Unaudited Pro Forma Condensed Consolidated Financial Information</u>	<u>11</u>
<u>Unaudited Pro Forma Condensed Combined Balance Sheet</u>	<u>13</u>
<u>Unaudited Pro Forma Condensed Combined Statement of Operations</u>	<u>14</u>
<u>Notes to the Unaudited Pro Forma Condensed Combined Financial Statements</u>	<u>16</u>
<u>Equivalent and Comparative Per Share Information</u>	<u>22</u>
<u>Comparative Tecogen and ADGE Market Price and Distribution Information</u>	<u>23</u>
<u>RISK FACTORS</u>	<u>25</u>
<u>Risks Relating to the Merger</u>	<u>25</u>
<u>Risks Relating to an Investment in Tecogen Following the Merger</u>	<u>27</u>
<u>Legal Risks related to the Merger</u>	<u>28</u>
<u>Other Risks</u>	<u>28</u>
<u>CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING INFORMATION</u>	<u>28</u>
<u>THE TECOGEN SPECIAL MEETING</u>	<u>30</u>
<u>Date, Time, Place and Purpose of Tecogen's Special Meeting</u>	<u>30</u>
<u>Recommendation of the Tecogen Board</u>	<u>30</u>
<u>Record Date; Who Can Vote at Tecogen's Special Meeting</u>	<u>30</u>
<u>Vote Required for Approval; Quorum</u>	<u>30</u>
<u>Abstentions and Broker Non-Votes</u>	<u>30</u>

Table of Contents

<u>Manner of Voting</u>	<u>30</u>
<u>Shares Held in "Street Name"</u>	<u>31</u>
<u>Revocation of Proxies or Voting Instructions</u>	<u>31</u>
<u>Tabulation of the Votes</u>	<u>31</u>
<u>Stockholder Proposals for the Next Annual Meeting</u>	<u>31</u>
<u>PROPOSAL SUBMITTED TO TECOGEN STOCKHOLDERS</u>	<u>32</u>
<u>Approval of the Tecogen Merger Approval Proposal</u>	<u>32</u>
<u>Required Vote</u>	<u>32</u>
<u>THE ADGE SPECIAL MEETING</u>	<u>33</u>
<u>Date, Time, Place and Purpose of ADGE's Special Meeting</u>	<u>33</u>
<u>Recommendation of the ADGE Board</u>	<u>33</u>
<u>Record Date; Who Can Vote at ADGE's Special Meeting</u>	<u>33</u>
<u>Vote Required for Approval; Quorum</u>	<u>33</u>
<u>Abstentions and Broker Non-Votes</u>	<u>33</u>
<u>Manner of Voting</u>	<u>33</u>
<u>Shares Held in "Street Name"</u>	<u>34</u>
<u>Revocation of Proxies or Voting Instructions</u>	<u>34</u>
<u>Tabulation of the Votes</u>	<u>34</u>
<u>Stockholder Proposals for the Next Annual Meeting</u>	<u>34</u>
<u>PROPOSAL SUBMITTED TO ADGE STOCKHOLDERS</u>	<u>35</u>
<u>Approval of the Merger</u>	<u>35</u>
<u>Required Vote</u>	<u>35</u>
<u>THE MERGER</u>	<u>36</u>
<u>Effects of the Merger</u>	<u>36</u>
<u>Background of the Merger</u>	<u>36</u>
<u>Tecogen's Reasons for the Merger; Recommendation by the Tecogen Board of Directors</u>	<u>37</u>
<u>Negative Considerations to be Considered by Tecogen Stockholders</u>	<u>38</u>
<u>Potential Conflicts of Interests</u>	<u>38</u>
<u>Additional Considerations</u>	<u>39</u>
<u>ADGE's Reasons for the Merger; Recommendation by the ADGE Board of Directors</u>	<u>40</u>
<u>Opinion of Tecogen's Financial Advisor to the Tecogen Special Committee</u>	<u>42</u>
<u>Opinion of ADGE's Financial Advisor to the ADGE Special Committee</u>	<u>47</u>
<u>Certain Unaudited Prospective Financial Information of Tecogen</u>	<u>52</u>
<u>Certain Unaudited Prospective Financial Information of ADGE</u>	<u>53</u>
<u>Interests of Tecogen's Directors and Executive Officers in the Merger</u>	<u>55</u>
<u>Interests of ADGE's Directors and Executive Officers in the Merger</u>	<u>55</u>
<u>Regulatory Approvals in Connection with the Merger</u>	<u>56</u>
<u>Accounting Treatment</u>	<u>56</u>
<u>Listing of Tecogen Common Stock</u>	<u>56</u>
<u>Deregistration of ADGE Common Stock</u>	<u>56</u>
<u>Restrictions on Sales of Shares of Tecogen Common Stock Received in the Merger</u>	<u>56</u>
<u>No Appraisal Rights</u>	<u>56</u>
<u>MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER</u>	<u>57</u>
<u>General</u>	<u>57</u>
<u>U.S. Federal Income Tax Consequences of the Merger to U.S. Holders of ADGE Common</u>	<u>57</u>

Table of Contents

<u>THE MERGER AGREEMENT</u>	<u>59</u>
<u>Form, Effective Time and Closing</u>	<u>59</u>
<u>Organizational Documents, Directors and Officers of the Surviving Entity</u>	<u>59</u>
<u>Consideration to be Received in the Merger</u>	<u>60</u>
<u>Representations and Warranties</u>	<u>61</u>
<u>Covenants and Agreements</u>	<u>61</u>
<u>Absence of Lock-up Provisions</u>	<u>63</u>
<u>ADGE Go-Shop Right</u>	<u>63</u>
<u>No Requirement of Minority Stockholder Approval</u>	<u>63</u>
<u>Takeover Statutes</u>	<u>64</u>
<u>Employee Benefits</u>	<u>64</u>
<u>Other Covenants and Agreements</u>	<u>64</u>
<u>Conditions to Completion of the Merger</u>	<u>65</u>
<u>Termination of the Merger Agreement by Either Tecogen or ADGE</u>	<u>65</u>
<u>Miscellaneous Provisions</u>	<u>65</u>
<u>DESCRIPTION OF TECOGEN SHARES</u>	<u>66</u>
<u>Authorized and Issued Common Stock</u>	<u>66</u>
<u>Common Stock</u>	<u>66</u>
<u>Transfer Agent and Registrar</u>	<u>66</u>
<u>Listing</u>	<u>66</u>
<u>COMPARISON OF STOCKHOLDER RIGHTS</u>	<u>66</u>
<u>LEGAL MATTERS</u>	<u>66</u>
<u>EXPERTS</u>	<u>67</u>
<u>WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE</u>	<u>67</u>
<u>ANNEX A - AGREEMENT AND PLAN OF MERGER</u>	<u>A-1</u>
<u>ANNEX B - OPINION OF SCARSDALE EQUITIES</u>	<u>B-1</u>
<u>ANNEX C - OPINION OF CASSEL SALPETER & CO., LLC</u>	<u>C-1</u>
<u>Part II - INFORMATION NOT REQUIRED BY PRESPECTUS</u>	<u>II- 1</u>
<u>Item 20. Indemnification of Directors and Officers</u>	<u>II- 1</u>
<u>Item 21. Exhibits and Financial Statement Schedules</u>	<u>II- 1</u>
<u>Item 22. Undertakings</u>	<u>II- 1</u>
<u>SIGNATURES</u>	<u>II- 4</u>
<u>POWER OF ATTORNEY</u>	<u>II- 4</u>
<u>EXHIBIT LIST</u>	<u>II- 5</u>

Table of Contents

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

Table of Contents

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.

2

Table of Contents

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.

Table of Contents

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.

Table of Contents

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."

Table of Contents

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.

Table of Contents

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.”

7

Table of Contents

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

Table of Contents

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		
	September	As of		
	30,	December 31,		
	2016	2015	2014	
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

9

Table of Contents

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	

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

16

Table of Contents

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.

Table of Contents

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.

Table of Contents

(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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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

Table of Contents

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		

Edgar Filing: TECOGEN INC. - Form S-4

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

23

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.”

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.

Table of Contents

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.”

Table of Contents

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.

Table of Contents

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

Table of Contents

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.

Table of Contents

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."

Table of Contents

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)

40

Table of Contents

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.

Table of Contents

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.

42

Table of Contents

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.

Table of Contents

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.

Table of Contents

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	10.7

Based on this analysis and other factors that Scarsdale considered appropriate, Scarsdale applied a multiple range of 8.0x to 10.0x to ADGE's estimated 2017 Adjusted EBITDA and arrived at an estimated range of equity values per share for ADGE common stock of \$0.24 to \$0.30, or an implied exchange ratio of 0.0581 to 0.0726 share of Tecogen common stock for each share of ADGE common stock.

Discounted Cash Flow Analysis

Scarsdale calculated ranges of implied equity value per share for ADGE common stock by performing a discounted cash flow, or "DCF," analysis. The discounted cash flow analysis assumed a valuation date of January 1, 2017. Scarsdale performed its DCF analysis of ADGE based primarily on a set of assumptions originally provided by ADGE management relating to ADGE's business, and subsequently modified by Tecogen management to reflect Tecogen management's assessment of ADGE's business and the potential synergies that might be realized in a merger. Using these Tecogen management projections, Scarsdale calculated the unlevered free cash flows that Tecogen management expects ADGE to generate during fiscal years 2017 through 2020. Scarsdale also calculated a range of terminal values for ADGE as of December 31, 2020, by applying a range of terminal EBITDA multiples of 7.0x to 10.0x projected 2020 Adjusted EBITDA. The unlevered free cash flows and the range of terminal values were then discounted to present values using a range of discount rates from 15.5% to 17.0% and added together in order to derive the implied enterprise value of ADGE.

The range of discount rates used derived from traditional investment banking methodology, including the analysis of selected publicly traded companies engaged in businesses that Scarsdale deemed relevant to ADGE's businesses. Scarsdale analyzed these publicly traded companies to determine the appropriate beta (an estimate of systematic risk) and target debt/total capital ratio to use in calculating the range of discount rates described above. Based on the assumptions set forth above, this analysis implied an estimated equity value range of \$0.38 to \$0.51 per share of ADGE common stock, or an implied exchange ratio of 0.092 to 0.1235 share of Tecogen common stock for each share of ADGE common stock.

Table of Contents

Other Information

Implied Premiums and Multiples

Based on the Merger Agreement, the Exchange Ratio is 0.092 shares of Tecogen common stock for each share of ADGE common stock. Based on the closing price of Tecogen common stock of \$4.24 on October 28, 2016, the implied value of the merger consideration to be paid to ADGE stockholders was approximately \$0.3864. This implied value represented an approximately 27% premium to ADGE's closing price of \$0.2999 per share on October 28, 2016. The implied enterprise value as a multiple of estimated revenue for fiscal year 2017 was 3.1x, and the implied enterprise value as a multiple of estimated Adjusted EBITDA for fiscal year 2017 was 10.6x.

Historical Exchange Ratio Analysis

Scarsdale reviewed the per share daily closing market price of ADGE common stock and Tecogen common stock and calculated the implied historical exchange ratios by dividing the volume-weighted average prices per share of ADGE common stock by those of Tecogen common stock for the dates and over the periods described in the table below. The analysis resulted in the following implied exchange ratios for the periods indicated:

Range	TGEN Average Price	Implied Offer Value	ADGE Average Price	TGEN/ADGE Price Ratio	Implied Premium to ADGE Average Price
1 Day (October 28)	\$4.24	\$0.39	\$0.30	0.071	29%
20 Trading Days	\$4.13	\$0.38	\$0.25	0.060	53%
1 Calendar Month	\$4.13	\$0.38	\$0.25	0.061	50%
3 Calendar Months	\$4.40	\$0.40	\$0.27	0.062	48%
6 Calendar Months	\$4.48	\$0.41	\$0.31	0.068	34%
1 Calendar Year	\$4.19	\$0.38	\$0.32	0.077	19%
2 Calendar Years	\$4.65	\$0.42	\$0.41	0.089	3%

Because such a historical exchange ratio analysis is not a valuation methodology, it was presented merely for informational purposes.

The foregoing summary of certain material financial analyses does not purport to be a complete description of the analyses or data presented by Scarsdale, and is qualified in its entirety by reference to the written opinion of Scarsdale. The preparation of a fairness opinion is a complex process and is not necessarily susceptible to partial analysis or summary description. In reaching its opinion, Scarsdale considered the results of its analyses as a whole. Selecting portions of the foregoing summary and these analyses, without considering all of these analyses as a whole, could create an incomplete view of the processes underlying the analyses and Scarsdale's opinion. In addition, Scarsdale may have given various analyses and factors more or less weight than other analyses and factors, and may have deemed various assumptions more or less probable than other assumptions. As a result, the ranges of valuations resulting from any particular analysis described above should not be taken to be Scarsdale's view of the actual value of ADGE.

Other Matters Relating to Scarsdale's Opinion

Under the terms of its engagement letter, Tecogen paid Scarsdale an aggregate fee of \$85,000, which was paid in two installments - \$35,000 was paid upon engagement, and \$50,000 was paid in conjunction with the delivery of the fairness opinion. Scarsdale also received an additional fee of \$40,000 to conduct numerous additional interim financial analyses and discussed them with the Tecogen special committee. All fees have been paid, and no part of any fee was contingent on the closing of the Merger. Tecogen has also agreed to reimburse Scarsdale for its expenses, including fees of outside counsel and other professional advisors, incurred in performing its services. In addition, Tecogen has agreed to indemnify Scarsdale and its affiliates, their respective officers, directors, employees and agents and each

person, if any, controlling Scarsdale or any of its affiliates against certain liabilities and expenses, including certain liabilities under the federal securities laws, relating to or arising out of Scarsdale's engagement.

In the two years preceding the date of the opinion, Scarsdale provided a fairness opinion in conjunction with Tecogen's acquisition of the minority interest in its affiliate, Ilios Inc., in March 2016, for which Scarsdale received a fee of \$40,000. Scarsdale did not provide any other financing services to either Tecogen or ADGE in such two-year period.

Table of Contents

Opinion of ADGE's Financial Advisor

On October 31, 2016, Cassel Salpeter rendered its oral opinion to the ADGE Special Committee (which was confirmed in writing by delivery of Cassel Salpeter's written opinion dated the same date), as to, as of October 31, 2016, the fairness, from a financial point of view, to the holders of ADGE common stock other than John Hatsopoulos, George Hatsopoulos and their respective affiliates or the Unaffiliated ADGE Holders, of the Exchange Ratio in the Merger pursuant to the Merger Agreement.

The summary of the opinion in this proxy statement/prospectus is qualified in its entirety by reference to the full text of the written opinion, which is included as Annex C to this proxy statement/prospectus and sets forth the procedures followed, assumptions made, qualifications and limitations on the review undertaken and other matters considered by Cassel Salpeter in preparing its opinion. Neither Cassel Salpeter's written opinion nor the summary of its opinion and the related analyses set forth in this proxy statement/prospectus, however, is intended to be or constitutes advice or a recommendation to any security holder as to how such security holder should act or vote with respect to any matter relating to the proposed Merger or otherwise.

The opinion was addressed to the ADGE Special Committee for the use and benefit of the members of the ADGE Special Committee (in their capacities as such) and, with the consent of the ADGE Special Committee, the members of the ADGE Board of Directors, in connection with the ADGE Special Committee's and, as applicable, the ADGE Board's, evaluation of the Merger. Cassel Salpeter's opinion should not be construed as creating any fiduciary duty on Cassel Salpeter's part to ADGE or any other party to the Merger Agreement, any security holder of ADGE or such other party, any creditor of ADGE or such other party, or any other person. Cassel Salpeter's opinion was just one of the several factors the ADGE Special Committee took into account in making its recommendation to the ADGE Board of Directors to approve the Merger.

Cassel Salpeter's opinion only addressed whether, as of the date of the opinion, the Exchange Ratio in the Merger pursuant to the Merger Agreement was fair, from a financial point of view, to the Unaffiliated ADGE Holders and did not address any other terms, aspects, or implications of the Merger or the Merger Agreement, including, without limitation, any term or aspect of the Merger that was not susceptible to financial analyses, the fairness of the Merger or all or any portion of the Exchange Ratio to any other security holders of ADGE, Tecogen or any other person or any creditors or other constituencies of ADGE, Tecogen or any other person, nor the fairness of the amount or nature, or any other aspect, of any compensation or consideration payable to or received by any officers, directors, or employees of any parties to the Merger, or any class of such persons, relative to the Exchange Ratio in the Merger pursuant to the Merger Agreement, or otherwise. Cassel Salpeter did not express any opinion as to what the value of the shares of Tecogen common stock actually would be when issued to the holders of ADGE common stock in the Merger or the prices at which shares of ADGE common stock or Tecogen common stock may trade, be purchased or sold at any time. Cassel Salpeter assumed that the shares of Tecogen common stock to be issued in the Merger to the holders of ADGE common stock would be listed on the Nasdaq Capital Market.

Cassel Salpeter's opinion did not address the relative merits of the Merger as compared to any alternative transaction or business strategy that may have existed for ADGE, or the merits of the underlying decision by the ADGE Special Committee, the ADGE Board or ADGE to engage in or consummate the Merger. The financial and other terms of the Merger were determined pursuant to negotiations between the parties to the Merger Agreement and were not determined by or pursuant to any recommendation from Cassel Salpeter. In addition, Cassel Salpeter was not authorized to, and did not, solicit indications of interest from third parties regarding a potential transaction involving ADGE.

Cassel Salpeter's analysis and opinion were necessarily based upon market, economic, and other conditions as they existed on, and could be evaluated as of, the date of the opinion. Accordingly, although subsequent developments could arise that would otherwise affect its opinion, Cassel Salpeter did not assume any obligation to update, review, or reaffirm its opinion to the ADGE committee or any other person or otherwise to comment on or consider events occurring or coming to Cassel Salpeter's attention after the date of the opinion.

In arriving at its opinion, Cassel Salpeter made such reviews, analyses, and inquiries as Cassel Salpeter deemed necessary and appropriate under the circumstances. Among other things, Cassel Salpeter:

Reviewed a draft, received on October 31, 2016, of the Merger Agreement.

Reviewed certain publicly available financial information and other data with respect to ADGE and Tecogen that Cassel Salpeter deemed relevant.

Reviewed certain other information and data with respect to ADGE made available to Cassel Salpeter by ADGE, including financial projections with respect to the future financial performance of ADGE for the years ending December 31, 2016 through December 31, 2020, prepared by management of ADGE or the ADGE Projections, estimates of ADGE's net operating loss tax carryforwards or the ADGE NOLs, and the potential tax savings available to ADGE based on the ADGE NOLs or the ADGE Estimated NOL Tax Savings, prepared by management of ADGE, and other internal financial information furnished to Cassel Salpeter by or on behalf of ADGE.

Table of Contents

Reviewed certain other information and data with respect to Tecogen made available to Cassel Salpeter by Tecogen, including financial projections with respect to the future financial performance of Tecogen, excluding Tecogen's interest in the joint venture Ultra Emissions Technologies Inc. or Ultratek, for the years ending December 31, 2016 through December 31, 2018, prepared by management of Tecogen or the Tecogen Projections, estimates of Tecogen's net operating loss tax carryforwards or the Tecogen NOLs, and the potential tax savings available to Tecogen based on Tecogen NOLs or the Tecogen Estimated NOL Tax Savings, prepared by management of Tecogen, pricing information or the Ultratek Pricing Information, for a recent equity financing effected by Ultratek, and other internal financial information furnished to Cassel Salpeter by or on behalf of Tecogen.

Considered and compared the financial and operating performance of ADGE and Tecogen with that of companies with publicly traded equity securities that Cassel Salpeter deemed relevant.

Considered the publicly available financial terms of certain transactions that Cassel Salpeter deemed relevant.

Discussed the business, operations, and prospects of ADGE, Tecogen and the proposed Merger with ADGE's and Tecogen's management and certain of ADGE's and Tecogen's representatives.

Conducted such other analyses and inquiries, and considered such other information and factors, as Cassel Salpeter deemed appropriate.

In arriving at its opinion, Cassel Salpeter, with the ADGE Special Committee's consent, relied upon and assumed, without independently verifying, the accuracy and completeness of all of the financial and other information that was supplied or otherwise made available to Cassel Salpeter or available from public sources, and Cassel Salpeter further relied upon the assurances of ADGE's and Tecogen's management that they were not aware of any facts or circumstances that would make any such information inaccurate or misleading. Cassel Salpeter also relied upon, without independent verification, the assessments of the management of ADGE and Tecogen as to ADGE's and Tecogen's existing and future technology, products and services and the validity and marketability of, and risks associated with, such technology, products and services (including, without limitation, the development, testing and marketing of such technology, products and services; the receipt of all necessary governmental and other regulatory approvals for the development, testing and marketing thereof; and the life of all relevant patents and other intellectual and other property rights associated with such technology, products and services), and Cassel Salpeter assumed, at the ADGE Special Committee's direction, that there would be no developments with respect to any such matters that would adversely affect its analyses or opinion. Cassel Salpeter is not legal, tax, accounting, environmental, or regulatory advisors, and Cassel Salpeter did not express any views or opinions as to any legal, tax, accounting, environmental, or regulatory matters relating to ADGE, Tecogen, the Merger, or otherwise. Cassel Salpeter understood and assumed that ADGE had obtained or would obtain such advice as it deemed necessary or appropriate from qualified legal, tax, accounting, environmental, regulatory, and other professionals.

The ADGE Special Committee advised Cassel Salpeter, and Cassel Salpeter assumed, that (i) the ADGE Projections were reasonably prepared on a basis reflecting the best currently available estimates and judgments of management of ADGE with respect to the future financial performance of ADGE, (ii) the ADGE NOLs were reasonably prepared in good faith on bases reflecting the best currently available estimates and judgments of ADGE's management as to the amount of such ADGE NOLs, (iii) the ADGE Estimated NOL Tax Savings were a reasonable basis on which to evaluate such ADGE NOLs, and (iv) the ADGE Projections, the ADGE NOLs, and the ADGE Estimated NOL Tax Savings provided a reasonable basis upon which to analyze and evaluate ADGE and form an opinion. The ADGE Special Committee also advised Cassel Salpeter, and Cassel Salpeter assumed, that (i) the Tecogen Projections were reasonably prepared in good faith on bases reflecting the best currently available estimates and judgments of management of Tecogen with respect to the future financial performance of Tecogen, (ii) the Tecogen NOLs were reasonably prepared in good faith on bases reflecting the best currently available estimates and judgments of Tecogen's management as to the amount of such Tecogen NOLs and (iii) the Tecogen Estimated NOL Tax Savings were a reasonable basis on which to evaluate such Tecogen NOLs, (iv) the Ultratek Pricing Information was a reasonable basis on which to evaluate Tecogen's investment in Ultratek, and (v) the Tecogen Projections, the Tecogen NOLs, the Tecogen Estimated NOL Tax Savings and the Ultratek Pricing Information provided a reasonable basis upon which to analyze and evaluate Tecogen and form an opinion. Cassel Salpeter expressed no view with respect to the ADGE

Projections, the ADGE NOLs, the ADGE Estimated NOL Tax Savings, the Tecogen Projections, the Tecogen NOLs, the Tecogen Estimated NOL Tax Savings, the Ultratek Pricing Information or the assumptions on which they were based.

Cassel Salpeter did not evaluate the solvency or creditworthiness of ADGE, Tecogen or any other party to the Merger, the fair value of ADGE, Tecogen or any of their respective assets or liabilities, or whether ADGE, Tecogen or any other party to the Merger is paying or receiving reasonably equivalent value in the Merger under any applicable foreign, state, or federal laws relating to bankruptcy, insolvency, fraudulent transfer, or similar matters, nor did Cassel Salpeter evaluate, in any way, the ability of ADGE, Tecogen or any other party to the Merger to pay its obligations when they come due. Cassel Salpeter did not physically inspect ADGE's or Tecogen's properties or facilities and did not make or obtain any evaluations or appraisals of ADGE's or Tecogen's assets or liabilities (including any contingent, derivative, or off-balance-sheet assets and liabilities). Cassel Salpeter did not attempt to confirm whether ADGE or Tecogen had good title to their respective assets. Cassel Salpeter's role in reviewing any information was limited solely to performing such reviews as it deemed necessary to support its own advice and analysis and was not on behalf of the ADGE Special Committee, the ADGE Board of Directors, ADGE or any other party.

Table of Contents

Cassel Salpeter assumed, with the ADGE Special Committee's consent, that the Merger would be consummated in a manner that complies in all respects with applicable foreign, federal, state, and local laws, rules, and regulations and that, in the course of obtaining any regulatory or third party consents, approvals, or agreements in connection with the Merger, no delay, limitation, restriction, or condition would be imposed that would have an adverse effect on ADGE, Tecogen or the Merger. Cassel Salpeter also assumed, with the ADGE Special Committee's consent, that the final executed form of the Merger Agreement would not differ in any material respect from the draft Cassel Salpeter reviewed and that the Merger would be consummated on the terms set forth in the Merger Agreement, without waiver, modification, or amendment of any term, condition, or agreement thereof material to Cassel Salpeter's analyses or opinion. Cassel Salpeter also assumed that the representations and warranties of the parties to the Merger Agreement contained therein were true and correct and that each such party would perform all of the covenants and agreements to be performed by it under the Merger Agreement. Cassel Salpeter offered no opinion as to the contractual terms of the Merger Agreement or the likelihood that the conditions to the consummation of the Merger set forth in the Merger Agreement would be satisfied. Cassel Salpeter further assumed that for U.S. federal tax income purposes that the Merger would qualify as a plan of reorganization within the meaning of Section 368 of the Internal Revenue Code of 1986, as amended.

Summary of Financial Analyses

In connection with preparing its opinion, Cassel Salpeter performed a variety of financial analyses. The following is a summary of the material financial analyses performed by Cassel Salpeter in connection with the preparation of its opinion. It is not a complete description of all analyses underlying such opinion. The preparation of an opinion is a complex process involving various determinations as to the most appropriate and relevant methods of financial analysis and the application of those methods to the particular circumstances. As a consequence, neither Cassel Salpeter's opinion nor the respective analyses underlying its opinion is readily susceptible to partial analysis or summary description. In arriving at its opinion, Cassel Salpeter assessed as a whole the results of all analyses undertaken by it with respect to the opinion. While it took into account the results of each analysis in reaching its overall conclusions, Cassel Salpeter did not make separate or quantifiable judgments regarding individual analyses and did not draw, in isolation, conclusions from or with regard to any individual analysis or factor. Therefore, Cassel Salpeter believes that the analyses underlying the opinion must be considered as a whole and that selecting portions of its analyses or the factors it considered, without considering all analyses and factors underlying the opinion collectively, could create a misleading or incomplete view of the analyses performed by Cassel Salpeter in preparing the opinion.

The multiple ranges and implied value reference ranges indicated by Cassel Salpeter's analyses are not necessarily indicative of actual values nor predictive of future results, which may be significantly more or less favorable than those suggested by such analyses. Much of the information used in, and accordingly the results of, Cassel Salpeter's analyses are inherently subject to substantial uncertainty.

The following summary of the material financial analyses performed by Cassel Salpeter in connection with the preparation of its opinion includes information presented in tabular format. The tables alone do not constitute a complete description of these analyses. Considering the data in the tables below without considering the full narrative description of the analyses, as well as the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of the financial analyses Cassel Salpeter performed.

For purposes of its analyses, Cassel Salpeter reviewed a number of financial metrics, including the following:
 EBITDA - generally the amount of the relevant company's earnings before interest, taxes, depreciation and amortization for a specified time period.

Enterprise Value - generally the value as of a specified date of the relevant company's outstanding equity securities (taking into account its options and other outstanding convertible securities) plus the value as of such date of its net debt (the value of its outstanding indebtedness, preferred stock and minority interests less the amount of cash on its balance sheet).

Unless the context indicates otherwise, (1) share prices for the selected companies used in the selected companies analysis described below were as of October 28, 2016, (2) the relevant values for the selected transactions analysis

described below were calculated on an enterprise value basis based on the consideration proposed to be paid in the selected transactions, (3) estimates of future financial performance of ADGE were based on the ADGE Projections, (4) estimates of future financial performance of Tecogen, excluding Tecogen's interest in Ultratek, were based on the Tecogen Projections, (5) the value of Tecogen's interest in Ultratek was calculated, based on the Ultratek Pricing Information, to be \$25,026,000, and (6) estimates of financial performance for the selected companies listed below were based on publicly available research analyst estimates for those companies.

Discounted Cash Flows Analysis

Cassel Salpeter performed a discounted cash flow analysis of ADGE using the ADGE Projections, the ADGE NOLs, the ADGE Estimated NOL Tax Savings and a discounted cash flow analysis of Tecogen using the Tecogen Projections, the Tecogen NOLs, the Tecogen Estimated NOL Tax Savings and the Ultratek Pricing Information. In performing this analysis, Cassel Salpeter applied, with respect to ADGE, discount rates ranging from 10.70% to 11.70% and terminal multiples of ADGE's projected 2020 P EBITDA ranging from 7.5x to 8.5x and, with respect to Tecogen, discount rates ranging from 13.30% to 14.30% and terminal

Table of Contents

multiples of Tecogen's projected 2018 P revenue ranging from 2.25x to 2.75x. The discounted cash flow analysis indicated an implied enterprise value reference range for ADGE of \$16,800,000 to \$19,100,000, and, together with the Ultratek Pricing Information, an implied enterprise value reference range for Tecogen of \$77,700,000 to \$90,000,000 and an implied exchange ratio reference range of 0.0719x to 0.0942x of a share of Tecogen common stock per share of ADGE common stock, as compared to the Exchange Ratio in the Merger of 0.092x of a share of Tecogen common stock per share of ADGE common stock.

Selected Companies Analysis

Cassel Salpeter considered certain financial data for selected companies with publicly traded equity securities Cassel Salpeter deemed relevant. The financial data reviewed included:

• Enterprise Value as multiple of revenue for the last twelve months, or "LTM Revenue";

• Enterprise Value as a multiple of projected revenue for the year ending December 31, 2016, or "2016 P Revenue"; and

• Enterprise Value as a multiple of projected revenue for the year ending December 31, 2017, or "2017 P Revenue."

With respect to ADGE, the selected companies with publicly traded equity securities and resulting financial data were:

• FuelCell Energy Inc.

• Maxim Power Corp.

• Polaris Infrastructure Inc.

• U.S. Geothermal Inc.

• EuroSite Power Inc.

	High	Mean	Median	Low
Enterprise Value as a Multiple of LTM Revenue	11.87x	5.69x	6.42x	1.12x
Enterprise Value as a Multiple of 2016 P Revenue	6.24x	4.50x	6.16x	1.11x
Enterprise Value as a Multiple of 2017 P Revenue	5.82x	3.85x	4.97x	0.76x

Taking into account the results of the selected companies analysis for ADGE, Cassel Salpeter applied multiples of 2.50x to 3.00x to ADGE's LTM Revenue, 2.50x to 3.00x to ADGE's projected 2016 P Revenue and 2.25x to 2.75x to ADGE's projected 2017 P Revenue. The selected companies analysis indicated an implied enterprise value reference range for ADGE of \$15,800,000 to \$18,900,000.

With respect to Tecogen, the selected companies with publicly traded equity securities and resulting financial data were:

Alternative Energy/Cogeneration

• Plug Power Inc.

• Ballard Power Systems Inc.

• Advanced Emissions Solutions, Inc.

• FuelCell Energy Inc.

• Hydrogenics Corporation

• Capstone Turbine Corp.

Heating/Cooling

• Ingersoll-Rand Plc

• Pentair Plc.

• AO Smith Corp.

• Lennox International, Inc.

• Watts Water Technologies, Inc.

• AAON Inc.

	High	Mean	Median	Low
Enterprise Value as a Multiple of LTM Revenue	4.03x	2.25x	2.09x	0.24x
Enterprise Value as a Multiple of 2016 P Revenue	3.87x	2.16x	2.05x	0.25x
Enterprise Value as a Multiple of 2017 P Revenue	3.53x	1.83x	1.73x	0.18x

Taking into account the results of the selected companies analysis for Tecogen, Cassel Salpeter applied multiples of 2.25x to 2.75x to Tecogen's LTM Revenue, 2.25x to 2.75x to Tecogen's projected 2016 P Revenue and 2.25x to 2.75x to Tecogen's projected 2017 P Revenue. The selected companies analysis for Tecogen and the Ultratek Pricing Information indicated an implied enterprise value reference range for Tecogen of \$76,900,000 to \$88,400,000.

Table of Contents

The selected companies analysis indicated an implied exchange ratio reference range of 0.0686x to 0.0940x of a share of Tecogen common stock per share of ADGE common stock, as compared to the Exchange Ratio in the Merger of 0.092x of a share of Tecogen common stock per share of ADGE common stock.

None of the selected companies have characteristics identical to ADGE or Tecogen. An analysis of selected publicly traded companies is not mathematical; rather, it involves complex consideration and judgments concerning differences in financial and operating characteristics of the selected companies and other factors that could affect the public trading values of the companies reviewed.

Selected Transactions Analysis

Cassel Salpeter considered certain financial terms of business transactions Cassel Salpeter deemed relevant. The financial data reviewed included Enterprise Value as a multiple of trailing twelve months revenue, or "TTM Revenue."

With respect to ADGE, the selected transactions and resulting financial data were:

Target	Acquiror
COMAX France S.A.S. (a subsidiary of Maxim Power Corp.)	Vine Luxembourg SARL
PowerSecure International	Southern Company
Capstone Infrastructure Corp.	Irving Infrastructure Corp.
	Acon Equity Management LLC, Acon Investments, Albright Capital Management, Fairfax Financial Holdings
APR Energy PLC	Fortisar LLC, John Hancock Life Insurance, Prudential Capital
Primary Energy Recycling Corp.	Exelon Energy Delivery Company, LLC
Pepco Holdings, Inc.	Horizon Acquisition Company PLC
APR Energy PLC	

	High	Mean	Median	Low
Enterprise Value as a Multiple of TTM Revenue	6.80x	3.82x	2.98x	0.98x

Taking into account the results of the selected transactions analysis for ADGE, Cassel Salpeter applied multiples of 2.50x to 3.00x to ADGE's LTM Revenue. The selected companies analysis indicated an implied enterprise value reference range for ADGE of \$15,400,000 to \$18,400,000.

With respect to ADGE, the selected transactions and resulting financial data were:

Target	Acquiror
Alternative Energy/Cogeneration	
PowerSecure International	Southern Company
Protonex Technology Corporation	Ballard Power Systems, Inc.
ClearEdge Power, Inc.	Doosan Corporation
Professional Power Products, Inc.	Power Solutions International, Inc.
Alteris Renewables, Inc.	Real Goods Solar
SunPower Corporation	Total Gas & Power USA, SAS
Heating & Cooling	
The Climate Control Group, Inc.	NIBE Energy Systems Inc.
Ilios Dynamics, Inc.	Tecogen, Inc.

AERCO International, Inc.	Watts Regulator Company
Change' Air Products and Services Ltd.	Systemair AB
Lochinvar, LLC	AO Smith Corp.
	High MeanMedianLow
Enterprise Value as a Multiple of LTM Revenue	5.86x 1.92x 1.77x 0.61x

Table of Contents

Taking into account the results of the selected transactions analysis for Tecogen, Cassel Salpeter applied multiples of 2.25x to 2.75x to Tecogen's LTM Revenue. The selected transactions analysis for Tecogen and the Ultratek Pricing Information indicated an implied enterprise value reference range for Tecogen of \$73,700,000 to \$84,600,000.

The selected transactions analysis indicated an implied exchange ratio reference range of 0.0695x to 0.0951x of a share of Tecogen common stock per share of ADGE common stock, as compared to the Exchange Ratio in the Merger of 0.092x of a share of Tecogen common stock per share of ADGE common stock.

None of the target companies or transactions in the selected transactions have characteristics identical to ADGE, Tecogen or the proposed Merger. Accordingly, an analysis of selected business combinations is not mathematical; rather it involves complex considerations and judgments concerning differences in financial and operating characteristics of the target companies in the selected transactions and other factors that could affect the respective acquisition values of the transactions reviewed.

Other Matters Relating to Cassel Salpeter's Opinion

As part of its investment banking business, Cassel Salpeter regularly is engaged in the evaluation of businesses and their securities in connection with mergers, acquisitions, corporate restructurings, private placements and other purposes. Cassel Salpeter is a recognized investment banking firm that has substantial experience in providing financial advice in connection with mergers, acquisitions, sales of companies, businesses and other assets and other transactions. Cassel Salpeter received a fee of \$120,000 for rendering its opinion, no portion of which was contingent upon the completion of the Merger. In addition, ADGE agreed to reimburse Cassel Salpeter for certain expenses incurred by it in connection with its engagement and to indemnify Cassel Salpeter and its related parties for certain liabilities that may arise out of its engagement or the rendering of its opinion. In accordance with Cassel Salpeter's policies and procedures, a fairness committee was not required to, and did not, approve the issuance of the opinion.

Certain Unaudited Prospective Financial Information of Tecogen

Tecogen does not as a matter of course make public long-term projections as to future revenues, earnings, funds from operations or other results due to, among other reasons, the uncertainty of the underlying assumptions and estimates. However, Tecogen is including below certain unaudited prospective financial information of Tecogen that was prepared by Tecogen management and made available to the Tecogen Board of Directors and ADGE in connection with the evaluation of the Merger. This information also was provided to Tecogen's financial advisor and ADGE's financial advisor. The inclusion of this information should not be regarded as an indication that any of Tecogen, ADGE, their respective financial advisors or any other recipient of this information considered, or now considers, it to be necessarily predictive of actual future results.

The unaudited prospective financial information was, in general, prepared solely for internal use and is subjective in many respects. As a result, the prospective results may not be realized and actual results may be significantly higher or lower than estimated. Since the unaudited prospective financial information covers multiple years, that information by its nature becomes less predictive with each successive year.

You should review the SEC filings of Tecogen and ADGE for a description of risk factors with respect to the business of Tecogen and ADGE, respectively. See "Risk Factors," "Cautionary Statement Concerning Forward Looking Statements" and "Where You Can Find More Information; Incorporation by Reference." The unaudited prospective financial information was not prepared with a view toward public disclosure, nor was it prepared with a view toward compliance with GAAP, published guidelines of the SEC or the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information. In addition, the unaudited prospective financial information requires significant estimates and assumptions that make it inherently less comparable to the similarly titled GAAP measures in Tecogen's or ADGE's historical GAAP financial statements. Neither the independent registered public accounting firm of Tecogen or ADGE nor any other independent accountants have compiled, examined or performed any audit or other procedures with respect to the unaudited prospective financial information contained herein, nor have they expressed any opinion or any other form of assurance on such information or its achievability. The report of the independent registered public accounting firm of Tecogen contained in Tecogen's Annual Report on Form 10-K for the year ended December 31, 2013, which is incorporated by reference into this joint proxy statement/prospectus, relates to the historical financial information of

Tecogen and does not extend to the unaudited prospective financial information and should not be read to do so. Furthermore, the unaudited prospective financial information does not take into account any circumstances or events occurring after the date on which it was prepared. The following table presents selected unaudited prospective financial data on a twelve month run rate basis as of December 31, 2015 through December 31, 2018 for Tecogen. It does not give effect to the Merger.

52

Table of Contents

Tecogen Prospective Financial Information (in thousands)	2016E	2017E	2018E
Revenues	\$24,485	\$26,676	\$28,836
Cost of sales	15,708	16,817	17,800
Gross profit	8,777	9,859	11,036
Operating expenses	9,872	9,600	9,600
Operating income (loss)	(1,095)	259	1,436
Other income (loss)	(11)	(234)	351
Net income (loss)	\$(1,106)	\$25	\$1,787
Adjusted EBITDA	\$(679)	\$692	\$1,879

Adjusted EBITDA is defined as earnings before interest, taxes, depreciation and amortization, and stock compensation expense. Tecogen believes that the presentation of Adjusted EBITDA provides useful information regarding its ability to service debt and provide useful information to investors regarding its results of operations because these measures are useful for trending, analyzing and benchmarking the performance and value of its business.

In preparing the foregoing unaudited prospective financial information, Tecogen made a number of assumptions and estimates regarding, among other things, interest rates, corporate financing activities, including Tecogen's ability to finance its operations and investments and refinance certain of its outstanding indebtedness and the terms of any such financing or refinancing and leverage ratios, the amount and timing of investments by Tecogen and the yield to be achieved on such investments, the amount and timing of capital expenditures, distribution rates, occupancy and customer retention levels, changes in rent, the amount of income taxes paid and the amount of general and administrative costs.

The assumptions made in preparing the above unaudited prospective financial information may not accurately reflect future conditions. The estimates and assumptions underlying the unaudited prospective financial information involve judgments with respect to, among other things, future economic, competitive, regulatory and financial market conditions and future business decisions which may not be realized and that are inherently subject to significant business, economic, competitive and regulatory uncertainties and contingencies, including, among others, risks and uncertainties described under "Risk Factors" and "Cautionary Statement Concerning Forward Looking Statements," as well as the risks described in the periodic reports of Tecogen filed with the SEC, all of which are difficult to predict and many of which are beyond the control of Tecogen and/or ADGE and will be beyond the control of the combined company. Accordingly, the projected results may not be realized, and actual results likely will differ, and may differ materially, from those reflected in the unaudited prospective financial information, whether or not the Merger is completed.

You should not place undue reliance on the unaudited prospective financial information set forth above. No representation is made by Tecogen, ADGE or any other person to any Tecogen stockholder, ADGE stockholder or other person regarding the ultimate performance of Tecogen compared to the information included in the above unaudited prospective financial information. The inclusion of unaudited prospective financial information in this joint proxy statement/prospectus should not be regarded as an indication that the prospective financial information will be necessarily predictive of actual future events, and such information should not be relied on as such. You should review the description of Tecogen's reported results of operations and financial condition and capital resources during 2014, including in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Tecogen's periodic reports filed with the SEC and incorporated by reference into this joint proxy statement/prospectus. **TECOGEN DOES NOT INTEND TO UPDATE OR OTHERWISE REVISE THE ABOVE UNAUDITED PROSPECTIVE FINANCIAL RESULTS TO REFLECT CIRCUMSTANCES EXISTING AFTER THE DATE WHEN MADE OR TO REFLECT THE OCCURRENCE OF FUTURE EVENTS, EVEN IN THE EVENT THAT ANY OR ALL OF THE ASSUMPTIONS UNDERLYING SUCH UNAUDITED PROSPECTIVE FINANCIAL RESULTS ARE NO LONGER APPROPRIATE, EXCEPT AS MAY BE REQUIRED BY APPLICABLE LAW.** Certain Unaudited Prospective Financial Information of ADGE

Below is certain unaudited prospective financial information of ADGE that was prepared by ADGE management and made available to the ADGE Board of Directors in connection with the evaluation of the Merger. This information also was provided to ADGE's financial advisors and Tecogen's financial advisor. The inclusion of this information should not be regarded as an indication that any of ADGE, Tecogen, their respective financial advisors or any other recipient of this information considered, or now considers, it to be necessarily predictive of actual future results.

Table of Contents

The unaudited prospective financial information was, in general, prepared solely for internal use and is subjective in many respects. As a result, the prospective results may not be realized and actual results may be significantly higher or lower than estimated. Since the unaudited prospective financial information covers multiple years, such information by its nature becomes less predictive with each successive year.

You should review the SEC filings of ADGE and Tecogen for a description of risk factors with respect to the business of ADGE and Tecogen, respectively. See “Risk Factors,” “Cautionary Statement Concerning Forward Looking Statements” and “Where You Can Find More Information; Incorporation by Reference.” The unaudited prospective financial information was not prepared with a view toward public disclosure, nor was it prepared with a view toward compliance with GAAP, published guidelines of the SEC or the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information. In addition, the unaudited prospective financial information requires significant estimates and assumptions that make it inherently less comparable to the similarly titled GAAP measures in ADGE’s or Tecogen’s historical GAAP financial statements. Neither the independent registered public accounting firm of ADGE nor Tecogen, nor any other independent accountants have compiled, examined or performed any audit or other procedures with respect to the unaudited prospective financial information contained herein, nor have they expressed any opinion or any other form of assurance on such information or its achievability. The report of the independent registered public accounting firm of ADGE contained in ADGE’s Annual Report on Form 10-K for the year ended December 31, 2015, and its Current Reports on Form 8-K filed on December 5, 2016, and December 7, 2016, which are incorporated by reference into this joint proxy statement/prospectus, relate to the historical financial information of ADGE and do not extend to the unaudited prospective financial information and should not be read to do so. Furthermore, the unaudited prospective financial information does not take into account any circumstances or events occurring after the date on which it was prepared.

The following table presents selected unaudited prospective financial data on a twelve month run rate basis as of December 31, 2016 through December 31, 2018 for ADGE. It does not give effect to the Merger:

ADGE Prospective Financial Information (in thousands)	2016E	2017E	2018E	2019E	2020E
Revenues	\$6,107	\$6,787	\$7,595	\$8,491	\$9,075
Cost of sales	5,390	5,520	5,748	5,890	6,125
Gross profit	717	1,267	1,847	2,601	2,950
Operating expenses	2,159	2,022	2,081	2,142	2,205
Operating income (loss)	(1,442)	(755)	(234)	459	745
Other income (loss)	3,132	(229)	(93)	13	24
Provision for income taxes	(60)	—	—	—	—
Income attributable to the noncontrolling interest	(15)	—	—	—	—
Net income (loss)	\$1,615	\$(984)	\$(327)	\$472	\$769
Adjusted EBITDA	\$519	\$1,183	\$1,597	\$2,109	\$2,395

Adjusted EBITDA is defined as earnings before interest, taxes, depreciation and amortization, and stock compensation expense. ADGE believes that the presentation of Adjusted EBITDA provides useful information regarding its ability to service debt and provide useful information to investors regarding its results of operations because these measures are useful for trending, analyzing and benchmarking the performance and value of its business.

In preparing the foregoing unaudited prospective financial information, ADGE made a number of assumptions and estimates regarding, among other things, interest rates, corporate financing activities, including ADGE’s ability to finance its operations and investments and refinance certain of its outstanding indebtedness and the terms of any such financing or refinancing and leverage ratios, the amount and timing of investments by ADGE and the yield to be achieved on such investments, the amount and timing of capital expenditures, distribution rates, occupancy and customer retention levels, changes in rent, the amount of income taxes paid and the amount of general and administrative costs.

The assumptions made in preparing the above unaudited prospective financial information may not accurately reflect future conditions. The estimates and assumptions underlying the unaudited prospective financial information involve judgments with respect to, among other things, future economic, competitive, regulatory and financial market conditions and future business decisions which may not be realized and that are inherently subject to significant business, economic, competitive and regulatory uncertainties and contingencies, including, among others, risks and uncertainties described under “Risk Factors” and “Cautionary Statement Concerning Forward Looking Statements,” as well as the risks described in the periodic reports of ADGE filed with the SEC, all of which are difficult to predict and many of which are beyond the control of ADGE and/or Tecogen and will be

Table of Contents

beyond the control of the combined company. Accordingly, the projected results may not be realized, and actual results likely will differ, and may differ materially, from those reflected in the unaudited prospective financial information, whether or not the Merger is completed.

You should not place undue reliance on the unaudited prospective financial information set forth above. No representation is made by ADGE, Tecogen or any other person to any ADGE stockholder, Tecogen stockholder or other person regarding the ultimate performance of ADGE compared to the information included in the above unaudited prospective financial information. The inclusion of unaudited prospective financial information in this joint proxy statement/prospectus should not be regarded as an indication that the prospective financial information will be necessarily predictive of actual future events, and such information should not be relied on as such. You should review the description of ADGE's reported results of operations and financial condition and capital resources during 2014, including in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in ADGE's periodic reports filed with the SEC and incorporated by reference into this joint proxy statement/prospectus. **ADGE DOES NOT INTEND TO UPDATE OR OTHERWISE REVISE THE ABOVE UNAUDITED PROSPECTIVE FINANCIAL RESULTS TO REFLECT CIRCUMSTANCES EXISTING AFTER THE DATE WHEN MADE OR TO REFLECT THE OCCURRENCE OF FUTURE EVENTS, EVEN IN THE EVENT THAT ANY OR ALL OF THE ASSUMPTIONS UNDERLYING SUCH UNAUDITED PROSPECTIVE FINANCIAL RESULTS ARE NO LONGER APPROPRIATE, EXCEPT AS MAY BE REQUIRED BY APPLICABLE LAW.**

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

In considering the recommendation of Tecogen's Board of Directors to approve the Merger and the other transactions contemplated by the Merger Agreement, Tecogen's stockholders should be aware that Tecogen's directors and executive officers have financial interests in the Merger that are different from, or in addition to, the interests of Tecogen stockholders generally. These interests may create potential conflicts of interest. The Tecogen Board of Directors was aware of and considered the following 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 to Tecogen's stockholders that the Merger and the other transactions contemplated by the Merger Agreement be approved.

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

In considering the recommendation of ADGE's Board of Directors to approve the Merger and the other transactions contemplated by the Merger Agreement, 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. The ADGE Board of Directors was aware of and considered the following 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 to ADGE stockholders that the Merger and the other transactions contemplated by the Merger Agreement be approved.

Treatment of Outstanding Equity Awards

Pursuant to the terms and subject to the conditions set forth in the Merger Agreement, upon the completion of the Merger, each issued and outstanding share of ADGE common stock (other than shares held by ADGE or its wholly-owned subsidiaries, which shares will be canceled) will be exchanged for the right to receive the Merger consideration. See "The Merger Agreement - Consideration to be Received in the Merger - Merger Consideration." Upon completion of the Merger, each outstanding option and restricted stock award with respect to ADGE common stock granted before the completion of the Merger under an ADGE equity plan to an ADGE participant that is in effect as of the completion of the Merger will remain in effect until such award expires, is terminated, is forfeited or is settled in accordance with its terms; provided, that (i) the number of shares of common stock subject to such awards will be adjusted to relate to Tecogen common stock based on the Exchange Ratio, (ii) each option and restricted stock award granted to any individual who has the required Business Relationship, as defined in their option agreement with ADGE, prior to the completion of the Merger will be 100% vested upon the completion of the Merger, and (iii) the exercise price of each outstanding stock option will be adjusted based on the Exchange Ratio. The following tables sets these effects on the unexpired ADGE stock option grants to ADGE directors and officers as of December 14,

2016. All share numbers have been rounded to the nearest whole number.

55

Table of Contents

Effect of the Merger on ADGE Director & Officer Equity Compensation Awards

Name of Director or Officer	Number of vested ADGE options owned pre-Merger.	Number of unvested ADGE options owned pre-Merger.	ADGE Option exercise price (\$) pre-Merger	Number of vested Tecogen options received in exchange for ADGE options upon completion of Merger	Exercise price (\$) of Tecogen options received in exchange for ADGE options upon completion of Merger
Bonnie Brown	25,000	75,000	\$ 0.29	—	\$ 3.15
Christine M. Klaskin	100,000	—	1.67	9,200	18.15
Christine M. Klaskin	—	100,000	0.32	—	3.48
Benjamin Locke	112,500	37,500	1.67	10,350	18.15
Benjamin Locke	50,000	50,000	0.95	4,600	10.33
Benjamin Locke	100,000	100,000	0.52	9,200	5.65
Benjamin Locke	25,000	75,000	0.52	2,300	5.65
Charles T. Maxwell	200,000	—	2.79	18,400	30.33
Deanna M. Petersen	—	100,000	0.32	—	3.48
John Rowe	60,000	20,000	1.54	5,520	16.74
John Rowe	10,000	10,000	0.75	920	8.15
Elias Samaras	—	100,000	0.38	—	4.13

Regulatory Approvals in Connection with the Merger

Neither Tecogen nor ADGE is aware of any regulatory approvals that are expected to prevent the completion of the Merger.

Accounting Treatment

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 effect time, at their respective fair 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.

Listing of Tecogen Common Stock

Tecogen will cause the shares of Tecogen common stock to be issued in the Merger to be approved for listing on the Nasdaq Capital Market prior to the Merger effective time, as a condition to closing, subject only to official notice of issuance.

Deregistration of ADGE Common Stock

If the Merger is completed, ADGE common stock will be deregistered under the Exchange Act, and ADGE will no longer file periodic reports with the SEC.

Restrictions on Sales of Shares of Tecogen Common Stock Received in the Merger

Shares of Tecogen common stock issued in the Merger will not be subject to any restrictions on transfer arising under the Securities Act, except for shares of Tecogen common stock issued to any ADGE stockholder that may be deemed to be an "affiliate" of Tecogen after the completion of the Merger. This joint proxy statement/prospectus does not cover resales of Tecogen common stock received by any person upon the completion of the Merger, and no person is authorized to make any use of this joint proxy statement/prospectus in connection with any resale.

No Appraisal Rights

Neither the holders of ADGE nor the holders of Tecogen will have appraisal rights related to the Merger as provided in the DGCL.

Table of Contents

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER

The following discussion is a general summary of the U.S. federal income tax consequences of the Merger to U.S. holders (as defined below) of ADGE common stock.

This discussion addresses only holders of ADGE common stock who hold their stock as a capital asset within the meaning of Section 1221 of the Internal Revenue Code (generally, property held for investment). This discussion does not address any non-income taxes or any foreign, state or local tax consequences of the Merger. This discussion does not address all aspects of U.S. federal income taxation that may be relevant to holders of ADGE common stock in light of their particular circumstances or to holders subject to special rules (including controlled foreign corporations, passive foreign investment companies, companies that accumulate earnings to avoid U.S. federal income tax, tax-exempt organizations, financial institutions, brokers or dealers in securities, insurance companies, regulated investment companies, real estate investment trusts, persons who hold ADGE common stock as part of a hedging or conversion transaction or as part of a short-sale or straddle, certain U.S. expatriates, persons whose functional currency is not the U.S. dollar, partnerships or other pass-through entities for U.S. federal income tax purposes or persons who acquired ADGE common stock pursuant to the exercise of options or otherwise as compensation). In addition, this discussion does not address any alternative minimum tax nor does it address any tax consequences arising under the unearned income Medicare contribution tax pursuant to the Health Care and Education Reconciliation Act of 2010. This discussion is based on the Internal Revenue Code, applicable Treasury regulations, administrative interpretations and court decisions, each as in effect as of the date of this joint proxy statement/prospectus and all of which are subject to change, possibly with retroactive effect. Any such change could affect the validity of this discussion.

For purposes of this discussion, a “U.S. holder” is a beneficial owner of ADGE common stock that is:

- an individual citizen or resident of the United States;
- a corporation (or any other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust (i) that is subject to the primary supervision of a court within the United States and all the substantial decisions of which are controlled by one or more U.S. persons or (ii) that has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

If a partnership (or an entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds ADGE common stock, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partners of partnerships holding ADGE common stock should consult their own tax advisors.

THE FOLLOWING DISCUSSION DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OR DISCUSSION OF ALL OF THE POTENTIAL TAX CONSEQUENCES OF THE MERGER. PLEASE CONSULT YOUR OWN TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO YOU OF THE MERGER, INCLUDING TAX RETURN REPORTING REQUIREMENTS AND THE APPLICABILITY AND EFFECT OF U.S. FEDERAL, STATE, LOCAL AND FOREIGN INCOME AND OTHER TAX LAWS IN LIGHT OF YOUR PARTICULAR CIRCUMSTANCES.

General

Tecogen and ADGE intend that the Merger qualify as a “reorganization” within the meaning of Section 368(a) of the Internal Revenue Code.

Neither Tecogen nor ADGE intends to obtain a ruling from the IRS regarding the qualification of either Merger as a “reorganization” within the meaning of Section 368(a) of the Internal Revenue Code. If the IRS were to successfully challenge the “reorganization” status of the Merger, the tax consequences could differ from those described in this joint proxy statement/prospectus. Further, neither Tecogen nor ADGE intends to obtain an opinion of counsel regarding the tax consequences of the Merger.

**U.S. Federal Income Tax Consequences of the Merger to U.S. Holders of ADGE Common Stock
Exchange of ADGE common stock for Tecogen common stock**

Subject to the discussion below relating to the receipt of cash in lieu of fractional shares, a U.S. holder of ADGE common stock that receives shares of Tecogen common stock in the Merger:

• will not recognize any gain or loss upon the exchange of shares of ADGE common stock for shares of Tecogen common stock in the Merger;

• will have a tax basis in Tecogen common stock received in the Merger (including fractional shares for which cash is received) equal to the tax basis of ADGE common stock surrendered in exchange therefore; and

• will have a holding period for shares of Tecogen common stock received in the Merger (including fractional shares for which cash is received) that includes its holding period for its shares of ADGE common stock surrendered in exchange therefore.

Table of Contents

Cash in Lieu of Fractional Shares

No fractional shares of Tecogen common stock will be distributed to ADGE stockholders in connection with the Merger. A U.S. holder that receives cash in lieu of a fractional share of Tecogen common stock as a part of the Merger will generally recognize capital gain or loss measured by the difference between the cash received for such fractional share and the portion of the U.S. holder's tax basis in the shares of ADGE common stock allocable to the fractional share. Such capital gain or loss will generally be long term capital gain or loss if the holding period for such fractional shares of Tecogen common stock is more than one year. Long term capital gain of certain non-corporate taxpayers, including individuals, is generally taxed at preferential rates. The deductibility of capital losses is subject to limitations.

U.S. holders that acquired different blocks of ADGE common stock at different times or different prices should consult their tax advisor regarding the manner in which gain or loss should be determined in their specific circumstances.

Backup Withholding

Backup withholding at the applicable rate (currently 28%) may apply with respect to certain cash payments unless the holder of ADGE common stock receiving such payments:

- (i) is an exempt holder (generally, corporations, tax-exempt organizations, qualified pension and profit-sharing trusts, individual retirement accounts, or nonresident aliens who, when required, provide certification as to their status); or
- (ii) provides a certificate containing the holder's name, address, correct federal taxpayer identification number and a statement that the holder is exempt from backup withholding. Backup withholding does not constitute an additional tax, and any amounts withheld from payments to a holder under the backup withholding rules will be allowed as a refund or credit against the holder's U.S. federal income tax liability, provided the required information is timely furnished to the IRS.

Table of Contents

THE MERGER AGREEMENT

The following is a summary of the material terms and conditions of the Merger Agreement. This summary does not purport to be complete and may not contain all of the information about the Merger Agreement that is important to you. This summary is qualified in its entirety by reference to the Merger Agreement, a copy of which is attached as Annex A to, and incorporated by reference into, this joint proxy statement/prospectus. The rights and obligations of the parties are governed by the express terms and conditions of the Merger Agreement and not by this summary or any other information contained in this joint proxy statement/prospectus. You are urged to read the Merger Agreement carefully and in its entirety before making any decisions regarding the Merger.

Explanatory Note Regarding the Merger Agreement and the Summary of the Merger Agreement: Representations, warranties and covenants in the Merger Agreement are not intended to function as public disclosures.

The Merger Agreement and the summary of its terms in this joint proxy statement/prospectus have been included only to provide you with information about the terms and conditions of the Merger Agreement. The terms and information in the Merger Agreement are not intended to provide any other public disclosure of factual information about Tecogen, ADGE or any of their respective subsidiaries, affiliates or businesses. The representations, warranties and covenants contained in the Merger Agreement are made by Tecogen and ADGE only for purposes of the Merger Agreement and as of specific dates, and were qualified and subject to certain limitations and exceptions agreed to by the parties to the Merger Agreement in connection with negotiating the terms of the Merger Agreement. In particular, in your review of the representations and warranties contained in the Merger Agreement and described in this summary, it is important to note that the representations and warranties were made solely for the benefit of the parties to the Merger Agreement and were negotiated for the purpose of allocating contractual risk among the parties to the Merger Agreement rather than to establish matters as facts. The representations and warranties may also be subject to a contractual standard of materiality or material adverse effect different from those generally applicable to stockholders and reports and documents filed with the SEC, and, in some cases, they may be qualified by disclosures made by one party to the other, which are not necessarily reflected in the Merger Agreement or other public disclosures made by Tecogen or ADGE. The representations and warranties contained in the Merger Agreement do not survive the effective time of the Merger. Moreover, information concerning the subject matter of the representations, warranties and covenants, which do not purport to be accurate as of the date of this joint proxy statement/prospectus, may have changed since the date of the Merger Agreement, and subsequent developments or new information may not be fully reflected in public disclosures of Tecogen or ADGE.

For the foregoing reasons, the representations, warranties and covenants or any descriptions of those provisions should not be read alone or relied upon as characterizations of the actual state of facts or condition of Tecogen or ADGE or any of their respective subsidiaries or affiliates. Instead, such provisions or descriptions should be read only in conjunction with the other information provided elsewhere in this document or incorporated by reference into this joint proxy statement/prospectus. See “Where You Can Find More Information; Incorporation by Reference.”

Form, Effective Time and Closing

The Merger Agreement provides for the merger of Merger Sub with and into ADGE upon the terms and conditions set forth in the Merger Agreement. ADGE will be the surviving entity of the Merger and, following completion of the Merger, will continue to exist as a wholly-owned subsidiary of Tecogen.

The closing of the Merger will take place as soon as practicable following the date on which the last of the conditions to closing of the Merger described under “The Merger Agreement - Conditions to Completion of the Merger” below have been satisfied or waived (other than the conditions that by their nature are to be satisfied at the closing, but subject to the satisfaction or waiver of such conditions at the closing), or such other date as agreed to by ADGE and Tecogen in writing.

The Merger will become effective at such time as a Certificate of Merger is accepted for recording by the Delaware Secretary of State or on such later date and time agreed to by ADGE and Tecogen.

Organizational Documents, Directors and Officers of the Surviving Entity

At the Merger effective time, the certificate of incorporation and bylaws of Merger Sub as in effect immediately prior to the Merger effective time, in a form mutually agreed to by Tecogen and ADGE, will be the certificate of

incorporation and bylaws of ADGE as the surviving entity. The directors and officers of Merger Sub immediately prior to the Merger effective time will be the directors and officers of the surviving entity.

Table of Contents

Consideration to be Received in the Merger

Merger Consideration

If the Merger is completed, each issued and 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 automatically be cancelled and retired and will cease to exist) will be exchanged for the right to receive 0.092 of a share of Tecogen common stock. No fractional shares of Tecogen common stock will be issued in the Merger, and cash will be paid in lieu thereof, as described in “- Fractional Shares” below.

Adjustment of Merger Consideration

The exchange ratio will be adjusted appropriately to reflect the effect of any stock split, reverse stock split, stock dividend, reorganization, recapitalization, reclassification, combination, exchange of shares or other similar change with respect to the number of shares of Tecogen or ADGE common stock outstanding prior to the Merger effective time so as to provide ADGE stockholders with the same economic effect as contemplated by the Merger Agreement prior to such event.

Procedures for Surrendering of ADGE Shares

Prior to the Merger effective time, Tecogen will deliver, or cause Merger Sub to deliver, to an exchange agent (i) evidence of Tecogen common stock in book-entry form equal to the aggregate number of shares of Tecogen common stock to be issued as merger consideration, and (ii) cash in an amount sufficient to pay the aggregate fractional share consideration payable under the Merger Agreement.

Promptly after the Merger effective time, but in no event later than five business days after the Merger effective time, the exchange agent will mail to each holder of record of shares of ADGE common stock immediately prior to the Merger effective time, a letter of transmittal and instructions for effecting the surrender of such shares in exchange for the Merger consideration.

Each ADGE stockholder that properly surrenders its stock certificate (or affidavit of loss, as appropriate) or book-entry shares to the exchange agent for cancellation together with a duly completed and validly executed letter of transmittal will receive the merger consideration due to such stockholder. After the Merger effective time and until surrendered, each certificated or book entry share that previously represented shares of ADGE common stock will only represent the right to receive the Merger consideration payable under the Merger Agreement. Shares of Tecogen common stock deliverable in exchange for shares of ADGE common stock will be in the same form (certificated or book-entry) as ADGE common stock surrendered.

No Dissenter’s Rights

No dissenters’ or appraisal rights will be available with respect to the Merger or the other transactions contemplated by the Merger Agreement.

Treatment of Stock Options and Restricted Stock Awards

Each outstanding option and restricted stock award with respect to ADGE common stock granted before the closing date under an ADGE equity plan or otherwise to a participant that is in effect as of the closing date will remain in effect until such option or restricted stock award expires, is terminated, is forfeited or settled in accordance with the terms of the applicable ADGE equity plan or underlying award or option agreement governing such option or restricted stock award, provided that (i) upon and following the Merger effective time, such options and restricted stock awards will cease to be exercisable for or relate to shares of ADGE common stock and will instead be exercisable for or relate to a number of shares of Tecogen common stock (rounded down to the closest whole share) equal to the number of shares of ADGE common stock underlying the options and restricted stock awards immediately prior to the Merger effective time multiplied by the Exchange Ratio, (ii) restricted stock awards for any individual who is a non-employee director of ADGE immediately prior to the Merger effective time will be 100% vested, and (iii) the exercise price per share of each ADGE stock option will be equal to the exercise price per share of ADGE common stock immediately before the Merger effective time divided by the Exchange Ratio, rounded down to the closest whole cent.

Vesting

As a result of the Merger, all option agreements that are in effect as of the closing date for any participant who has the required Business Relationship, as defined in their option agreement, with ADGE will, if such award has not previously expired or been forfeited, vest 100% because the Merger triggers an accelerated vesting provision in ADGE's standard option agreement. The Merger Agreement by its terms will not affect provisions currently in effect for awards granted under ADGE's equity plan before the Merger closing date.

Withholding

All payments made pursuant to the Merger Agreement will be paid without interest (unless otherwise noted) and be net of all applicable withholding taxes that are required to be deducted and withheld under applicable law.

Table of Contents

Fractional Shares

Fractional shares of Tecogen common stock will not be issued upon the surrender for exchange of shares of ADGE common stock. In lieu thereof, upon surrender of shares of ADGE common stock, Tecogen will pay ADGE stockholders an amount in cash equal to the product obtained by multiplying (i) the fractional share interest to which the holder would otherwise be entitled by (ii) the Nasdaq Capital Market closing price for a share of Tecogen common stock on the last trading day immediately preceding the Merger effective time.

Representations and Warranties

The Merger Agreement contains a number of parallel representations and warranties made by Tecogen and ADGE. These representations and warranties are substantially identical and are summarized below. The representations and warranties were made by the parties as of the date of the Merger Agreement and do not survive the Merger effective time. See “Where You Can Find More Information: Incorporation by Reference.”

The representations and warranties made by ADGE and Tecogen to each other in the Merger Agreement relate to: corporate organization, valid existence, good standing, corporate power and authority, qualification to do business, and organizational documents;

debt and equity capitalization;

due authorization of the Merger Agreement and the Merger;

validity and binding effect of the Merger Agreement;

proper Board approval of the Merger;

all requisite consents and approvals having been obtained;

no violation of material agreements;

compliance with SEC regulations for periodic reporting;

absence of material adverse changes in the business;

absence of material litigation;

payment of taxes;

compliance with law, listing and accounting requirements;

no undisclosed material liabilities;

compliance with environmental laws and regulations;

disclosure of material contracts;

customers and suppliers;

accuracy of the information included herein regarding the company;

inapplicability of state anti-takeover statutes; and

no appraisal/dissenters' rights with respect to the Merger.

Covenants and Agreements

Conduct of Business by ADGE and Tecogen Pending the Closing.

ADGE and Tecogen each agreed that pending consummation of the Merger and except as expressly permitted by this Agreement, as may be required by Law or as consented to in writing by the other party (which consent shall not be unreasonably withheld, delayed or conditioned), it shall conduct its business in all material respects in the ordinary course of business consistent with past practice.

Form S-4 and Joint Proxy Statement; Stockholders Meetings.

ADGE and Tecogen each agreed to prepare and cause to be filed with the SEC the joint proxy statement included in this joint proxy statement/prospectus, and Tecogen agreed to prepare and cause to be filed with the SEC the registration statement on Form S-4 with respect to the Merger, which will include this joint proxy statement/prospectus, as promptly as reasonably practicable. Each of ADGE and Tecogen agreed to use its reasonable best efforts to (i) have the Form S-4 declared effective under the Securities Act as promptly as practicable after such filing; (ii) ensure that the Form S-4 complies in all material respects with the applicable provisions of the Exchange Act and the Securities Act; and (iii) keep the Form S-4 effective for so long as necessary to complete the Merger.

ADGE and Tecogen each agreed to use its reasonable best efforts to cause the joint proxy statement to be mailed to its stockholders that are entitled to vote at its stockholder meeting and to hold its stockholder meeting as soon as

practicable after the Form S-4 is declared effective. ADGE agreed to include in the joint proxy statement/prospectus the recommendation of the ADGE Board of Directors that ADGE stockholders approve the Merger and the other transactions contemplated by the Merger Agreement, include such recommendation in this joint proxy statement and solicit and use its reasonable best efforts to obtain the approval by its stockholders of the Merger and the other transactions contemplated by the Merger Agreement. Tecogen agreed to include in this joint proxy statement/prospectus the recommendation of the Tecogen Board of Directors to Tecogen stockholders that they

Table of Contents

approve the Tecogen Merger Approval, and solicit and use its reasonable best efforts to obtain the approval of the Tecogen Merger Approval.

Access to Information; Notice of Certain Events

The Merger Agreement requires ADGE, on the one hand, and Tecogen, on the other, to provide, with limited exceptions, to the other party and its representatives reasonable access during normal business hours and upon reasonable advance notice to all of their respective properties, offices, books, contracts, commitments, personnel and records, and to furnish all other information in its possession (financial or otherwise) concerning its business, properties and personnel as such other party or its representatives may reasonably request.

Each of ADGE and Tecogen will hold, and will cause its representatives and affiliates to hold, any nonpublic information in confidence to the extent required by and in accordance with, and will otherwise comply with, the terms of their existing confidentiality agreement.

ADGE, on the one hand, and Tecogen, on the other, have agreed to give prompt notice to the other of any notice or other communication received by such party (i) from any governmental entity in connection with the Merger or the other transactions contemplated by the Merger Agreement, (ii) from any person alleging that the consent of such person (or another person) is or may be required in connection with the Merger or the other transactions contemplated by the Merger Agreement, or (iii) of any written notice received from any person in connection with (a) any material violation or default under or notice to terminate, not renew or challenge the validity or enforceability of any material contract or lease of such party or (b) any event or circumstance that would give rise to any option to purchase, right of first refusal or first offer, or any other right to purchase in favor of any person under any material contract or lease of such party.

In addition, ADGE, on the one hand, and Tecogen, on the other, have agreed to give prompt notice to the other (i) of any legal proceeding commenced or, to the party's knowledge, threatened against or otherwise affecting such party or any of its subsidiaries or affiliates, in each case in connection with, arising from or otherwise relating to the Merger or any other transaction contemplated by the Merger Agreement, and (ii) upon becoming aware of the occurrence or impending occurrence of any event, change, development or circumstance relating to it or any of its respective subsidiaries that makes or is reasonably likely to make any of the conditions set forth in Merger Agreement to not be satisfied.

The failure to deliver any notices described above, in and of itself, will not result in the failure of, or otherwise affect, any of the conditions set forth in the Merger Agreement.

Consents and Approvals

Each of ADGE and Tecogen have agreed to use their reasonable best efforts to take all actions, and to do, and to assist and cooperate with the other party in doing, all things necessary, proper or advisable under applicable law or pursuant to any contract to consummate, as promptly as practicable, the Merger and the other transactions contemplated by the Merger Agreement, including (i) the taking of all actions necessary to cause the closing conditions set forth in the Merger Agreement to be satisfied, (ii) the taking of all reasonable steps as may be necessary to obtain an approval or waiver from, or to avoid legal proceeding by, any governmental entity or other persons necessary in connection with the consummation of the Merger and the other transactions contemplated by the Merger Agreement, (iii) the defending of any legal proceedings, whether judicial or administrative, challenging the Merger Agreement or the consummation of the Merger or the other transactions contemplated by the Merger Agreement, and (iv) the execution and delivery of any additional instruments necessary to consummate the Merger and the other transactions contemplated by the Merger Agreement.

Each of Tecogen and ADGE have agreed to give any notices to any person, and each of Tecogen and ADGE will use its reasonable best efforts to obtain any consents from any person, that are necessary, proper or advisable to consummate the Merger. Each of the parties will furnish to the other such necessary information and reasonable assistance as the other may request in connection with the preparation of any required governmental filings or submissions and will cooperate in responding to any inquiry from a governmental entity. To the extent reasonably practicable, the parties or their representatives will have the right to review in advance and each of the parties will consult with the others on, all the information relating to the other and each of its affiliates that appears in any filing

made with, or written materials submitted to, any governmental entity in connection with the Merger and the other transactions contemplated by the Merger Agreement, except that confidential, competitively sensitive business information may be redacted from such exchanges. To the extent reasonably practicable, neither ADGE nor Tecogen may, nor may they permit their respective representatives to, participate independently in any meeting or engage in any substantive conversation with any governmental entity without giving the other party prior notice of such meeting or conversation and, to the extent permitted by applicable law, without giving the other party the opportunity to attend such meeting.

In connection with obtaining any approval or consent from any person (other than any governmental entity) with respect to the Merger, neither ADGE nor Tecogen will be obligated to pay or commit to pay to such person whose approval or consent is being solicited any cash or other consideration, or make any accommodation or commitment or incur any liability or other obligation to such person, in each case that is not conditioned upon the occurrence of the closing of the Merger. Otherwise, the parties will

Table of Contents

cooperate with respect to reasonable accommodations that may be required or appropriate to obtain such consents. No approval or consent of any such person is a condition to the obligations of any party to effect the Merger.

Publicity

ADGE and Tecogen have agreed, subject to certain exceptions, that they and their respective affiliates will receive consent from each other before issuing any press release or other announcement with respect to the Merger or the Merger Agreement, except as may be required by applicable law, duties under applicable law or by obligations pursuant to any listing agreement with a national securities exchange.

Directors' and Officers' Insurance and Indemnification

Tecogen has agreed to cause the surviving entity to honor and fulfill in all respects to the fullest extent permissible under applicable law ADGE's obligations under its existing governing documents and indemnification agreements to the individuals covered by such documents or agreements, or the covered persons, arising out of or relating to actions or omissions in their capacity as such occurring at or prior to the Merger effective time, including in connection with the approval of the Merger Agreement and the transactions contemplated by the Merger Agreement.

For a period of six years after the Merger effective time, pursuant to the terms of the Merger Agreement and subject to certain limitations, Tecogen (but only to the extent covered persons would be permitted to be indemnified by ADGE or any of its subsidiaries under their respective governing documents and applicable law) and the surviving entity will, and Tecogen will cause the surviving entity to, (i) indemnify and hold harmless each covered person against and from any costs or expenses (including attorney's fees), judgments, fines, losses, claims, damages, liabilities and amounts paid in settlement in connection with any claim, action, suit, proceeding or investigation, to the extent such claim, action, suit, proceeding or investigation arises out of or pertains to any action or omission in such covered person's capacity as such or the Merger Agreement and any of the transactions contemplated by the Merger Agreement, and (ii) pay the expenses (including attorney's fees) of any covered person in advance of the final disposition of any such claim, action, suit, proceeding or investigation if such covered person agrees to repay such amount if it is ultimately determined that such covered person is not entitled to be indemnified.

For a period of six years after the Merger effective time, Tecogen will cause to be maintained in effect the current policies of directors' and officers' liability insurance maintained by ADGE with respect to claims arising from or related to facts or events which occurred at or before the Merger effective time, provided that Tecogen will not be obligated to make annual premium payments for such insurance to the extent such premiums exceed 300% of the annual premiums paid by ADGE as of the date of the Merger Agreement. At ADGE's election, in lieu of the foregoing insurance and effective as of the Merger effective time, ADGE may purchase a directors' and officers' liability insurance "tail" or "runoff" insurance program for a period of six years after the Merger effective time with terms, conditions, retentions and limits of liability that are at least as favorable as provided in ADGE's existing policies.

Absence of Lock-up Provisions

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 stockholder approval, both ADGE and Tecogen may withdraw or modify its recommendation to stockholders with respect to the Merger, terminate the Merger Agreement and, with respect to ADGE, 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 time, regardless of whether Tecogen or ADGE stockholder approval has been obtained.

ADGE Go-Shop Right

ADGE, its affiliates, and their respective officers, directors, employees, consultants, agents, financial advisors, investment bankers, attorneys, accountants, other advisors, affiliates and other representatives have the right to directly or indirectly: (i) initiate, solicit and encourage, whether publicly or otherwise, any inquiries, proposals or offers that could constitute competing proposals to the Merger, including by way of providing access to non-public information (provided that such information is also given to Tecogen); and (ii) enter into, engage in, and maintain discussions or negotiations with respect to any inquiries, proposals or offers that could constitute competing proposals (or engage in other efforts or otherwise cooperate with or assist or participate in, or facilitate any such inquiries, proposals, offers, efforts, attempts, discussions or negotiations. In certain circumstances, Tecogen would be given an

opportunity to improve its acquisition proposal.

No Requirement of Minority Stockholder Approval

After due consideration, the Board of Directors of each of Tecogen and ADGE determined not to require approval of a “majority of the minority” of stockholders of each company as a condition to closing of the Merger due to a number of factors, including but not limited to: (a) a historical pattern of a significant percentage of stockholders of each of Tecogen and ADGE not voting in prior annual meetings, making it difficult to achieve a majority of the minority of all eligible shares for each such company, particularly in light of the significant equity ownership of officers and directors and their families of each company; (b) the

Table of Contents

establishment of independent special committees of the Boards of Directors of each of Tecogen and ADGE; (c) the retention of independent financial advisors for each such special committee; and (d) the significant and nearly equivalent equity ownership in each company by the same principal stockholders.

Takeover Statutes

The parties and their respective boards of directors (or equivalent) shall use their respective reasonable best efforts (a) to take all action necessary so that no state takeover statute is or becomes applicable to the Merger or any of the other transactions and (b) if any such takeover statute is or becomes applicable to any of the foregoing, to take all action necessary to minimize the impact of such takeover statute.

Employee Benefits

Tecogen has agreed to honor all ADGE benefit plans, other than any plan being terminated as described below.

However, the Merger Agreement does not restrict Tecogen's or the surviving entity's ability to amend or terminate any ADGE benefit plan or require Tecogen or the surviving entity to offer to continue the employment of any employee or independent contractor or, other than as required by its terms, any written employment contract.

With respect to each employee benefit plan in which an ADGE employee becomes a participant, Tecogen will (i) fully credit each participating ADGE employee for his or her service with ADGE for eligibility and vesting purposes (unless that would result in a duplication of benefits), (ii) fully credit each participating ADGE employee for any coinsurance, copayments and deductibles paid and for amounts paid toward any out-of-pocket maximums for the year the employee's participation commence, and (iii) waive all limitations as to pre-existing conditions and exclusions with respect to participation and coverage requirements applicable to such ADGE employees.

The ADGE Board of Directors will adopt resolutions authorizing the termination of any ADGE benefit plan that is intended to be qualified under Section 401(a) of the Internal Revenue Code, to be effective no later than the day before the Merger effective time. All participants and former participants with account balances in an ADGE 401(k) plan will become fully vested in their account balances.

Other Covenants and Agreements

The Merger Agreement contains certain other covenants and agreements, including covenants related to:

Tecogen taking all action necessary to cause Merger Sub and the surviving entity to perform their respective obligations under the Merger Agreement and to consummate the Merger and the other transactions contemplated by the Merger Agreement;

ADGE taking such steps as may be reasonably necessary or advisable to cause dispositions of ADGE equity securities and the acquisition of Tecogen equity securities and the acquisition of Tecogen equity securities pursuant to the transactions contemplated by the Merger Agreement by each ADGE director or officer or who will become a director or officer of Tecogen to be exempt under Rule 16b-3 promulgated under the Exchange Act;

ADGE promptly notifying Tecogen of any legal proceeding related to the Merger Agreement the Merger or the other transactions contemplated by the Merger Agreement that is brought against ADGE and/or its officers, directors and/or representatives by security holders of ADGE, keeping Tecogen informed on a current basis with respect to the status of any such legal proceeding and providing Tecogen with the opportunity to participate in the defense and settlement of any such legal proceeding, with no settlement thereof being agreed to without Tecogen's written consent;

ADGE using commercially reasonable efforts to cause to be delivered to Tecogen resignations executed by each director of ADGE and its wholly-owned subsidiaries in office immediately prior to the Merger effective time, such resignations to be effective as of the Merger effective time;

the parties agreeing to reasonably cooperate in the preparation, execution and filing of all returns, questionnaires, applications or other documents relating to transfer taxes that become payable in connection with the transactions contemplated by the Merger Agreement and to cooperate in attempting to minimize the amount of such transfer taxes;

the parties agreeing to use their respective reasonable best efforts to cause the Merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code; and

restrictions on both ADGE and Tecogen from declaring a dividend to their respective stockholders after the date of the Merger Agreement, except to the extent consented to in writing by the other party.

Table of Contents

Conditions to Completion of the Merger

Mutual Closing Conditions

The obligation of each of ADGE, Tecogen, and Merger Sub to complete the Merger is subject to the satisfaction or waiver, on or prior to the closing date, of the following conditions:

- approval of the Merger and the other transactions contemplated by the Merger Agreement by ADGE common stockholders;
- approval of the Merger and related Tecogen Charter Amendment by Tecogen common stockholders;
- the absence of any law or order by any governmental entity prohibiting, restraining, enjoining or making illegal the consummation of the Merger or the other transactions contemplated by the Merger Agreement;
- the Form S-4 of which this joint proxy statement/prospectus is a part will have been declared effective and no stop order suspending the effectiveness of the Form S-4 has been issued by the SEC and remains in effect and no proceeding to that effect has been commenced; and
- the shares of Tecogen common stock to be issued in connection with the Merger have been approved for listing on the Nasdaq Capital Market, subject only to official notice of issuance.

Reciprocal Closing Conditions

The obligation of each of Tecogen and ADGE to effect the Merger is subject to the satisfaction or waiver, on or prior to the closing date, of customary conditions related to the continuing accuracy of the other party's representations and warranties contained in the Merger Agreement and to the compliance of the other party with its pre-closing obligations set forth in the Merger Agreement.

Termination of the Merger Agreement by Either Tecogen or ADGE

The Merger Agreement may be terminated prior to the Merger effective time by either Tecogen or ADGE if there is an adverse recommendation change by either the Tecogen or ADGE Board of Directors, respectively.

In the event that ADGE or Tecogen terminates the Merger Agreement, the Merger Agreement will become void and have no effect, without any liability on the part of Tecogen, Merger Sub or ADGE, except that any confidentiality agreements and certain provisions of the Merger Agreement, including the provisions relating to other fees and expenses, interpretation and governing law, will survive such termination.

Miscellaneous Provisions

Amendment

Subject to applicable law and except as otherwise provided in the Merger Agreement, the parties may amend, modify and supplement the Merger Agreement, whether before or after receipt of ADGE stockholders' approval of the Merger and the other transactions contemplated by the Merger Agreement or by Tecogen stockholders' approval of the Merger or related Tecogen Charter Amendment, by written agreement of ADGE and Tecogen (by action taken by their respective boards of directors), provided that, after receipt of ADGE stockholders' approval of the Merger and the other transactions contemplated by the Merger Agreement or receipt of Tecogen stockholder approval of the Merger, no amendment will be made which by law requires further approval by such stockholders without obtaining such further approval.

Waiver

Prior to the Merger effective time, any party or parties may extend the time for performance of any obligation or other acts of the other party or parties, or waive any inaccuracy in the representations and warranties of the other party or their compliance with any agreement or condition for the benefit of such party contained in the Merger Agreement, to the extent permitted by law.

Payment of Expenses

All expenses incurred in connection with the Merger Agreement and the transactions contemplated by the Merger Agreement will be paid by the party incurring such expenses, except that the parties will each pay 50% of the expenses of any financial printer or EDGAR filing agent (other than printing and mailing expenses relating to sending communications to their own respective stockholders, which each party will bear separately). Merger Sub, as the surviving entity following the Merger, will pay any transfer taxes incurred in connection with the Merger Agreement and the transactions contemplated by the Merger Agreement.

Governing Law

The Merger Agreement is governed by the laws of the State of Delaware without giving effect to conflicts of laws principles thereof.

65

Table of Contents

Specific Performance

The parties are entitled to injunctions, specific performance and other equitable relief to prevent breaches of the Merger Agreement and to enforce specifically the terms and provisions of the Merger Agreement in addition to any and all other remedies at law or in equity.

DESCRIPTION OF TECOGEN SHARES

The following discussion is a summary of the terms of Tecogen capital stock. The summary set forth below does not purport to be complete and is subject to and qualified in its entirety by reference to relevant provisions of the DGCL, Tecogen's charter and Tecogen's bylaws. You are urged to read those documents carefully. Copies of Tecogen's charter and Tecogen's bylaws are incorporated by reference into this joint proxy statement/prospectus as exhibits to the registration statement on Form S-4, of which this joint proxy statement/prospectus forms a part, and will be sent to Tecogen and ADGE stockholders upon request. See "Where You Can Find More Information; Incorporation by Reference."

Authorized and Issued Capital Stock

Tecogen's charter provides that Tecogen may issue up to 110,000,000 shares of capital stock, consisting of up to 100,000,000 shares of common stock, par value \$ 0.001 per share, and up to 10,000,000 shares of preferred stock, par value \$ 0.001 per share. As of November 30, 2016, 19,979,634 shares of Tecogen common stock were issued and outstanding and no shares of Tecogen preferred stock were outstanding.

Tecogen may issue additional shares of common stock from time to time in acquisitions and other transactions. All shares of Tecogen common stock that may be issued in connection with the Merger will be duly authorized, validly issued, fully paid and non-assessable.

Common Stock

Subject to the preferential rights of any other shares of capital stock and to certain provisions of Tecogen's charter, holders of Tecogen common stock are entitled to receive dividends when authorized by the Tecogen Board of Directors and declared by Tecogen out of assets legally available for the payment of dividends. Holders of Tecogen common stock are also entitled to share ratably in Tecogen assets legally available for distribution to Tecogen common stockholders in the event of Tecogen's liquidation, dissolution or winding up, after payment of or adequate provision for all of Tecogen's known debts and liabilities. Tecogen currently expects to continue to make quarterly distributions, and from time to time it may make additional distributions.

Holders of shares of Tecogen common stock are entitled to one vote per share on all matters on which the holders of common stock are entitled to vote. Holders of shares of Tecogen common stock have no conversion, sinking fund, redemption or preemptive rights to subscribe for any Tecogen securities. Subject to certain provisions of Tecogen's charter, shares of Tecogen common stock have equal distribution, liquidation and other rights.

Transfer Agent and Registrar

The transfer agent and registrar for Tecogen's stock is Vstock Transfer, LLC, 18 Lafayette Place, Woodmere, NY 11598.

Listing

Tecogen's common stock is listed on the Nasdaq Capital Market under the symbol "TGEN." Tecogen will apply to have the new shares of Tecogen common stock to be issued in connection with the Merger listed on the Nasdaq Capital Market upon the consummation of the Merger, subject to official notice of issuance.

COMPARISON OF RIGHTS OF TECOGEN STOCKHOLDERS AND ADGE STOCKHOLDERS

If the Merger is consummated, stockholders of ADGE will become stockholders of Tecogen. The rights of ADGE stockholders are currently governed by and subject to the provisions of the DGCL and ADGE's charter and bylaws. As a result of the Merger, the rights of the former ADGE stockholders who receive shares of Tecogen common stock in connection with the Merger will be governed by the DGCL and Tecogen's charter and bylaws, rather than by ADGE's charter and bylaws.

With immaterial exceptions, the provisions of the ADGE and Tecogen charters and bylaws are substantially identical.

LEGAL MATTERS

Sullivan & Worcester, LLP, Boston, Massachusetts, will issue an opinion as to the validity of the shares of Tecogen common stock to be issued in the Merger.

Table of Contents

EXPERTS

The consolidated financial statements of Tecogen appearing in its Annual Report on Form 10-K for the year ended December 31, 2015 (including schedules appearing therein) have been audited by Wolf & Company, P.C., an independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of ADGE appearing in its Annual Report on Form 10-K for the years ended December 31, 2015 and 2014 (including schedules appearing therein), and the supplemental financial information appearing in its Current Reports on SEC Form 8-K filed with the SEC on December 5, 2016 and on December 7, 2016 have been audited by Wolf & Company, P.C., an independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE

Tecogen and ADGE file annual, quarterly and current reports, proxy statements and other information with the SEC under the Exchange Act. You may read and copy any of this information at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. The SEC also maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including Tecogen and ADGE, who file electronically with the SEC. The address of that site is www.sec.gov.

Investors may also consult Tecogen's or ADGE's website for more information concerning the Merger described in this joint proxy statement/prospectus. Tecogen's website is www.tecogen.com. ADGE's website is www.americandg.com. Information included on these websites is not incorporated by reference into this joint proxy statement/prospectus.

Tecogen has filed this registration statement on Form S-4 to register with the SEC the shares of Tecogen common stock to be issued to ADGE stockholders pursuant to the Merger Agreement. This joint proxy statement/prospectus forms a part of that registration statement and constitutes a prospectus of Tecogen, in addition to being a proxy statement of Tecogen for its special meeting and of ADGE for its special meeting. This registration statement, including the attached annexes, exhibits and schedules, contains additional relevant information about Tecogen and ADGE. As allowed by SEC rules, this joint proxy statement/prospectus does not contain all the information Tecogen stockholders and ADGE stockholders can find in this registration statement or the exhibits to this registration statement.

In addition, the SEC allows Tecogen and ADGE to disclose important information to you by referring you to other documents filed separately with the SEC. This information is considered to be a part of this joint proxy statement/prospectus, except for any information that is superseded by information included directly in this joint proxy statement/prospectus.

This joint proxy statement/prospectus incorporates by reference the documents listed below that Tecogen has previously filed with the SEC; provided, however, that Tecogen is not incorporating by reference, in each case, any documents, portions of documents or information deemed to have been furnished and not filed in accordance with SEC rules. The documents listed below contain important information about Tecogen, its financial condition or other matters.

• Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

• Quarterly Report on Form 10-Q for the quarter ended September 30, 2016.

• Current Reports on Form 8-K, filed on March 31, 2016, April 15, 2016, May 12, 2016, May 24, 2016, June 28, 2016, June 30, 2016, August 8, 2016, August 12, 2016, September 2, 2016, October 25, 2016, November 2, 2016, November 16, 2016, and December 1, 2016 (other than documents or portions of those documents not deemed to be filed).

Proxy Statement for Tecogen's 2016 Annual Meeting of Stockholders, on Schedule 14A filed with the SEC on April 29, 2016.

¶The description of Tecogen common stock contained in its Form 8-A filed with the SEC on May 18, 2014.

In addition, Tecogen incorporates by reference herein any filings it makes with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement that contains this joint proxy statement/prospectus and prior to the effectiveness of this joint proxy statement/prospectus and any future filings it makes with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this joint proxy statement/prospectus and prior to the effective date of the Merger. Such documents are considered to be a part of this joint proxy statement/prospectus, effective as of the date such documents are filed. In the event of conflicting information in these documents, the information in the latest filed document should be considered correct.

Table of Contents

You can obtain any of the documents listed above from the SEC, through the SEC's website at the address described above or from Tecogen by requesting them in writing or by telephone at the following address:

Tecogen Inc.

Attention: Investor Relations

45 First Avenue

Waltham, MA 02451

(781) 466-6413

These documents are available from Tecogen without charge, excluding any exhibits to them unless the exhibit is specifically listed as an exhibit to the registration statement of which this joint proxy statement/prospectus forms a part.

This joint proxy statement/prospectus also incorporates by reference the documents listed below that ADGE has previously filed with the SEC; provided, however, that ADGE is not incorporating by reference, in each case, any documents, portion of documents or information deemed to have been furnished and not filed in accordance with SEC rules. The documents listed below contain important information about ADGE, its financial condition or other matters.

• Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

• Quarterly Report on Form 10-Q for the quarter ended September 30, 2016.

• Current Reports on Form 8-K filed on March 9, 2016, March 11, 2016, April 1, 2016, May 10, 2016, May 17, 2016, June 30, 2016, July 7, 2016, August 10, 2016, August 17, 2016, October 5, 2016, November 16, 2016, December 5, 2016, and December 7, 2016 (other than documents or portions of those documents not deemed to be filed).

• Proxy Statement for ADGE's 2016 Annual Meeting of Stockholders, on Schedule 14A filed with the SEC on April 29, 2016, as amended.

• The description of ADGE common stock contained in ADGE's Form 8-A filed with the SEC on October 15, 2009.

In addition, ADGE incorporates by reference any filings it makes with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial registration statement that contains this joint proxy statement/prospectus and prior to the effectiveness of this joint proxy statement/prospectus and any future filings it makes with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this joint proxy statement/prospectus and prior to the date of the ADGE special meeting. Such documents are considered to be a part of this joint proxy statement/prospectus, effective as of the date such documents are filed. In the event of conflicting information in these documents, the information in the latest filed document should be considered correct.

You can obtain any of these documents from the SEC, through the SEC's website at the address described above, or ADGE will provide you with copies of these documents, without charge, upon written or oral request to:

American DG Energy Inc.

Attention: Investor Relations

45 First Avenue

Waltham, MA 02451

(781) 522-6000

These documents are available from ADGE without charge, excluding any exhibits to them unless the exhibit is specifically listed as an exhibit to the registration statement of which this joint proxy statement/prospectus forms a part.

If you are a stockholder of Tecogen or a stockholder of ADGE and would like to request documents, please do so by , 2017, to receive them before the Tecogen special meeting and the ADGE special meeting. If you request any documents from Tecogen or ADGE, Tecogen or ADGE, as applicable, will mail them to you by first class mail, or another equally prompt means, within one business day after Tecogen or ADGE receives your request.

This document is a prospectus of Tecogen and is a joint proxy statement of Tecogen and ADGE for the Tecogen special meeting and the ADGE special meeting. Neither Tecogen nor ADGE has authorized anyone to give any information or make any representation about the Merger or Tecogen or ADGE that is different from, or in addition

to, that contained in this joint proxy statement/prospectus or in any of the materials that Tecogen or ADGE has incorporated by reference into this joint proxy statement/prospectus. Therefore, if anyone does give you information of this sort, you should not rely on it. The information contained in this joint proxy statement/prospectus speaks only as of the date of this joint proxy statement/prospectus unless the information specifically indicates that another date applies.

68

Table of Contents

ANNEX A - Merger Agreement

TECOGEN INC.
TECOGEN.ADGE ACQUISITION CORP.
AMERICAN DG ENERGY INC.

AGREEMENT AND PLAN OF MERGER

Dated as of November 1, 2016

Table of Contents

ANNEX A - Merger Agreement

Table of Contents

Page	
ARTICLE I THE MERGER	1
Section 1.1 The Merger.	2
Section 1.2 Closing.	2
Section 1.3 Effective Time.	2
Section 1.4 Governing Documents.	2
Section 1.5 Directors and Officers of the Surviving Entity.	2
Section 1.6 Tax Consequences.	2
Section 1.7 Subsequent Actions.	2
ARTICLE II TREATMENT OF SECURITIES	2
Section 2.1 Treatment of Capital Stock.	2
Section 2.2 Payment for Securities; Surrender of Certificates.	3
Section 2.3 Dissenter's Rights.	5
Section 2.4 Treatment of ADGE Equity Awards.	5
Section 2.5 Withholding.	6
Section 2.6 No Fractional Shares.	6
ARTICLE III REPRESENTATIONS AND WARRANTIES	6
Section 3.1 Organization and Standing.	6
Section 3.2 Capitalization.	6
Section 3.3 Authorization; Validity of Agreement; Company Action.	7
Section 3.4 Board Approvals.	7
Section 3.5 Consents and Approvals; No Violations.	7
Section 3.6 SEC Documents and Financial Statements.	8
Section 3.7 Absence of Certain Changes.	9
Section 3.8 Litigation.	9
Section 3.9 Taxes.	9
Section 3.10 Compliance with Law, Listing and Accounting Requirements.	9
Section 3.11 Information in the Form S-4 and Joint Proxy Statement.	9
Section 3.12 Takeover Statutes.	10
Section 3.13 Dissenters' Rights.	10
Section 3.14 No Undisclosed Liabilities.	10
Section 3.15 Environmental Laws and Regulations.	10
Section 3.16 Material Contracts.	11
Section 3.17 Customers and Suppliers.	12
Section 3.18 Finders or Brokers.	12
ARTICLE IV CONDUCT OF BUSINESS PENDING THE MERGER	12
Section 4.1 Conduct of Business by ADGE and Tecogen Pending the Closing.	12
Section 4.2 Form S-4 and Joint Proxy Statement.	12
Section 4.3 Stockholder Approval; Majority of the Minority.	14
ARTICLE V ADDITIONAL AGREEMENTS	14
Section 5.1 Access; Confidentiality; Notice of Certain Events.	14
Section 5.2 Consents and Approvals.	15
Section 5.3 Publicity.	16
Section 5.4 Directors' and Officers' Insurance and Indemnification.	16
Section 5.5 Takeover Statutes.	17
Section 5.6 Obligations of Merger Sub.	18
Section 5.7 Rule 16b-3.	18

Table of Contents

ANNEX A - Merger Agreement

Section 5.9 Director Resignations. 18
Section 5.10 Dividends. 18
Section 5.11 Employee Benefits. 18
ARTICLE VI CONDITIONS TO CONSUMMATION OF THE MERGER 19
Section 6.1 Conditions to Each Party's Obligations to Effect the Merger. 19
Section 6.2 Conditions to Obligations of Tecogen and Merger Sub. 20
Section 6.3 Conditions to Obligations of ADGE. 20
ARTICLE VII TERMINATION 20
Section 7.1 Termination. 20
Section 7.2 Effect of Termination. 20
Section 7.3 Go-Shop Right. 21
Section 7.4 ADGE Change Election. 21
Section 7.5 Tecogen Change Election. 21
ARTICLE VIII MISCELLANEOUS 22
Section 8.1 Amendment and Modification; Waiver. 22
Section 8.2 Non-Survival of Representations and Warranties. 22
Section 8.3 Expenses. 22
Section 8.4 Notices. 23
Section 8.5 Certain Definitions. 23
Section 8.6 Interpretation. 26
Section 8.7 Counterparts. 26
Section 8.8 Entire Agreement; Third-party Beneficiaries. 27
Section 8.9 Severability. 27
Section 8.10 Governing Law; Jurisdiction. 27
Section 8.11 Waiver of Jury Trial. 27
Section 8.12 Assignment. 27
Section 8.13 Enforcement; Remedies. 28

Table of Contents

ANNEX A - Merger Agreement

Index of defined terms

ADGE	1
ADGE 401(k) Plan	18
ADGE Board Recommendation	1
ADGE Common Stock	1
ADGE Shares	1
ADGE Stock Option	6
Agreement	1
Base Premium	16
Book-Entry Shares	4
Certificate of Merger	2
Certificates	4
Charter Restrictions	17
Closing	2
Conversion Quotient	3
Covered Persons	15
Delaware Secretary	2
DGCL	1
Exchange Act	8
Exchange Agent	3
Exchange Fund	3
Form S-4	8
Fractional Share Consideration	3
GAAP	9
Governmental Entity	8
Indemnification Agreements	15
Interim Period	10
Joint Proxy Statement	8
Legal Proceeding	10
Letter of Transmittal	4
Merger	1
Merger Consideration	3
Merger Effective Time	2
Merger Sub	1
Participant	6
Representing Party	7
Representing Party's Financial Statements	9
Representing Party's SEC Documents	9
Restricted ADGE Shares	6
Securities Act	9
Surviving Entity	1
Takeover Statutes	10
Tecogen	1
Tecogen Board Recommendation	1
Tecogen Common Stock	3

Table of Contents

ANNEX A - Merger Agreement

AGREEMENT AND PLAN OF MERGER

This AGREEMENT AND PLAN OF MERGER (this “Agreement”), dated as set forth on the signature page, is by and among Tecogen Inc, a Delaware corporation (“Tecogen”); Tecogen.ADGE Acquisition Corp., a Delaware corporation and wholly-owned subsidiary of Tecogen established for purposes of the merger described herein (“Merger Sub”); and American DG Energy Inc., a Delaware corporation as the company to be acquired (“ADGE”). All capitalized terms used in this Agreement shall have the meanings ascribed to such terms in Section 8.5 or as otherwise defined elsewhere in this Agreement unless the context clearly means otherwise.

1. The parties wish to effect a business combination through a merger of ADGE and Merger Sub, with ADGE being the surviving entity (the “Merger”), and each share of common stock of ADGE (the “ADGE Common Stock” or “ADGE Shares”) issued and outstanding immediately prior to the Merger Effective Time will be converted into the right to receive the Merger Consideration upon the terms and conditions set forth in this Agreement and in accordance with the General Corporation Law of the State of Delaware (the “DGCL”).
2. The ADGE Board of Directors has (a) declared the Merger to be advisable, fair to and in the interest of ADGE and its stockholders, (b) directed that the Merger be submitted for consideration at a meeting of ADGE’s stockholders, and (c) resolved to recommend that ADGE’s stockholders vote in favor of the approval of the Merger (the “ADGE Board Recommendation”) and to include such recommendation in the Joint Proxy Statement.
3. The Tecogen Board of Directors has (a) declared the Merger to be advisable, fair to and in the interest of Tecogen and its stockholders, (b) directed that the Merger be submitted for consideration at a meeting of Tecogen’s stockholders, and (c) resolved to recommend that Tecogen’s stockholders vote in favor of the approval of the Merger (the “Tecogen Board Recommendation”) and to include such recommendation in the Joint Proxy Statement.
4. Tecogen, in its capacity as the sole stockholder of Merger Sub, and Merger Sub have taken all actions required for the execution of this Agreement by Merger Sub and to adopt and approve this Agreement and to approve the consummation by Merger Sub of the Merger.

NOW, THEREFORE, the parties agree as follows:

ARTICLE I

THE MERGER

Section 1.1 The Merger. Upon the terms and subject to the satisfaction or waiver of the conditions set forth in this Agreement, and in accordance with the DGCL, at the Merger Effective Time, Merger Sub shall be merged with and into ADGE, after which the separate existence of Merger Sub will cease, with ADGE surviving the Merger (ADGE, as the surviving entity in the Merger, sometimes being referred to herein as the “Surviving Entity”), such that following the Merger, the Surviving Entity will be a wholly-owned Subsidiary of Tecogen. The Merger shall have the effects provided in this Agreement and as specified in the DGCL. Without limiting the generality of the foregoing, and subject thereto, from and after the Merger Effective Time, the Surviving Entity shall possess all properties, rights, privileges, powers and franchises of the Merger Sub and ADGE, and all of the claims, obligations, liabilities, debts and duties of the Merger Sub and ADGE shall become the claims, obligations, liabilities, debts and duties of the Surviving Entity.

Annex A-1

Annex A

Table of Contents

ANNEX A - Merger Agreement

Section 1.2 Closing. The closing of the Merger (the “Closing”) will take place at such time and place as is agreed to in writing by ADGE and Tecogen following the satisfaction or waiver of all conditions set forth in Article VI (other than any such conditions that by their nature are to be satisfied at or after the Closing). The closing may also take place by the electronic exchange of executed documents. The date on which the Closing actually takes place is referred to as the “Closing Date”.

Section 1.3 Effective Time. On the Closing Date, ADGE, Tecogen and Merger Sub shall cause a certificate of merger with respect to the Merger (the “Certificate of Merger”) to be duly executed and filed with the Secretary of State of Delaware (the “Delaware Secretary”) in accordance with the DGCL and make any other filings, recordings or publications required to be made by ADGE or Merger Sub under the DGCL in connection with the Merger. The Merger shall become effective upon such filing at such time (the “Merger Effective Time”).

Section 1.4 Governing Documents. At the Merger Effective Time, the certificate of incorporation and bylaws of Merger Sub, as in effect immediately prior to the Merger Effective Time in form mutually agreed to by ADGE and Tecogen, shall be the certificate of incorporation and bylaws of the Surviving Entity, until thereafter amended in accordance with applicable Law and the applicable provisions of its such charter and bylaws.

Section 1.5 Directors and Officers of the Surviving Entity. The directors and officers of ADGE immediately prior to the Merger Effective Time shall become the directors and officers of the Surviving Entity as of the Merger Effective Time and shall hold office until their respective successors are duly elected and qualified, or their earlier death, incapacitation, resignation or removal.

Section 1.6 Tax Consequences. It is intended that, for U.S. federal income tax purposes, the Merger shall qualify as a tax-free reorganization under the provisions of Section 368(a) of the Code.

Section 1.7 Subsequent Actions. If at any time after the Merger Effective Time the Surviving Entity shall determine, in its sole and absolute discretion, that any actions are necessary or desirable to vest, perfect or confirm of record or otherwise in the Surviving Entity its right, title or interest in, to or under any of the properties, rights, privileges, powers or franchises of Merger Sub acquired or to be acquired by the Surviving Entity as a result of, or in connection with, the Merger or otherwise to carry out this Agreement, then the Surviving Entity may take all such actions as may be necessary or desirable to vest all right, title or interest in, to or under such rights or properties in the Surviving Entity or otherwise to carry out this Agreement.

ARTICLE II

TREATMENT OF SECURITIES

Section 2.1 Treatment of Capital Stock. At the Merger Effective Time, by virtue of the Merger and, subject to the execution and delivery of a transmittal letter approved by Tecogen, without any action on the part of the holders of any securities of ADGE or of Merger Sub:

(a) Treatment of ADGE Common Stock. Each share of ADGE Common Stock issued and outstanding immediately prior to the Merger Effective Time (other than ADGE Shares to be cancelled in accordance with this paragraph (a)) shall be converted into the right to receive 0.0920 (the 'Conversion Quotient') of a share of the duly authorized, fully paid, non-assessable and validly issued shares of Tecogen common stock (the “Tecogen Common Stock”) equal to the quotient obtained by dividing (i) \$0.38 by (ii) the “Average Price,” with the Average Price for these purposes being equal to the aggregate volume weighted-average per share closing price, rounded to two decimal points, of Tecogen Common Stock on the Nasdaq Capital Market, as reported on the consolidated tape at the close of the Nasdaq Capital Market regular session of trading, for the 20 consecutive trading days ending October 28, 2016, subject to adjustment as provided

Annex A-2

Annex A

Table of Contents

ANNEX A - Merger Agreement

in Section 2.1(c) (such quotient, the “Conversion Quotient,” and all such shares, the “Merger Consideration”); provided, however, that each share of ADGE Common Stock issued and outstanding immediately prior to the Merger Effective Time that is held by ADGE or any wholly-owned ADGE Subsidiary shall no longer be outstanding and shall automatically be cancelled and retired and shall cease to exist, and no payment shall be made with respect thereto. From and after the Merger Effective Time, all such ADGE Shares shall no longer be outstanding and shall automatically be cancelled and shall cease to exist, and each holder of an ADGE Share shall cease to have any rights with respect thereto, except the right to receive Tecogen Common Stock as Merger Consideration in exchange therefor upon the surrender of such ADGE Share and delivery of a Letter of Transmittal in accordance with Section 2.2, including the right to receive, pursuant to Section 2.6, cash in lieu of fractional shares of Tecogen Common Stock, if any, for which such shares of ADGE Common Stock have the right to be exchanged pursuant to this Section 2.1 (the “Fractional Share Consideration”), together with the amounts, if any, payable pursuant to Section 2.2(f).

(b) Treatment of Merger Sub Stock. All shares of stock of Merger Sub issued and outstanding immediately prior to the Merger Effective Time shall remain issued and outstanding as shares of capital stock of the Surviving Entity.

(c) Adjustment to Conversion Quotient. The Conversion Quotient and Merger Consideration shall be adjusted appropriately to reflect the effect of any stock split, reverse stock split, stock dividend, recapitalization, reclassification, combination, exchange of shares or other similar event with respect to the number of ADGE Shares or shares of Tecogen Common Stock outstanding after the date hereof and prior to the Merger Effective Time, so as to provide the parties and their stockholders with the same economic effect as contemplated by this Agreement prior to such event and as so adjusted shall, from and after the date of such event, be the Conversion Quotient and Merger Consideration, respectively.

Section 2.2 Payment for Securities; Surrender of Certificates.

(a) Exchange Fund. Prior to the Merger Effective Time, Tecogen shall designate a bank or trust company reasonably acceptable to ADGE to act as an exchange agent in connection with the Merger (the “Exchange Agent”). Prior to the Merger Effective Time, Tecogen shall deposit, or cause Merger Sub to deposit, with the Exchange Agent (i) evidence of Tecogen Common Stock in book-entry form issuable pursuant to Section 2.1(a) equal to the aggregate number of shares of Tecogen Common Stock to be issued pursuant to Section 2.1 (excluding any Fractional Share Consideration), and (ii) cash in immediately available funds in an amount sufficient to pay the aggregate Fractional Share Consideration (such evidence of book-entry shares of Tecogen Common Stock and cash amounts, the “Exchange Fund”), in each case, for the sole benefit of the holders of shares of ADGE Common Stock and the Surviving Entity (in the case of the Surviving Entity, solely to the extent any amounts in the Exchange Fund are in excess of the amounts payable pursuant to Section 2.1(a)). In the event the Exchange Fund shall be insufficient to pay the aggregate Fractional Share Consideration and any dividends or other distributions under Section 2.2(f), Tecogen shall, or shall cause Merger Sub to, promptly deposit additional funds with the Exchange Agent in an amount which is equal to the deficiency in order to permit the Exchange Agent to make such payment. Tecogen shall cause the Exchange Agent to make, and the Exchange Agent shall make, delivery of the shares of Tecogen Common Stock for which shares of ADGE Common Stock are to be exchanged, including any Fractional Share Consideration, out of the Exchange Fund in accordance with this Agreement. The Exchange Fund shall not be used for any purpose that is not expressly provided for in this Agreement or any agreement entered into by Tecogen and ADGE with the Exchange Agent. The cash portion of the Exchange Fund shall be invested by the Exchange Agent as reasonably directed by mutual agreement of Tecogen and ADGE. Any interest and other income resulting from such investments shall be paid to the Surviving Entity on the earlier of six (6) months after the Merger Effective Time or the date on which the aggregate number of shares of Tecogen Common Stock to be issued pursuant to Section 2.1 and aggregate Fractional Share Consideration has been paid in full;

Annex A-3

Annex A

Table of Contents

ANNEX A - Merger Agreement

provided, that any amounts in the Exchange Fund in excess of the amounts payable under Section 2.1(a) shall be promptly paid to the Surviving Entity.

(b) Procedures for Surrender. Promptly after the Merger Effective Time, but in no event more than five (5) business days following the Merger Effective Time, Tecogen shall, and shall cause the Surviving Entity to, cause the Exchange Agent to mail (and make available for collection by hand) to each holder of record of a certificate or certificates which immediately prior to the Merger Effective Time represented outstanding ADGE Shares (the "Certificates"), or uncertificated ADGE Shares ("Book-Entry Shares"), and in each case whose ADGE Shares were exchanged pursuant to Section 2.1 for the right to receive shares of Tecogen Common Stock as Merger Consideration, (i) a letter of transmittal, which shall specify that delivery shall be effected, and risk of loss and title to the Certificates shall pass, only upon delivery of such Certificates (or affidavits of loss in lieu thereof) to the Exchange Agent and shall be in such form and have such other provisions as Tecogen may reasonably specify, including provisions releasing and indemnifying the Surviving Entity and ADGE's officers and directors from any liabilities related to the conduct of ADGE's business prior to the Merger Effective Time (the "Letter of Transmittal"), and (ii) instructions for effecting the surrender of the Certificates (or affidavits of loss in lieu thereof) or Book-Entry Shares in exchange for payment of shares of Tecogen Common Stock for which such ADGE Shares are to be exchanged, including, any amount payable in respect of the Fractional Share Consideration in accordance with Section 2.6. Upon surrender of a Certificate (or an affidavit of loss in lieu thereof) or Book-Entry Share for cancellation to the Exchange Agent or to such other agent or agents as may be appointed by Tecogen, together with such Letter of Transmittal duly completed and validly executed in accordance with the instructions thereto, and such other documents as may be required pursuant to such instructions, the holder of such Certificate or Book-Entry Share shall be entitled to receive in exchange therefor (A) the shares of Tecogen Common Stock for each share of ADGE Common Stock formerly represented by such Certificate or Book-Entry Share pursuant to the provisions of this Article II (rounded down to the nearest whole share) and (B) a check or wire transfer representing any Fractional Share Consideration that such holder of a Certificate or Book-Entry Share has the right to receive pursuant to the provisions of Section 2.6. The amount due pursuant to clause (B), if any, shall be mailed to such holder (or made available for collection by hand if so elected by the surrendering holder) within five (5) business days following the later to occur of the Merger Effective Time or the Exchange Agent's receipt of such Certificate (or affidavit of loss in lieu thereof) or Book-Entry Share, and the Certificate or Book-Entry Share so surrendered shall be forthwith cancelled. The Exchange Agent shall accept such Certificates (or affidavits of loss in lieu thereof) or Book-Entry Shares upon compliance with such reasonable terms and conditions as the Exchange Agent may impose to effect an orderly exchange thereof in accordance with normal exchange practices. If payment of the Merger Consideration is to be made to a Person other than the Person in whose name the surrendered Certificate is registered, it shall be a condition precedent of payment that the Certificate so surrendered shall be properly endorsed or shall be otherwise in proper form for transfer, and the Person requesting such payment shall have paid any transfer and other similar Taxes required by reason of the payment of the Merger Consideration to a Person other than the registered holder of the Certificate surrendered or shall have established to the satisfaction of the Surviving Entity that such Tax either has been paid or is not required to be paid. Payment of the applicable Merger Consideration with respect to Book-Entry Shares shall only be made to the Person in whose name such Book-Entry Shares are registered. Until surrendered as contemplated by this Section 2.2, each Certificate and Book-Entry Share shall at any time after the Merger Effective Time represent only the right to receive the applicable Merger Consideration as contemplated by this Article II, including any amount payable in respect of the Fractional Share Consideration in accordance with Section 2.6. Shares of Tecogen Common Stock deliverable pursuant to this Section 2.2(b) in exchange for shares of ADGE Common Stock shall be in uncertificated book-entry form.

(c) Transfer Books; No Further Ownership Rights in ADGE Shares. At the Merger Effective Time, the stock transfer books of ADGE shall be closed and thereafter there shall be no further

Annex A-4

Annex A

Table of Contents

ANNEX A - Merger Agreement

registration of transfers of ADGE Shares on the records of ADGE. From and after the Merger Effective Time, the holders of ADGE Shares outstanding immediately prior to the Merger Effective Time shall cease to have any rights with respect to such ADGE Shares except as otherwise provided for herein or by applicable Law. If, after the Merger Effective Time, Certificates or Book-Entry Shares are presented to the Surviving Entity for any reason, they shall be cancelled and exchanged as provided in this Agreement.

(d)Termination of Exchange Fund; No Liability. At any time following six (6) months after the Merger Effective Time, the Surviving Entity shall be entitled to require the Exchange Agent to deliver to it any funds (including any interest and income received with respect thereto) remaining in the Exchange Fund that have not been disbursed, or for which disbursement is pending subject only to the Exchange Agent's routine administrative procedures, to holders of Certificates or Book-Entry Shares, and thereafter such holders shall be entitled to look only to the Surviving Entity and Tecogen (subject to abandoned property, escheat or other similar Laws) as general creditors thereof with respect to the applicable Merger Consideration, including any amount payable in respect of the Fractional Share Consideration in accordance with Section 2.6, payable upon due surrender of their Certificates or Book-Entry Shares and compliance with the procedures in Section 2.2(b), without any interest thereon. Notwithstanding the foregoing, none of the Surviving Entity, Tecogen or the Exchange Agent or any other Person shall be liable to any holder of a Certificate or Book-Entry Share for any Merger Consideration or other amounts delivered to a public official pursuant to any applicable abandoned property, escheat or similar Law.

(e)Lost, Stolen or Destroyed Certificates. In the event that any Certificates shall have been lost, stolen or destroyed, the Exchange Agent shall issue in exchange for such lost, stolen or destroyed Certificates, upon the making of an affidavit of that fact by the holder thereof in a form reasonably satisfactory to Tecogen and the Exchange Agent, and if required by the Surviving Entity or the Exchange Agent, the posting by the holder thereof of a bond in the amount and the form reasonably required by Tecogen or the Exchange Agent as indemnity against any claim that may be made against Tecogen or the Surviving Entity with respect to such Certificates, the applicable Merger Consideration payable in respect thereof pursuant to Section 2.1, including any amount payable in respect of the Fractional Share Consideration in accordance with Section 2.6.

(f)No Dividends with Respect to Tecogen Common Stock. No dividends or other distributions with respect to Tecogen Common Stock shall be paid, nor any record date therefor set, pending the consummation of the Merger until after the Merger Effective Time. Subject to applicable Law, following surrender of any Certificate or Book-Entry Share (or affidavit of loss in lieu thereof) there shall be paid to the holder thereof, without interest, the amount of dividends or other distributions, with a record date after the Merger Effective Time but prior to such surrender, previously paid with respect to such shares of Tecogen Common Stock to which such holder is entitled pursuant to this Agreement.

Section 2.3 Dissenter's Rights. No dissenters' or appraisal rights shall be available with respect to the Merger or the other Transactions.

Section 2.4 Treatment of ADGE Equity Awards.

(a)Stock Options and Restricted Stock. Each option to acquire ADGE Common Stock (each, a "ADGE Stock Option") and restricted stock award with respect to ADGE Common Stock ("Restricted ADGE Shares") granted before the Merger Effective Time (each recipient thereof, a "Participant") that is in effect as of the Merger Effective Time shall remain in effect until such ADGE Stock Option or Restricted ADGE Share award expires, is terminated, is forfeited or settled in accordance with the terms thereof; provided, however, that upon and following the Merger Effective Time, (i) such ADGE Stock Option or Restricted ADGE Shares shall cease to be exercisable for or relate to shares of ADGE Common Stock, but instead shall be exercisable for or relate to a number of shares of Tecogen Common Stock (rounded down to the closest whole share) equal to the Conversion Quotient, subject to adjustment as provided in Section 2.1

Annex A-5

Annex A

Table of Contents

ANNEX A - Merger Agreement

(c), multiplied by the number of shares of ADGE Common Stock as to which ADGE Stock Option or Restricted ADGE Shares related immediately before the Merger Effective Time, and (ii) the exercise price per share of each ADGE Stock Option shall be equal to the exercise price per share of ADGE Common Stock immediately before the Effective Time divided by the Conversion Quotient, rounded down to the closest whole cent; provided that each ADGE Stock Option that is an “incentive stock option” (as defined in Section 422 of the Code) shall be adjusted in accordance with the foregoing in a manner consistent with the requirements of Section 424 of the Code.

(b)Effectuation of this Section. Before the Merger Effective Time, (i) ADGE and Tecogen shall take all actions necessary to effectuate the requirements of this Section 2.4 and (ii) ADGE shall take all actions necessary to ensure that, except as set forth in this Section 2.4, no Participant has any rights that are inconsistent with this Section 2.4. As of the Merger Effective Time, Tecogen shall assume any ADGE stock incentive plans or stock option plans and any award thereunder as to which any obligation remains outstanding or with respect to which shares remain available for issuance.

Section 2.5 Withholding. All amounts payable pursuant to this Article II shall be paid without interest (unless otherwise noted). Any payments made pursuant to this Agreement shall be net of all applicable withholding taxes that ADGE, Tecogen, Merger Sub, the Surviving Entity and the Exchange Agent, as the case may be, shall be required to deduct and withhold under applicable Law (including, but not limited to, Section 1445 of the Code). To the extent that amounts are so deducted and withheld by the applicable payor and remitted to the appropriate Governmental Entity, such amounts shall be treated for all purposes of this Agreement as having been paid in respect of which such deduction and withholding was made.

Section 2.6 No Fractional Shares. Notwithstanding anything in this Agreement to the contrary, no certificate or scrip representing fractional shares of Tecogen Common Stock shall be issued upon the surrender for exchange of Certificates or Book-Entry Shares, and such fractional share interests shall not entitle the owner thereof to vote or to any other rights of a stockholder of Tecogen. In lieu thereof, upon surrender of the applicable Certificates or Book-Entry Shares, Tecogen shall pay each holder of ADGE Common Stock an amount in cash equal to the product obtained by multiplying (i) the fractional share interest to which such holder (after taking into account all shares of ADGE Common Stock held at the Merger Effective Time by such holder) would otherwise be entitled by (ii) the closing price on the Nasdaq Capital Market, as reported on the consolidated tape at the close of the Nasdaq Capital Market regular session of trading, for a share of Tecogen Common Stock on the last trading day immediately preceding the Merger Effective Time.

ARTICLE III

REPRESENTATIONS AND WARRANTIES

ADGE and Tecogen (each a “Representing Party”) represent and warrant to each other as follows:

Section 3.1 Organization and Standing. The Representing Party (i.e., ADGE or Tecogen) is a corporation duly incorporated, validly existing and in good standing under the Laws of the State of Delaware and has the requisite corporate power and authority and any necessary governmental authorization to own, lease and, to the extent applicable, operate its properties and to conduct its business as it is now being conducted. The Representing Party and each of its Subsidiaries are duly qualified to do business as foreign corporations and are in good standing under the laws of each jurisdiction in which either the ownership or use of the properties owned or used by them, or the nature of the activities conducted by such party, requires such qualification, except where the failure to be so qualified, individually or in the aggregate, has not had and could not reasonably be expected to have a Material Adverse Effect.

Section 3.2 Capitalization. As of the date of the latest balance sheet of the Representing Party included in its most recent report on Form 10-K or Form 10-Q filed under the Exchange Act, the authorized and

Annex A-6

Annex A

Table of Contents

ANNEX A - Merger Agreement

outstanding capital stock of the Representing Party is as set forth on that balance sheet, and the Representing Party's outstanding stock options, warrants and convertible securities are as set forth in the footnotes to the financial statements included in such report. Since the applicable balance sheet date, there have been no material changes in the Representing Party's outstanding capital stock, stock options, warrants and convertible securities. All of the outstanding shares of the Representing Party's capital stock are duly authorized, validly issued, fully paid and nonassessable. As of the date hereof, the Representing Party has outstanding no stock appreciation rights, restricted stock units, "phantom" stock rights, performance units, or other equity or equity-based compensation awards or agreements by which the Representing Party is bound to issue any additional shares of its capital stock.

Section 3.3 Authorization; Validity of Agreement; Company Action. The Representing Party has full corporate power and authority to execute and deliver this Agreement, to perform its obligations hereunder and to consummate the Transactions. The execution, delivery and performance by the Representing Party of this Agreement, and the consummation by it of the Transactions, have been duly and validly authorized by its Board of Directors and no other corporate action on the part of the Representing Party, pursuant to the DGCL or otherwise, is necessary to authorize the execution and delivery by the Representing Party of this Agreement, the performance of its obligations hereunder and the consummation by it of the Transactions, subject, in the case of the Merger, to the requisite Stockholder Approval of the Merger and the filing of the Certificate of Merger with, and acceptance for record, of the Certificate of Merger with the Delaware Secretary. This Agreement has been duly executed and delivered by the Representing Party and, assuming due and valid authorization, execution and delivery hereof by the other parties, is a valid and binding obligation of the Representing Party enforceable against it in accordance with its terms, except that the enforcement hereof may be limited by (i) bankruptcy, insolvency, reorganization, moratorium or other similar Laws, now or hereafter in effect, relating to creditors' rights generally and (ii) general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at Law).

Section 3.4 Board Approvals. The Representing Party's Board of Directors, at a meeting duly called and held, has (i) determined that this Agreement, the Merger and the other Transactions are advisable and in the best interests of the Representing Party and its stockholders, (ii) duly and validly authorized the execution, delivery and performance of this Agreement and the consummation of the Merger, (iii) directed that the Merger be submitted for the requisite Stockholder Approval, and (iv) resolved to recommend that the Representing Party's stockholders vote in favor of the approval of the Merger and to include such recommendation in the Joint Proxy Statement.

Section 3.5 Consents and Approvals; No Violations. None of the execution, delivery or performance of this Agreement by the Representing Party, the consummation by the Representing Party of the Merger or any of the other Transactions, or compliance by the Representing Party with any of the provisions of this Agreement will (a) contravene, conflict with or result in any breach of any provision of the Representing Party's Governing Documents, or the comparable organizational or governing documents of any of its Subsidiaries, (b) require any filing by the Representing Party or any of its Subsidiaries with, or the obtaining of any permit, authorization, consent or approval of, any court, arbitral tribunal, administrative agency or commission or other governmental, quasi-governmental or other regulatory authority, instrumentality or agency, whether foreign, federal, state, local or supranational (a "Governmental Entity") (except for (i) compliance with any applicable requirements of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (the "Exchange Act"), (ii) any filings as may be required under the DGCL in connection with the Merger, (iii) such filings with the Securities and Exchange Commission (the "SEC") as may be required to be made by the Representing Party in connection with this Agreement and the Merger, including (A) a joint proxy statement in preliminary and definitive form relating to the applicable stockholder meetings (together with any amendments or supplements thereto, the "Joint Proxy Statement") and (B) a registration statement on Form S-4 pursuant to which the offer and sale of shares of Tecogen Common Stock in the Merger will be registered pursuant to the Securities Act and in which the

Annex A-7

Annex A

Table of Contents

ANNEX A - Merger Agreement

Joint Proxy Statement will be included (together with any amendments or supplements thereto, the “Form S-4”), (iv) compliance with any applicable requirements under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, (v) such filings as may be required under the rules and regulations of the applicable national securities exchange in connection with this Agreement or the Merger, or (vi) such filings as may be required in connection with state and local transfer Taxes), (c) result in any breach of or any loss of any benefit or material increase in any cost or obligation of the Representing Party or any of its Subsidiaries under, or result in a modification, violation or breach of, or constitute (with or without notice or lapse of time or both) a default (or give rise to any right, including, but not limited to, any right of termination, amendment, cancellation or acceleration) under, any of the terms, conditions or provisions of any material Contract of such Representing Party (a “Material Contract”), (d) violate any Order or Law applicable to the Representing Party or any of its Subsidiaries or any of their respective properties, assets or operations, or (e) result in the creation or imposition of any Lien on any asset of the Representing Party or any of its Subsidiaries; except in each of clauses (b), (c), (d) or (e) where (x) any failure to obtain such permits, authorizations, consents or approvals, (y) any failure to make such filings or (z) any such modifications, violations, rights, impositions, breaches or defaults has not had and would not reasonably be expected to have a Representing Party Material Adverse Effect.

Section 3.6 SEC Documents and Financial Statements. The Representing Party has filed or furnished (as applicable), on a timely basis, with the SEC all forms, reports, certifications, schedules, statements and other documents required to be filed or furnished (as applicable) by it under the Exchange Act or the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (the “Securities Act”) (such documents and any other documents filed or furnished by the Representing Party with the SEC, as have been amended since the time of their filing, collectively, the “Representing Party’s SEC Documents”). As of their respective filing dates (and the date of their most recent amendment, supplement or modification as filed with the SEC), the Representing Party’s SEC Documents (i) did not (or with respect to its SEC Documents filed after the date hereof, will not) contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements made therein, in light of the circumstances under which they were made, not misleading and (ii) complied, or with respect to the Representing Party’s SEC Documents filed after the date hereof, will comply, as the case may be, in all material respects with the applicable requirements of the Exchange Act or the Securities Act, as the case may be, and the applicable rules and regulations of the SEC thereunder. All of the audited financial statements and unaudited interim financial statements of the Representing Party included in its SEC Documents (including the related notes and schedules thereto) (collectively, the “Representing Party’s Financial Statements”), (A) have been or will be, as the case may be, prepared from, are in accordance with, and accurately reflect the books and records of the Representing Party and its Subsidiaries in all material respects as of the respective dates thereof, (B) complied as of their respective dates in all material respects with the then-applicable accounting requirements and the published rules and regulations of the SEC with respect thereto, (C) have been or will be, as the case may be, prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) applied on a consistent basis during the periods involved (except as may be indicated in the notes thereto or, in the case of interim financial statements, for normal and recurring year-end adjustments and as may be permitted by the SEC on Form 10-Q, Form 8-K or any successor or like form under the Exchange Act), and (D) fairly present, in all material respects, the financial position and the results of operations, stockholder’s equity and cash flows of the Representing Party and its consolidated Subsidiaries as of the times and for the periods referred to therein.

Annex A-8

Annex A

Table of Contents

ANNEX A - Merger Agreement

Section 3.7 Absence of Certain Changes.

(a) Except as contemplated by this Agreement or in the Representing Party's SEC Documents filed or furnished prior to the date hereof, since January 1, 2014, the Representing Party and its Subsidiaries have conducted, in all material respects, their business in the ordinary course consistent with past practice.

(b) Since January 1, 2014, no Effects have occurred, which have had or would reasonably be expected to have a Material Adverse Effect on the Representing Party.

Section 3.8 Litigation. As of the date hereof, there is no claim, action, suit, arbitration, alternative dispute resolution action or any other judicial or administrative proceeding, in Law or equity (each, a "Legal Proceeding"), pending against (or to the Representing Party's knowledge, threatened against or naming as a party thereto), the Representing Party, a Representing Party Subsidiary, any of the Representing Party's or any Representing Party Subsidiary's respective property, or, to the knowledge of the Representing Party, any executive officer or director of the Representing Party (in their capacity as such) nor, to the knowledge of the Representing Party, is there any investigation of a Governmental Entity pending or threatened against the Representing Party or any Representing Party Subsidiary, other than, in each of the foregoing cases, as have not had and would not reasonably be expected to have a Material Adverse Effect (it being understood that, notwithstanding the date limitation in this sentence, any such Legal Proceeding or investigation commenced after the date of this Agreement may be taken into account when determining whether a Material Adverse Effect has occurred pursuant to Section 3.7(b)). Neither the Representing Party nor any Representing Party Subsidiary is subject to any outstanding Order of a Governmental Entity which has had or would reasonably be expected to have a Material Adverse Effect.

Section 3.9 Taxes. The Representing Party and its Subsidiaries have filed or caused to be filed all tax returns that are or were required to be filed by or with respect to any of them, either separately or as a member of a group of corporations, pursuant to applicable Law. All tax returns filed by (or that include on a consolidated basis) the Representing Party or any of its Subsidiaries were (and, as to tax returns not filed as of the date hereof, will be) in all material respects complete and correct and filed on a timely basis. The Representing Party and its Subsidiaries have, within the time and in the manner prescribed by Law, paid all Taxes that are due and payable by them. The Representing Party and each of its Subsidiaries have complied with all applicable Law relating to the payment and withholding of Taxes and have, within the times and in the manner prescribed by applicable Law, withheld from employee wages and paid over to the appropriate Governmental Entity all amounts required to be so withheld and paid.

Section 3.10 Compliance with Law, Listing and Accounting Requirements. The Representing Party has complied, and is in compliance, in all material respects with all applicable Laws and legal requirements with respect to its business, properties and assets, and all applicable listing and corporate governance rules and regulations of its applicable national securities exchange. Neither the Representing Party nor any of its Subsidiaries or, to the knowledge of the Representing Party, any director, officer, employee, auditor, accountant, or representative of the Representing Party or any of its Subsidiaries, has received or has otherwise had or obtained knowledge of any complaint, allegation, assertion or claim, whether written or oral, regarding any violation or threatened violation of any Laws or legal requirement or regarding the accounting or auditing practices or procedures, disclosure controls and procedures, or internal control over financial reporting of the Representing Party or its Subsidiaries. None of the Representing Party, any of its Subsidiaries, the directors, officers, or employees of the Representing Party or any of its Subsidiaries, or, to the knowledge of the Representing Party, agents or other representatives of the Representing Party or any of its Subsidiaries, has directly or indirectly violated any applicable Law or legal requirement.

Section 3.11 Information in the Form S-4 and Joint Proxy Statement. None of the information supplied or to be supplied in writing by or on behalf of the Representing Party or of its Subsidiaries for inclusion or

Annex A-9

Annex A

Table of Contents

ANNEX A - Merger Agreement

incorporation by reference in (a) the Form S-4 will, at the time such document is filed with the SEC, at any time such document is amended or supplemented or at the time such document is declared effective by the SEC, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading, or (b) the Joint Proxy Statement will, at the date it is first mailed, at the time of the Representing Party's Stockholder Meeting or at the time the Form S-4 is declared effective by the SEC or at the Merger Effective Time, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading. All documents that a Representing Party is responsible for filing with the SEC in connection with the Transactions, to the extent relating to the Representing Party or any of its Subsidiaries or other information supplied by or on their behalf for inclusion therein, will comply as to form, in all material respects, with the provisions of the Securities Act or Exchange Act, as applicable, and the rules and regulations of the SEC thereunder and each such document required to be filed with any Governmental Entity (other than the SEC) will comply in all material respects with the provisions of any applicable Law as to the information required to be contained therein.

Section 3.12 Takeover Statutes. No "business combination," "control share acquisition," "fair price," "moratorium" or other takeover or anti-takeover statute or similar federal or state Law (collectively, "Takeover Statutes") are applicable to this Agreement, the Merger or the other Transactions.

Section 3.13 Dissenters' Rights. No dissenters', appraisal or similar rights are available to the holders of the Representing Party's Common Stock with respect to the Merger or the other Transactions.

Section 3.14 No Undisclosed Liabilities. Except (a) as disclosed, reflected or reserved against in the Representing Party's Financial Statements, (b) for liabilities incurred in the ordinary course of business since the date of the Representing Party's Financial Statements and (c) as expressly permitted or contemplated by this Agreement, neither the Representing Party nor any of its Subsidiaries has any liabilities of any nature, whether or not accrued, contingent or otherwise, other than those which, individually or in the aggregate, have not had and would not reasonably be expected to have a Material Adverse Effect.

Section 3.15 Environmental Laws and Regulations. Except for such matters as, individually or in the aggregate, have not had and would not reasonably be expected to have a Material Adverse Effect: (a) the Representing Party and its Subsidiaries are now and have been since January 1, 2010 in compliance with all, and have not since January 1, 2010 violated any, applicable Environmental Laws; (b) to the knowledge of the Representing Party, no property currently or formerly owned, leased or operated by the Representing Party or any of its Subsidiaries, or any other location currently or formerly used by the Representing Party or any of its Subsidiaries, is contaminated with any Hazardous Substance in a manner that would be reasonably likely to be required to be Remediated or Removed, that is in violation of any Environmental Law, or that would be reasonably likely to give rise to any Environmental Liability, in any case by or affecting the Representing Party or any of its Subsidiaries; (c) neither the Representing Party nor any of its Subsidiaries has received since January 1, 2010 any written notice, demand letter, claim or request for information alleging that the Representing Party or any of its Subsidiaries may be in violation of any Environmental Law or subject to any Environmental Liability or are allegedly subject to any Removal, Remedial or Response actions; (d) neither the Representing Party nor any of its Subsidiaries is subject to any order, decree, injunction or agreement with any Governmental Entity, or any indemnity or other agreement with any third party, concerning any Environmental Liability or otherwise relating to any Hazardous Substance; (e) the Representing Party and each of its Subsidiaries has all of the Environmental Permits necessary for the conduct and operation of its business as now being conducted and all such Environmental Permits are in good standing and, to the knowledge of the Representing Party, there is no reasonable basis for any revocation, non-renewal, or adverse modification of any such Environmental Permit; and (f) to the knowledge of the Representing Party, there are no other facts, activities, circumstances or conditions in existence, including the transportation

Annex A-10

Annex A

Table of Contents

ANNEX A - Merger Agreement

or arrangement for the treatment, storage, handling, disposal or transportation of any Hazardous Substance at or to any off-site location, that have resulted in, or would be reasonably expected to result in, the Representing Party or any of its Subsidiaries incurring any Environmental Liability. As used herein, the term “Environmental Laws” means all Laws relating to: (i) the protection, investigation or restoration of the environment or natural resources, or (ii) the exposure to, or the handling, use, presence, disposal, Release or threatened Release of any Hazardous Substance. As used herein, the term “Environmental Liability” means any obligations or liabilities (including any notices, claims, complaints, suits or other assertions of obligations or liabilities) that are: (i) related to the environment (including on-site or off-site contamination by Hazardous Substances of surface or subsurface soil or water) and (ii) based upon (A) any provision of Environmental Laws or (B) any order, consent, decree, writ, injunction or judgment issued or otherwise imposed by any Governmental Entity and includes in either case: fines, penalties, judgments, awards, settlements, losses, damages, costs, fees (including attorneys’ and consultants’ fees), expenses and disbursements relating to environmental matters; defense and other responses to any administrative or judicial action (including notices, claims, complaints, suits and other assertions of liability) relating to environmental matters; and financial responsibility for clean-up costs and injunctive relief, including any Removal, Remedial or Response actions. As used herein, the term “Hazardous Substance” means any “hazardous substance” and any “pollutant or contaminant” as those terms are defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. § 9601 et seq.), as amended (“CERCLA”); any “hazardous waste” as that term is defined in the Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq.), as amended (“RCRA”); and any “hazardous material” as that term is defined in the Hazardous Materials Transportation Act (49 U.S.C. § 1801 et seq.), as amended (including as those terms are further defined, construed or otherwise used in rules, regulations, standards, orders, guidelines, directives and publications issued pursuant to, or otherwise in implementation of, said Laws); and any pollutant, chemical or substance that is subject to regulation, control or remediation under any environmental Law, including any petroleum product or by-product, solvent, flammable or explosive material, radioactive material, asbestos, lead paint, polychlorinated biphenyls (or PCBs), dioxins, dibenzofurans, heavy metals, radon gas, mold, mold spores, and mycotoxins. As used herein, the term “Release” means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, placing, discarding, abandonment, or disposing into the environment (including the placing, discarding or abandonment of any barrel, container or other receptacle containing any Hazardous Substance or other material). As used herein, the term “Removal, Remedial or Response” actions include the types of activities covered by CERCLA, RCRA and other comparable Environmental Laws, and regardless of whether such activities are those which might be taken by a Governmental Entity or those which a Governmental Entity or any other Person might seek to require of waste generators, handlers, distributors, processors, users, storers, treaters, owners, operators, transporters, recyclers, reusers, disposers, or other Persons under “removal,” “remedial,” or other “response” actions, and “Remediated” and “Removed” have correlative meanings. As used herein, the term “Environmental Permits” means any permit, license, authorization or approval required under applicable Environmental Laws.

Section 3.16 Material Contracts. Each Material Contract of the Representing Party is valid and in full force and effect, and is enforceable in accordance with its terms. Neither the Representing Company or any Subsidiary thereof nor, to the knowledge of the Representing Party, the other party to each Material Contract, has violated or breached, or committed any default under, any Material Contract. To the knowledge of the Representing Party, no event has occurred and no circumstance or condition exists that will, or would reasonably be expected to, (i) result in a violation or breach, in any material respect, of any provision of any Material Contract, (ii) give any Person the right to declare a default or exercise any remedy under any Material Contract, or receive or require a material rebate, chargeback, penalty or other change to the price and payment terms thereof, or (iii) give any Person the right to accelerate the maturity or performance of, or cancel, terminate or modify in any material respect, any Material Contract. Neither the Representing Party nor any

Annex A-11

Annex A

Table of Contents

ANNEX A - Merger Agreement

Subsidiary thereof has received any notice or other communication regarding any actual or possible material violation or breach of, or default under, any Material Contract.

Section 3.17 Customers and Suppliers. The Representing Party has not engaged in any dispute with any customer or supplier that is material to such party's business, and there has been no material adverse change in the business relationship of the Representing Party with any such customer or supplier, since January 1, 2014. In the twelve (12) months immediately preceding the date hereof, no customers or supplier that is material to the Representing Party's business has communicated or otherwise threatened or proposed any material adverse change in its business relationship with the Representing Party.

Section 3.18 Finders or Brokers. Neither the Representing Party nor any of its Subsidiaries has employed any investment banker, broker or finder in connection with the Transactions who might be entitled to any fee or any commission in connection with or upon consummation of the Merger.

ARTICLE IV

CONDUCT OF BUSINESS PENDING THE MERGER

Section 4.1 Conduct of Business by ADGE and Tecogen Pending the Closing. Each of ADGE and Tecogen agrees that between the date of this Agreement and the Merger Effective Time or the date, if any, on which this Agreement is terminated pursuant to Section 8.1 (the "Interim Period"), except as expressly permitted by this Agreement, as may be required by Law or as consented to in writing by the other party (which consent shall not be unreasonably withheld, delayed or conditioned), it shall, and shall cause each of its Subsidiaries to, (i) conduct its business in all material respects in the ordinary course of business consistent with past practice and (ii) use commercially reasonable efforts to maintain in all material respects its assets and properties in their current condition (ordinary wear and tear excepted), preserve its business organizations intact in all material respects, and maintain existing relations and goodwill with Governmental Entities, alliances, customers, lenders, employees, tenants and business associates in all material respects.

Section 4.2 Form S-4 and Joint Proxy Statement.

(a) As promptly as reasonably practicable following the date of this Agreement, (i) ADGE and Tecogen shall jointly prepare and, to the extent required under applicable SEC rules, cause to be filed with the SEC the Joint Proxy Statement, and (ii) Tecogen shall prepare and cause to be filed with the SEC the Form S-4 with respect to the Tecogen Common Stock issuable in the Merger, which will include the Joint Proxy Statement with respect to the ADGE Stockholder Meeting and the Tecogen Stockholder Meeting, with such filings to be made as mutually agreed by Tecogen and ADGE in good faith. Each of ADGE and Tecogen shall use its reasonable best efforts to (A) have the Form S-4 declared effective under the Securities Act as promptly as practicable after such filing, (B) ensure that the Form S-4 complies in all material respects with the applicable provisions of the Exchange Act and the Securities Act, and (C) keep the Form S-4 effective for so long as necessary to complete the Merger and the Transactions. Each of ADGE and Tecogen shall furnish all information concerning itself, its affiliates and the holders of its capital stock to the other and provide such other assistance as may be reasonably requested in connection with the preparation, filing and distribution of the Form S-4 and Joint Proxy Statement. The Form S-4 and the Joint Proxy Statement shall include all information reasonably requested by such other party to be included therein. Each of ADGE and Tecogen shall promptly notify the other upon the receipt of any comments from the SEC or any request from the SEC for amendments or supplements to the Form S-4 or Joint Proxy Statement, and shall, as promptly as practicable after receipt thereof, provide the other with copies of all correspondence between it and its Representatives, on one hand, and the SEC, on the other hand, and all written comments with respect to the Joint Proxy Statement or the Form S-4 received from the SEC and advise the other party of any oral comments with respect to the Joint Proxy Statement or the Form S-4 received from the SEC. Each of ADGE and

Annex A

Table of Contents

ANNEX A - Merger Agreement

Tecogen shall use its reasonable best efforts to respond as promptly as practicable to any comments from the SEC with respect to the Joint Proxy Statement, and Tecogen shall use its reasonable best efforts to respond as promptly as practicable to any comments from the SEC with respect to the Form S-4. Notwithstanding the foregoing, prior to filing the Form S-4 (or any amendment or supplement thereto) or mailing the Joint Proxy Statement (or any amendment or supplement thereto) or responding to any comments of the SEC with respect thereto, each of ADGE and Tecogen shall cooperate and provide the other a reasonable opportunity to review and comment on such document or response (including the proposed final version of such document or response) and shall not so file, mail or respond, as applicable, without the consent of the other party (which consent shall not be unreasonably withheld, conditioned or delayed). Tecogen shall advise ADGE, promptly after it receives notice thereof, of the time of effectiveness of the Form S-4, the issuance of any stop order relating thereto or the suspension of the qualification of the Tecogen Common Stock issuable in connection with the Merger for offering or sale in any jurisdiction, and Tecogen shall use its reasonable best efforts to have any such stop order or suspension lifted, reversed or otherwise terminated. Tecogen shall also take any other action required to be taken under the Securities Act, the Exchange Act, any applicable foreign or state securities or “blue sky” Laws and the rules and regulations thereunder in connection with the issuance of the Tecogen Common Stock in the Merger (provided that Tecogen shall not be required to (i) qualify to do business as a foreign corporation in any jurisdiction in which it is not now so qualified, (ii) file a general consent to service of process in any jurisdiction, or (iii) subject itself to taxation in any jurisdiction in which it is not so subject), and ADGE shall furnish all information concerning ADGE and the holders of ADGE Common Stock as may be reasonably requested in connection with any such actions.

(b) If, at any time prior to the receipt of ADGE Stockholder Approval or the Tecogen Stockholder Approval, any information relating to ADGE or Tecogen, or any of their respective affiliates, should be discovered by ADGE or Tecogen which, in the reasonable judgment of ADGE or Tecogen, should be set forth in an amendment of, or a supplement to, any of the Form S-4 or the Joint Proxy Statement, so that any of such documents would not include any misstatement of a material fact or omit to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, the party that discovers such information shall promptly notify the other parties, and ADGE and Tecogen shall cooperate in the prompt filing with the SEC of any necessary amendment of, or supplement to, the Joint Proxy Statement or the Form S-4 and, to the extent required by Law, in disseminating the information contained in such amendment or supplement to stockholders of ADGE and the stockholders of Tecogen. Nothing in this Section 4.2(b) shall limit the obligations of any party under Section 4.2(a). For purposes of this Section 4.2, any information concerning or related to ADGE, its affiliates or the ADGE Stockholder Meeting will be deemed to have been provided by ADGE, and any information concerning or related to Tecogen, its affiliates or the Tecogen Stockholder Meeting will be deemed to have been provided by Tecogen.

(c) As promptly as practicable, each of ADGE and Tecogen shall, in accordance with applicable Law and its Governing Documents, establish a record date for, duly call, give notice of, convene and hold its Stockholder Meeting. Each of ADGE and Tecogen shall use its reasonable best efforts to cause the Joint Proxy Statement to be mailed to its stockholders entitled to vote at its Stockholder Meeting and to hold such Stockholder Meeting as soon as practicable after the Form S-4 is declared effective under the Securities Act. Each of ADGE and Tecogen shall, through its Board of Directors, recommend to its stockholders that they give ADGE Stockholder Approval or Tecogen Stockholder Approval, as the case may be, include such recommendation in the Joint Proxy Statement and solicit and use its reasonable best efforts to obtain such Stockholder Approval, except to the extent that the ADGE Board of Directors shall have made an Adverse Recommendation Change. Notwithstanding the foregoing provisions of this Section 4.2(c), if, on a date for which either Stockholder Meeting is scheduled, a party has not received proxies representing a sufficient number of shares of Common Stock to obtain ADGE Stockholder Approval or Tecogen Stockholder Approval, as the case may be, whether or not a quorum is present, the other party may require

Table of Contents

ANNEX A - Merger Agreement

it, and it shall have the right, to adjourn or postpone its Stockholder Meeting (provided, that such Stockholder Meeting shall not be postponed or adjourned to a date that is more than thirty (30) days after the date for which it was originally scheduled (excluding any adjournments or postponements required by applicable Law)); provided, however, the neither the ADGE Stockholder Meeting nor the Tecogen Stockholder Meeting may be postponed or adjourned on the date it is originally scheduled if ADGE or Tecogen, as the case may be, shall have received proxies in respect of an aggregate number of shares of Common Stock, which have not been withdrawn, such that the ADGE Stockholder Approval or the Tecogen Stockholder Approval, as the case may be, will be obtained at such meeting. Section 4.3 Stockholder Approval; Majority of the Minority. The Merger shall be deemed approved upon receipt of ADGE Stockholder Approval at the ADGE Stockholder Meeting and Tecogen Stockholder Approval at the Tecogen Stockholder Meeting, and shall become effective as set forth in Article I hereinabove. After due consideration, the Board of Directors of each of Tecogen and ADGE have determined not to require approval of a “majority of the minority” of stockholders of each company as a condition to closing of the Merger due to a number of factors, including but not limited to: (a) a historical pattern of a significant percentage of stockholders of each of Tecogen and ADGE not voting in prior annual meetings, making it difficult to achieve a majority of the minority of all eligible shares for each such company, particularly in light of the significant equity ownership of officers and directors and their families of each company; (b) the establishment of independent special committees of the Boards of Directors of each of Tecogen and ADGE; (c) the retention of independent financial advisors for each such special committee; and (d) the significant and nearly equivalent equity ownership in each company by the same principal stockholders.

ARTICLE V

ADDITIONAL AGREEMENTS

Section 5.1 Access; Confidentiality; Notice of Certain Events.

(a) During the Interim Period, to the extent permitted by applicable Law and Contracts, and subject to the reasonable protocols imposed from time to time upon advice of counsel, each of Tecogen and ADGE shall, and shall cause each of the Tecogen Subsidiaries and ADGE Subsidiaries, respectively, to afford to the other party and its Representatives reasonable access during normal business hours and upon reasonable advance notice to all of their respective properties, offices, books, Contracts, commitments, personnel and records and, during such period, each of Tecogen and ADGE shall, and shall cause each of the Tecogen Subsidiaries and ADGE Subsidiaries, respectively, to, furnish all information in its possession (financial or otherwise) concerning its business, properties and personnel such other party or its Representatives may reasonably request. Notwithstanding the foregoing, neither Tecogen nor ADGE shall be required by this Section 5.1 to provide the other party or the Representatives of the other party with access to or to disclose information, (i) that is subject to the terms of a confidentiality agreement with a third party entered into prior to the date of this Agreement or entered into after the date of this Agreement in the ordinary course of business consistent with past practice (provided, however, that the withholding party shall use its reasonable best efforts to obtain the required consent of such third party to such access or disclosure), (ii) the disclosure of which would violate any Law or duty (provided, however, that withholding party shall use its reasonable best efforts to make appropriate substitute arrangements to permit reasonable disclosure not in violation of any Law or duty) or (iii) that is subject to any attorney-client, attorney work product or other legal privilege (provided, however, that withholding party shall use its reasonable best efforts to allow for such access or disclosure to the maximum extent that does not result in a loss of any such attorney-client, attorney work product or other legal privilege). Each of Tecogen and ADGE will use its commercially reasonable efforts to minimize any disruption to the businesses of the other party that may result from the requests for access, data and information hereunder.

Annex A-14

Annex A

Table of Contents

ANNEX A - Merger Agreement

(b)Each of Tecogen and ADGE will hold, and will cause its Representatives and affiliates to hold, any nonpublic information, including any information exchanged pursuant to this Section 5.1, in confidence to the extent required by and in accordance with, and will otherwise comply with, the terms of the Confidentiality Agreement.

(c)ADGE shall give prompt notice to Tecogen, and Tecogen shall give prompt notice to ADGE, (i) of any notice or other communication received by such party (A) from any Governmental Entity in connection with this Agreement, the Merger or the other Transactions, (B) from any Person alleging that the consent of such Person (or another Person) is or may be required in connection with the Merger or the other Transactions, or (C) from any Person alleging or in connection with (1) any material violation or default under or notice to terminate, not renew or challenge the validity or enforceability of any ADGE Material Contract or Tecogen Material Contract, or (2) any event or circumstance that would give rise to any option to purchase, right of first refusal or first offer, or any other right to purchase in favor of any Person under any ADGE Material Contract or Tecogen material Contract, (ii) of any Legal Proceeding commenced or, to any party's knowledge, threatened against, such party or any of its Subsidiaries or affiliates or otherwise relating to, involving or affecting such party or any of its Subsidiaries or affiliates, in each case in connection with, arising from or otherwise relating to the Merger or any other Transaction, and (iii) upon becoming aware of the occurrence or impending occurrence of any event, change, development or circumstance relating to it or any of ADGE Subsidiaries or the Tecogen Subsidiaries, respectively, which makes or is reasonably likely to make any of the conditions set forth in Article VI to not be satisfied or would otherwise be reasonably expected to prevent or materially delay or impede the consummation of the Transactions. The failure to deliver any such notice, in and of itself, shall not result in the failure of, or otherwise affect, any of the conditions set forth in Article VI.

Section 5.2 Consents and Approvals.

(a)Upon the terms and subject to the conditions set forth in this Agreement, each of ADGE and Tecogen shall and shall cause their respective Subsidiaries, to use reasonable best efforts to take, or cause to be taken, all actions, and to do, or cause to be done, and to assist and cooperate with the other party in doing, all things necessary, proper or advisable under applicable Law or pursuant to any Contract to consummate and make effective, as promptly as practicable, the Merger and the other Transactions, including (i) the taking of all actions necessary to cause the conditions to Closing set forth in Article VI to be satisfied, (ii) the preparing and filing, in consultation with the other party and as promptly as practicable following the date hereof, of all documentation to effect all required filings, notices, petitions, statements, registrations, submissions and applications and the obtaining of all necessary actions or nonactions, waivers, consents, authorizations and approvals from Governmental Entities or other Persons necessary in connection with the consummation of the Merger and the other Transactions and the making of all necessary registrations and filings (including filings with Governmental Entities, if any) and the taking of all reasonable steps as may be necessary to obtain an approval or waiver from, or to avoid Legal Proceeding by, any Governmental Entity or other Persons necessary in connection with the consummation of the Merger and the other Transactions, (iii) the defending of any Legal Proceedings, whether judicial or administrative, challenging this Agreement or the consummation of the Merger or the other Transactions, including seeking to have any stay or temporary restraining Order entered by any court or other Governmental Entity vacated or reversed, the avoidance of each and every impediment under any antitrust, merger control, competition or trade regulation Law that may be asserted by any Governmental Entity with respect to the Merger so as to enable the Closing to occur as soon as reasonably possible, and (iv) the execution and delivery of any additional instruments necessary to consummate the Merger and the other Transactions and to fully carry out the purposes of this Agreement.

(b)In connection with and without limiting the foregoing, each of Tecogen and ADGE shall give (or shall cause to be given) any notices to any Person, and each of Tecogen and ADGE shall use, and cause each of their respective affiliates to use, its reasonable best efforts to obtain any consents from any

Annex A-15

Annex A

Table of Contents

ANNEX A - Merger Agreement

Person not covered by Section 5.2(a) that are necessary, proper or advisable to consummate the Merger. Each of the parties will furnish to the other such necessary information and reasonable assistance as the other may request in connection with the preparation of any required governmental filings or submissions and will cooperate in responding to any inquiry from a Governmental Entity, including promptly informing the other party of such inquiry, consulting in advance before making any presentations or submissions to a Governmental Entity, and supplying each other with copies of all material correspondence, filings or communications between either party and any Governmental Entity with respect to this Agreement. To the extent reasonably practicable, the parties or their Representatives shall have the right to review in advance, and each of the parties will consult the others on, all the information relating to the other and each of their affiliates that appears in any filing made with, or written materials submitted to, any Governmental Entity in connection with the Merger and the other Transactions, except that confidential competitively sensitive business information may be redacted from such exchanges. To the extent reasonably practicable, neither ADGE nor Tecogen shall, nor shall they permit their respective Representatives to, participate independently in any meeting or engage in any substantive conversation with any Governmental Entity in respect of any filing, investigation or other inquiry without giving the other party prior notice of such meeting or conversation and, to the extent permitted by applicable Law, without giving the other party the opportunity to attend or participate (whether by telephone or in person) in any such meeting with such Governmental Entity. Notwithstanding the foregoing, obtaining any approval or consent from any Person pursuant to this Section 5.2(b) shall not be a condition to the obligations of the parties to consummate the Merger.

(c)Notwithstanding anything to the contrary in this Agreement, in connection with obtaining any approval or consent from any Person (other than any Governmental Entity) with respect to the Merger, none of ADGE or any of ADGE Subsidiaries, Tecogen or any of its Subsidiaries or any of their respective Representatives, shall be obligated to pay or commit to pay to such Person whose approval or consent is being solicited any cash or other consideration, make any accommodation or commitment or incur any liability or other obligation to such Person, in each case that is not conditioned upon the occurrence of the Closing. Subject to the foregoing sentence, the parties shall cooperate with respect to reasonable accommodations that may be requested or appropriate to obtain such consents. The parties acknowledge and agree that no approval or consent of any such Person is a condition to the obligations of any party to effect the Merger other than Stockholder Approval.

Section 5.3 Publicity. The initial press release issued by Tecogen and ADGE concerning this Agreement and the transactions contemplated hereby shall be a joint press release, and thereafter Tecogen and ADGE shall consult with each other before issuing, and, to the extent practicable, give each other a reasonable opportunity to review and comment on, any press release or other public statement with respect to the Transactions and shall not issue any such press release or make any such public statement prior to such consultation, except as may be required by applicable Law, duties under applicable Law or by obligations pursuant to any listing agreement with the applicable national securities exchange.

Section 5.4 Directors' and Officers' Insurance and Indemnification.

(a)Tecogen shall cause the Surviving Entity to honor and fulfill in all respects the obligations of ADGE to the fullest extent permissible under applicable Law, under ADGE Governing Documents in effect on the date hereof and under any indemnification or other similar agreements in effect on the date hereof previously made available to Tecogen (the "Indemnification Agreements") to the individuals covered by such ADGE Governing Documents, ADGE Subsidiary Governing Documents or Indemnification Agreements (the "Covered Persons") arising out of or relating to actions or omissions in their capacity as such occurring at or prior to the Merger Effective Time, including in connection with the approval of this Agreement and the Transactions.

(b)Without limiting the provisions of Section 5.4(a), for a period of six (6) years after the Merger Effective Time, Tecogen (but only to the extent the Covered Persons would be permitted to be

Table of Contents

ANNEX A - Merger Agreement

indemnified by ADGE or any ADGE Subsidiary under ADGE Governing Documents or ADGE Subsidiary Governing Documents and applicable Law) and the Surviving Entity shall, and Tecogen shall cause the Surviving Entity to:

(i) indemnify and hold harmless each Covered Person against and from any costs or expenses (including attorneys' fees), judgments, fines, losses, claims, damages, liabilities and amounts paid in settlement in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, to the extent such claim, action, suit, proceeding or investigation arises out of or pertains to: (A) any action or omission or alleged action or omission in such Covered Person's capacity as such, or (B) this Agreement and any of the Transactions; and (ii) pay in advance of the final disposition of any such claim, action, suit, proceeding or investigation the expenses (including attorneys' fees) of any Covered Person upon receipt of an undertaking by or on behalf of such Covered Person to repay such amount if it shall ultimately be determined that such Covered Person is not entitled to be indemnified. Notwithstanding anything to the contrary set forth in this Agreement, neither Tecogen nor the Surviving Entity (1) shall be liable for any settlement effected without their prior written consent, and (2) shall have any obligation hereunder to any Covered Person to the extent that a court of competent jurisdiction shall determine in a final and non-appealable order that such indemnification is prohibited by applicable Law, in which case the Covered Person shall promptly refund to Tecogen or the Surviving Entity the amount of all such expenses theretofore advanced pursuant hereto.

(c) For a period of six (6) years after the Merger Effective Time, Tecogen shall cause to be maintained in effect the current policies of directors' and officers' liability insurance maintained by ADGE (provided that ADGE may substitute therefor policies written by carriers with A.M. Best ratings no lower than the existing policies providing at least the same coverage and amounts and containing terms and conditions which are no less advantageous) with respect to claims arising from or related to facts or events which occurred at or before the Merger Effective Time; provided, however, that Tecogen shall not be obligated to make annual premium payments for such insurance to the extent such premiums exceed 300% of the annual premiums paid as of the date hereof by ADGE for such insurance (such 300% amount, the "Base Premium"); provided, further, if such insurance coverage cannot be obtained at all, or can only be obtained at an annual premium in excess of the Base Premium, Tecogen shall maintain the most advantageous policies of directors' and officers' insurance obtainable for an annual premium equal to the Base Premium; provided, further, if ADGE in its sole discretion elects, then, in lieu of the foregoing insurance, effective as of the Merger Effective Time, ADGE may purchase a directors' and officers' liability insurance "tail" or "runoff" insurance program for a period of six (6) years after the Merger Effective Time with terms, conditions, retentions and limits of liability that are at least as favorable as provided in ADGE's existing policies as of the date hereof.

(d) In the event the Surviving Entity or any of its successors or assigns (i) consolidates with or merges into any other Person and shall not be the continuing or surviving corporation or entity of such consolidation or merger or (ii) transfers all or substantially all of its properties and assets to any Person, then and in each such case, proper provision shall be made so that such continuing or surviving corporation or entity or transferee of such assets, as the case may be, shall assume all of the applicable obligations set forth in this Section 5.4.

(e) The Covered Persons (and their successors and heirs) are intended third-party beneficiaries of this Section 5.4, and this Section 5.4 shall not be amended in a manner that is adverse to the Covered Persons (including their successors and heirs) or terminated without the consent of the Covered Persons (including their successors and heirs) affected thereby.

Section 5.5 Takeover Statutes. The parties and their respective boards of directors (or equivalent) shall use their respective reasonable best efforts (a) to take all action necessary so that no Takeover Statute is or becomes applicable to the Merger or any of the other Transactions and (b) if any such Takeover Statute is or becomes applicable to any of the foregoing, to take all action necessary so that the Merger and the other

Annex A-17

Annex A

Table of Contents

ANNEX A - Merger Agreement

Transactions may be consummated as promptly as practicable on the terms contemplated by this Agreement and otherwise to eliminate or minimize the effect of such Takeover Statute or any “anti-takeover” provisions of Tecogen’s charter or of ADGE’s charter (collectively the “Charter Restrictions”) on the Merger and the other Transactions. No party shall take any action to exempt any Person (other than the other parties or their respective affiliates) from any Takeover Statute of any jurisdiction or the Charter Restrictions that may purport to be applicable to the Merger or any of the other Transactions or otherwise cause any restrictions in any Takeover Statute or the Charter Restrictions not to apply to any such Person, except in connection with the concurrent termination of this Agreement.

Section 5.6 Obligations of Merger Sub. Tecogen shall take all action necessary to cause Merger Sub and the Surviving Entity to perform their respective obligations under this Agreement and to consummate the Transactions, including the Merger, upon the terms and subject to the conditions set forth in this Agreement.

Section 5.7 Rule 16b-3. Prior to the Merger Effective Time, ADGE shall be permitted to take such steps as may be reasonably necessary or advisable hereto to cause dispositions of ADGE equity securities (including derivative securities) and the acquisition of Tecogen equity securities (including derivative securities) pursuant to the Transactions by each individual who is a director or officer of ADGE or who will become a director or officer of Tecogen to be exempt under Rule 16b-3 promulgated under the Exchange Act.

Section 5.8 Security Holder Litigation. In the event that any Legal Proceeding related to this Agreement, the Merger or the other Transactions is brought against either ADGE or Tecogen and/or its officers, directors and/or Representatives by security holders of ADGE or Tecogen, as applicable (a “Security Holder Litigation”), ADGE or Tecogen, as applicable, shall promptly notify the other party of such Legal Proceeding and shall keep such other party informed on a current basis with respect to the status thereof. ADGE or Tecogen, as applicable, shall give the other party the opportunity to participate, subject to a customary joint defense agreement, in the defense and settlement of any such Legal Proceeding against ADGE or Tecogen and/or its directors by its security holders, and no settlement thereof shall be agreed to without such other party’s prior written consent.

Section 5.9 Director Resignations. ADGE shall use commercially reasonable efforts to cause to be delivered to Tecogen resignations executed by each director of ADGE and its wholly-owned Subsidiaries in office immediately prior to the Merger Effective Time, such resignations to be effective as of the Merger Effective Time.

Section 5.10 Dividends. During the Interim Period, neither ADGE nor Tecogen shall make, declare or set aside any dividend or other distribution to its respective stockholders.

Section 5.11 Employee Benefits.

(a) Tecogen agrees that it will cause the Surviving Entity from and after the Merger Effective Time to honor all ADGE Benefit Plans; provided, however, that nothing in this Agreement shall be interpreted as limiting the power of Tecogen or the Surviving Entity to amend or terminate any ADGE Benefit Plan or any other individual employee benefit plan, program, Contract or policy or as requiring Tecogen or the Surviving Entity to offer to continue the employment of any employee or independent contractor or, other than as required by its terms, any written employment contract.

(b) With respect to each employee benefit plan in which an employee of ADGE or any of its Subsidiaries (an “ADGE Employee”) becomes a participant, Tecogen shall cause the Surviving Entity to (i) fully credit each participating ADGE Employee for eligibility and vesting purposes under such employee benefit plan for such ADGE Employee’s service with ADGE or one of ADGE Subsidiaries prior to the Merger Effective Time; provided, that no such service credit need be given where such credit would result in a duplication of benefits, (ii) fully credit each participating ADGE Employee for any coinsurance, copayments and deductibles paid and for amounts paid toward any out-of-pocket maximums prior to the date ADGE

Annex A-18

Annex A

Table of Contents

ANNEX A - Merger Agreement

Employee becomes a participant in such employee benefit plan with respect to the calendar year in which such participation commences, and (iii) waive all limitations as to pre-existing conditions and exclusions with respect to participation and coverage requirements applicable to such ADGE Employees.

(c)The ADGE Board of Directors shall adopt resolutions authorizing the termination of any ADGE Benefit Plan that is intended to be qualified under Section 401(a) of the Code maintained by ADGE and any of ADGE Subsidiaries (the “ADGE 401(k) Plan”), to be effective no later than the day before the Merger Effective Time and ADGE and ADGE Subsidiaries shall take any other steps necessary for the termination of the ADGE 401(k) Plan to be effective no later than the day before the Merger Effective Time. All participants and former participants in the ADGE 401(k) Plan shall become fully vested in their account balances under the ADGE 401(k) Plan but only if so required by the terms of the ADGE 401(k) Plan or applicable Law.

(d)Nothing in this Agreement shall be interpreted as an amendment or other modification of any ADGE Benefit Plan or Tecogen Benefit Plan or any other employee benefit plan, program or arrangement or the establishment of any employee benefit plan, program or arrangement. Nothing herein shall be deemed to be a guarantee of employment for any employee of the Surviving Entity or any of its Subsidiaries, or to restrict the right of the Surviving Entity, Tecogen or any of their respective subsidiaries to terminate or cause to be terminated the employment of any employee at any time for any or no reason with or without notice. Tecogen and ADGE acknowledge and agree that all provisions contained in this Section 5.11 are included for the sole benefit of Tecogen, the Surviving Entity, ADGE and their respective Subsidiaries, and that nothing in this Section 5.11, whether express or implied, shall create any third-party beneficiary or other rights (A) in any other Person, including any employees, former employees, any participant in any employee benefit plan, program or arrangement (or any dependent or beneficiary thereof) of Tecogen, ADGE or the Surviving Entity or any of their respective Subsidiaries or (B) to continued employment with Tecogen, ADGE, the Surviving Entity, or any of their respective Subsidiaries or continued participation in any employee benefit plan, program or arrangement.

ARTICLE VI

CONDITIONS TO CONSUMMATION OF THE MERGER

Section 6.1 Conditions to Each Party’s Obligations to Effect the Merger. The respective obligations of each party to effect the Merger shall be subject to the satisfaction on or prior to the Merger Effective Time of each of the following conditions, any and all of which may be waived in whole or in part by Tecogen or ADGE, as the case may be, to the extent permitted by applicable Law:

(a)Stockholder Approval. Each of the ADGE Stockholder Approval and the Tecogen Stockholder Approval shall have been duly obtained.

(b)Statutes; Court Orders. No Law shall have been enacted or promulgated by any Governmental Entity of competent jurisdiction (whether temporary, preliminary or permanent) which remains in effect that prohibits, restrains, enjoins or makes illegal the consummation of the Merger or the other Transactions and there shall be no Order (whether temporary, preliminary or permanent) of a court of competent jurisdiction in effect preventing, restraining or enjoining the consummation of the Merger or the other Transactions.

(c)Registration Statement. The Form S-4 shall have become effective in accordance with the provisions of the Securities Act. No stop order suspending the effectiveness of the Form S-4 shall have been issued by the SEC and remain in effect and no proceeding to that effect shall have been commenced or threatened in writing.

Annex A-19

Annex A

Table of Contents

ANNEX A - Merger Agreement

(d)Listing. The shares of Tecogen Common Stock to be issued in the Merger shall have been approved for listing on the Nasdaq Capital Market, subject only to official notice of issuance.

Section 6.2 Conditions to Obligations of Tecogen and Merger Sub. The obligations of Tecogen and Merger Sub to effect the Merger are also subject to the satisfaction or waiver (in writing) by Tecogen on or prior to the Merger Effective Time of each of the following additional conditions:

(a)Representations and Warranties. (i) Each of the representations and warranties of ADGE in Article III shall be true and correct (without giving effect to any qualification as to materiality or ADGE Material Adverse Effect contained in Article III) as of the date of this Agreement and as of the Closing as though made on and as of the Closing (except that representations and warranties that by their terms speak specifically as of the date of this Agreement or another date shall be true and correct as of such date), except where any failures of any such representations and warranties to be true and correct would not reasonably be expected to have an ADGE Material Adverse Effect; and Tecogen shall have received a certificate signed on behalf of ADGE by a duly authorized executive officer of ADGE to the foregoing effect.

(b)Performance of Obligations of ADGE. ADGE shall have performed or complied in all material respects with all obligations required to be performed or complied with by it under this Agreement at or prior to the Merger Effective Time; and Tecogen shall have received a certificate signed on behalf of ADGE by a duly authorized executive officer of ADGE to such effect.

Section 6.3 Conditions to Obligations of ADGE. The obligations of ADGE to effect the Merger are also subject to the satisfaction or waiver (in writing) by ADGE on or prior to the Merger Effective Time of each of the following additional conditions:

(a)Representations and Warranties. Each of the representations and warranties of Tecogen set forth in Article III shall be true and correct (without giving effect to any qualification as to materiality or Tecogen Material Adverse Effect contained in Article III) as of the date of this Agreement and as of the Closing as though made on and as of the Closing (except that representations and warranties that by their terms speak specifically as of the date of this Agreement or another date shall be true and correct as of such date) except where any failures of any such representations and warranties to be true and correct would not reasonably be expected to have a Tecogen Material Adverse Effect; and ADGE shall have received a certificate signed on behalf of Tecogen by a duly authorized executive officer of Tecogen to the foregoing effect.

(b)Performance of Obligations of Tecogen and Merger Sub. Tecogen and Merger Sub shall have performed or complied in all material respects with all obligations required to be performed or complied with by them under this Agreement at or prior to the Merger Effective Time; and ADGE shall have received a certificate signed on behalf of Tecogen by a duly authorized executive officer of Tecogen to such effect.

ARTICLE VII

TERMINATION

Section 7.1 Termination. Prior to the time at which this Agreement shall have received Stockholder Approval of both ADGE and Tecogen, this Agreement may be terminated and the Merger may be abandoned by either party pursuant to a resolution of its Board of Directors containing an Adverse Recommendation Change. For the avoidance of doubt, the Board of Directors of each of Tecogen and ADGE shall be entitled to make an Adverse Recommendation Change, in its sole good faith discretion, at any time prior to the receipt of the Stockholder Approval by the stockholders of Tecogen or ADGE, as applicable.

Section 7.2 Effect of Termination. In the event of the valid termination of this Agreement as provided in Section 7.1, written notice thereof shall forthwith be given by the terminating party to the other party

Annex A-20

Annex A

Table of Contents

ANNEX A - Merger Agreement

setting forth a brief description of the basis on which such party is terminating this Agreement, and this Agreement shall terminate (except that the Confidentiality Agreement, Sections 5.1(b), 5.3, 5.8, this Section 7.2 and Section 8.3 through Section 8.13 shall survive such termination) and there shall be no liability on the part of Tecogen or Merger Sub, on the one hand, or ADGE, on the other hand, to the other except liability arising out of or resulting from fraud, gross negligence or willful misconduct, in which case the aggrieved party shall be entitled to all rights and remedies available at law or in equity.

Section 7.3 Go-Shop Right. Notwithstanding any other provision of this Agreement to the contrary, during the period beginning on the date of this Agreement and until receipt of the ADGE Stockholder Approval and Tecogen Stockholder Approval (the “Go-Shop Period”), ADGE, its affiliates, and their respective officers, directors, employees, consultants, agents, financial advisors, investment bankers, attorneys, accountants, other advisors, affiliates and other representatives (collectively, “Representatives”) shall have the right to directly or indirectly: (i) initiate, solicit and encourage, whether publicly or otherwise, any inquiries, proposals or offers that could constitute Competing Proposals (or engage in other efforts or attempts that may reasonably be expected to lead to a Competing Proposal), including by way of providing access to non-public information pursuant to (but only pursuant to) one or more Acceptable Confidentiality Agreements; provided, that ADGE shall promptly (and in any event within forty-eight (48) hours) provide to Tecogen any material non-public information concerning ADGE that is provided to any Person given such access which was not previously provided to Tecogen or its Representatives; and (ii) enter into, engage in, and maintain discussions or negotiations with any Persons or groups of Persons with respect to any inquiries, proposals or offers that could constitute Competing Proposals (or engage in other efforts or attempts that may reasonably be expected to lead to a Competing Proposal) or otherwise cooperate with or assist or participate in, or facilitate any such inquiries, proposals, offers, efforts, attempts, discussions or negotiations. For the purposes of this Agreement, “Acceptable Confidentiality Agreement” means any customary confidentiality agreement that contains provisions that are not materially less favorable in the aggregate to ADGE than those contained in the Confidentiality Agreement, except that an Acceptable Confidentiality Agreement need not prohibit the submission of Competing Proposals or amendments thereto to ADGE’s Board of Directors (or any duly constituted and authorized committee thereof).

Section 7.4 ADGE Change Election. Notwithstanding anything to the contrary herein, at any time prior to the Closing, the Board of Directors of ADGE may vote to elect to terminate this Agreement (the “Change Election”) if the Board of Directors of ADGE or any duly constituted and authorized committee thereof has determined in good faith, after consultation with its financial advisors and outside legal counsel, that there is a reasonable probability that the failure to take such action would cause the Board of Directors of ADGE to violate its fiduciary duties to ADGE’s shareholders under applicable Law; provided, however, that prior to taking such action, (i) the Board of Directors of ADGE has given Tecogen at least ten (10) calendar days’ prior written notice of its intention to take such action and a description of the reasons for the Change Election, (ii) ADGE has negotiated, and has caused its Representatives to negotiate, in good faith with Tecogen during the five (5) business day period after giving any such notice, to the extent Tecogen wishes to negotiate, to enable Tecogen to propose in writing a binding offer to effect revisions to the terms of this Agreement in such a manner that would obviate the need for making such Change Election and (iii) at the end of such notice period, the Board of Directors of ADGE or any duly constituted and authorized committee thereof shall have considered in good faith such binding offer, and shall have determined in good faith, after consultation with its financial advisors and outside legal counsel, that there is a reasonable probability that the failure to effect a Change Election would cause the Board of Directors of ADGE to violate its fiduciary duties to ADGE’s shareholders under applicable Law. If the Board of Directors of ADGE makes the Change Election, this Agreement shall be deemed to have been terminated in accordance with the provisions of Section 7.1 and Section 7.2 of this Agreement.

Section 7.5 Tecogen Change Election. Notwithstanding anything to the contrary herein, at any time prior to the Closing, the Board of Directors of Tecogen may vote in favor of a Change Election if the Board

Annex A-21

Annex A

Table of Contents

ANNEX A - Merger Agreement

of Directors of Tecogen or any duly constituted and authorized committee thereof has determined in good faith, after consultation with its financial advisors and outside legal counsel, that there is a reasonable probability that the failure to take such action would cause the Board of Directors of Tecogen to violate its fiduciary duties to Tecogen's shareholders under applicable Law; provided, however, that prior to taking such action, (i) the Board of Directors of Tecogen has given ADGE at least ten (10) calendar days' prior written notice of its intention to take such action and a description of the reasons for the Change Election, (ii) Tecogen has negotiated, and has caused its Representatives to negotiate, in good faith with ADGE during the five (5) business day period after giving any such notice, to the extent ADGE wishes to negotiate, to enable the parties to agree to revisions to the terms of this Agreement in such a manner that would obviate the need for making such Change Election and (iii) at the end of such notice period, the Board of Directors of Tecogen or any duly constituted and authorized committee thereof shall have considered in good faith such binding offer, and shall have determined in good faith, after consultation with its financial advisors and outside legal counsel, that there is a reasonable probability that the failure to effect a Change Election would cause the Board of Directors of Tecogen to violate its fiduciary duties to Tecogen's shareholders under applicable Law. If the Board of Directors of Tecogen makes the Change Election, this Agreement shall be deemed to have been terminated in accordance with the provisions of Section 7.1 and Section 7.2 of this Agreement.

ARTICLE VIII

MISCELLANEOUS

Section 8.1 Amendment and Modification; Waiver.

(a) Subject to applicable Law and except as otherwise provided in this Agreement, this Agreement may be amended, modified and supplemented, whether before or after receipt of ADGE Stockholder Approval or Tecogen Stockholder Approval, if applicable, by written agreement of ADGE and Tecogen (by action approved by their respective boards of directors); provided, however, that after the approval of the Merger by the stockholders of ADGE or the approval of the issuance of Tecogen Common Stock by the stockholders of Tecogen, no amendment shall be made which by Law requires further approval by such stockholders unless such further approval is obtained. This Agreement may not be amended except by an instrument in writing signed on behalf of ADGE and Tecogen.

(b) At any time and from time to time prior to the Merger Effective Time, any party or parties may, to the extent legally allowed and except as otherwise set forth herein, (i) extend the time for the performance of any of the obligations or other acts of the other party or parties, as applicable, (ii) waive any inaccuracies in the representations and warranties made to such party or parties contained herein or in any document delivered pursuant hereto, and (iii) waive compliance with any of the agreements or conditions for the benefit of such party or parties contained herein. Any agreement on the part of a party or parties to any such extension or waiver shall be valid only if set forth in an instrument in writing signed on behalf of such party or parties, as applicable. Any delay in exercising any right under this Agreement shall not constitute a waiver of such right.

Section 8.2 Non-Survival of Representations and Warranties. None of the representations and warranties in this Agreement or in any certificate, schedule, instrument or other document delivered pursuant to this Agreement shall survive the Merger Effective Time. This Section 8.2 shall not limit any covenant or agreement of the parties which by its terms contemplates performance after the Merger Effective Time. The Confidentiality Agreement will survive termination of this Agreement in accordance with its terms.

Section 8.3 Expenses. Except as provided in this Section 8.3, all Expenses incurred in connection with this Agreement and the Transactions shall be paid by the party incurring such Expenses, except that

Annex A-22

Annex A

Table of Contents

ANNEX A - Merger Agreement

Tecogen and ADGE shall each pay fifty percent (50%) of the Expenses of any financial printer or Edgar filing agent (other than printing and mailing expenses relating to sending communications to their own respective stockholders, which each party shall bear separately). Notwithstanding anything to the contrary contained herein, from and after the Merger Effective Time, the Surviving Entity shall pay the amount of any transfer Taxes incurred in connection with this Agreement and the Transactions.

Section 8.4 Notices. All notices and other communications hereunder shall be in writing and shall be deemed given if delivered personally (notice deemed given upon receipt), by fax (notice deemed given upon confirmation of receipt) or sent by a nationally recognized overnight courier service, such as Federal Express (notice deemed given upon receipt of proof of delivery), to the parties at the following addresses (or at such other address for a party as shall be specified by like notice):

If to Tecogen or Merger Sub, to:

Tecogen, Inc.

45 1st Avenue

Waltham, MA 02451

Attention: David Garrison

Email: David.Garrison@tecogen.com

with a copy to:

White White & Van Etten PC

45 School Street, 2nd Floor

Boston, MA 02108

Attention: David A. White, Esq.

Email: daw@wwvlaw.com

If to ADGE, to:

American DG Energy Inc.

45 1st Avenue

Waltham, MA 02451

Attention: Bonnie Brown

Email: Bonnie.Brown@AmericanDG.com

with a copy to:

Gennari Aronson, LLP

300 First Avenue, Suite 102

Needham, MA 02494

Attention: Neil H. Aronson, Esq.

Email: naronson@galawpartners.com

Section 8.5 Certain Definitions. For the purposes of this Agreement, the term:

“ADGE Stockholder Approval” means the affirmative vote of the holders of shares of ADGE Common Stock entitled to cast a majority of all the votes entitled to be cast at the ADGE Stockholder Meeting on the Merger, in favor of the Merger.

“ADGE Stockholder Meeting” means the meeting of the holders of shares of ADGE Common Stock for the purpose of seeking ADGE Stockholder Approval, including any postponement or adjournment thereof.

Annex A-23

Annex A

Table of Contents

ANNEX A - Merger Agreement

“Adverse Recommendation Change” means any action by the Board of Directors of either of Tecogen and ADGE to (a) withdraw or fail to make when required pursuant to this Agreement, propose publicly to withdraw or fail to make when required pursuant to this Agreement or fail to include in the Joint Proxy Statement, the Tecogen Board Recommendation or the ADGE Board Recommendation, as applicable, or (b) in the case of ADGE, approve, recommend or declare advisable, or propose publicly to approve, recommend or declare advisable, any Competing Proposal.

“affiliate” of a Person means (a) any other Person, directly or indirectly, controlling, controlled by or under direct or indirect common control with such Person, or (b) with respect to any natural person, any immediate family member of such natural person (including any spouse, parent, sibling, child, grandchild or grandparent of such natural person); and when used herein, “control”, “controlling” and “controlled by” means that a Person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of another Person, whether through voting securities, by contract or otherwise.

“Benefit Plan” means any “employee benefit plan” (within the meaning of Section 3(3) of ERISA), any multiemployer plan (within the meaning of Section 3(37) of ERISA) and any employment, consulting, termination, severance, change in control, separation, retention, stock option, restricted stock, restricted stock unit or profits interest unit, outperformance, stock purchase, deferred compensation, bonus, incentive compensation, fringe benefit, health, medical, dental, disability, accident, life insurance, welfare benefit, cafeteria, vacation, paid time off, perquisite, retirement, pension, or savings or any other compensation or employee benefit plan, agreement, program, policy or other arrangement, in each case, whether written or unwritten and whether or not subject to ERISA.

“business day(s)” has the meaning set forth in Rule 14d-1(g)(3) of the Exchange Act.

“Bylaws” means the bylaws, as amended of ADGE or Tecogen, as the case may be.

“Code” means the Internal Revenue Code of 1986, as amended.

“Competing Proposal” means any bona fide proposal or bona fide offer made by a Person or group for (a) the acquisition by any Person of 20% or more of the assets of ADGE and its Subsidiaries, taken as a whole, measured by either book value or fair market value (including equity securities of ADGE’s Subsidiaries); (b) the acquisition by any Person (or the stockholders of any Person) of 20% or more of the outstanding capital stock, other equity securities or voting power of ADGE; or (c) any merger, business combination, consolidation, share exchange, recapitalization or similar transaction involving ADGE as a result of which the holders of the ADGE Common Stock immediately prior to such transaction do not, in the aggregate, own at least 80% of the outstanding voting power of the surviving or resulting entity in such transaction immediately after consummation thereof, in each case other than the Merger.

“Confidentiality Agreement” means, the Confidentiality Agreement, dated [] between Tecogen and ADGE.

“Contract” means any note, bond, mortgage, lien, indenture, lease, license, contract or agreement, arrangement or other instrument or obligation.

“Effect” means any change, effect, development, circumstance, condition, state of facts, event or occurrence.

“ERISA” means the Employee Retirement Income Security Act of 1974, as amended, and the regulations promulgated and rulings issued thereunder.

Annex A-24

Annex A

Table of Contents

ANNEX A - Merger Agreement

“Expenses” means all out-of-pocket expenses (including all fees and expenses of counsel, accountants, investment bankers, experts and consultants to a party and its affiliates) incurred by a party or on its behalf in connection with or related to the authorization, preparation, negotiation, execution and performance of this Agreement, the preparation, printing, filing and mailing of the Joint Proxy Statement, the solicitation of proxies, the closing of the Transactions and similar expenses.

“Governing Documents” means (a) the articles or certificate of incorporation and the bylaws of a corporation; (b) the articles or certificate of formation and limited liability company agreement, operating agreement, or like agreement of a limited liability company; (c) the partnership agreement and any statement of partnership of a general partnership; (d) the limited partnership agreement and the certificate of limited partnership of a limited partnership; (e) any charter or agreement or similar document adopted or filed in connection with the creation, formation, or organization of a Person; and (f) any amendment to or restatement of any of the foregoing.

“knowledge” will be deemed to be, as the case may be, the actual knowledge of (a) the Chief Executive Officer, Chief Operating Officer or Chief Financial Officer of Tecogen with respect to Tecogen or Merger Sub, or (b) the Chief Executive Officer, Chief Operating Officer or Chief Financial Officer of ADGE with respect to ADGE.

“Law” means any statute, code, rule, regulation, order, ordinance, judgment or decree or other pronouncement of any Governmental Entity having the effect of law.

“Lien” means any lien, claim, charge, security interest, mortgage, pledge, easement, conditional sale or other title retention agreement, restrictive covenant or other restriction of any kind but shall not include minor defects in title, liens for Taxes not yet due and payable or that are being contested in good faith in appropriate proceedings, statutory liens for amounts not yet delinquent or that are being contested in good faith or that secure claims or demands of materialmen, mechanics, carriers, warehousemen and other like persons, and liens resulting from deposits made in connection with workers’ compensation, unemployment insurance, social security and similar laws.

“Material Adverse Effect” means any Effect that, individually or in the aggregate, has had, or would reasonably be expected to have, (a) a material adverse effect on the condition (financial or otherwise), business, properties, assets, liabilities or results of operations of a Representing Party and its Subsidiaries, taken as a whole or (b) a material adverse effect on the ability of a Representing Party to consummate the Merger.

“Order” means any order, judgment, writ, stipulation, settlement, award, injunction, decree, consent decree, decision, ruling, subpoena, verdict or arbitration award entered, issued, made or rendered by any arbitrator or Governmental Entity of competent jurisdiction.

“Person” means a natural person, partnership, corporation, limited liability company, business trust, joint stock company, trust, unincorporated association, joint venture, Governmental Entity or other entity or organization.

“Representatives” means, when used with respect to a party, the directors, officers, employees, consultants, financial advisors, accountants, legal counsel, investment bankers, and other agents, advisors and representatives of such party, as applicable, and its Subsidiaries.

“Stockholder Approval” means the ADGE Stockholder Approval or the Tecogen Stockholder Approval.

“Stockholder Meeting” means the ADGE Stockholder Meeting or the Tecogen Stockholder Meeting.

Annex A-25

Annex A

Table of Contents

ANNEX A - Merger Agreement

“Subsidiary” or “Subsidiaries” means with respect to any Person, any corporation, limited liability company, partnership or other organization, whether incorporated or unincorporated, of which (a) at least a majority of the outstanding shares of capital stock of, or other equity interests, having by their terms ordinary voting power to elect a majority of the board of directors or others performing similar functions with respect to such corporation or other organization is directly or indirectly owned or controlled by such Person or by any one or more of its Subsidiaries, or by such Person and one or more of its Subsidiaries or (b) with respect to a partnership, such Person or any other Subsidiary of such Person is a general partner of such partnership.

“Tax” or “Taxes” means any and all taxes, levies, duties, tariffs, imposts and other similar charges and fees imposed by any Governmental Entity or domestic or foreign taxing authority, including without limitation income, franchise, windfall or other profits, gross receipts, premiums, property, sales, use, net worth, capital stock, payroll, employment, social security, workers’ compensation, unemployment compensation, excise, withholding, ad valorem, stamp, transfer, value-added, escheat, unclaimed property, gains tax and license, registration and documentation fees, severance, occupation, environmental, customs duties, disability, real property, personal property, registration, alternative or add-on minimum, or estimated tax, including any interest, penalty, additions to tax or additional amounts imposed with respect thereto, whether disputed or not.

“Tecogen Stockholder Approval” means the affirmative vote of the holders of shares of Tecogen Common Stock entitled to cast a majority of all the votes entitled to be cast at the Tecogen Stockholder Meeting on the Merger, in favor of the Merger.

“Tecogen Stockholder Meeting” means the meeting of the holders of shares of Tecogen Common Stock for the purpose of seeking Tecogen Stockholder Approval, including any postponement or adjournment thereof.

“Transactions” means the transactions contemplated by this Agreement.

“Treasury Regulations” means the Treasury regulations promulgated under the Code.

Section 8.6 Interpretation. When a reference is made in this Agreement to Sections, such reference shall be to a Section of this Agreement unless otherwise indicated. Whenever the words “include”, “includes” or “including” are used in this Agreement they shall be deemed to be followed by the words “without limitation” except when preceded by a negative predicate. As used in this Agreement, the term “affiliates” shall have the meaning set forth in Rule 12b-2 of the Exchange Act. The table of contents and headings set forth in this Agreement are for convenience of reference purposes only and shall not affect or be deemed to affect in any way the meaning or interpretation of this Agreement or any term or provision hereof. When reference is made herein to a Person, such reference shall be deemed to include all direct and indirect Subsidiaries of such Person unless otherwise indicated or the context otherwise requires. All references herein to the Subsidiaries of a Person shall be deemed to include all direct and indirect Subsidiaries of such Person, unless otherwise indicated or unless the context otherwise requires. Any Law defined or referred to herein or in any agreement or instrument that is referred to herein means such Law as from time to time amended, modified or supplemented, including (in the case of statutes) by succession of comparable successor Laws. References to a Person are also to its successors and permitted assigns. All references to “dollars” or “\$” refer to currency of the United States of America.

Section 8.7 Counterparts. This Agreement may be executed in one or more counterparts, and by the parties in separate counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one and the same agreement. Delivery of an executed counterpart of

Annex A-26

Annex A

Table of Contents

ANNEX A - Merger Agreement

a signature page to this Agreement by facsimile transmission or by e-mail of a .pdf attachment shall be effective as delivery of a manually executed counterpart of this Agreement.

Section 8.8 Entire Agreement; Third-party Beneficiaries.

(a) This Agreement and the Confidentiality Agreement constitute the entire agreement among the parties with respect to the subject matter hereof and thereof and supersede all other prior agreements (except that the Confidentiality Agreement shall be deemed amended so that until the termination of this Agreement in accordance with Section 7.1, the parties shall be permitted to take the actions contemplated by this Agreement) and understandings, both written and oral, among the parties or any of them with respect to the subject matter hereof and thereof.

(b) Except (i) as provided in Section 5.4 (but only following the Merger Effective Time) and (ii) the right of the former holders of ADGE Common Stock to receive, from and after the Merger Effective Time, the applicable Merger Consideration in accordance with Section 2.2, neither this Agreement nor the Confidentiality Agreement are intended to confer upon any Person other than the parties any rights or remedies hereunder.

Section 8.9 Severability. If any term or other provision of this Agreement is invalid, illegal or incapable of being enforced by rule of Law or public policy, all other conditions and provisions of this Agreement shall nevertheless remain in full force and effect so long as the economic or legal substance of the Merger is not affected in any manner adverse to any party. Upon such determination that any term or other provision is invalid, illegal or incapable of being enforced, the parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the parties as closely as possible in an acceptable manner to the end that the Merger are fulfilled to the extent possible.

Section 8.10 Governing Law; Jurisdiction.

(a) This Agreement, and all claims or causes of actions (whether at law, in equity, in contract or in tort) that may be based upon, arise out of or relate to this Agreement or the negotiation, execution or performance of this Agreement, shall be governed by, and construed in accordance with, the Laws of the State of Delaware without giving effect to conflicts of laws principles (whether of the State of Delaware or any other jurisdiction that would cause the application of the Laws of any jurisdiction other than the State of Delaware).

(b) All Legal Proceedings arising out of or relating to this Agreement shall be heard and determined exclusively in any Massachusetts state or federal court.

Section 8.11 Waiver of Jury Trial. EACH PARTY HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT AND ANY OF THE AGREEMENTS DELIVERED IN CONNECTION HERewith OR THE MERGER AND OTHER TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EACH PARTY CERTIFIES AND ACKNOWLEDGES THAT (A) NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE SUCH WAIVER, (B) IT UNDERSTANDS AND HAS CONSIDERED THE IMPLICATIONS OF SUCH WAIVER, (C) IT MAKES SUCH WAIVER VOLUNTARILY, AND (D) IT HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION 8.11.

Section 8.12 Assignment. This Agreement shall not be assigned by any of the parties (whether by operation of Law or otherwise) without the prior written consent of the other parties, except that (a) Merger Sub may assign, in its sole discretion and without the consent of any other party, any or all of its rights,

Annex A-27

Annex A

Table of Contents

ANNEX A - Merger Agreement

interests and obligations hereunder to (i) Tecogen, (ii) Tecogen and one or more direct or indirect wholly-owned Subsidiaries of Tecogen, or (iii) one or more direct or indirect wholly-owned Subsidiaries of Tecogen and (b) Tecogen and Merger Sub may assign, in their sole discretion and without the consent of any other party, any or all of their rights, interests and obligations hereunder to any of their lenders or other financing sources from time to time as collateral security. Subject to the preceding sentence, but without relieving any party of any obligation hereunder, this Agreement will be binding upon, inure to the benefit of and be enforceable by the parties and their respective successors and assigns.

Section 8.13 Enforcement; Remedies.

(a) Except as otherwise provided herein, any and all remedies herein expressly conferred upon a party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by Law or equity upon such party, and the exercise by a party of any one remedy will not preclude the exercise of any other remedy.

(b) The parties agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is agreed that in the event of a breach prior to the termination of this Agreement pursuant to Article VII, the non-breaching party shall be entitled to an injunction or injunctions to prevent breaches of this Agreement by any other party and to specifically enforce the terms and provisions of this Agreement.

[Signature page immediately follows.]

Annex A-28

Annex A

Table of Contents

ANNEX A - Merger Agreement

IN WITNESS WHEREOF, Tecogen, Merger Sub and ADGE have caused this Agreement and Plan of Merger to be signed by their respective officers thereunto duly authorized as of the date first written above.

TECOGEN, INC.	ADGE.TGEN MERGER SUB INC.	AMERICAN DG ENERGY INC.
/s/ David Garrison	/s/ David Garrison	/s/ Bonnie Brown
By: David Garrison Chief Financial Officer	By: David Garrison Treasurer	By: Bonnie Brown Chief Financial Officer

Annex A-29

Annex A

Table of Contents

Annex B - Opinion of Scarsdale Equities LLC

SCARSDALE EQUITIES LLC

MEMBER FINRA, SIPC

10 Rockefeller Plaza

Suite 720

New York, NY 10020

TEL +1 212 433-1375 FAX +1 212 960-9013

November 10, 2016

The Board of Directors Tecogen Inc.

45 First Avenue

Waltham, MA 02451

Members of the Board of Directors:

You have requested our opinion as to the fairness, from a financial point of view, to the holders of common stock, par value \$0.001 per share (the "Company Common Stock"), of Tecogen Inc. (the "Company") of the ADGE Exchange Ratio (as defined below) in the proposed Transaction (as defined below). Pursuant to the transactions (collectively, the "Transaction") contemplated by the Agreement and Plan of Merger dated as of November 1, 2016 (the "Agreement") by and among the Company, Tecogen.ADGE Merger Corp. ("Merger Sub") and American DG Energy Inc. ("ADGE"). The Agreement provides, among other things, that:

- (1) the Company will organize Merger Sub as a Delaware corporation and wholly-owned subsidiary of the Company;
- (2) the Merger Sub will be merged with and into ADGE, with ADGE surviving as a wholly-owned subsidiary of the Company;
each outstanding share of ADGE common stock, par value \$0.001, other than shares of ADGE common stock held by ADGE or any wholly-owned ADGE subsidiary, will be converted into the right to receive a fraction of a share
- (3) of Company common stock equal to the quotient obtained by dividing (i) \$0.38 by (ii) the aggregate volume-weighted average per share closing price of Company common stock on the Nasdaq Capital Market for the 20 consecutive trading days ending October 28, 2016 (the "ADGE Exchange Ratio").

In connection with preparing our opinion, we have:

- (i) reviewed a draft of the Agreement dated November 1, 2016;
 - (ii) reviewed certain publicly available business and financial information concerning the Company, ADGE, and the industries in which they operate;
 - (iii) compared the proposed financial terms of the Transaction 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 the Company and ADGE with publicly available information
 - (iv) concerning certain other companies we deemed relevant and reviewed the current and historical market prices of the Company 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 the
 - (v) Company 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 Transaction (the "Synergies"); and
 - (vi) performed such other financial studies and analyses and considered other information we deemed appropriate for the purposes of this opinion.
-

Table of Contents

Annex B - Opinion of Scarsdale Equities LLC

In addition, we have held discussions with certain members of the management of the Company and ADGE with respect to certain aspects of the Transaction, the past and current business operations of the Company and ADGE, the financial condition and future prospects and operations of the Company and ADGE, the effects of the Transaction on the financial condition and future prospects of the Company and ADGE, and certain other matters we believed necessary or appropriate to our inquiry.

In giving this opinion, we have relied upon and assumed the accuracy and completeness of all information that was publicly available or was furnished to or discussed with us by the Company and ADGE or otherwise reviewed by or for us, and we have not independently verified (nor have we assumed responsibility or liability for independently verifying) any such information or its accuracy or completeness. We have not conducted or been provided with any valuation or appraisal of any assets or liabilities, nor have we evaluated the solvency of the Company and ADGE under any state or federal laws relating to bankruptcy, insolvency, or similar matters. In relying on financial analyses and forecasts provided to us or derived therefrom, we have assumed that they have 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 the Company and ADGE to which such analyses or forecasts relate. We express no view as to such analyses or forecasts (including the Synergies) or the assumptions on which they were based. We have also assumed that the Transaction and other transactions contemplated by the Agreement will qualify as a tax-free reorganization for United States federal income tax purposes, and will be consummated as described in the Agreement, and that the definitive Agreement will not differ in any material respect from the draft Agreement furnished to us. In addition, we have assumed that in connection with the receipt of all the necessary approvals of the proposed Transaction, if any, no delays, limitations, conditions, or restrictions will be imposed that could have an adverse effect on the Transaction. We are not legal, regulatory, or tax experts and have relied on the assessments made by advisors to the Company with respect to such issues. We have further assumed that all material governmental, regulatory, or other consents and approvals necessary for the consummation of the Transaction will be obtained without any adverse effect on the Company, ADGE, or on the contemplated benefits of the Transaction.

Our opinion is necessarily based on economic, market, and other conditions as in effect on, and the information made available to us as of, the date hereof. It should be understood that subsequent developments may affect this opinion and that we do not have any obligation to update, revise, or reaffirm this opinion. Our opinion is limited to the fairness, from a financial point of view, to the holders of the Company Common Stock of the ADGE Exchange Ratio in the proposed Transaction, and we express no opinion as to the fairness of any consideration to be paid in connection with the Transaction to the holders of any other class of securities, creditors, or other constituencies of the Company or as to the underlying decision by the Company to engage in the Transaction. We have not been asked to, nor do we, offer any opinion with respect to the amount or nature of any compensation to any officers, directors, or employees of any party to the Transaction, or any class of such persons relative to the ADGE Exchange Ratio applicable to the holders of the Company Common Stock in the Transaction, or with respect to the fairness of any such compensation. We are expressing no opinion herein as to the price at which the Company or ADGE Common Stock will trade at any future time, if at all. We also express no opinion as to the impact of the Transaction on the solvency or viability of the Company or ADGE, or the ability of the Company or ADGE to pay their respective obligations when they come due. Our opinion does not address the underlying business decision of the Company to enter into the Transaction or the relative merits of the Transaction as compared with any other strategic alternative that might be available to the Company. We note that we were 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 Transaction, we have been engaged by the Company only to the extent of preparing this opinion and presenting and discussing the analysis outlined herein with a Special Committee of the Board of Directors. We expect to receive fees for these services. In addition, the Company has agreed to indemnify us for certain liabilities arising out of our engagement. In the ordinary course of our business activities, we and our affiliates may trade or otherwise effect transactions in the debt and equity securities of the Company and ADGE for our own account or for the accounts of customers or clients and, accordingly, we may at any time hold long or short positions in such securities.

Table of Contents

Annex B - Opinion of Scarsdale Equities LLC

This letter is provided to the Board of Directors of the Company in connection with and for the purposes of its evaluation of the Transaction. This opinion does not constitute a recommendation to any shareholder of the Company as to how such shareholder should vote with respect to the Transaction or any other matter, if applicable. This opinion may not be disclosed, referred to, or communicated (in whole or in part) to any third party for any purpose whatsoever except with our prior written approval. This opinion may be reproduced in full in any proxy or information statement mailed to shareholders of the Company but may not otherwise be disclosed publicly in any manner without our prior written approval. The issuance of this opinion has been approved by a fairness opinion committee of Scarsdale Equities LLC.

Based on and subject to the foregoing, it is our opinion as of the date hereof that the ADGE Exchange Ratio in the proposed Transaction is fair, from a financial point of view, to the holders of the Company Common Stock.

Very truly yours,

SCARSDALE EQUITIES LLC

By: /s/ Wade N. Black

Wade N. Black

Chief Operating Officer

Annex C - Opinion of Cassel Salpeter & Co., LLC

[LETTERHEAD OF CASSEL SALPETER & Co., LLC]

October 31, 2016

American DG Energy, Inc.
45 First Avenue
Waltham, MA 02451
Attention: Special Committee of the Board of Directors

Members of the Special Committee:

We understand that American DG Energy, Inc. (the "Company") intends to enter into an Agreement and Plan of Merger (the "Merger Agreement") by and among Tecogen Inc. (the "Acquiror"), Tecogen.ADGE Merger Corp., a wholly-owned subsidiary of the Acquiror ("Merger Sub"), and the Company pursuant to which, among other things, Merger Sub will merge (the "Merger") with the Company, each share of common stock ("Company Common Stock") of the Company will be converted into the right to receive 0.0920 (the "Exchange Ratio") of a share of common stock ("Acquiror Common Stock") of the Acquiror and the Company will survive the Merger as a wholly-owned subsidiary of the Acquiror.

You have requested that Cassel Salpeter & Co., LLC render an opinion (this "Opinion") to the Special Committee (the "Committee") of the Board of Directors (the "Board") of the Company as to whether, as of the date of this Opinion, the Exchange Ratio in the Merger pursuant to the Merger Agreement is fair, from a financial point of view, to the holders of Company Common Stock other than John Hatsopoulos, George Hatsopoulos and their respective affiliates (the "Unaffiliated Holders").

In arriving at this Opinion, we have made such reviews, analyses, and inquiries as we have deemed necessary and appropriate under the circumstances. Among other things, we have:

• Reviewed a draft, received on October 31, 2016, of the Merger Agreement.

• Reviewed certain publicly available financial information and other data with respect to the Company and the Acquiror that we deemed relevant.

• Reviewed certain other information and data with respect to the Company made available to us by the Company, including financial projections with respect to the future financial performance of the Company for the years ending December 31, 2016 through December 31, 2020, prepared by management of the Company (the "Company Projections"), estimates of the Company's net operating loss tax carryforwards ("Company NOLs") and the potential tax savings available to the Company based on the Company NOLs (the "Company Estimated NOL Tax Savings") prepared by management of the Company, and other internal financial information furnished to us by or on behalf of the Company.

• Reviewed certain other information and data with respect to the Acquiror made available to us by the Acquiror, including financial projections with respect to the future financial performance of the Acquiror, excluding the Acquiror's interest in the joint venture Ultra Emissions Technologies Inc. ("Ultratek"), for the years ending December 31, 2016 through December 31, 2018, prepared by management of the Acquiror (the "Acquiror Projections"), estimates of the Acquiror's net operating loss tax carryforwards (the "Acquiror NOLs") and the potential tax savings available to the Acquiror based on the Acquiror NOLs (the "Acquiror Estimated NOL Tax Savings") prepared by management of the Acquiror, pricing information (the "Ultratek Pricing Information") for a recent equity financing effected by Ultratek, and other internal financial information furnished to us by or on behalf of the Acquiror.

•

Considered and compared the financial and operating performance of the Company and the Acquiror with that of companies with publicly trade equity securities that we deemed relevant.

Considered the publicly available financial terms of certain transactions that we deemed relevant.

Discussed the business, operations, and prospects of the Company, the Acquiror and the proposed Merger with the Company's and the Acquiror's management and certain of the Company's and the Acquiror's representatives.

Conducted such other analyses and inquiries, and considered such other information and factors, as we deemed appropriate.

Annex C - Opinion of Cassel Salpeter & Co., LLC

The Special Committee of the Board of Directors

American DG Energy, Inc.

October 31, 2016

Page 2 of 3

This Opinion only addresses whether, as of the date hereof, the Exchange Ratio in the Merger pursuant to the Merger Agreement is fair, from a financial point of view, to the Unaffiliated Holders and does not address any other terms, aspects, or implications of the Merger or the Merger Agreement, including, without limitation, any term or aspect of the Merger that is not susceptible to financial analyses, the fairness of the Merger or all or any portion of the Exchange Ratio to any other security holders of the Company, the Acquiror or any other person or any creditors or other constituencies of the Company, the Acquiror or any other person, nor the fairness of the amount or nature, or any other aspect, of any compensation or consideration payable to or received by any officers, directors, or employees of any parties to the Merger, or any class of such persons, relative to the Exchange Ratio in the Merger pursuant to the Merger Agreement, or otherwise. We are not expressing any opinion as to what the value of shares of Acquiror Common Stock actually will be when issued to the holders of Company Common Stock in the Merger or the prices at which shares of Company Common Stock or Acquiror Common Stock may trade, be purchased or sold at any time. We have assumed that the shares of Acquiror Common Stock to be issued in the Merger to the Holders of Common Stock will be listed on the Nasdaq Capital Market.

This Opinion does not address the relative merits of the Merger as compared to any alternative transaction or business strategy that might exist for the Company, or the merits of the underlying decision by the Committee, the Board or the Company to engage in or consummate the Merger. The financial and other terms of the Merger were determined pursuant to negotiations between the parties to the Merger Agreement and were not determined by or pursuant to any recommendation from us. In addition, we were not authorized to, and we did not, solicit indications of interest from third parties regarding a potential transaction involving the Company.

In arriving at this Opinion, we have with your consent, relied upon and assumed, without independently verifying, the accuracy and completeness of all of the financial and other information that was supplied or otherwise made available to us or available from public sources, and we have further relied upon the assurances of the Company's and the Acquiror's management that they were not aware of any facts or circumstances that would make any such information inaccurate or misleading. We also have relied upon, without independent verification, the assessments of the management of the Company and the Acquiror as to the Company's and the Acquiror's existing and future technology, products and services and the validity and marketability of, and risks associated with, such technology, products and services (including, without limitation, the development, testing and marketing of such technology, products and services; the receipt of all necessary governmental and other regulatory approvals for the development, testing and marketing thereof; and the life of all relevant patents and other intellectual and other property rights associated with such technology, products and services), and we have assumed, at your direction, that there will be no developments with respect to any such matters that would adversely affect our analyses or this Opinion. We are not legal, tax, accounting, environmental, or regulatory advisors and, we do not express any views or opinions as to any legal, tax, accounting, environmental, or regulatory matters relating to the Company, the Acquiror, the Merger, or otherwise. We understand and have assumed that the Company has obtained or will obtain such advice as it deems necessary or appropriate from qualified legal, tax, accounting, environmental, regulatory, and other professionals.

You have advised us and we have assumed that (i) the Company Projections were reasonably prepared on a basis reflecting the best currently available estimates and judgments of management of the Company with respect to the future financial performance of the Company, (ii) the Company NOLs have been reasonably prepared in good faith on bases reflecting the best currently available estimates and judgments of the Company's management as to the amount of such Company NOLs, (iii) the Company Estimated NOL Tax Savings are reasonable basis on which to evaluate such Company NOLs, and (iv) the Company Projections, The Company NOLs, and the Company Estimated NOL Tax

Savings provide a reasonable basis upon which to analyze and evaluate the Company and form an opinion. You have also advised us and we have assumed that (i) the Acquiror Projections have been reasonably prepared in good faith on bases reflecting the best currently available estimates and judgments of management of the Acquiror with respect to the future financial performance of the Acquiror, (ii) the Acquiror NOLs have been reasonably prepared in good faith on bases reflecting the best currently available estimates and judgments of the Acquiror's management as to the amount of such Acquiror NOLs and (iii) the Acquiror Estimated NOL Tax Savings are a reasonable basis on which to evaluate such Acquiror NOLs, (iv) The Ultratek Pricing information is a reasonable basis on which to evaluate the Acquiror's investment in Ultratek, and (v) the Acquiror Projections, the Acquiror NOLs, the Acquiror Estimated NOL Tax Savings and the Ultratek Pricing Information provide a reasonable basis upon which to analyze and evaluate the Acquiror and form an opinion. We express no view with respect to the Company Projections the Company NOLs, the Company Estimated NOL Tax Savings, the Acquiror Projections, the Acquiror NOLs, the Acquiror Estimated NOL Tax Savings, the Ultratek Pricing Information or the assumptions on which they are based.

Annex C - Opinion of Cassel Salpeter & Co., LLC

The Special Committee of the Board of Directors

American DG Energy, Inc.

October 31, 2016

Page 3 of 3

We have not evaluated the solvency or creditworthiness of the Company, the Acquiror or any other party to the Merger, the fair value of the Company, the Acquiror or any of their respective assets or liabilities, or whether the Company, the Acquiror or any other party to the Merger is paying or receiving reasonably equivalent value in the Merger under any applicable foreign, state, or federal laws relating to bankruptcy, insolvency, fraudulent transfer, or similar matters, nor have we evaluated, in any way, the ability of the Company, the Acquiror or any other party to the Merger to pay its obligations when they come due. We have not physically inspected the Company's or the Acquiror's properties or facilities and have not made or obtained any evaluations or appraisals of the Company's or the Acquiror's assets or liabilities (including any contingent, derivative, or off-balance-sheet assets or liabilities). We have not attempted to confirm whether the Company or the Acquiror has good title to their respective assets. Our role in reviewing any information was limited solely to performing such reviews as we deemed necessary to support our own advice and analysis and was not on behalf of the Committee, the Board, the Company or any other party.

We have assumed, with your consent, that the Merger will be consummated in a manner that complies in all respects with applicable foreign, federal, state, and local laws, rules, and regulations and that, in the course of obtaining any regulatory or third party consents, approvals, or agreements in connection with the Merger, no delay, limitation, restriction, or condition will be imposed that would have an adverse effect on the Company, the Acquiror or the Merger. We also have assumed, with your consent, that the final executed form of the Merger Agreement will not differ in any material respect from the draft we have reviewed and that the Merger will be consummated on the terms set forth in the Merger Agreement, without waiver, modification, or amendment of any term, condition, or agreement thereof that is material to our analyses or this Opinion. We have also assumed that the representations and warranties of the parties to the Merger Agreement contained therein are true and correct and that each such party will perform all of the covenants and agreements to be performed by it under the Merger Agreement. We offer no opinion as to the contractual terms of the Merger Agreement or the likelihood that the conditions to the consummation of the Merger set forth in the Merger Agreement will be satisfied. We have further assumed that for U.S. federal tax income purposes the Merger will qualify as a plan of reorganization with the meaning of Section 368 of the Internal Revenue Code of 1986, as amended.

Our analysis and the Opinion are necessarily based upon market, economic, and other conditions as they exist on, and could be evaluated as of, the date hereof. Accordingly, although subsequent developments may arise that would otherwise affect this Opinion, we do not assume any obligation to update, review, or reaffirm this Opinion to you or any other person or otherwise to comment on or consider events occurring or coming to our attention after the date hereof.

This Opinion is addressed to the Committee for the use and benefit of the members of the Committee (in their capacities as such) and with the consent of the Committee, the members of the Board (in their capacities as such) in connection with the Committee's and, as applicable, the Board's evaluation of the Merger. This Opinion may not be used for any other purpose without our prior written consent. This Opinion is not intended to and does not constitute advice or a recommendation to any of the Company's stockholders or any other security holders as to how such holder should vote or act with respect to any matter relating to the Merger or otherwise. This Opinion should not be construed as creating any fiduciary duty on our part to the Company or any other party to the Merger Agreement, any security holder of the Company or such other party, any creditor of the Company or such other party, or any other person.

We will receive a fee for acting as financial advisor to the Committee in connection with the Merger and rendering this opinion, no portion of which is contingent upon the completion of the Merger. In addition, the Company has agreed to reimburse certain of our expenses and to indemnify us and certain related parties for certain liabilities that may arise out of our engagement or the rendering of this Opinion. In accordance with our policies and procedures, a fairness committee was not required to, and did not, approve the issuance of this Opinion.

Based upon and subject to the foregoing , it is our opinion that, as the date of this Opinion, the Exchange Ratio in the Merger pursuant to the Merger Agreement is fair, from a financial point of view, to the Unaffiliated Holders.

Very truly yours,

/s/ Cassel Salpeter & Co., LLC
Cassel Salpeter & Co., LLC

Part II

Information Not Required by Prospectus

Item 20. Indemnification of Directors and Officers.

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

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

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

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

Our charter also provides that:

- we must indemnify our directors and officers to the fullest extent permitted by Delaware law;
 - we may, to the extent authorized from time to time by our Board of Directors, indemnify our other employees and agents to the same extent that we indemnified our officers and directors; and
 - in the event we do not assume the defense in a legal proceeding, we must advance expenses, as incurred, to our directors and executive officers in connection with a legal proceeding to the fullest extent permitted by Delaware law.
- The indemnification provisions contained in our Restated Certificate of Incorporation and Amended and Restated Bylaws are not exclusive of any other rights to which a person may be entitled by law, agreement, vote of stockholders or disinterested directors or otherwise.

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

Item 21. Exhibits and Financial Statement Schedules.

- (a) Exhibits. Reference is made to the Exhibit List filed as part of this registration statement.
- (b) Financial Statement Schedules. All schedules have been omitted because they are not applicable or because the required information is shown in the financial statements or notes thereto.

Item 22. Undertakings.

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume

and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement; and

II- 1

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement; provided, however, that paragraphs (i), (ii) and (iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes, that, for purposes of determining any liability under the Securities Act of 1933, each filing of a registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) The undersigned registrant hereby undertakes as follows: that prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this registration statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other items of the applicable form.

(d) The registrant undertakes that every prospectus (i) that is filed pursuant to paragraph (e) immediately preceding, or (ii) that purports to meet the requirements of section 10(a)(3) of the Act and is used in connection with an offering of securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act of

1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

II- 2

(e) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

(f) The undersigned registrant hereby undertakes to respond to requests for information that is incorporated by reference into the prospectus pursuant to Items 4, 10(b), 11, or 13 of this Form, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

(g) The undersigned registrant hereby undertakes to supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-4 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Waltham, Commonwealth of Massachusetts on December 21, 2016.

TECOGEN INC.

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

POWER OF ATTORNEY

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

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities on December 21, 2016.

Signature	Title
/s/ John N. Hatsopoulos John N. Hatsopoulos	Director and Co-Chief Executive Officer (Principal Executive Officer)
/s/ Benjamin M. Locke Benjamin M. Locke	Co-Chief Executive Officer (Principal Executive Officer)
/s/ David A. Garrison David A. Garrison	Treasurer, Secretary and Chief Financial Officer (Principal Financial and Accounting Officer)
/s/ Angelina Galiteva Angelina Galiteva	Chairman of the Board
/s/ Keith Davidson Keith Davidson	Director
/s/ Ahmed F. Ghoniem Ahmed F. Ghoniem	Director
/s/ Charles Maxwell Charles Maxwell	Director

EXHIBIT LIST

Exhibit Number	Description of Document
2.1	Agreement and Plan of Merger, dated as of November 1, 2016, by and among Tecogen Inc, American DG Energy Inc. and ADGE.Tecogen Merger Sub Inc. (attached as Annex A to the joint proxy statement/prospectus that is part of this registration statement) [#]
3.1	Amended and Restated Certificate of Incorporation of Tecogen Inc (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on June 27, 2014)
3.2	Amended and Restated Bylaws of Tecogen Inc Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on June 27, 2014)
4.1	Specimen Common Stock Certificate of Tecogen Inc (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on June 27, 2014)
4.2	Form of Restricted Stock Purchase Agreement. (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, originally filed with the SEC on December 22, 2011)
4.3	Form of Stock Option Agreement. (Incorporated by reference to the registrant's Registration Statement on Form S-1, as amended, filed with the SEC on June 27, 2014)
4.4	Form of Warrant Agreement. (Incorporated by reference to the registrant's Annual Report on
5.1	Validity Opinion of Sullivan & Worcester LLP**
23.1	Consent of Sullivan & Worcester LLP (included as part of the opinion filed as Exhibit 5.1 hereto)**
23.2	Consent of Wolf & Co. related to Tecogen Inc*
23.3	Consent of Wolf & Co. related to American DG Energy Inc.*
23.4	Consent of Scarsdale Equities LLC*
23.5	Consent of Cassel Salpeter & Co., LLC*
24.1	Power of Attorney (set forth on signature page hereto)*
99.1	Form of Proxy of Tecogen Inc**
99.2	Form of Proxy of American DG Energy Inc.**

* Filed herewith.

** To be filed by amendment.

Schedules and exhibits have been omitted from this exhibit pursuant to Item 601(b)(2) of Regulation S-K and are not filed herewith. The registrant hereby agrees to furnish a copy of any omitted schedule or exhibits to the U.S. Securities and Exchange Commission upon request.