

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM S-4  
REGISTRATION STATEMENT**

*UNDER  
THE SECURITIES ACT OF 1933*

**Advanced Emissions Solutions, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2890**  
(Primary Standard Industrial  
Classification Code Number)  
**9135 South Ridgeline Boulevard,  
Suite 200,  
Highlands Ranch, Colorado 80129  
(303) 734-1727**

**27-5472457**  
(I.R.S. Employer  
Identification No.)

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**Mark H. McKinnies**  
**9135 South Ridgeline Boulevard,  
Suite 200,  
Highlands Ranch, Colorado 80129  
(303) 734-1727**

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

*Copies to:*

**Julie A. Herzog, Esq.  
Kip Wallen, Esq.  
SCHUCHAT, HERZOG & BRENMAN, LLC  
1900 Wazee Street, Suite 300  
Denver, CO 80202  
(303) 295-9700**

**Approximate date of commencement of proposed sale of the securities 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. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

**CALCULATION OF REGISTRATION FEE**

| Title of each class of securities to be registered | Amount to be registered | Proposed maximum offering price per unit <sup>(1)</sup> | Proposed maximum aggregate offering price <sup>(1)</sup> | Amount of registration fee <sup>(2)</sup> |
|--|-------------------------|---|--|---|
| Common Stock, par value \$0.001 per share          | 11,300,000              | \$26.38   | \$298,094,000  | \$7,595                                   |

<sup>(1)</sup> Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(f)(1) and 457(c) of the Securities Act of 1933, as amended, based on the average high and low prices of ADA-ES, Inc. common stock on the NASDAQ Capital Market on March 18, 2013.

<sup>(2)</sup> The amount of the Registration Fee reflects the total filing fee of \$40,661 offset by the filing fee of \$12,060 paid in connection with the Registration Statement on Form S-4 filed by Advanced Emissions Solutions, Inc. on March 14, 2011 (File No. 333-172809) and withdrawn on April 19, 2011 and the additional amount of \$21,006 paid as a filing fee in connection with the Registration Statement on Form S-4 filed by Advanced Emissions Solutions, Inc. on March 16, 2012 (File No. 333-180174) and withdrawn on May 22, 2012.

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

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## EXPLANATORY NOTE

The proxy statement/prospectus that forms a part of this Registration Statement consists of (i) a proxy statement relating to the Annual Meeting of Shareholders of ADA-ES, Inc. (“ADA-ES” or the “Company”) and (ii) a prospectus relating to the common stock of Advanced Emissions Solutions, Inc. (“ADES”).

Reference is made to the No-Action Letter issued to the Company by the Staff of the Office of Chief Counsel of the Division of Corporation Finance (the “Staff”) of the Securities and Exchange Commission (available March 15, 2012) and the Staff’s concurrence with the Company’s conclusion, among other things, that (i) the Reorganization (as defined herein) constitutes a “succession” for purposes of Rule 12g-3 (a) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), (ii) actions taken by ADES with respect to its assumption of obligations of the Company under certain stock-based benefit plans do not constitute actions that require disclosure of information under Item 10 of Schedule 14A of Regulation A promulgated under the Exchange Act and (iii) certain financial information required by Form S-4 may be omitted from this proxy statement/prospectus to the extent such information may be omitted pursuant to Instruction 4 of Item 14 of Schedule 14A under the Exchange Act.

**The information in this 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 proxy statement/prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED MARCH 25, 2013**

**PROXY STATEMENT/PROSPECTUS  
A REORGANIZATION IS PROPOSED—YOUR VOTE IS VERY IMPORTANT**

Dear Fellow Shareholder:

On behalf of the board of directors, we are pleased to invite you to the 2013 Annual Meeting of Shareholders of ADA-ES, Inc. (the “Annual Meeting”). The Annual Meeting will be held at 9:00 a.m. (local time) on June 13, 2013 at the Company’s offices located at 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129.

At the Annual Meeting, in addition to electing nine directors, you will be asked to consider and vote on a proposal to reorganize our Company into a holding company pursuant to which our present Company will become a subsidiary of a Delaware corporation named Advanced Emissions Solutions, Inc., which we refer to in this proxy statement/prospectus as “ADES” and you will become a stockholder of this Delaware holding company. We refer to this proposal in the proxy statement/prospectus as the “reorganization proposal.” You will also be asked to vote on three additional proposals. The first is to ratify the Audit Committee’s selection of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2013. The second is an advisory vote on the frequency upon which the Company will seek an advisory vote to approve the Company’s compensation paid to named executive officers of ADA-ES. The third is an advisory vote to approve the Company’s compensation paid to named executive officers of ADA-ES for the fiscal year ended December 31, 2012.

Upon completion of the reorganization, Advanced Emissions Solutions, Inc. will, in effect, replace our present Company as the publicly held corporation. Advanced Emissions Solutions, Inc. and its subsidiaries will conduct all of the operations we currently conduct. Implementing the holding company structure will provide us with strategic, operational and financing flexibility and incorporating the holding company in Delaware will allow us to take advantage of the flexibility, predictability and responsiveness that Delaware corporate law provides.

In the reorganization, your existing shares of ADA-ES common stock will be converted automatically into shares of ADES common stock. You will own the same number of shares of ADES common stock as you own of ADA-ES common stock at the time of conversion, and your shares will represent the same ownership percentage of ADES as you have of ADA-ES. In addition, the reorganization generally will be tax-free for ADA-ES shareholders. Your rights as a stockholder of ADES will be similar to your rights as a shareholder of ADA-ES, including rights as to voting and dividends, except as described herein.

We expect the shares of ADES common stock to trade under the ticker symbol “ADES” on the NASDAQ Capital Market, which is the same symbol that ADA-ES is currently traded under. On March 22, 2013, the last trading day before the announcement of the reorganization proposal, the closing price per ADA-ES share was \$26.33. On April [ 25 ], 2013, the most recent trading day for which prices were available, the closing price per ADA-ES share was \$[            ].

In order to implement the reorganization proposal, we need shareholders to adopt and approve the related reorganization agreement. Our board of directors has carefully considered the reorganization agreement, which provides for the merger of ADA-ES and a subsidiary of ADES called ADA Merger Corp. and the related transactions described in this proxy statement/prospectus, and believes that it is advisable, fair to and in the best interest of our shareholders, and recommends that you vote **FOR** the reorganization proposal and **FOR** the other proposals described in this proxy statement/prospectus. Because adoption of the reorganization proposal requires the affirmative vote of holders of a majority of the outstanding shares entitled to vote at the Annual Meeting, your vote is important, no matter how many or how few shares you may own. Whether or not you plan to attend the Annual Meeting, please take the time to vote by completing, signing and mailing the enclosed proxy card in the postage-paid envelope provided or by voting by telephone or over the Internet.

Your board of directors and management look forward to greeting those of you who are able to attend the Annual Meeting. The accompanying notice of meeting and this proxy statement/prospectus provide specific information about the Annual Meeting and explain the various proposals. Please read these materials carefully. **In particular, you should consider the discussion of risk factors beginning on page 10 before voting on the reorganization proposal.**

Thank you for your continued support of and interest in ADA-ES.

Dr. Michael Durham  
President and Chief Executive Officer

**Neither the SEC nor any state securities commission has approved or disapproved of the securities to be issued under this proxy statement/prospectus or determined if this proxy statement/prospectus is accurate or adequate. Any representation to the contrary is a criminal offense.**

This proxy statement/prospectus is dated April [ 26 ], 2013 and is being first mailed to ADA-ES shareholders on or about April [ 29 ], 2013.

**ADA-ES, INC.  
9135 South Ridgeline Boulevard, Suite 200  
Highlands Ranch, Colorado 80129  
(888) 822-8617**

**NOTICE OF ANNUAL MEETING OF SHAREHOLDERS  
TO BE HELD JUNE 13, 2013**

To Our Shareholders:

The Annual Meeting of Shareholders of ADA-ES, Inc. ("ADA-ES" or the "Company"), a Colorado corporation, will be held at 9:00 a.m. (local time) on June 13, 2013 at the Company's offices located at 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129, or at any postponement or adjournment thereof, for the following purposes:

1. To consider and vote upon a proposal (the "reorganization proposal" or the "reorganization") approving the Agreement and Plan of Merger, dated as of March 25, 2013 (the "Reorganization Agreement"), by and among ADA-ES, Advanced Emissions Solutions Inc., a Delaware corporation and a wholly owned subsidiary of ADA-ES ("ADES" or the "Delaware Company") and ADA Merger Corp., a Colorado corporation ("MergerCo") and a wholly owned subsidiary of the Delaware Company;
2. To elect nine directors of the Company;
3. To ratify the Audit Committee's selection of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2013;
4. To consider an advisory vote on the frequency upon which the Company will seek an advisory vote to approve the company's compensation paid to named executive officers of ADA-ES;
5. To consider an advisory vote on the compensation of the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the Compensation Discussion and Analysis, compensation tables and narrative discussion as set forth under the Executive Compensation section of this proxy statement/prospectus; and
6. To consider and vote upon such other matters as may properly come before the Annual Meeting or any postponement or adjournment thereof.

Shareholders of record at the close of business on April 10, 2013 are entitled to notice of and to vote at the Annual Meeting.

Our shareholders are cordially invited to attend the Annual Meeting in person. Whether or not you plan to attend the Annual Meeting, we urge you to vote your shares by telephone or Internet, or by completing, signing and dating the enclosed proxy card and returning it promptly in the accompanying postage prepaid (if mailed in the U.S.) return envelope.

Please call on our toll-free number (888-822-8617) if you require directions or have other questions concerning the meeting.

By Order of the Board of Directors,

Mark H. McKinnies  
Secretary

April [ 26 ], 2013

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## ADDITIONAL INFORMATION

This proxy statement/prospectus incorporates important business and financial information about ADA-ES from our Annual Report on Form 10-K for the year ended December 31, 2012 and from other documents that are not included in or being delivered with this proxy statement/prospectus. The incorporated information that is not included in or being delivered with this proxy statement/prospectus is available to you without charge upon your written or oral request. You can obtain any document that is incorporated by reference in this proxy statement/prospectus, excluding all exhibits that have not been specifically incorporated by reference, on the investor relations page of our website at [www.adaes.com](http://www.adaes.com) or by requesting it in writing or by telephone from us at the following address or telephone number:

ADA-ES, Inc.

9135 South Ridgeline Boulevard, Suite 200

Highlands Ranch, Colorado 80129

Telephone: 888-822-8617

**If you would like to request any documents, please do so no later than five business days before the date you must make your investment decision or by June 6, 2013 in order to receive them before the annual meeting.**

In addition, if you have any questions about the proposals, you may contact:

**Georgeson Inc.**

480 Washington Boulevard, 26th Floor

Jersey City, NJ 07310

Shareholders call toll-free: 888-658-5755

Banks and brokers call collect: 212-440-9800

You should rely only on the information contained or incorporated by reference in this proxy statement/prospectus and the registration statement of which this proxy statement/prospectus is a part to vote on the proposals being presented at the Annual Meeting. No person has been authorized to provide you with information that is different from what is contained in this document or in the incorporated documents.

This proxy statement/prospectus is dated April [ 26 ], 2013. You should not assume the information contained in this proxy statement/prospectus is accurate as of any date other than this date, and neither the mailing of this proxy statement/prospectus to shareholders nor the issuance of the ADES common stock in the reorganization implies that information is accurate as of any other date.

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**PROXY STATEMENT/PROSPECTUS**

**ADA-ES, INC.**

**9135 South Ridgeline Boulevard, Suite 200**

**Highlands Ranch, Colorado 80129**

**Telephone: (888) 822-8617**

**ANNUAL MEETING OF SHAREHOLDERS**

**TO BE HELD JUNE 13, 2013**

This proxy statement/prospectus is furnished to the shareholders of ADA-ES, Inc. (“ADA-ES” or the “Company”), a Colorado corporation, in connection with the solicitation of proxies by the Company’s Board of Directors (the “Board”), to be voted at our annual meeting of shareholders (“Annual Meeting” or “meeting”) to be held on Thursday, June 13, 2013, at the Company’s offices located at 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129, and any postponements or adjournments thereof. This proxy statement and accompanying form of proxy is first being mailed or given to our shareholders on or about April [ 29 ], 2013. The shares represented by all proxies that are properly executed and submitted will be voted at the meeting in accordance with the instructions indicated thereon, and if no instructions are given, then to the extent permitted by law, in the discretion of the proxy holder. Throughout this proxy statement/prospectus, the terms “we,” “us” “our” and “our Company” refer to ADA-ES, Inc., and unless the context indicates otherwise, our consolidated subsidiaries.

**VOTING RIGHTS AND VOTE REQUIRED**

Our Board has fixed the close of business on April 10, 2013, as the record date (the “Record Date”) for determination of shareholders entitled to notice of and to vote at the meeting. On the Record Date, [ ] shares of our common Stock were issued and outstanding, each of which entitles the holder thereof to one vote on all matters that may come before the Annual Meeting. We do not have any class of voting securities outstanding other than our common Stock. An abstention or withholding authority to vote will be counted as present for determining whether the quorum requirement is satisfied. If a quorum exists, actions or matters other than the election of the Board and the reorganization proposal are approved if the votes cast in favor of the action exceed the votes cast opposing the action unless a greater number is required by the Colorado Business Corporation Act (the “CBCA”) or our Articles of Incorporation. The required vote for the reorganization proposal is the affirmative vote of holders of at least a majority of the outstanding shares entitled to vote at the Annual Meeting. The nine nominees receiving the highest number of votes cast will be elected as directors. Abstentions will not affect the election of directors or the vote on the reorganization proposal.

If as of the Record Date your shares were held in an account at a brokerage firm, bank, dealer, or other similar organization, then that firm or organization is the shareholder of record for purposes of voting at the Annual Meeting and you are considered the beneficial owner of shares held in “street name.” If you are a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares held in your account. If you do not instruct your broker on how to vote your shares, your brokerage firm, in its discretion, may vote your shares on routine matters or they may elect not to vote your shares. The proposal to ratify the appointment of our independent registered public accounting firm for the current fiscal year is considered a “routine matter,” but the other proposals being voted on at the Annual Meeting are not considered “routine matters” and brokers will not be entitled to vote on those proposals absent specific instructions and authorization from the beneficial owners of the shares. If you hold shares beneficially in street name and do not provide your broker with voting instructions, your shares may constitute “broker non-votes.” A broker non-vote occurs when a nominee holding shares for a beneficial holder does not have discretionary voting power and does not receive voting instructions from the beneficial owner. Broker non-votes on a particular proposal are considered present for purposes of determining a quorum, but will not be treated as shares present and entitled to vote on any proposal other than the ratification of our public accounting firm and accordingly will have no effect on such vote.

We invite beneficial owners to attend the Annual Meeting. If you are a beneficial owner and not a shareholder of record, you may not vote your shares in person at the Annual Meeting unless you request and obtain a valid proxy from your broker or other agent and bring such proxy to the Annual Meeting. If you want to attend the

meeting, but not vote, you must provide proof of beneficial ownership as of the Record Date, such as your most recent account statement prior to April 10, 2013, a copy of the voting instruction card provided by your broker or other agent or other similar evidence of ownership.

A minimum of one-third of the shares of common stock issued and outstanding must be represented at the meeting in person or by proxy in order to constitute a quorum. Cumulative voting is not allowed for any purpose.

Unless instructions to the contrary are marked, or if no instructions are specified, shares represented by proxies will be voted:

- FOR the approval of the reorganization proposal and the Reorganization Agreement;
- FOR the persons nominated by the Board for directors, being Kim B. Clarke, Michael D. Durham, Alan Bradley Gabbard, Derek C. Johnson, W. Phillip Marcum, Mark H. McKinnies, Robert E. Shanklin, Jeffrey C. Smith and Richard J. Swanson;
- FOR the ratification of the Audit Committee's selection of KPMG LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2013;
- FOR the approval of the frequency upon which the Company will seek an advisory vote to approve the Company's compensation paid to named executive officers of ADA-ES; and
- FOR the approval of the compensation of the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the Compensation Discussion and Analysis, compensation tables and narrative discussion as set forth under the Executive Compensation section of this proxy statement/prospectus.

We do not know of any other matter or motion to be presented at the meeting. If any other matter or motion should be presented at the meeting upon which a vote must be properly taken, to the extent permitted by law, the persons named in the accompanying form of proxy intend to vote such proxy in accordance with that person's judgment, including any matter or motion dealing with the conduct of the meeting.

### **Voting by Mail, via the Internet or by Telephone**

Shareholders whose shares are registered in their own names may vote by mailing a completed proxy card, via the Internet or by telephone. Instructions for voting via the Internet or by telephone are set forth on the enclosed proxy card. To vote by mailing a proxy card, sign and return the enclosed proxy card in the enclosed prepaid and addressed envelope and your shares will be voted at the Annual Meeting in the manner you direct. If no directions are specified, your shares will be voted as described above.

If your shares are registered in the name of a bank or brokerage firm, you may be eligible to vote your shares over the Internet or by telephone rather than by mailing a completed voting instructions card provided by the bank or brokerage firm. Please check the voting instructions card provided by your bank or brokerage house for availability and instructions. If Internet or telephone voting is unavailable from your bank or brokerage house, please complete and return the enclosed voting instructions card in the self-addressed postage paid envelope provided.

Any shareholder who completes a proxy or votes via the Internet or by telephone may revoke the action at any time before it is exercised at the Annual Meeting by delivering written notice of such revocation to the Company (c/o Mark H. McKinnies, Secretary), 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado, 80129, by submitting a new proxy executed at a later date, or by attending the Annual Meeting and voting in person.

### **EXPENSES OF SOLICITATION**

The accompanying proxy is solicited by and on behalf of the Board, and the cost of such solicitation will be borne by the Company. Georgeson Inc. will distribute proxy materials to beneficial owners, may solicit proxies by personal interview, mail, telephone, and electronic communications, and will request brokerage houses and other custodians, nominees, and fiduciaries to forward soliciting material to the beneficial owners of the Company's common stock held on the record date by such persons. The Company will pay Georgeson Inc.

\$8,000 for its proxy solicitation services plus related fees for any additional services and will reimburse Georgeson Inc. for payments made to brokers and other nominees for their expenses in forwarding solicitation materials. Solicitations may also be made by personal interview, telephone, and electronic communications by directors, officers and other employees of the Company without additional compensation.

## **QUESTIONS AND ANSWERS ABOUT THE REORGANIZATION PROPOSAL**

### **What is the reorganization proposal?**

We are asking you to approve the Reorganization Agreement, by and among ADA-ES, ADES and MergerCo, that would result in your owning shares in ADES. Under the Reorganization Agreement, ADA-ES will merge with MergerCo, with ADA-ES surviving the merger as a wholly owned subsidiary of ADES.

Upon completion of the reorganization, ADES will, in effect, replace our present company as the publicly held corporation. ADES and its subsidiaries will conduct all of the operations we currently conduct. As a result of the reorganization, the current shareholders of ADA-ES will become stockholders of ADES with the same number and percentage of shares of ADES as they hold of ADA-ES shares immediately prior to the reorganization. The Reorganization Agreement, which sets forth the plan of reorganization and is the primary legal document that governs the reorganization, is attached as Annex I to this proxy statement/prospectus. You are encouraged to read the Reorganization Agreement carefully.

### **Why have you formed a holding company?**

We formed a holding company in Delaware to:

- better align our corporate structure with our business operations;
- provide us with greater strategic, business and administrative flexibility, which may allow us to acquire or form other businesses, if and when appropriate and feasible, that may be owned and operated by us, but which could be separate from our current businesses; and
- take advantage of the benefits of Delaware corporate law.

To review the reasons for our reorganization in greater detail, see “Reasons for the Reorganization; Recommendation of our Board.”

### **What will happen to my stock?**

In the reorganization, your shares of common stock will automatically be converted into the same number of shares of common stock of ADES. As a result, you will become a stockholder of ADES and will own the same number and percentage of shares of ADES common stock that you own of ADA-ES common stock. We expect that ADES common stock will be listed on the NASDAQ Capital Market under the same symbol as ADA-ES’s current symbol, which is “ADES.”

### **How will being an ADES stockholder be different from being an ADA-ES shareholder?**

After the reorganization, you will own the same number and percentage of shares of ADES common stock that you owned of ADA-ES common stock immediately prior to the reorganization. You will own shares of a Delaware holding company that owns our operating businesses. In addition, as a stockholder of ADES, your rights will be governed by Delaware corporate law and the charter documents of the Delaware corporation. Your rights as a stockholder of ADES will be similar to your rights as a shareholder of ADA-ES, including rights as to voting and dividends, except as described in “Description of ADES Capital Stock,” “Description of ADA-ES Capital Stock” and “Comparative Rights of Holders of ADES Capital Stock and ADA-ES Capital Stock” below.

### **Will the management or the business of the Company change as a result of the reorganization?**

The management of the operating company ADA-ES will stay the same. The new holding company ADES expects that its executive officers following the reorganization will be the following executive officers of ADA-ES immediately prior to the reorganization: President and Chief Executive Officer, Senior Vice President, Chief



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Financial Officer and Secretary, Executive Vice President, Chief Operating Officer, Chief Technology Officer, Vice President and General Counsel and Vice President of Investor Relations. We believe that this simplified top-level management structure will best serve the holding company and allow for continued growth. Management and business operations of the operating company will remain substantially the same.

**What will the name of the public company be following the reorganization?**

The name of the public company following the reorganization will be “Advanced Emissions Solutions, Inc.”

**Will the public company’s CUSIP number change as a result of the reorganization?**

Yes. Following the reorganization the public company’s CUSIP number will be 00770C 101.

**Will I have to turn in my stock certificates?**

No. Do not turn in your stock certificates. We will not require you to exchange your stock certificates as a result of the reorganization. After the reorganization, your ADA-ES common stock certificates will represent the same number of shares of ADES common stock.

**Will the reorganization affect my U.S. federal income taxes?**

The proposed reorganization is intended to be a tax-free transaction under U.S. federal income tax laws. We expect that you will not recognize any gain or loss for U.S. federal income tax purposes upon your receipt of ADES common stock in exchange for your shares of ADA-ES common stock in the reorganization; however, the tax consequences to you will depend on your own situation. You should consult your own tax advisors concerning the specific tax consequences of the reorganization to you, including any state, local or foreign tax consequences of the reorganization. For further information, see “Material U.S. Federal Income Tax Consequences” under “Proposal One” below.

**How will the reorganization be treated for accounting purposes?**

For accounting purposes, our reorganization into a holding company structure will be treated as a merger of entities under common control. Accordingly, the consolidated financial position and results of operations of ADA-ES will be included in the consolidated financial statements of ADES on the same basis as currently presented.

**What vote is required to approve the reorganization proposal?**

The required vote is the affirmative vote of holders of at least a majority of the outstanding shares entitled to vote at the Annual Meeting.

**What percentage of the outstanding shares do directors and executive officers hold?**

On the Record Date, directors, executive officers and their affiliates beneficially owned approximately [            ]% of our outstanding shares of common stock.

**If the shareholders approve the reorganization, when will it occur?**

We plan to complete the reorganization on or about July 1, 2013, provided that our shareholders approve the reorganization and all other conditions to completion of the reorganization are satisfied.

**Do I have dissenters’ (or appraisal) rights?**

No, holders of ADA-ES’s common stock do not have dissenters’ rights under Colorado law as a result of the reorganization proposal.

**What is the authorized capital of ADES and ADA-ES?**

ADA-ES’s amended and restated articles of incorporation currently authorize the issuance of 50,000,000 shares of common stock and 50,000,000 shares of preferred stock. ADES’s second amended and restated certificate of incorporation (“Certificate of Incorporation”), which would govern the rights of the Company’s

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stockholders as a result of the reorganization, to be filed prior to the effective date of the reorganization, will authorize the issuance of 100,000,000 shares of common stock and 50,000,000 shares of preferred stock. Additional authorized shares of common stock would enable us to issue common stock to raise capital expeditiously and economically for the Company's ongoing operational needs and could be used for stock splits or distributions, equity incentive plans, acquisitions, strategic alliances or other corporate purposes without the delay and expense involved in obtaining shareholder approval, when the Board of Directors and management believes that such issuance is appropriate. Upon completion of the reorganization, the number of shares of ADES common stock that will be outstanding will be equal to the number of shares of ADA-ES common stock outstanding immediately prior to the reorganization.

**Whom do I contact if I have questions about the reorganization proposal?**

You may contact our proxy solicitor:

Georgeson Inc.  
480 Washington Boulevard, 26th Floor  
Jersey City, NJ 07310  
Shareholders call toll-free: 866- 658-5755  
Banks and brokers call collect: 212-440-9800

or us:

ADA-ES, Inc.  
9135 South Ridgeline Boulevard, Suite 200  
Highlands Ranch, CO 80129  
Telephone: 888-822-8617  
Attn: Vice President of Investor Relations

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## SUMMARY OF THE REORGANIZATION PROPOSAL

*This section highlights key aspects of the reorganization proposal, including the Reorganization Agreement, that are described in greater detail elsewhere in this proxy statement/prospectus. It does not contain all of the information that may be important to you. To better understand the reorganization proposal, and for a more complete description of the legal terms of the Reorganization Agreement, you should read this entire document carefully, including the Annexes, and the additional documents to which we refer you. You can find information with respect to these additional documents in “Where You Can Find More Information.”*

### **The Principal Parties**

#### **ADA-ES, Inc.**

9135 South Ridgeline Boulevard, Suite 200  
Highlands Ranch, Colorado 80129  
Telephone: 888-822-8617

ADA-ES, Inc. (“ADA-ES”) is a leader in clean coal technology and the associated specialty chemicals, serving the coal-fueled power plant industry. Our proprietary environmental technologies and specialty chemicals enable power plants to enhance existing air pollution control equipment, minimize mercury, CO<sub>2</sub> and other emissions, maximize capacity, and improve operating efficiencies, to meet the challenges of existing and pending emission control regulations.

With respect to mercury emissions:

- Through our consolidated subsidiary, Clean Coal Solutions, LLC (“CCS”), we provide our patented Refined Coal (“RC”) CyClean™ technology to enhance combustion of and reduce emissions of NO<sub>x</sub> and mercury from coals in cyclone boilers and our patent pending M-45™ and M-45-PC™ technologies for Circulation Fluidized Boilers and Pulverized Coal boilers respectively.
- We supply Activated Carbon Injection (“ACI”) and Dry Sorbent Injection (“DSI”) systems, mercury measurement instrumentation, and related services.
- Under an exclusive development and licensing agreement with Arch Coal, Inc., we are developing and commercializing an enhanced Powder River Basin (“PRB”) coal with reduced emissions of mercury and other metals.

In addition, we are developing CO<sub>2</sub> emissions technologies under projects funded by the U.S. Department of Energy (“DOE”) and industry participants.

In connection with the reorganization, ADA-ES will merge with MergerCo, with ADA-ES surviving the merger as a wholly owned subsidiary of ADES. After the reorganization, ADA-ES will continue to engage in the business currently conducted by ADA-ES, and all of ADA-ES’s contractual, employment and other business relationships will generally continue unaffected by the reorganization.

We are a Colorado corporation. Our headquarters are located at 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129, and the telephone number at this location is (888) 822-8617. Information about us is available on our website at [www.adaes.com](http://www.adaes.com). The content of our website is not incorporated by reference herein and is not deemed to be part of this proxy statement/prospectus.

#### **Advanced Emissions Solutions, Inc.**

9135 South Ridgeline Boulevard, Suite 200  
Highlands Ranch, Colorado 80129  
Telephone: 888-822-8617

ADES, a Delaware corporation, was formed as a wholly owned subsidiary of ADA-ES in order to effect the reorganization. Prior to the reorganization, ADES will have no assets or operations other than those incident to its formation.

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**ADA Merger Corp.**

9135 South Ridgeline Boulevard, Suite 200  
Highlands Ranch, Colorado 80129  
Telephone: 888-822-8617

MergerCo, a Colorado corporation, was formed as a wholly owned subsidiary of ADES in order to effect the reorganization. Prior to the reorganization, MergerCo will have no assets or operations other than those incident to its formation.

**What You Will Receive in the Reorganization**

In the reorganization, each outstanding share of common stock of ADA-ES will be converted automatically into one share of common stock of ADES. In addition, each outstanding option to purchase shares of ADA-ES common stock, if not exercised before the completion of the reorganization, will become an option to acquire, at the same exercise price, an identical number of shares of ADES common stock. Each outstanding restricted stock award (or any performance award payable in restricted stock) of shares of ADA-ES common stock will become an award of restricted stock (or a performance award payable in restricted stock) in an identical number of shares of ADES common stock. Finally, participants in the Company's equity incentive plans and 401(k) plan will be entitled to receive shares of ADES common stock in accordance with the terms of the plans, and shares of common stock of ADA-ES currently held in the plans will be converted into shares of common stock of ADES.

On the Record Date, there were outstanding [ ] shares of ADA-ES common stock and [ ] unvested shares of ADA-ES restricted stock, as well as options representing [ ] shares of ADA-ES common stock.

**Conditions to Completion of the Reorganization**

The completion of the reorganization depends on the satisfaction of a number of conditions, including, but not limited to, the following:

- absence of any stop order suspending the effectiveness of the registration statement, of which this proxy statement/prospectus forms a part, relating to the shares of ADES common stock to be issued in the reorganization;
- approval of the Reorganization Agreement by ADA-ES's shareholders;
- receipt of approval for listing on the NASDAQ Capital Market of shares of ADES common stock to be issued in the reorganization;
- absence of any order or proceeding that would prohibit or make illegal completion of the reorganization; and
- receipt by ADA-ES and ADES of a legal opinion with respect to the material U.S. federal income tax consequences of the reorganization.

**Termination of the Reorganization Agreement**

We may terminate the Reorganization Agreement, even after approval by our shareholders, if our Board determines that the reorganization would not be in the best interests of ADA-ES or its shareholders or that the reorganization would have material adverse consequences to ADA-ES or its shareholders.

**Board of Directors and Executive Officers of ADES Following the Reorganization**

The board of directors of ADES presently consists of Dr. Michael Durham and Mr. Mark McKinnies. Upon consummation of the Reorganization, the ADES board of directors will be the same as the directors elected by the shareholders of ADA-ES at the 2013 Annual Meeting. ADES expects that its executive officers following the reorganization will be the following executive officers of ADA-ES immediately prior to the reorganization: President and Chief Executive Officer, Senior Vice President, Chief Financial Officer and Secretary, Executive

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Vice President, Chief Operating Officer, Chief Technology Officer, Vice President and General Counsel and Vice President of Investor Relations. We believe that this simplified top-level management structure will best serve the holding company and allow for continued growth. Management and business operations of the operating company will remain substantially the same.

### **Markets and Market Prices**

ADES common stock is not currently traded or listed on any stock exchange or market. ADA-ES common stock is traded under the symbol "ADES" on the NASDAQ Capital Market, and we expect ADES common stock to trade on the NASDAQ Capital Market under the same symbol "ADES" following the reorganization. On March 22, 2013, the last trading day before the announcement of the reorganization proposal, the closing price per ADA-ES share was \$26.33. On April [ 25 ], 2013, the most recent trading day for which prices were available, the closing price per ADA-ES share was \$[ \_\_\_\_\_].

### **Certain Financial Information**

We have not included pro forma financial comparative per share information concerning ADA-ES that gives effect to the reorganization because, immediately after the completion of the reorganization, the consolidated financial statements of ADES will be the same as ADA-ES's consolidated financial statements immediately prior to the reorganization, and the reorganization will result in the conversion of each share of ADA-ES common stock into one share of ADES common stock. In addition, we have not provided financial statements of ADES because, prior to the reorganization, it will have no assets, liabilities or operations other than those incident to its formation.

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## RISK FACTORS

*In considering whether to vote in favor of the reorganization proposal, you should consider all of the information we have included in this proxy statement/prospectus, including its Annexes, and all of the information included in the documents we have incorporated by reference, including our Annual Report on Form 10-K for the year ended December 31, 2012 and the risk factors described in the other documents incorporated by reference. In addition, you should pay particular attention to the risks described below.*

### **Our Board may choose to defer or abandon the reorganization.**

Completion of the reorganization may be deferred or abandoned, at any time, by action of our Board, whether before or after the Annual Meeting. While we currently expect the reorganization to take place on or about July 1, 2013, assuming that the reorganization proposal is approved at the Annual Meeting, the Board may defer completion of or may abandon the reorganization because of any determination by our Board that the reorganization would not be in the best interests of ADA-ES or its shareholders or that the reorganization would have material adverse consequences to ADA-ES or its shareholders.

### **We may not obtain the expected benefits of our reorganization into a holding company.**

We believe our reorganization into a holding company will provide us with benefits in the future. These expected benefits may not be obtained if market conditions or other circumstances prevent us from taking advantage of the strategic, business and financing flexibility that we believe it will afford us. As a result, we may incur the costs of creating the holding company without realizing the possible benefits.

### **As a holding company, ADES will depend in large part on dividends from its operating subsidiaries to satisfy its obligations.**

After the completion of the reorganization, ADES will be a holding company with no business operations of its own. Its only significant assets will be the outstanding capital stock of its subsidiaries, which will initially be ADA-ES and its subsidiaries. As a result, ADES will rely on funds from ADA-ES and any subsidiaries that it may form in the future to meet its obligations.

### **The market for ADES shares may differ from the market for ADA-ES shares.**

Although it is anticipated that the ADES shares of common stock will be authorized for listing on the NASDAQ Capital Market, the market prices, trading volume and volatility of the ADES shares could be different from those of the ADA-ES shares.

### **Anti-takeover provisions in ADES's Certificate of Incorporation and bylaws may delay or prevent a third party acquisition of ADES, which could decrease the value of ADES's common stock.**

The Certificate of Incorporation and bylaws of ADES contain provisions that could make it more difficult for a third party to acquire it without the consent of its board of directors. These provisions, the first three of which are also currently in effect with respect to ADA-ES, will:

- limit the business at special meetings to the purpose stated in the notice of the meeting;
- authorize the issuance of "blank check" preferred stock, which is preferred stock with voting or other rights or preferences that could impede a takeover attempt and that the board of directors can create and issue without prior stockholder approval;
- establish advance notice requirements for submitting nominations for election to the board of directors and for proposing matters that can be acted upon by stockholders at a meeting; and
- require the affirmative vote of the "disinterested" holders of a majority of our common stock to approve certain business combinations involving an "interested stockholder" or its affiliates, unless either minimum price criteria and procedural requirements are met, or the transaction is approved by a majority of our "continuing directors" (known as "fair price provisions").

Although we believe all of these provisions will make a higher third-party bid more likely by requiring potential acquirers to negotiate with the board of directors, these provisions will apply even if an initial offer may be considered beneficial by some stockholders and therefore could delay and/or prevent a deemed beneficial offer from being considered. For more information, see “Description of ADES Capital Stock” and “Comparative Rights of Holders of ADES Capital Stock and ADA-ES Capital Stock” below.

**As a stockholder of a Delaware corporation, your rights after the reorganization will be different from, and may be less favorable than, your current rights as a shareholder of a Colorado corporation.**

After the completion of the reorganization, you will become a stockholder of a public company incorporated in Delaware instead of Colorado. As a result, your rights as a stockholder will be governed by Delaware corporate law as opposed to Colorado corporate law. Because they are separate bodies of law, Delaware corporate law will be different from Colorado corporate law. Although many of these differences will not have a significant impact on the rights of stockholders, some of these differences may be less favorable to stockholders. Some of the differences between Delaware and Colorado corporate law that may be less favorable to stockholders after the completion of the reorganization include the following:

- under Delaware corporate law, fewer corporate transactions give rise to dissenters’ rights than under Colorado corporate law; and
- under Delaware corporate law and ADES’s bylaws, holders of 20% of the voting shares of ADES will have the right to call a special meeting of stockholders, as opposed to Colorado corporate law and ADA-ES’s bylaws, which give holders of 10% of the voting shares the right to call a special meeting.

These differences may limit the significance of your rights as a stockholder in these contexts. For a discussion of these and other differences between Delaware and Colorado corporate law, see “Description of ADES Capital Stock,” “Description of ADA-ES Capital Stock” and “Comparative Rights of Holders of ADES Capital Stock and ADA-ES Capital Stock” below.

**The proposed reorganization into a holding company may result in substantial direct and indirect costs whether or not completed.**

The reorganization may result in substantial direct costs. These costs and expenses are expected to consist primarily of attorneys’ fees, accountants’ fees, filing fees and financial printing expenses and will be substantially incurred prior to the vote of our shareholders. A substantial portion of these costs were incurred in 2011 and 2012 when we initially proposed the reorganization. Therefore, we expect our attorneys’ and filing fees to be substantially less than previously incurred. The Company has also paid minimal Delaware franchise taxes for ADES since its incorporation in 2011; upon filing of the Certificate of Incorporation, which will occur prior to the closing date of the reorganization, the franchise taxes due to Delaware will substantially increase due to the increase in authorized stock provided by the Certificate of Incorporation. The reorganization may also result in certain indirect costs by diverting the attention of our management and employees from our business and by increasing our administrative costs and expenses. These administrative costs and expenses will include keeping separate records and in some cases making separate regulatory filings for each of ADES and ADA-ES. The reorganization may also result in certain state sales taxes and other transfer taxes.

#### **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

Statements in this proxy statement/prospectus and in documents incorporated by reference in this proxy statement/prospectus contain various forward-looking statements, which represent our management’s beliefs and assumptions concerning future events. When used in this proxy statement/prospectus and in documents incorporated herein by reference, forward-looking statements include, without limitation, statements regarding financial forecasts or projections, and our expectations, beliefs, intentions or future strategies that are signified by the words “expects,” “anticipates,” “intends,” “plans,” “believes,” “estimates,” “predicts,” “potential,” “may,” “will,” “should” or the negative of these terms or other comparable terminology. These forward-looking statements include statements regarding the costs, benefits and results related to the reorganization including the

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holding company structure and the impact of Delaware law; the timing and completion of the reorganization; the trading symbol of ADES's stock and on what exchange it will trade after the reorganization; who the directors and executive officers of ADES will be after the reorganization; the transfer agent of ADES's stock after the reorganization; the tax implications of the reorganization; the impact, cost, structure and use of the ADA-ES Plans (as defined below) and ADA-ES's compensation policies both after the reorganization and if the reorganization is not consummated; ADA-ES's reporting requirements after the reorganization; and the Annual Meeting, including whether a director nominee will accept election to the Board. These statements are subject to risks, uncertainties and assumptions that could cause our actual results and the timing of certain events to differ materially from those expressed in the forward-looking statements.

You should understand that many important factors, in addition to those discussed or incorporated by reference in this proxy statement/prospectus, could cause our results to differ materially from those expressed in the forward-looking statements. Potential factors that could affect our results include those described in this proxy statement/prospectus under "Risk Factors," and those identified in our Annual Report on Form 10-K for the year ended December 31, 2012 and in the other documents incorporated by reference. In light of these risks and uncertainties, the forward-looking results discussed or incorporated by reference in this proxy statement/prospectus may not occur.



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## PROPOSAL ONE

### THE REORGANIZATION PROPOSAL

*This section of the proxy statement/prospectus describes the reorganization proposal. Although we believe that the description in this section covers the material terms of the reorganization proposal, this summary may not contain all of the information that is important to you. The summary of the material provisions of the Reorganization Agreement provided below is qualified in its entirety by reference to the Reorganization Agreement, which we have attached as Annex I to this proxy statement/prospectus and which we incorporate by reference into this proxy statement/prospectus. You should carefully read the entire proxy statement/prospectus and the Reorganization Agreement for a more complete understanding of the reorganization proposal. Your approval of the reorganization proposal will constitute your approval and adoption of the Reorganization Agreement, the reorganization, the Certificate of Incorporation of ADES and the bylaws of ADES.*

#### **Reasons for the Reorganization; Recommendation of our Board**

At a meeting of the ADA-ES Board of Directors (the "Board") held on January 25, 2011 and in an action by written consent of the Board dated March 11, 2011, the Board concluded that the reorganization is advisable, determined that the terms of the Reorganization Agreement are fair to and in the best interest of ADA-ES and its shareholders, adopted the Reorganization Agreement and recommended that the Reorganization Agreement be approved by our shareholders. The Reorganization Proposal was tabled by the Board in April 2011 due to the arbitration award to Norit Americas Inc., which is further discussed in our filings with the Securities and Exchange Commission. At a meeting of the Board held on February 2, 2012, the Board made the above findings and re-authorized the Reorganization Proposal, which was tabled in April 2012 due to unresolved comments by the Securities and Exchange Commission on financial statements incorporated by reference in the proxy statement/prospectus. At a meeting of the Board held on February 6, 2013, the Board again made the above findings and re-authorized the officers of ADA-ES to take the necessary steps to continue to pursue the transactions contemplated by the Reorganization Proposal.

During the course of its deliberations, our Board consulted with management and outside legal counsel and considered a number of positive factors, including the following:

- **Possible Future Strategic and Business Flexibility of the Holding Company Structure.** We believe the holding company structure could facilitate future expansion of our business by providing a more flexible structure for acquiring other businesses or entering into joint ventures while continuing to keep the operations and risks of our other businesses separate. In addition, if the cash generated over time by our businesses was determined by our Board to be greater than the amount necessary for the operation or capital needs of those businesses, this cash could be transferred to a separate corporate entity owned by the holding company and invested as our Board believes to be appropriate. Furthermore, implementing the holding company structure may reduce the risk that liabilities of our core businesses and other businesses, if any, that may be operated in the future by separate subsidiaries would be attributed to each other.
- **Possible Future Financing Flexibility of the Holding Company Structure.** We believe that a holding company structure may be beneficial to stockholders in the future because it would permit the use of financing techniques that are more readily available to companies that hold a variety of diversified businesses under one corporate umbrella, without any impact on our capital structure. For example, ADES, in addition to receiving dividends, as and when permitted, from ADA-ES and future subsidiaries, if any, would be able to obtain funds through its own debt or equity financings, and ADES's direct and indirect subsidiaries and other entities in which it holds an ownership interest would be able to obtain funds from ADES or other affiliates or through their own third party financings, which may include the issuance of debt or equity securities. However, we have no current plans to seek additional financing at this time.
- **Predictability, Flexibility and Responsiveness of Delaware Law to Corporate Needs.** For many years, Delaware has followed a policy of encouraging incorporation in that state and has adopted comprehensive, modern and flexible corporate laws, which are updated regularly to meet changing

business needs. As a result of this deliberate policy to provide a hospitable climate for corporate development, many major public corporations have chosen Delaware for their state of incorporation. In addition, the Delaware courts have developed considerable expertise in dealing with corporate issues relating to public companies. Thus, a substantial body of case law has developed construing Delaware corporate law and establishing legal principles and policies regarding publicly held Delaware corporations. We believe that, for these reasons, Delaware law will provide greater legal predictability with respect to our corporate legal matters than we have under Colorado law. We further believe that Delaware law will provide greater efficiency, predictability and flexibility in our public Company's legal affairs than is presently available under Colorado law.

- ***Attractiveness of Delaware Law to Directors and Officers*** . We believe that organizing under Delaware law will enhance our ability to attract and retain qualified directors and officers. The corporate law of Delaware, including its extensive body of case law, offers directors and officers of public companies more certainty and stability than the corporate law of Colorado. Under Delaware law, the parameters of director and officer liability are more clearly defined and better understood than under Colorado law. To date, we have not experienced difficulty in retaining directors or officers, but directors of public companies are exposed to significant potential liability. We therefore believe that providing the benefits afforded directors by Delaware law will enable us to compete more effectively with other public companies in the recruitment of talented and experienced directors and officers. At the same time, we believe that Delaware law regarding corporate fiduciary duties provides appropriate protection for our stockholders from possible abuses by directors and officers. In addition, under Delaware law, directors' personal liability cannot be eliminated for:

- any breach of the director's duty of loyalty to the corporation or its stockholders,
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law,
- unlawful payment of dividends or unlawful repurchases or redemptions of stock, or
- any transactions from which the director derived an improper personal benefit.

In addition to the positive factors described above, our Board also considered the following potential negative factor associated with the reorganization proposal:

- ***Increased Costs and Expenses Associated with Implementing the Reorganization Proposal and Administering a Holding Company Structure.*** The reorganization may result in substantial direct costs. These costs and expenses are expected to consist primarily of attorneys' fees, accountants' fees, filing fees and financial printing expenses and will be substantially incurred prior to the vote of our shareholders. A substantial portion of these costs were incurred in 2011 and 2012 when we initially proposed the reorganization. Therefore, we expect our attorneys' and filing fees to be substantially less than previously incurred. The Company has also paid minimal Delaware franchise taxes for ADES since its incorporation in 2011; upon filing of the Certificate of Incorporation, which will occur prior to the closing date of the reorganization, the franchise taxes due to Delaware will substantially increase due to the increase in authorized stock provided by the Certificate of Incorporation. The reorganization may also result in certain indirect costs by diverting the attention of our management and employees from our business and increasing our administrative costs and expenses. These administrative costs and expenses will include keeping separate records and in some cases making separate regulatory filings for each of ADES and ADA-ES and future subsidiaries. The reorganization may also result in certain state sales taxes and other transfer taxes.

**After careful consideration, our Board has determined that creation of a holding company offers a substantial net benefit to our shareholders. The Board has approved the reorganization proposal, determined that the terms of the Reorganization Agreement and the reorganization are advisable and in the best interest of our shareholders, and has adopted the Reorganization Agreement. Our Board recommends that our shareholders vote "FOR" adoption of the reorganization proposal at the Annual Meeting.**

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## Reorganization Procedure

ADA-ES currently owns all of the issued and outstanding common stock of ADES and ADES currently owns all of the issued and outstanding common stock of MergerCo, the subsidiary formed for purposes of completing the proposed reorganization. Following the approval of the Reorganization Agreement by the ADA-ES shareholders and the satisfaction of the other conditions specified in the Reorganization Agreement (which are described below), ADA-ES will merge with MergerCo, the subsidiary of ADES. As a result of this merger:

- ADA-ES will be the surviving corporation, and the separate corporate existence of MergerCo will cease.
- Each outstanding share of ADA-ES common stock will automatically convert into one share of ADES common stock, as described below, and the shareholders of ADA-ES will become the stockholders of ADES.
- ADES will own all of ADA-ES's common stock, and each share of ADES common stock now held by ADA-ES will be cancelled.

The result of the reorganization will be that your current company, ADA-ES, will be merged with MergerCo, and ADA-ES will become a subsidiary of ADES. ADES's Certificate of Incorporation is included as Annex II to this proxy statement/prospectus, and a copy of ADES's bylaws is included as Annex III to this proxy statement/prospectus. For more information regarding your rights as a shareholder before and after the reorganization, see "Description of ADES Capital Stock," "Description of ADA-ES Capital Stock" and "Comparative Rights of ADES Capital Stock and ADA-ES Capital Stock" below.

In all other respects, your company will remain the same. Upon consummation of the reorganization, the ADES board of directors will be the same as the directors elected by the shareholders of ADA-ES at the Annual Meeting. ADES expects that its executive officers following the reorganization will be the following executive officers of ADA-ES immediately prior to the reorganization: President and Chief Executive Officer, Senior Vice President, Chief Financial Officer and Secretary, Executive Vice President, Chief Operating Officer, Chief Technology Officer, Vice President and General Counsel and Vice President of Investor Relations. We believe that this simplified top-level management structure will best serve the holding company and allow for continued growth. Management and business operations of the operating company will remain substantially the same.

### What ADA-ES Shareholders Will Receive in the Reorganization

Each share of ADA-ES common stock will convert into one share of ADES common stock. After the completion of the reorganization, you will own the same number and percentage of shares of ADES common stock as you own of ADA-ES common stock.

### ADA-ES Stock Options and Other Rights to Receive ADA-ES Stock

Each outstanding option to acquire shares of ADA-ES common stock will become an option to acquire, on the same terms and conditions as before the reorganization, an identical number of shares of ADES common stock. Each outstanding restricted stock award (or any performance award payable in restricted stock) of shares of ADA-ES common stock will become an award of restricted stock (or a performance award payable in restricted stock) in an identical number of shares of ADES common stock. There were outstanding options representing an aggregate of [ ] shares of ADA-ES common stock and outstanding restricted stock awards (including the number of shares of restricted stock payable under performance awards) representing an aggregate of [ ] shares of ADA-ES common stock on the Record Date. ADA-ES's existing stock-based compensation plans, which include the 2002 ADA-ES, Inc. Stock Option Plan, the 2004 Executive Stock Option Plan, the ADA-ES, Inc. 2005 Directors' Compensation Plan, the Amended and Restated ADA-ES, Inc. 2007 Equity Incentive Plan, as amended, the ADA-ES, Inc. Profit Sharing Retirement Plan and the Amended and Restated ADA-ES, Inc. 2010 Non-Management Compensation and Incentive Plan (collectively the "ADA-ES Plans"), plan participants will be entitled to receive shares of ADES common stock rather than shares of ADA-ES common stock, on the same terms otherwise provided for in the respective plans.

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## **Corporate Name Following the Reorganization**

The name of the public company following the reorganization will be “Advanced Emissions Solutions, Inc.”

## **No Exchange of Stock Certificates**

In the reorganization, your shares of ADA-ES common stock will automatically convert into shares of ADES common stock. Your certificates of ADA-ES common stock, if any, will represent, from and after the reorganization, an equal number of shares of ADES common stock, and no action with regard to stock certificates will be required on your part.

## **Conditions to Reorganization**

We will complete the reorganization only if each of the following conditions is satisfied:

- absence of any stop order suspending the effectiveness of the registration statement, of which this proxy statement/prospectus forms a part, relating to the shares of ADES common stock to be issued in the reorganization;
- approval of the Reorganization Agreement by ADA-ES’s shareholders;
- receipt of approval for listing on the NASDAQ Capital Market of shares of ADES common stock to be issued in the reorganization;
- absence of any order or proceeding that would prohibit or make illegal completion of the reorganization; and
- receipt by ADA-ES and ADES of a legal opinion with respect to the material U.S. federal income tax consequences of the reorganization.

## **Effectiveness of Reorganization**

The reorganization will become effective on the date we file a statement of merger with the Secretary of State of the State of Colorado or on a later date that we specify therein. We will file the statement when the conditions to the reorganization described above have been satisfied. We expect that we will specify in the statement that the reorganization will be effective on or about July 1, 2013.

## **Termination of Reorganization Agreement**

The Reorganization Agreement may be terminated at any time prior to the completion of the reorganization (even after approval by our shareholders) by action of the Board if it determines that for any reason the completion of the transactions provided for therein would be inadvisable or not in the best interest of our Company or our shareholders.

## **Amendment of Reorganization Agreement**

The Reorganization Agreement may, to the extent permitted by the CBCA and Delaware General Corporation Law (“DGCL”), be supplemented, amended or modified at any time prior to the completion of the reorganization (even after approval by our shareholders), by the mutual consent of the parties thereto.

## **Material U.S. Federal Income Tax Consequences**

The following discussion summarizes the material U.S. federal income tax consequences of the reorganization to U.S. holders of ADA-ES common stock. This discussion is based upon current provisions of the Internal Revenue Code of 1986, as amended (the “Code”), current and proposed Treasury regulations and judicial and administrative decisions and rulings as of the date of this proxy statement/prospectus, all of which are subject to change (possibly with retroactive effect) and all of which are subject to differing interpretation. This discussion does not address all aspects of U.S. federal income taxation that may be relevant to you in light

of your particular circumstances or to persons subject to special treatment under U.S. federal income tax laws. In particular, this discussion deals only with shareholders that hold ADA-ES common stock as capital assets within the meaning of the Code. In addition, this discussion does not address the tax treatment of special classes of shareholders, such as banks, insurance companies, tax-exempt organizations, financial institutions, broker-dealers, persons holding ADA-ES stock as part of a hedge, straddle or other risk reduction, constructive sale or conversion transaction, U.S. expatriates, persons subject to the alternative minimum tax and persons who acquired ADA-ES stock in compensatory transactions. If you are not a U.S. holder (as defined below), this discussion does not apply to you.

As used in this summary, a “U.S. holder” is:

- an individual U.S. citizen or resident alien;
- a corporation, partnership or other entity created or organized under U.S. law (federal or state);
- an estate whose worldwide income is subject to U.S. federal income tax; or
- a trust if a court within the United States of America is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or certain trusts formed prior to August 20, 1996, if such trust has a valid election in effect to be treated as a domestic trust for U.S. federal income tax purposes.

If a partnership (including, for this purpose, any entity treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of ADA-ES common stock, the U.S. federal income tax consequences to a partner in the partnership will generally depend on the status of the partner and the activities of the partnership. A holder of ADA-ES common stock that is a partnership, and the partners in such partnership, should consult their own tax advisors regarding the U.S. federal income tax consequences of the reorganization.

**ALL HOLDERS ARE URGED TO CONSULT WITH THEIR OWN TAX ADVISORS REGARDING THE TAX CONSEQUENCES OF THE REORGANIZATION TO THEIR PARTICULAR SITUATION, INCLUDING THE EFFECTS OF U.S. FEDERAL, STATE AND LOCAL, FOREIGN AND OTHER TAX LAWS.**

The obligation of ADA-ES to complete the reorganization is conditioned upon, among other things, ADA-ES and ADES having received a legal opinion from Sparkman + Foote LLP, dated as of the completion of the reorganization, that the merger will constitute an exchange of ADA-ES common stock for ADES common stock governed by Section 351 of the Code, as well as a reorganization within the meaning of Section 368(a) of the Code, and, therefore, no gain or loss will be recognized by the shareholders of ADA-ES upon the receipt of ADES common stock pursuant to the merger. The opinions of counsel will be based on then-existing law and based in part upon representations, made as of the effective time of the reorganization transactions, by ADES, ADA-ES and MergerCo, which counsel will assume to be true, correct and complete. If the representations are inaccurate, the opinions of counsel could be adversely affected. Neither ADES nor ADA-ES has requested nor will request a private letter ruling from the Internal Revenue Service as to the tax consequences of the reorganization transactions. The opinions of counsel will not be binding upon the Internal Revenue Service or any other taxing authority. The material U.S. federal income tax consequences of the transactions will be as follows:

- No gain or loss will be recognized by ADES or ADA-ES as a result of the merger;
- No gain or loss will be recognized by you upon your receipt of ADES common stock solely in exchange for your ADA-ES common stock;
- The aggregate tax basis of the shares of ADES common stock that you receive in exchange for your ADA-ES common stock in the merger will be the same as the aggregate tax basis of your ADA-ES common stock exchanged; and
- The holding period for shares of ADES common stock that you receive in the merger will include the holding period of your ADA-ES common stock exchanged.

**The foregoing discussion is not intended to be a complete analysis or description of all potential U.S. federal income tax consequences or any other consequences of the reorganization. In addition, the discussion does not address tax consequences, which may vary with, or are contingent on, your individual circumstances. Moreover, the discussion does not address state, local, foreign or non-income tax consequences or tax return reporting requirements. Accordingly, you are strongly urged to consult with your own tax advisor to determine the particular U.S. federal, state, local or foreign income or other tax consequences to you of the reorganization.**

#### **Anticipated Accounting Treatment**

For accounting purposes, our reorganization into a holding company structure will be treated as a merger of entities under common control. The accounting treatment for such events is similar to the former “pooling of interests method.” Accordingly, the financial position and results of operations of ADA-ES will be included in the consolidated financial statements of ADES on the same basis as currently presented.

#### **Authorized Capital Stock**

ADA-ES’s amended and restated articles of incorporation currently authorizes the issuance of 50,000,000 shares of common stock, no par value and 50,000,000 shares of preferred stock, no par value. ADES’s Certificate of Incorporation, which would govern the rights of our stockholders after the reorganization, to be filed prior to the effective date of the reorganization, will authorize the issuance of 100,000,000 shares of common stock, par value \$0.001 and 50,000,000 shares of preferred stock, par value \$0.001. Additional authorized shares of common stock would enable us to issue common stock to raise capital expeditiously and economically for the Company’s ongoing operational needs and could be used for stock splits or distributions, equity incentive plans, acquisitions, strategic alliances or other corporate purposes without the delay and expense involved in obtaining shareholder approval, when the Board of Directors and management believes that such issuance is appropriate. Upon completion of the reorganization, the number of shares of ADES common stock that will be outstanding will be equal to the number of shares of ADA-ES common stock outstanding immediately prior to the reorganization.

The number of shares reserved for issuance under the ADA-ES Plans as of March 22, 2013 is 1,122,623. No other shares are presently reserved for any other purpose.

#### **Listing of ADES Common Stock on the NASDAQ Capital Market; De-listing and De-registration of ADA-ES Common Stock**

The completion of the reorganization is conditioned on the approval for listing of the shares of ADES common stock issuable in the reorganization (and any other shares to be reserved for issuance in connection with the reorganization) on the NASDAQ Capital Market. We expect that the ADES common stock will trade under the ticker symbol “ADES.” In addition, ADES will become a reporting company under the Exchange Act.

Following the reorganization, ADA-ES’s common stock will no longer be quoted on the NASDAQ Capital Market and will no longer be registered under the Exchange Act. In addition, ADA-ES will cease to be a reporting company under the Exchange Act.

#### **Board of Directors and Executive Officers of ADES Following the Reorganization**

Presently, the ADES board is comprised of Dr. Michael Durham and Mr. Mark McKinnies. We expect that immediately following the reorganization the ADES board will be comprised of the directors of ADA-ES elected at the 2013 Annual Meeting. Nominees for director are Kim B. Clarke, Michael D. Durham, Alan Bradley Gabbard, Derek C. Johnson, W. Phillip Marcum, Mark H. McKinnies, Robert E. Shanklin, Jeffrey C. Smith and Richard J. Swanson.

ADES expects that its executive officers following the reorganization will be the following executive officers of ADA-ES immediately prior to the reorganization: President and Chief Executive Officer, Senior Vice President, Chief Financial Officer and Secretary, Executive Vice President, Chief Operating Officer, Chief Technology Officer, Vice President and General Counsel and Vice President of Investor Relations. We believe

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that this simplified top-level management structure will best serve the holding company and allow for continued growth. Management and business operations of the operating company will remain substantially the same.

For information concerning persons expected to become directors of ADES, see “Proposal Two—Election of Directors” below.

### **Independent Registered Public Accounting Firm of ADES**

The approval by the holders of ADA-ES common stock of the Reorganization Agreement will also constitute ratification of KPMG LLP as described under the caption “Proposal Three—Ratification of the Engagement of the Independent Registered Public Accounting Firm” as the Independent Registered Public Accounting Firm of ADES for the fiscal year ending December 31, 2013.

### **Issuances of ADES Common Stock under the ADA-ES Plans**

The approval by the holders of ADA-ES common stock of the Reorganization Agreement will also constitute approval of the assumption by ADES of the ADA-ES Plans and, where appropriate, the future issuance of shares of ADES common stock in lieu of shares of ADA-ES common stock under the ADA-ES Plans, each as amended in connection with the reorganization without further shareholder action.

### **ADES Certificate of Incorporation**

The approval by the holders of ADA-ES common stock of the Reorganization Agreement will also constitute approval of the terms of the Certificate of Incorporation in the form attached to this proxy statement/prospectus as Annex II.

### **Restrictions on the Sale of ADES Shares**

The shares of ADES common stock to be issued in the reorganization will be registered under the Securities Act of 1933, as amended (the “Securities Act”). These shares will be freely transferable under the Securities Act, subject to existing restrictions on certain affiliates of ADA-ES who will also be affiliates of ADES and subject to any restrictions on shares of restricted stock that have not vested.

### **Description of ADES Capital Stock**

ADES is incorporated in the State of Delaware. The rights of stockholders of ADES will generally be governed by Delaware law and ADES’s Certificate of Incorporation and bylaws. The following is a summary of the material provisions of ADES’s Certificate of Incorporation and bylaws. This summary is not complete and is qualified by reference to the full texts of ADES’s Second Amended and Restated Certificate of Incorporation and bylaws, which are attached as Annexes II and III, respectively, to this proxy statement/prospectus.

### **General**

Upon the completion of the reorganization, the authorized capital of ADES will be 150,000,000 shares, consisting of 100,000,000 shares of common stock, par value \$0.001 per share, and 50,000,000 shares of preferred stock, par value \$0.001 per share. All of the shares issued and outstanding upon completion of the reorganization will be fully paid and nonassessable.

Upon completion of the reorganization, the number of shares of ADES common stock that will be outstanding will be equal to the number of shares of ADA-ES common stock outstanding immediately prior to the reorganization (other than shares held in treasury, which will be cancelled).

### **Common Stock**

*Dividends and Distributions.* Subject to preferences applicable to any shares of ADES preferred stock issued in the future, the holders of outstanding shares of ADES common stock will be entitled to receive dividends and other distributions out of assets legally available at times and in amounts as the board of directors of ADES may determine from time to time. All shares of ADES common stock are entitled to participate ratably with respect to dividends or other distributions.

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*Liquidation Rights.* If ADES is liquidated, dissolved or wound up, voluntarily or involuntarily, holders of ADES common stock are entitled to share ratably in all assets of ADES available for distribution to the ADES stockholders after the payment in full of any preferential amounts to which holders of any ADES preferred stock issued in the future may be entitled.

*Voting Rights.* Holders of ADES common stock are entitled to one vote per share on all matters to be voted upon by stockholders. There are no cumulative voting rights. Stockholders may vote by proxy.

*Other.* There are no preemption, redemption, sinking fund or conversion rights applicable to the ADES common stock.

### **Preferred Stock**

The board of directors of ADES may, without further stockholder approval, issue up to 50,000,000 shares of preferred stock in one or more series and fix the number of shares constituting the designation, voting powers (if any), preferences and other rights, as well as the qualifications, limitations and restrictions, of the series. The powers, preferences and rights, and the qualifications, limitations or restrictions, if any, of each series of preferred stock may be different from those of any and all other series. The issuance of ADES preferred stock may have the effect of delaying, deferring or preventing a change of control of ADES without further action by the stockholders, may discourage bids for ADES common stock at a premium over the market price of ADES common stock and may adversely affect the market price of, and the voting and other rights of the holders of, ADES common stock.

### **Delaware Anti-Takeover Law and Certain Charter Provisions**

ADES has opted out of provisions of Section 203 of the Delaware General Corporation Law (“DGCL”), which statute prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years following the date the stockholder became an interested stockholder unless certain criteria are met. Instead, the Certificate of Incorporation includes what is known as a “fair price” provision. The fair price provision is designed to prevent a purchaser from utilizing two-tier pricing and similar tactics in an attempted takeover. This provision requires the affirmative vote of holders of at least a majority of the outstanding shares of voting stock not owned directly or indirectly by any interested stockholder or any affiliate of an interested stockholder to approve any business combination with any related or interested person. If such business combination has been approved by a majority of continuing directors at a meeting at which a continuing director quorum is present or such business combination involves ADES and a subsidiary in which a related person has no direct or indirect interest, subject to certain additional limitations, however, such heightened standard for shareholder approval will not apply and the business combination would require only such affirmative vote as may be required by law or otherwise.

ADES’s Certificate of Incorporation provisions provides the board of directors the authority to issue up to 50,000,000 shares of undesignated preferred stock and to determine the rights, preferences and privileges of these shares, without stockholder approval. In addition, the bylaws provide that only the board of directors and the holders of shares entitled to cast not less than 20% of the votes at a special meeting can call a special meeting, which is a higher percentage than the 10% percent level required under the CBCA and ADA-ES’s bylaws. The bylaws also provide that all stockholder actions must be effected at a duly called meeting of stockholders or upon the unanimous written consent of all stockholders.

In addition, ADES’s bylaws require that for a stockholder to nominate a director or bring other business before an annual meeting of stockholders, they must satisfy certain advance notice and disclosure requirements. The stockholder must disclose, among other items, certain information related to the business to be proposed at the meeting, its beneficial ownership in ADES and whether it is acting in concert with other stockholders or interested parties. Advance notice of any such business must be delivered to or mailed and received at the principal executive offices of the ADES not less than one hundred twenty (120) calendar days in advance of the date specified in the Corporation’s proxy statement released to stockholders in connection with the previous year’s annual meeting of stockholders; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date contemplated at the time of the previous year’s proxy statement, notice by the stockholder to be timely must be so received not later than the close of



business on the later of one hundred twenty (120) calendar days in advance of such annual meeting or ten (10) calendar days following the date on which of public disclosure of such meeting. ADES's bylaws also specify requirements as to the form and content of a stockholder's notice. These advance notice provisions may delay a person from bringing matters before a stockholders meeting. The provisions provide enough time for us to begin litigation or take other steps to respond to these matters, or to prevent them from being acted upon, if we find it desirable to do so.

Such provisions described above may have the effect of delaying or preventing a change in control.

### **Limitation of Director Liability and Indemnification**

ADES's Certificate of Incorporation provides, to the fullest extent permitted by Delaware law, that directors will not be liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director. Delaware law currently provides that this waiver may not apply to liability:

- for any breach of the director's duty of loyalty to us or our 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 DGCL (governing distributions to stockholders); or
- for any transaction from which the director derived any improper personal benefit.

If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, however, then the liability of our directors will be eliminated or limited to the fullest extent permitted by the DGCL, as so amended. The Certificate of Incorporation of ADES further provide that we will indemnify each of our directors and officers to the fullest extent permitted by Delaware law and may indemnify other persons as authorized by the DGCL. These provisions do not eliminate any monetary liability of directors under the federal securities laws.

### **Transfer Agent**

We expect that the transfer agent for ADES common stock will be Computershare Investor Services, 350 Indiana Street, Suite 750, Golden, Colorado 80401.

### **The NASDAQ Capital Market Listing**

We expect that ADES common stock will be listed on the NASDAQ Capital Market under the trading symbol "ADES."

### **Description of ADA-ES, Inc. Capital Stock**

ADA-ES, Inc. is incorporated in the State of Colorado. The rights of shareholders of ADA-ES are generally governed by Colorado law and ADA-ES's amended and restated articles of incorporation and second amended and restated bylaws. The following is a summary of the material provisions of ADA-ES's amended and restated articles of incorporation and second amended and restated bylaws. This summary is not complete and is qualified by reference to the full texts of ADA-ES's amended and restated articles of incorporation and second amended and restated bylaws. A copy of ADA-ES's amended and restated articles of incorporation is attached as Exhibit 3.1 to the Form 10-QSB filed with the SEC on November 10, 2005. A copy of ADA-ES's second amended and restated bylaws is attached as Exhibit 3.2 to the Company's Form 10-Q filed with the SEC on November 12, 2010.

### **General**

ADA-ES is authorized to issue 50,000,000 shares of common stock, no par value per share, and 50,000,000 shares of preferred stock, no par value per share. As of the Record Date, ADA-ES had [ ] shares outstanding shares of common stock outstanding held of record by approximately 1,300 record holders and approximately 3,600 beneficial shareholders. The outstanding shares of ADA-ES's stock are fully paid and nonassessable.

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## **Common Stock**

*Dividends and Distributions.* Subject to preferences applicable to any shares of outstanding ADA-ES preferred stock, the holders of outstanding shares of ADA-ES common stock are entitled to receive dividends and other distributions out of assets legally available at times and in amounts as the Board of ADA-ES may determine from time to time. All shares of ADA-ES common stock are entitled to participate ratably with respect to dividends or other distributions.

*Liquidation Rights.* If ADA-ES is liquidated, dissolved or wound up, voluntarily or involuntarily, holders of ADA-ES common stock are entitled to share ratably in all net assets of ADA-ES available for distribution to the ADA-ES shareholders after the payment in full of any preferential amounts to which holders of any ADA-ES preferred stock may be entitled.

*Voting Rights.* Holders of ADA-ES common stock are entitled to one vote per share on all matters to be voted upon by shareholders. There are no cumulative voting rights. Shareholders may vote by proxy.

*Other.* There are no preemption, redemption, sinking fund or conversion rights applicable to the ADA-ES common stock.

## **Preferred Stock**

The Board has the authority to issue 50,000,000 shares of ADA-ES preferred stock in one or more series and to fix the voting powers, designations, preferences and participating, optional, relative or other special rights, and qualifications, limitations or restrictions of the ADA-ES preferred stock, without any further vote or action by ADA-ES's shareholders. No shares of preferred stock are issued or outstanding. The issuance of ADA-ES preferred stock may have the effect of delaying, deferring or preventing a change of control of ADA-ES without further action by the shareholders, may discourage bids for the ADA-ES common stock at a premium over the market price of the ADA-ES common stock and may adversely affect the market price of, and the voting and other rights of the holders of, ADA-ES common stock.

## **Anti-Takeover Provisions Contained in ADA-ES's Articles of Incorporation and Bylaws**

Certain provisions of ADA-ES's amended restated articles of incorporation and second amended and restated bylaws make it less likely that ADA-ES's management would be changed or someone would acquire voting control of the Company without the Board's consent. These provisions may delay, deter or prevent tender offers or takeover attempts that ADA-ES shareholders may believe are in their best interests, including tender offers or attempts that might allow shareholders to receive premiums over the market price of their common stock. These provisions include:

- the authority of the Board to issue up to 50,000,000 shares of undesignated preferred stock and to determine the rights, preferences and privileges of these shares, without approval; and
- all shareholder actions must be effected at a duly called meeting of shareholders or by unanimous written consent.

Such provisions may have the effect of delaying or preventing a change in control.

## **Indemnification of Directors and Officers**

ADA-ES's amended and restated articles of incorporation and second amended and restated bylaws provide that ADA-ES shall indemnify its directors and officers, to the fullest extent permitted by law, for any liability or expense including any obligation with respect to an employee benefit plan and any matters covered by the CBCA, except liability that as to which the CBCA prohibits expressly the elimination or limitation of liability.

## **Transfer Agent**

The transfer agent for ADA-ES common stock is Computershare Investor Services, 350 Indiana Street, Suite 800, Golden, Colorado 80401.

## **The NASDAQ Capital Market Listing**

ADA-ES common stock is listed on the NASDAQ Capital Market under the trading symbol "ADES."

## Comparative Rights of Holders of ADES Capital Stock and ADA-ES Capital Stock

At the effective time of the merger, ADA-ES common stock will be converted on a one-for-one basis into ADES common stock. As a result, ADES's Certificate of Incorporation and bylaws and the applicable provisions of the DGCL will govern the rights of the former holders of ADA-ES common stock who receive shares of ADES common stock pursuant to the merger. The rights of ADA-ES shareholders are currently governed by the CBCA and common law, ADA-ES's amended and restated articles of incorporation (the "articles") and ADA-ES's second amended and restated bylaws (the "bylaws"). The rights of ADES stockholders after the completion of the reorganization will be governed by the DGCL and common law, ADES's Certificate of Incorporation (the "certificate") and ADES's bylaws (the "bylaws"). The following summary compares the material rights that ADA-ES shareholders currently have and the rights that they will have as stockholders of ADES following the reorganization. This summary is qualified in its entirety by reference to the full text of the articles, certificate, bylaws, CBCA and DGCL. For detailed descriptions of the capital stock of ADA-ES and ADES, see "Description of ADA-ES Capital Stock" and "Description of ADES Capital Stock" in this proxy statement/prospectus.

### COLORADO (ADA-ES)

#### Authorized Shares

The authorized capital stock of ADA-ES consists of 50,000,000 shares of common stock, no par value, and 50,000,000 shares of preferred stock, no par value. No shares of preferred stock have been issued.

Holders of common stock are entitled to one vote per share and vote together as a single class on all matters to be voted upon by shareholders.

Under the CBCA, shareholders have the right to cumulate their votes in the election of directors under specified procedures unless the articles of incorporation or bylaws of specified categories of corporations provide otherwise. The right of shareholders to cumulate votes has been eliminated in ADA-ES's articles.

#### Voting Required For Election of Directors

The CBCA provides that the vote of a plurality of the shares entitled to vote for directors is required in order to elect a director.

ADA-ES's articles do not provide for a classified board of directors. Accordingly, under the CBCA, all of ADA-ES's directors are elected annually.

### DELAWARE (ADES)

Upon completion of the reorganization, the authorized capital stock of ADES will consist of 100,000,000 shares of common stock, par value per share of \$0.001 and 50,000,000 preferred stock, par value per share of \$0.001. One share of common stock is currently outstanding and held by ADA-ES. No shares of preferred stock have been issued.

Same: Holders of common stock will be entitled to one vote per share and will vote together as a single class on all matters to be voted upon by stockholders.

Same: Under the DGCL, stockholders do not have the right to cumulate their votes in the election of directors unless such right is granted in the certificate of incorporation. ADES's certificate does not provide for cumulative voting.

Same: ADES's bylaws provide that a vote of a plurality of the votes cast at a meeting of the stockholders by the holders of stock entitled to vote in the election will be required to elect a director.

Same: ADES's certificate does not provide for a classified board of directors. Accordingly, under the DGCL all directors of ADES will be elected annually.

#### Classified Board of Directors

### Number of Directors

Under the CBCA, the number of directors must be specified in a corporation's bylaws. ADA-ES's bylaws provide that the board of directors is to be set by the board within a range of between 1 and 15 members. The CBCA, unlike the DGCL, provides that shareholders may amend a corporation's bylaws without the approval of the board of directors. Accordingly, under the CBCA, shareholders of ADA-ES have the ability to determine the size of the Board of Directors.

The DGCL permits a corporation's certificate of incorporation to specify the number of directors if it is not specified in the bylaws. The number of directors is specified in ADES's bylaws and states that the board of directors of ADES is to be set by the board within a range of 1 and 15 members.

### Blank Check Preferred Stock

ADA-ES's articles provide for up to 50,000,000 shares of blank check preferred stock.

ADES's certificate provides for up to 50,000,000 shares of blank check preferred stock.

### Action By Shareholders Without a Meeting

The CBCA requires unanimous written consent for any shareholder action taken without a meeting, unless a provision is contained in a corporation's articles of incorporation that allows holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted to take such action by consent. ADA-ES's articles do not contain such a provision.

Same effect: ADES's certificate and bylaws provide that stockholders may take any action permitted at an annual or special meeting of stockholders by unanimous written consent.

### Removal of Directors

Consistent with the CBCA, ADA-ES's bylaws provide that its shareholders may remove directors of the company with or without cause.

Same: Consistent with the DGCL, ADES's bylaws provide that its stockholders may remove directors of the company with or without cause.

### Vacancies on the Board of Directors

Under the CBCA, because ADA-ES's articles do not provide otherwise, any vacancies on the board of directors may be filled either by the remaining directors or the shareholders.

Under the DGCL and ADES's certificate, vacancies on the board of directors of ADES will be filled by the remaining directors.

### Committees of the Board of Directors

ADA-ES's bylaws provide that the board may designate from among its members, an executive and one or more other committees. With the exception of certain actions set forth in the CBCA, which generally prohibit committees from approving significant transactions or taking significant actions, the committees may exercise the authority granted to them by the board.

ADES's bylaws provide that the board may designate one or more committees, each of which shall consist of one or more members of the board. With the exception of certain actions set forth in the DGCL, which generally prohibit committees from amending the certificate, approving a significant merger or acquisition or declaring dividends, the committees may exercise all of the authority of the board to the extent provided in a resolution of the board.

### Shareholders Power to Call Special Meetings

In accordance with the CBCA, a special meeting of shareholders may be called by (i) the board of directors or the person authorized by the bylaws to call such a meeting (in the case of ADA-ES, the President or any member of the board of directors), or (ii) at the request of holders of not less than 10% of the outstanding shares of ADA-ES.

Under the DGCL, special stockholder meetings may be called by (i) the board of directors, or (ii) stockholders to the extent authorized by the company's certificate of incorporation or bylaws. ADES's bylaws provide that a special meeting of shareholders may be called at the request of holders of not less than 20% of the outstanding shares of ADES.

### Notice of Shareholder Meetings

Consistent with the CBCA, ADA-ES's bylaws require that (i) if the authorized shares of ADA-ES are to be increased, at least 30 days' notice shall be given to the shareholders of record and (ii) if a shareholder meeting is adjourned for more than 120 days (in which case a new record date is to be fixed by the board of directors of ADA-ES), notice shall be given to record holders as of the new record date. In all other cases, shareholders must be given at least 10 days' notice, but not more than 60 days' notice, of shareholder meetings.

ADES's bylaws provide for the same notice requirements as ADA-ES's bylaws (i.e. between no less than 10 but not more than 60 days written notice), except that (i) the set notice period for an increase in the authorized shares was eliminated because the DGCL does not require a set notice period and (ii) the 120-day notice in the case of adjournments was changed to a 30-day notice to be consistent with the DGCL.

### Notice of Shareholder Nominations for Directors and Business to be Brought Before Meetings

ADA-ES's bylaws provide that a shareholder may propose business to be brought before an annual meeting of shareholders only if such proposal is (i) properly made in accordance with Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (ii) included in the notice of meeting given by or at the direction of the board of directors or (iii) otherwise permitted by Colorado law. In addition, if a special meeting is properly called by shareholders, the Board shall determine the time and place of such special meeting, which shall be held ninety (90) days from the last date of proper demand for such, unless another earlier date is established by the Board.

ADES's bylaws provide that no business may be brought before any meeting of stockholders, including the nomination or election of persons to the board of directors, by a stockholder unless the stockholder satisfies certain advance notice and disclosure requirements. The stockholder must disclose, among other items, certain information related to the business to be proposed at the meeting, its beneficial ownership in ADES and whether it is acting in concert with other stockholders or interested parties. Advance notice of any such business must be delivered to or mailed and received at the principal executive offices of ADES not less than one hundred twenty (120) calendar days in advance of the date specified in the Corporation's proxy statement released to stockholders in connection with the previous year's annual meeting of stockholders; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date contemplated at the time of the previous year's proxy statement, notice by the stockholder to be timely must be so received not later than the close of business on the later of one hundred twenty (120) calendar days in advance of such annual meeting or ten (10) calendar days following the date on which of public disclosure of such meeting. Notice of a special meeting called by stockholders must comply with similar information disclosure

requirements as stated above. In addition, if a special meeting is properly called by stockholders, the board of directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request.

#### Indemnification/Limitation of Liability

ADA-ES's articles and bylaws provide that ADA-ES shall indemnify its directors and officers, to the fullest extent permitted by law, for any liability or expense including any obligation to with respect to an employee benefit plan and any matters covered by the CBCA, except liability that as to which the CBCA prohibits expressly the elimination or limitation of liability. In addition, as required by the CBCA, the Company is required to give shareholders, with or before the notice for the next shareholders' meeting, a notice of all indemnification of, or advancement of expenses to, directors of the ADA-ES in connection with a proceeding by or in the right of the corporation.

ADES's certificate provides that, to the fullest extent permitted by the DGCL, directors of ADES shall not be held personally liable to ADES or its stockholders for monetary damages for breach of any fiduciary duty as a director. In addition, ADES's certificate and bylaws provide that ADES shall indemnify, to the fullest extent permitted by the laws of Delaware, any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person is or was a director or officer of ADES or serves or served at any other enterprise as a director or officer at the request of ADES.

#### Record Date

Consistent with the CBCA, ADA-ES's bylaws provide that with respect to all actions requiring the fixing of a record date, the record date is not to be more than seventy (70) days (nor fewer than ten (10) days in the event of a meeting) before a meeting or action requiring a determination of shareholders.

Consistent with the DGCL, ADES's bylaws provide that the record date is not to be more than sixty (60) days (nor fewer than ten (10) days in the event of a meeting) before a meeting or action requiring determination of stockholders.

#### Amending the Charter

The CBCA provides that amendments to a corporation's articles of incorporation (other than certain ministerial amendments that may be made by the board of directors, without shareholder action) may be proposed by the board of directors or by the holders of shares representing at least 10% of all of the votes entitled to be cast on the amendment. The board must recommend the amendment to the shareholders, unless the amendment is being proposed by the shareholders, or unless the board determines that because of a conflict of interest or other special circumstances it should make no recommendation and communicates the basis for its determination to the shareholders.

In accordance with the DGCL, amendments to ADES's certificate generally require that the Board adopt a resolution setting forth the amendment, declaring its advisability and submitting it to a vote of the stockholders (i.e., stockholders are not entitled to enact an amendment to ADES's certificate without any Board action).

#### Corporate Records (Form of Records)

Under the CBCA, ADA-ES is required to keep as permanent records minutes of all meetings of the shareholders and the Board of ADA-ES, a record of all

Pursuant to the DGCL, any records maintained by ADES in the regular course of its business, including its stock ledger, books of account and minute

actions taken by the shareholders or the Board of ADA-ES without a meeting, a record of all actions taken by a committee of the Board of ADA-ES, and a record of all waivers of notices of meetings of shareholders and of the Board of the or any committee of the Board. In addition, the CBCA requires ADA-ES to keep specific records at its principal office, including the articles, bylaws, the minutes of all shareholders' meetings, and records of all action taken by shareholders without a meeting, for the past three years, all written communications within the past three years to shareholders as a group or to holders of any class or series of shares as a group, a list of the names and business addresses of current directors and officers, a copy of ADA-ES's most recent Colorado annual corporate report, and all financial statements prepared for periods ending during the last three years that a shareholder has a right to request under the CBCA.

#### Examination of Books and Records

Pursuant to the CBCA, any record or beneficial shareholder of ADA-ES may, upon 5 days' written demand, inspect certain records, including the articles of incorporation, bylaws, minutes of shareholder meetings or records of all actions taken by consent without a meeting, communications with shareholders during the previous three years, the list of names and business addresses of current directors and officers, the most recent Colorado corporate annual report, and all financial statements prepared during the last three years as that a shareholder has a right to request under the CBCA. In addition, upon 5 days' written demand, any shareholder may inspect the list of shareholders and certain other corporate records, including (a) excerpts of minutes of any meetings of the Board, a board committee or shareholders of ADA-ES, (b) excerpts of actions taken by the Board, a Board committee or shareholders by consent without a meeting, (c) waivers of notices of any meetings of the Board, a Board committee or shareholders, and (d) accounting records of the corporation, if the shareholder either (i) has been a shareholder for at least 3 months or (ii) is a shareholder of at least 5% of all outstanding shares of any class of shares when the demand is made, provided that the demand is made in good faith and for a "proper purpose" ( as defined), the shareholder describes with reasonable particularity the purpose and the records the shareholder desires to inspect, and the records are directly connected with the described purpose.

books, may be kept on, or by means of, or be in the form of, any information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time.

Pursuant to the DGCL, the inspection rights of the stockholders of ADES are the same as under Colorado law, except: (i) there is no requirement that a stockholder has been a stockholder for at least 3 months or is a stockholder of at least 5% of all outstanding shares of any class of shares when the demand is made, and (ii) if ADES refuses to permit inspection or does not reply to an inspection demand within 5 business days after the demand has been made, the stockholder may apply to the Delaware Court of Chancery for an order to compel such inspection.

### Business Combination Statute/Fair Price Provisions

The CBCA does not contain any “business combination provisions” which would serve to prevent or delay combinations with “interested shareholders.”

ADA-ES’s articles do not contain any “fair price” provisions.

Section 203 of the DGCL provides for a three-year moratorium on certain business combination transactions with “interested stockholders” (generally, persons who beneficially own 15% or more of the corporation’s outstanding voting stock). ADES’s certificate includes “fair price” provisions that will be in lieu of Section 203. Accordingly, ADES has opted out of Section 203 of the DGCL in its certificate.

ADES’s certificate contains a fair price provision. The fair price provision is designed to prevent a purchaser from utilizing two-tier pricing and similar tactics in an attempted takeover. This provision requires the affirmative vote of holders of at least a majority of the outstanding shares of voting stock not owned directly or indirectly by any interested stockholder or any affiliate of an interested stockholder to approve any business combination with any related or interested person. If such business combination has been approved by a majority of continuing directors at a meeting at which a continuing director quorum is present or such business combination involves ADES and a subsidiary in which a related person has no direct or indirect interest, subject to certain additional limitations, however, such heightened standard of shareholder approval will not apply and the business combination would require only such affirmative vote as may be required by law or otherwise.

### Dissenters’ and Appraisal Rights

Pursuant to the CBCA, with certain exceptions that apply to corporations listed on a national securities exchange or the NASDAQ stock market, or that are held by more than 2,000 shareholders of record (including for such purpose both “record” and “beneficial” holders of shares), as is the case for ADA-ES, shareholders are entitled to exercise dissenters’ rights in the event of certain mergers, share exchanges, sales, leases, exchanges or other dispositions of all or substantially all of the property of the corporation and conversions. Shareholders also may dissent in the case of a reverse stock split that reduces the number of shares owned to a fraction of a share or to scrip if such scrip is to be acquired for cash or voided. Dissenters’ rights in Colorado are available to both record holders and beneficial holders, however such rights are not available in connection with the reincorporation proposal.

Under the DGCL, appraisal rights are available only in connection with statutory mergers or consolidations. Even in those cases, unless the certificate of incorporation provides otherwise (and ADES’s certificate does not so provide), the DGCL does not provide appraisal rights for any class or series of stock (i) listed on a national securities exchange or (ii) held of record by more than 2,000 stockholders, except that appraisal rights are available for stockholders who, by the terms of the agreement of merger or consolidation, are required to accept anything other than: (i) shares of the corporation surviving or resulting from the merger or consolidation; (ii) shares of any other corporation which at the effective time of the merger or consolidation are either listed on a national securities exchange or held of record by more than 2,000 stockholders; (iii) cash in lieu of fractional shares; or (iv) any combination of the foregoing shares and cash in lieu of fractional shares.



### Derivative Actions

Pursuant to the CBCA, if following final judgment, a court finds that an action by a shareholder by or in the right of the corporation (i.e., a “derivative action”) was brought without reasonable cause, the court shall require the plaintiff to pay the defendants’ reasonable expenses attributable to the defense of such action, exclusive of attorney’s fees. In addition, ADA-ES may, at any time before final judgment, require the plaintiff to give security for the costs and reasonable expenses which may be incurred by ADA-ES or other parties named as defendants in the defense of such action, but not including attorney’s fees, if the shareholder instituting the action holds less than 5% of the outstanding shares of any class of ADA-ES, unless the shares so held have a market value in excess of \$25,000. If the court then finds that the action was instituted without reasonable cause, the corporation shall have recourse to such security in the amount determined by the court upon termination of the action.

The DGCL’s requirements for bringing derivative actions are substantially similar to those contained in the CBCA, except that the DGCL does not impose (i) the reasonable cause requirement or (ii) the security requirement imposed by CBCA.

### Franchise Tax

There is no franchise tax in Colorado. There is a nominal annual fee assessed to maintain the good standing of a corporation in the State of Colorado.

The DGCL requires corporations to pay franchise tax annually. The amount of such franchise tax will be significantly more than the nominal annual fee ADA-ES is paying in Colorado.

### **Board Recommendation**

**OUR BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE PROPOSAL TO APPROVE THE REORGANIZATION PROPOSAL AND TO APPROVE THE REORGANIZATION AGREEMENT.**

### **PROPOSAL 2**

#### **ELECTION OF DIRECTORS**

As of the date of the 2013 Annual Meeting, our Board of Directors (the “Board”) will consist of nine members due to the retirement of two current members of the Board, and the Board plans to reduce the size of the Board from eleven directors to nine to reflect these retirements effective as of the date of the Annual Meeting. Our Nominating and Governance Committee recommended to our Board the slate of nine directors for re-election by our shareholders, and the Board approved the recommendation and the slate of directors. Each director will hold office until the next Annual Meeting of Shareholders and thereafter until a successor is elected and qualified. If the reorganization proposal is approved and the Reorganization Agreement is effected, the directors will serve as the directors of the new holding company ADES. Cumulative voting is not permitted in the election of directors. IN THE ABSENCE OF INSTRUCTIONS TO THE CONTRARY, THE INDIVIDUALS NAMED IN THE ACCOMPANYING PROXY WILL VOTE IN FAVOR OF THE ELECTION OF THE FOLLOWING PERSONS NAMED AS OUR NOMINEES FOR DIRECTORS: KIM B. CLARKE, MICHAEL D. DURHAM, ALAN BRADLEY GABBARD, DEREK C. JOHNSON, W. PHILLIP MARCUM, MARK H. MCKINNIES, ROBERT E. SHANKLIN, JEFFREY C. SMITH and RICHARD J. SWANSON.

All of the nominees are currently members of the Board. Each of the nominees has consented to be named herein and to serve if elected. We do not anticipate that any nominee will become unable or unwilling to accept nomination or election, but if this should occur, the persons named in the proxy intend to vote for the election in his or her stead of such other person as the Board may recommend. It is the policy and practice of the Company that all directors who reside in the metropolitan Denver, Colorado area attend the Annual Meeting. Six of our directors serving at the time of our 2012 Annual Meeting of Shareholders attended that meeting.

The following table sets forth certain information as to each nominee (and current director) of the Company:

| <u>Name</u>              | <u>Age</u> | <u>Position and Offices</u>   | <u>Director Since</u> |
|--------------------------|------------|---|-----------------------|
| Kim B. Clarke            | 57         | Director, Member of the Compensation and Nominating and Governance Committees                           | 2013                  |
| Michael D. Durham        | 63         | Director, President and Chief Executive Officer   | 2003                  |
| Alan Bradley Gabbard (4) | 58         | Director, Member of the Audit and Compensation Committees   | 2012                  |
| Derek C. Johnson (2)     | 52         | Director, Member of the Audit and Nominating and Governance Committees                                  | 2006                  |
| W. Phillip Marcum (3)    | 69         | Chairman of the Board of Directors, Member of the Compensation and Nominating and Governance Committees | 2008                  |
| Robert E. Shanklin (1)   | 41         | Director, Member of the Nominating and Governance Committee   | 2011                  |
| Mark H. McKinnies        | 61         | Director, Senior Vice President, Chief Financial Officer and Secretary                                  | 2003                  |
| Jeffrey C. Smith         | 61         | Director, Chairman of the Nominating and Governance Committee and Member of the Compensation Committee  | 2003                  |
| Richard J. Swanson       | 77         | Director, Chairman of the Audit Committee, Member of the Compensation Committee                         | 2006                  |

- (1) Mr. Shanklin is the Vice President of Coal Technology of Arch Coal, Inc., a public company located in St. Louis, Missouri (NYSE: ACI). The initial appointment of Mr. Shanklin to our Board was made pursuant to a 2003 Subscription and Investment Agreement with Arch Coal, Inc. whereby our management agreed to make available one seat on the Board for an Arch Coal designee and to vote all shares and proxies they are entitled to vote in favor of such designee for so long as Arch Coal continues to hold at least 100,000 shares of our common stock.
- (2) Mr. Johnson has served as a director of Qualmark Corporation, a public company (OTC.PK: QMRK), since 2008.
- (3) Mr. Marcum has served as a chairman of the board of Applied Natural Gas Fuels, Inc., a public company located in Westlake Village, California (OTC: AGAS) since 2008. He has served as a director of Key Energy Services, Inc., a public company located in Houston, Texas (NYSE: KEG) since 1996 and Recovery Energy, Inc., located in Denver, Colorado (NASDAQ: RECV) since July 2011.
- (4) Mr. Gabbard has served as a director of Recovery Energy, Inc., a public company (NASDAQ: RECV), since 2012.

Other than as set forth in footnote (1) above with respect to Mr. Shanklin, there are no arrangements or understandings between any directors or executive officers and any other person or persons pursuant to which they were selected as directors or executive officers.

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## EXPERIENCE AND QUALIFICATIONS OF DIRECTOR NOMINEES

The Nominating and Governance Committee seeks directors with strong reputations and experience in areas relevant to our strategy and operations, such as mining, environmental and chemical technologies, government regulation and relations and supply chain management. Each of the nominees for election as director holds or has held senior executive positions in complex organizations and has operating experience that meets this objective, as described below. In these positions, the nominees have also gained experience in core management skills, such as strategic and financial planning, public company financial reporting, corporate governance, executive compensation, risk management and leadership development. The Nominating and Governance Committee also believes that each of the nominees has other key attributes that are critical to the composition of an effective Board: integrity and demonstrated impeccable ethical standards, sound judgment, analytical skills, the ability to work together in a constructive and collaborative fashion and the commitment to devote significant time and energy to service on the Board and its Committees.

The specific experience, qualifications and background of each nominee follows:

Ms. Clarke is currently the Senior Vice President (“SVP”) and Chief Administrative Officer (“CAO”) of Key Energy Services, Inc. (NYSE: KEG); she has served as SVP and CAO since 2008 and served as Vice President and Chief People Officer from 2004 through 2007. Prior to Key Energy Services, Inc., she served as the Vice President of Human Resources of GC Services Limited Partnership and 1st National Bank in Houston, Texas from 1999 to 2004. Ms. Clarke received a B.S. degree in human resources from the University of Houston in 1982 and completed the Director Development Program at the Kellogg School of Management at Northwestern University. She currently serves as Chairperson of the University of Houston College of Technology Dean’s Board of Advisors. Ms. Clarke has served as a director of the Company for less than one year.

### Director Qualifications:

- Leadership Experience – SVP and CAO of Key Energy Services, Inc.; Vice President of Human Resources of GC Services Limited Partnership and First National Bank in Houston, Texas; Vice President of Human Resources of BFI; Director Development Program at the Kellogg School of Management at Northwestern University.
- Industry and Human Resources Experience – 35 years of experience in human resources, a majority of which were at energy and service companies. She has over ten years of experience in the safety and environmental and information technologies industries.

Dr. Durham was a co-founder in 1985 of ADA Technologies, Inc., an Englewood, Colorado private company which contracted to the federal government and others for development of emission technologies. ADA Environmental Solutions, LLC, our wholly owned subsidiary, was originally spun-out of ADA Technologies in 1996. Dr. Durham has been President, CEO and a director of the Company since 2003 and President of ADA Environmental Solutions, LLC, a wholly owned subsidiary, since its formation in 1996. In 2009, Dr. Durham served as a manager of ADA Carbon Solutions, LLC (“ADA-CS”), a former joint venture of ADA-ES with Energy Capital Partners I, LP and its affiliated funds. Dr. Durham has a B.S. in Aerospace Engineering from Pennsylvania State University, an M.S. and Ph.D. in Environmental Engineering from the University of Florida and an Executive M.B.A. from the University of Denver. Dr. Durham is a member of the Board of the American Coal Council, a trade association of companies that sell, use and provide services related to coal, a Board member of the Institute of Clean Air Companies (“ICAC”), a trade association of companies that provide equipment to measure and control air pollution, and was appointed a member of the National Coal Council, which advises the Secretary of Energy on coal-related issues. From 2011 to 2012, he served as vice president of ICAC. Dr. Durham has been a director of the Company for over nine years.

### Director Qualifications:

- Leadership Experience – President, CEO and a director of ADA-ES since 2003; Co-founder of ADA Technologies Inc.; President of ADA Environmental Solutions, LLC; Manager of ADA-CS; Executive M.B.A. from the University of Denver.
- Industry Experience – M.S. and Ph.D. in Environmental Engineering from the University of Florida; Member of the Board of American Coal Council; Board member

and officer of the Institute of Clean Air Companies; Member of the National Coal Council. Senior manager of technical projects and intellectual property development at the entities and in the capacities described above.

Mr. Gabbard joined our Board in November 2012. He currently serves as a director, President and Chief Financial Officer (“CFO”) of Recovery Energy, Inc. (Nasdaq: RECV), a Denver, Colorado-based energy company with operations focused in the Denver Julesburg basin; he was appointed as CFO in July 2011, as a director in August 2012 and as President in November 2012. Prior to Recovery Energy, Mr. Gabbard served as an officer of Applied Natural Gas Fuels, Inc., serving from September 2009 to May 2010 as Vice President-Special Projects and from May 2010 through June 2011 as its CFO. From April 2007 through September 2009, he co-owned and managed MG Advisors, LLC with Mr. Marcum, where he provided management and financial consulting services to companies involved in oil and gas and energy related businesses. From 1991 to April 2007, Mr. Gabbard co-founded and then served as a director, Executive Vice President and CFO of PowerSecure International, Inc. (Nasdaq: POWR; f/k/a Metretek Technologies, Inc.), a developer of energy and smart grid solutions for electric utilities and their commercial, institutional, and industrial customers. He received a bachelor of accountancy degree from the University of Oklahoma in 1977 and is a CPA. Mr. Gabbard has been a director of the Company for less than one year.

Director Qualifications :

- Leadership Experience – Director, President and CFO of Recovery Energy, Inc.; CFO of Applied Natural Gas Fuels, Inc.; Director, Executive Vice President and CFO of PowerSecure International, Inc.
- Industry Experience – 35 years of experience in the management and operations of traditional and alternative energy companies, including those that primarily serve utilities, and small, publicly held companies.
- Finance Experience – CPA; Accounting degree from University of Oklahoma; CFO of Recovery Energy, Inc.; Former CFO of Applied Natural Gas Fuels, Inc. and PowerSecure International, Inc.; provided management and financial consulting services at MG Advisors, LLC; worked with the national accounting firm Ernst & Young.

Mr. Derek Johnson serves as the President of Visual Merchandising, Inc., a specialty supplier to the retail industry, and has held that position since September 2009 and previously from November 2005 to October 2008. Mr. Johnson previously served as the Vice President of new business development for Kennametal, a public company based in Pittsburgh, PA, a global provider of metalworking solutions using tungsten carbide inserts. Mr. Johnson held this position from October 2008 to August 2009. Since 2008, Mr. Johnson has served as a Director of Qualmark Corporation (OTC.PK: QMRK), a company that designs, manufactures, and markets proprietary equipment that rapidly and efficiently exposes product design and manufacturing-related defects for the purpose of improving product quality and reliability. From 1984 to 2005, Mr. Johnson was employed in various positions, including as President and Chief Operating Officer, by CoorsTek, a manufacturer of technical products, supplying critical components and assemblies for mining, automotive, semiconductor, aerospace, electronic, power generation, telecommunication and other high-technology applications on a global basis. He has a Higher National Certificate from Kirkcaldy College in Scotland and an Executive M.B.A. from the University of Denver. Mr. Johnson has been a director of the Company for over six years.

Director Qualifications :

- Leadership Experience – President of Fusion Specialties; Vice President of Kennametal; Director of Qualmark Corporation; President and Chief Operating Officer of CoorsTek; Executive M.B.A. from the University of Denver.
- Industry Experience – Senior management and experience in the development and manufacturer of technical products in diverse international markets at the entities and in the capacities described above.

Mr. Marcum was appointed a director of the Company in January 2008. Mr. Marcum has served as a chairman of the board of Applied Natural Gas Fuels, Inc., a liquefied natural gas producer based in Westlake Village, California (OTC: AGAS) since 2008. He has served as a director of Key Energy Services (NYSE: KEG), an

oilfield services company based in Houston, Texas, since 1996. Prior to his appointment to the Board of Key Energy Services, he was the non-executive Chairman of the Board of WellTech, Inc., an energy production services company, from 1994 until March 1996, when WellTech was merged into Key Energy Services. In July 2011, Mr. Marcum was appointed as a director of Recovery Energy, Inc., a Denver, Colorado-based oil and gas company. From January 1991 to April 2007, Mr. Marcum was Chairman of the Board, President and Chief Executive Officer of Metrotek Technologies, Inc., currently known as PowerSecure International (NASDAQ: POWR), which develops energy and smart grid solutions for electric utilities, and their commercial, institutional, and industrial customers. He retired in April 2007. Mr. Marcum has been a principal in MG Advisors, LLC since April 2007. He holds a bachelor's degree in Business Administration from Texas Tech University. Mr. Marcum has served as Chairman of the Board since June 2009. He has been a director of the Company for over five years.

Director Qualifications :

- Leadership Experience – Chairman of the Board of Applied Natural Gas Fuels; Director of Key Energy Services; Director of Recovery Energy; Non-executive Chairman of WellTech; Chairman, President and CEO of Metrotek Technologies; Chairman of the Board of ADA-ES.
- Industry Experience – Extensive experience in oil and gas development stage and public companies at the entities and in the capacities described above.

Mr. McKinnies has served as our Chief Financial Officer and Secretary since 2003 and was appointed as Senior Vice President in September 2005. Mr. McKinnies was employed by Earth Sciences from 1978 through 2000. A CPA, Mr. McKinnies worked for Peat, Marwick, Mitchell & Co., a national accounting firm, before commencing employment at Earth Sciences in 1978. Mr. McKinnies holds a bachelor's degree in Accounting from the University of Denver. He has been a director of the Company for over nine years.

Director Qualifications :

- Leadership Experience – Senior Vice President, Chief Financial Officer and Director of ADA-ES; Former Manager of ADA-CS and Clean Coal.
- Industry Experience – Served in various capacities at Earth Sciences (the predecessor of ADA-ES) and at ADA-ES for over 30 years.
- Finance Experience – CPA and worked at the national accounting firm Peat, Marwick, Mitchell & Co; Accounting degree from University of Denver; CFO of ADA-ES.

Mr. Shanklin joined Arch Coal, a public company headquartered in St. Louis, Missouri (NYSE: ACI) and one of the nation's largest and most efficient coal producers, in June 2007 as Vice President of Coal Technology. He also serves on the boards of directors for two privately held companies in which Arch Coal is an investor. Prior to his time with Arch Coal, Mr. Shanklin served as Vice President of Marketing & Development for Aquila, Inc. in Kansas City, Missouri. He also held various leadership positions with subsidiaries of Aquila, Inc., including President and Chairman of Aquila Merchant Services. Mr. Shanklin was selected as a 2010 Eisenhower Fellow. He holds a B.S. degree in Electrical Engineering from Kansas State University and an M.B.A. degree from the University of Missouri, Kansas City. Mr. Shanklin has been a director of the Company for more than one year.

Director Qualifications :

- Leadership Experience – Vice President of Coal Technology for Arch Coal, Inc. and various positions in energy project development and asset and commodity management with Aquila Inc.
- Industry Experience – In his capacity as Vice President of Arch Coal, understands coal industry and market and related coal industry product development as well as international markets, which the company plans to pursue. Arch Coal serves many of the same customers as ADA-ES.

Mr. Smith was appointed a director of the Company in August 2003. He has unique experience with the air pollution control industry, the industry in which the Company operates, which has given him keen insight into clean air rules, as well as market dynamics and corporate decision-making within the industry. For over 17 years, as the Executive Director of ICAC, he led strategy discussions on government affairs with top management of

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scores of companies in the air pollution control industry. He has testified over ten times before the U.S. Congress and dozens of times before state clean air regulators. He has also written testimony on nearly 100 proposed clean air rules. He has spoken at conferences (often as the keynote speaker) focused on clean air rules and policy. Most of these national and international conferences were sponsored by organizations of industrial and utility companies who purchase air pollution controls. He is the author of over a dozen articles on clean air policy, and has been quoted widely in clean air trade journals, as well as *The Washington Post*, *New York Times*, and *Wall Street Journal*. Early in his career Mr. Smith served as an appellate litigation attorney for the U.S. Environmental Protection Agency, for which he received two special bonus awards for negotiation and brief-writing in matters involving the utility and coal industries. Mr. Smith also was a founder and acted as managing partner in ESI International from 1981 until April 2003. ESI is a consulting company that employs attorneys, engineers and scientists, and ESI's primary client base is companies in the air pollution control field. After leaving ESI in 2005, Mr. Smith had his own consulting firm, the Law Offices of Jeffrey C. Smith, until December 2009, representing members of the air pollution control industry on government affairs. He retired in 2010. Mr. Smith holds a B.A., *magna cum laude*, in economics from Duke University, where he was elected to Phi Beta Kappa. He also has a J.D. from The University of Michigan Law School. Mr. Smith is chairman of the Nominating and Governance Committee, a position he has held since October 13, 2010. He served on the Company's Audit Committee from January 1 to October 13, 2010 and as our Chairman of the Board from March 2006 until June 2009. Mr. Smith has been a director of the Company for over nine years.

Director Qualifications :

- Leadership Experience – Executive Director of ICAC; Founder and Managing Partner of ESI and the Law Offices of Jeffrey Smith; Chairman of ADA-ES.
- Industry Experience – Extensive and varied experience within the air pollution control industry and author of over a dozen articles on clean air policy.
- Government Experience – Testified before Congress and state regulators; Appellate litigation attorney for the EPA.

Mr. Swanson was appointed a director of the Company in July 2006. Mr. Swanson has been an advisor and performance coach to CEOs and business owners in Colorado for 15 years through an affiliation with Vistage International, Inc. (formerly the Executive Committee), the world's leading CEO membership organization. Previously he was with Accenture, an international consulting firm, was the CFO of the Denver Regional Transportation District ("DRTD"), a \$200 million company, and was the founder and president of Real Estate Associates, Inc. ("REA"), a commercial real estate investment and development company in Denver, Colorado. He has accomplished corporate turnaround projects, has served on a number of private company boards, and from 2007 through 2012 was a director and Audit Committee Chairman of Ascent Solar Technologies Inc. (NASDAQ: ASTI), a developer and manufacturer of solar technology. He has a B.A. in History from the University of Colorado and an M.B.A. from Harvard Business School. Mr. Swanson is Chairman of the Audit Committee. Mr. Swanson has been a director of the Company for over six years.

Director Qualifications :

- Leadership Experience – Advisor and performance coach to CEO's and business owners in Colorado for 15 years through an affiliation with Vistage International, Inc.; CFO of the DRTD and founder and president of REA; M.B.A. from Harvard Business School; Director and Audit Committee Chairman of ADA-ES and Ascent Solar Technologies Inc.
- Finance Experience – Consultant at Accenture and experience in the senior finance positions at the entities and in the capacities described above.

No family relationship exists between any directors or executive officers.

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## CORPORATE GOVERNANCE

### Director Independence

The Board maintains audit, compensation and nominating and governance committees. In our fiscal year 2012 all directors other than Dr. Durham and Mr. McKinnies qualified as “independent directors” as defined in NASD Rule 4200(a)(15), and each Board committee was comprised solely of independent directors. The charters of each committee are available on our website at [www.adaes.com](http://www.adaes.com) under “Investor Relations.”

### Board Meetings and Committees

Our Board is responsible for establishing broad corporate policies and monitoring the overall performance of the Company. However, in accordance with corporate legal principles, the Board is not involved in day-to-day operating matters. Members of the Board are kept informed of the Company’s business by participating in Board and committee meetings, by reviewing analyses and reports sent to them weekly and monthly, and through discussions with the President and other officers.

The Board of Directors met nine times in 2012. At each of the Board of Directors meetings the independent directors were polled to determine if they believed an Executive Session was needed. On one occasion such session was held where management of the Company was excluded. The Audit Committee met eight times in 2012. The Compensation Committee met 11 times in 2012. The Nominating and Governance Committee met six times in 2012. All of the directors were present for more than 75% of the meetings of the Board of Directors and the committees of which they were members held during their individual terms.

### Audit Committee

Our Board has an Audit Committee established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which consists of Messrs. Alan Bradley Gabbard, Derek Johnson, Ronald Johnson and Richard Swanson. Mr. Swanson serves as the chairman of the Audit Committee. Mr. Ronald Johnson is not standing for reelection as a director of the Company at our Annual Meeting. Our Board has determined that Messrs. Swanson and Gabbard are Audit Committee Financial Experts. Mr. Swanson is “independent” as that term is used in the listing requirements for the NASDAQ Stock Market, and a brief listing of his relevant experience is stated in his biography above under the caption entitled “Experience and Qualifications of Director Nominees.”

The role and functions of the Audit Committee are set out in the Audit Committee Charter, as amended, originally adopted by the Company’s Board and most recently amended on September 22, 2005. The role of the Audit Committee is one of oversight of the services performed by the Company’s independent registered public accounting firm and internal audit consultants, evaluating the Company’s accounting and financial reporting processes, system of internal controls and audits of our financial statements. The Audit Committee’s functions include the following: reviewing and assessing the Audit Committee Charter annually; overseeing the Company’s compliance with legal, ethical and regulatory requirements; overseeing the Company’s processes to identify and manage business and financial risk; appointing, approving the compensation of and reviewing the Company’s relationships with its independent registered public accounting firm and/or other auditors and assessing the impact such relationships may have on the auditors’ objectivity and independence; taking other appropriate action to oversee the independence of the outside auditors; reviewing and considering the matters identified in Statement on Auditing Standards No. 61 with the outside auditors and management; reviewing and discussing the Company’s financial statements and report on internal control with the outside auditors and management; recommending whether the Company’s audited financial statements should be included in the Company’s Annual Report on Form 10-K for filing with the Securities and Exchange Commission (“SEC”); and reporting to the Board on all such matters. In performing its oversight function, the Audit Committee relies upon advice and information received in its discussions with the Company’s management and independent registered public accounting firm.

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### **Report of the Audit Committee**

The Audit Committee has (i) reviewed and discussed the Company's audited financial statements for the fiscal year ended December 31, 2012 with the Company's management; (ii) discussed with the Company's independent registered public accounting firm the matters required to be discussed by Statement on Auditing Standards No. 61, as amended, as adopted by the Public Company Accounting Oversight Board ("PCAOB") regarding communication with audit committees (AICPA Professional Standards, Vol. 1, AU section 380); and (iii) received the written disclosures and the letter from the Company's independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent accountant's communications with the Audit Committee concerning independence and has discussed with the Company's independent accountants the independent accountants' independence.

Based on the review and discussions with management and the Company's independent registered public accounting firm referred to above, the Audit Committee recommended to the Board that the audited consolidated financial statements as of and for the years ended December 31, 2012, 2011 and 2010 be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012 for filing with the SEC.

Respectfully submitted,

The Audit Committee: Richard Swanson, Chairman  
Alan Bradley Gabbard  
Derek Johnson  
Ronald Johnson

### **Nominating and Governance Committee**

Our Board has appointed a Nominating and Governance Committee consisting of Ms. Clarke and Messrs. Caruso, Derek Johnson, Marcum, Shanklin and Smith. Mr. Smith serves as the chairman of the Nominating and Governance Committee. Mr. Caruso is not standing for reelection as a director of the Company at our Annual Meeting. The responsibilities of the Committee, as set forth in the Nominating and Governance Committee Charter, most recently amended on July 11, 2011, include selecting director nominees for the Board, reviewing director compensation and benefits and submitting the same to the entire Board for approval, overseeing the annual self-evaluation of the Board and its committees, recommending the structure and composition of Board committees to the entire Board for approval and monitoring in conjunction with the Audit Committee compliance with our Code of Ethics and Business Conduct and granting any waivers thereto with respect to directors and executive officers, recommending individuals to serve as Chairperson of the Board and Chief Executive Officer and reviewing the Chief Executive Officer's recommendations for individuals to serve as executive officers and analyzing and recommending such persons to the Board.

Criteria established for the selection of candidates for the Board include:

- a. An understanding of business and financial affairs and the complexities of an organization that operates as a public company in the business of the Company;
- b. A genuine interest in representing all of our shareholders and the interests of the Company overall;
- c. A willingness and ability to spend the necessary time required to function effectively as a director;
- d. An open-minded approach to matters and the resolve and ability to independently analyze matters presented for consideration;
- e. A reputation for honesty and integrity that is above reproach;
- f. Any qualifications required of independent directors by the NASDAQ Stock Market and applicable law; and
- g. As to any candidate who is an incumbent director (who continues to be otherwise qualified), the extent to which the continuing service of such person would promote stability and continuity in the Boardroom as a result of such person's familiarity and insight into the Company's affairs, and such person's prior demonstrated ability to work with the Board as a collective body.

Director nominees are generally identified by our officers, directors or shareholders based on industry and business contacts. Regardless of the source of the nomination, nominees are interviewed and evaluated by the



Nominating and Governance Committee, other members of the management team and the Board as deemed appropriate by the Nominating and Governance Committee. The Nominating and Governance Committee then presents qualified candidates to the Board for a final discussion and vote.

We do not have a formal policy with respect to the consideration of diversity in the identification of director nominees, but the Nominating and Governance Committee strives to select candidates for nomination to the Board with a variety of complementary skills so that, as a group, the Board possesses the appropriate talent, skills and expertise to oversee the Company's businesses.

Under the Nominating and Governance Committee Charter, the Nominating and Governance Committee will consider nominees submitted by our shareholders. Recommendations of individuals that meet the criteria set forth in the Nominating and Governance Committee Charter for election at our 2014 annual meeting of shareholders may be submitted to the Committee in care of Mark H. McKinnies, Secretary, at 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129 no later than December 13, 2013.

The Committee has recommended to our Board the slate of directors for this Annual Meeting as set forth above. No third party was used in identifying or evaluating nominees, and we received no shareholder recommendations for nominees. The initial appointment of Mr. Shanklin to our Board was made pursuant to a 2003 Subscription and Investment Agreement with Arch Coal, Inc. whereby our management agreed to make available one seat on the Board for an Arch Coal designee and to vote all shares and proxies they are entitled to vote in favor of such designee for so long as Arch Coal continues to hold at least 100,000 shares of our common stock.

#### **Compensation Committee**

Our Board has appointed a Compensation Committee consisting of Ms. Clarke and Messrs. Caruso, Gabbard, Ronald Johnson, Marcum, Smith and Swanson. Mr. Caruso currently serves as the chairman of the Compensation Committee. Messrs. Caruso and Ronald Johnson are not standing for reelection as a director of the Company at our Annual Meeting. The responsibilities of the Compensation Committee, as set forth in the Compensation Committee Charter, most recently amended on July 11, 2011, include reviewing our executive compensation programs to analyze their alignment with attracting, retaining and motivating our executive officers to achieve our business objectives; establishing annual and long-term performance goals for our executive officers and evaluating their performance in light of such goals, reviewing and making recommendations concerning our long-term incentive plans and shareholder proposals related to compensation and administering our equity-based and employee benefit plans. See "Executive Compensation" below for additional information.

#### **Compensation Committee Interlocks and Insider Participation**

Ms. Clarke and Messrs. Caruso, Gabbard, Ronald Johnson, Marcum, Smith and Swanson served as a member of the Company's Compensation Committee during the fiscal year ended December 31, 2012. No member of the Compensation Committee is or was an officer of the Company or had a relationship requiring disclosure under Item 404 of Regulation S-K.

#### **Compensation Committee Report**

The Compensation Committee has reviewed and discussed the Company's Compensation Discussion and Analysis for the fiscal year ended December 31, 2012 with the Company's management.

Based on the review and discussions with management, the Compensation Committee recommended to the Board that the Compensation Discussion and Analysis for the year ended December 31, 2012 be included in this proxy statement/prospectus for filing with the SEC.

Respectfully submitted,

The Compensation Committee: Robert N. Caruso, Chairman  
Kim B. Clarke  
Alan Bradley Gabbard  
Ronald B. Johnson  
W. Phillip Marcum  
Jeffrey C. Smith  
Richard J. Swanson

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## Shareholder Communications to Directors

Any shareholder may communicate directly with the Board (or any individual director) by writing to the Chairman of the Board, ADA-ES, Inc., 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129 or by emailing the Board through the “Contact the Board” link on our website at [www.adaes.com](http://www.adaes.com). Any such communication should state the number of shares beneficially owned by the shareholder making the communication. Provided that such communication addresses a legitimate business issue, the Company or the Chairman will forward the shareholder’s communication to the appropriate director. For any communication relating to accounting, auditing or fraud, such communication will be forwarded promptly to the Chairman of the Audit Committee.

### Code of Ethics and Business Conduct

We have adopted a Code of Ethics and Business Conduct that applies to our officers, directors and employees, including the principal executive officer, principal financial officer, principal accounting officer or controller or other persons performing similar functions, which includes a code of ethics as defined in Item 406(b) of SEC Regulation S-K. A copy of our Code of Ethics and Business Conduct, which was most recently amended on October 18, 2011, is available on our website at [www.adaes.com](http://www.adaes.com). We intend to disclose any amendments to certain provisions of our Code of Ethics and Business Conduct, or waivers of such provisions granted to executive officers and directors, on our website.

### Board Leadership Structure and Role in Risk Oversight

We have a policy of keeping the roles of Chief Executive Officer and Chairman of the Board separate, and the roles are currently filled by two different individuals. We believe this arrangement is appropriate as it recognizes the distinction between the role played by the Chief Executive Officer, which is a position being more heavily oriented towards day-to-day management, while the Chairman’s functions as an independent director whose role is to oversee the Board of Directors and is also able to participate in and chair executive sessions of the Board.

The Board has designated the Audit Committee to take the lead in overseeing risk management, and the Audit Committee periodically reports to the Board regarding briefings provided by management and advisors as well as the Committee’s own analysis and conclusions regarding the adequacy of the Company’s risk management processes. In addition to this compliance program, the Board encourages management to promote a corporate culture that incorporates risk management into the Company’s strategy and day-to-day business operations. The Board and management, including our Vice President and General Counsel, continually work together to assess and analyze our most likely areas of risk.

### Board Recommendation

**OUR BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE PERSONS NOMINATED BY THE BOARD FOR DIRECTORS, BEING KIM B. CLARKE, MICHAEL D. DURHAM, ALAN BRADLEY GABBARD, DEREK C. JOHNSON, W. PHILLIP MARCUM, MARK H. MCKINNIES, ROBERT E. SHANKLIN, JEFFREY C. SMITH AND RICHARD J. SWANSON.**

### PROPOSAL 3

#### RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

##### Relationship with Independent Registered Public Accounting Firm

EKS&H, LLLP (“EKS&H”) served as the Company’s independent registered public accounting firm for fiscal years 2011 and 2012 and has performed procedures related to the financial statements. There have been no disagreements on matters of accounting principles or practices, financial statement disclosures or audit scope or procedures between the Company and EKS&H, during the most recent fiscal year or any subsequent interim period. Effective as of March 19, 2013, the Company’s Audit Committee approved the dismissal of EKS&H as the Company’s independent registered public accountant, effective as of the date of EKS&H’s completion of the

audit services for the fiscal year ended December 31, 2012 and the filing of the Company's Annual Report on Securities and Exchange Commission Form 10-K on March 18, 2013.

Effective as of March 19, 2013, the Audit Committee approved the appointment of KPMG LLP as the Company's independent registered public accounting firm to perform independent audit services beginning with the fiscal year ending December 31, 2013. The appointment follows a competitive process to select the Company's new auditors. Shareholder ratification of the Audit Committee's selection of KPMG LLP as our independent registered public accounting firm as requested in Proposal 3 is not required by our bylaws or otherwise. The Board is submitting this proposal to the shareholders for ratification as a matter of good corporate practice. If the shareholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain this firm. We anticipate that a representative of KPMG LLP will be available to respond to shareholder questions and will have the opportunity to make a statement at that time if the representative desires to do so.

#### Audit Fees

|                        | EKS&H     |           |
|------------------------|-----------|-----------|
|                        | 2012      | 2011      |
| Audit Fees (1)         | \$324,184 | \$169,219 |
| Audit Related Fees (2) | \$ 14,000 | \$ 13,000 |
| Tax Fees (3)           | \$ 150    | \$ 1,950  |

- (1) Includes annual and quarterly review services related to our Form 8-K, 10-Q, 10-K filings, Section 404 internal control audit service and review services related to the filings of Registration Statements on Form S-3, S-4 and Form S-8.
- (2) Includes consultation services related to a Department of Energy audit for governmental projects.
- (3) Includes services related to a sales and use tax audit for the years 2005 through 2009 from the state of Colorado.

#### Audit Committee Approval of Services

The Audit Committee pre-approves all audit or non-audit services performed by our independent accountant in accordance with Audit Committee policy and applicable law. The Audit Committee generally provides pre-approval of audit services and services associated with SEC registration statements, other SEC filings and responses to SEC comment letters (Audit Fees) and services related to internal control reviews, internal control reporting requirements and consultations with our management as to accounting or disclosure treatment of transactions or events and the impact of rules, standards or interpretations by the SEC and other regulatory or standard-setting bodies (Audit-Related Fees) for each 12-month period within a range of approved fees. To avoid certain potential conflicts of interest, the law prohibits us from obtaining certain non-audit services from our independent accountant. The Audit Committee has delegated authority to approve permissible services to its Chairman. The Chairman reports such pre-approvals to the full Audit Committee at its next scheduled meeting. The Audit Committee Chairman pre-approved 100% of the services provided by the independent accountants in 2012. None of the services of the independent accountants in 2012 were of the type specified in Rule 2-01(c)(7)(i)(C) of SEC Regulation S-X.

#### Board Recommendation

**OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE RATIFICATION OF THE AUDIT COMMITTEE'S SELECTION OF KPMG LLP AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2013.**

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## EXECUTIVE OFFICERS

Information concerning our executive officers who are not director nominees is provided below. See “Election of Directors” above for information regarding Dr. Durham and Mr. McKinnies.

| <u>Name</u>           | <u>Age</u> | <u>Positions and Offices</u>             |
|-----------------------|------------|--|
| Christine B. Amrhein  | 51         | Vice President and General Counsel       |
| C. Jean Bustard       | 55         | Chief Operating Officer                  |
| Jonathan R. Lagarenne | 53         | Executive Vice President                 |
| Cameron E. Martin     | 55         | Vice President Emissions Control Systems |
| Graham O. Mattison    | 41         | Vice President of Investor Relations     |
| Richard L. Miller     | 59         | Vice President Business Development      |
| Richard J. Schlager   | 61         | Vice President of Administration         |
| Sharon M. Sjostrom    | 46         | Chief Technology Officer                 |

Each of the officers named above serves at the pleasure of the Board.

Ms. Amrhein became Vice President and Corporate Counsel of the Company in July 2011 and was promoted to General Counsel in June 2012. Prior to her appointment, Ms. Amrhein served as Vice President – Associate General Counsel of The TriZetto Group, Inc. from 2008 through 2011. From 2003 through 2008, Ms. Amrhein was Senior Counsel of First Data Corporation. From 1989 through 2003, Mr. Amrhein had various legal and business roles with The Timken Company. Ms. Amrhein currently serves as the Co-Chair of the Transactions Practice Committee of the Colorado Chapter of the Association of Corporate Counsel. Ms. Amrhein holds a B.A. degree from Allegheny College, an M.A. degree from the University of Exeter and a J.D. degree from the University of Pittsburgh School of Law. Ms. Amrhein also completed the Executive Program at the University of Virginia Darden School of Business.

Ms. Bustard was appointed Chief Operating Officer of the Company in June 2004. She was appointed Manger of Clean Coal Solutions, LLC, our consolidated subsidiary, in January 2012. Ms. Bustard served as Interim President of ADA-CS from October 2008 through September 2010 and served as a member of its Board of Managers from October 2008 through November 2011. Prior to her appointment as COO, she served as Executive Vice President of ADA Environmental Solutions, LLC, our wholly owned subsidiary, beginning with its formation in 1996. Ms. Bustard was employed by ADA Technologies from 1988 through 1996. Ms. Bustard holds a B.S. in Physics Education from Indiana University, an M.A. in Physics from Indiana State University and an Executive M.B.A. from the University of Colorado.

Mr. Lagarenne has served as our Executive Vice President since May 2012. Prior to ADA-ES, he was a partner at Fox Rothschild LLP from 2005 to 2012. Mr. Lagarenne was in private practice as an attorney at the Law Office of Jonathan Lagarenne from 2004 to 2005. He served on the Board of Directors of TurboSonic Technologies from 2002 to 2005. Mr. Lagarenne served as the Chief Executive Officer of Hamon Corporation from 2000 through 2003 and as the Chief Operating Officer from 1998 to 2000. From 1994 to 1998, he served as Vice President and General Counsel of Research-Cottrell, Inc., serving as Associate Counsel prior to that. From 1990 to 1998, Mr. Lagarenne served in multiple regional counsel positions for Air & Water Technology Corporation. Mr. Lagarenne holds a B.S. degree in chemical engineering, with honors, from the University of Virginia and a J.D. degree from Rutgers School of Law.

Mr. Mattison has served as our Vice President of Investor Relations since December 2012. Prior to joining ADA-ES, Inc., he served as an Equity Research Analyst covering alternative energy and industrials for Lazard Capital Markets from 2007 through 2012, including coverage of ADA-ES. From 2004 to 2007, Mr. Mattison served as an Equity Research Associate covering alternative energy, energy infrastructure and oilfield services for First Albany Capital. Previously he served as an associate at MMC Energy, LLC, and co-founded and served as the

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Chief Operating Officer and Chief Financial Officer of 1RoofRealty.com. He began his career as a financial analyst at Daiwa Securities and Churchill-Pryce Capital in their Bangkok, Thailand offices. He holds a B.A. degree from Hobart College and an M.B.A. degree with a specialization in global finance, with honors, from Thunderbird, The Garvin School of International Management.

Mr. Martin was appointed Vice President Emissions Control Systems of the Company in December 2007. Prior to that appointment he served the Company as a Director of Mercury Control since 2003, Director of Engineering since 1997 and Project Manager in 1996. Mr. Martin has a B.S. in Environmental Science from West Virginia University.

Mr. Miller has served as our Vice President Business Development since January 2011. Prior to that appointment he served as Vice President Business Development of Utility Systems from November 2005 to December 2010. He was previously employed by Hamon Research-Cottrell (HRC), a major provider of air pollution control technology solutions for utilities, refineries and other industries serving the North American market, from 1990 to November 2005, most recently as Vice President of Sales with primary responsibility in Particulate and Mercury Control Technologies. Prior to 1989, Mr. Miller was employed by Buell/General Electric Environmental Services, Inc. (now a part of Marsulex, Inc.), in various technical and sales positions with direct responsibility for all fabric filter technologies. Mr. Miller currently serves as Co-Chair of ICAC's Mercury Control division and has previously served as Chairman of ICAC's Fabric Filter Division. Mr. Miller has an A.A.S. in Marine Science Technology from Southern Maine University, a B.S. Degree in Management from Lebanon Valley College and an Executive M.B.A. from Colorado Technical University.

Mr. Schlager was appointed as our Vice President of Administration in December 2012. Prior to that appointment, he served as Vice President of the Technology Services Division since August 2010, Vice President of Administration of the Company from August 2007 to August 2010, served as the Vice President, Contract Research and Development from 2000 to 2007 and was employed by ADA Technologies from 1989 until that time. Mr. Schlager holds a B.S. in Chemistry and an M.S. in Metallurgical Engineering from the Colorado School of Mines.

Ms. Sjoström has served as our Chief Technology Officer since January 2011 and served as Vice President of Technology from January 2007 to December 2010. Previously she served the Company as Director, Technology Development since 2003 when we acquired her company EMC Engineering, LLC, an engineering services company, where she served as President since 2002. From 1998 until September 2002, Ms. Sjoström served as Director of Emissions Control for Apogee Scientific, LLC, a provider of advanced engineering and environmental technologies.

Ms. Sjoström has a B.S. in Mechanical Engineering from Colorado State University, an M.S. in Mechanical Engineering from the California Institute of Technology and an Executive M.B.A. from the University of Denver.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL SHAREHOLDERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS

The following table provides information with respect to the beneficial ownership of the Company's common stock by (1) each of our shareholders whom we believe are beneficial owners of more than 5% of our outstanding common stock, (2) each of our directors and named executive officers and (3) all of our directors and executive officers as a group. We base the share amounts shown on each person's beneficial ownership as of February 28, 2013 (including options exercisable within 60 days thereof), unless we indicate some other basis for the share amounts. Percentage ownership is calculated based on 10,059,145 shares outstanding as of February 28, 2013. Except as noted below, each of the individuals named below has sole voting and investment power for the respective shares.

| <u>Name and Address</u>  | <u>Amount and Nature of<br/>Beneficial Ownership</u> | <u>Percent of<br/>Class</u> |
|--|--|-----------------------------|
| Christine Amrhein (Vice President and General Counsel) (a)       | 18,114(1)  | *                           |
| C. Jean Bustard (Chief Operating Officer) (a)                    | 97,075(2)  | 1.0%                        |
| Robert N. Caruso (Director) (a)                                  | 28,028(3)  | *                           |
| Kim B. Clarke (Director) (a)                                     | -0-  | *                           |
| Michael D. Durham (Director, President and CEO) (a)              | 293,830(4)   | 2.9%                        |
| A. Bradley Gabbard (Director) (a)                                | 2,146  | *                           |
| Derek Johnson (Director) (a)                                     | 10,877   | *                           |
| Ronald B. Johnson (a)  | 29,686(5)  | *                           |
| Jonathan R. Lagarenne (Executive VP) (a)                         | 3,250  | *                           |
| W. Phillip Marcum (Director) (a)                                 | 42,323(6)  | *                           |
| Cameron E. Martin (VP Emissions Control Systems) (a)             | 19,184(7)  | *                           |
| Graham O. Mattison (VP Investor Relations) (a)                   | 1,060  | *                           |
| Mark H. McKinnies (Director, Secretary, Senior VP and CFO) (a)   | 120,895(8)   | 1.2%                        |
| Richard Miller (VP Business Development for Utility Systems) (a) | 33,950(9)  | *                           |
| Richard J. Schlager (VP Administration) (a)                      | 60,078(10)   | *                           |
| Robert E. Shanklin (Director) (b)                                | -0- (11)   | *                           |
| Sharon M. Sjoström (Chief Technology Officer) (a)                | 16,614(12)   | *                           |
| Jeffrey C. Smith (Director) (a)                                  | 43,144   | *                           |
| Richard Swanson (Director) (a)                                   | 16,664   | *                           |
| BlackRock, Inc. (c)  | 1,042,606(13)  | 10.4%                       |
| Wellington Management Company, LLP (d)                           | 1,284,037(14)  | 12.8%                       |
| <b>Directors and Officers as a Group (19 individuals)</b>        | <b>836,918(15)</b>                                   | <b>8.3%</b>                 |

\* Less than 1%.

(a) 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, CO

(b) 1 CityPlace Dr., St. Louis, MO

(c) 40 East 52nd Street, New York, NY

(d) 280 Congress Street, Boston, MA

### Notes:

- (1) Included in the amount shown are 1,186 shares of restricted stock held by Ms. Amrhein which have not vested and are subject to certain repurchase rights, 403 shares held in Ms. Amrhein's 401(k) Plan account and 15,045 shares held indirectly by Ms. Amrhein (by spouse). Included in the 15,045 shares held by spouse are 1,937 shares to which Mr. Amrhein has the right to acquire beneficial ownership through stock options, 449 shares of restricted stock which have not yet vested and are subject to certain repurchase rights and 4,505 shares held in Mr. Amrhein's 401(k) Plan (as defined below) account.
- (2) Included in the amount shown are 24,543 shares to which Ms. Bustard has the right to acquire beneficial ownership through stock options, 12,000 shares of restricted stock which have not yet vested and are subject to certain repurchase rights and 18,369 shares held in Ms. Bustard's 401(k) Plan account.
- (3) Included in the amount shown are 10,979 shares held by B/3 Management Resources, LLC, which is controlled by Mr. Caruso as a Managing Director.

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- (4) Included in the amount shown are 55,984 shares held in Dr. Durham's 401(k) Plan account, 15,000 shares of restricted stock which have not yet vested and are subject to certain repurchase rights, and 49,010 shares to which Dr. Durham has the right to acquire beneficial ownership through stock options.
  - (5) Included in the amount shown are 7,777 shares held by the Johnson Family Trust and 21,909 shares held by Twin-Kem International, Inc., which is controlled by Mr. Johnson as the President and Owner.
  - (6) Included in the amount shown are 5,000 shares to which Mr. Marcum has the right to acquire beneficial ownership through stock options.
  - (7) Included in the amount shown are 394 shares of restricted stock which have not vested and are subject to certain repurchase rights and 8,618 shares held in Mr. Martin's 401(k) Plan account.
  - (8) Included in the amount shown are 35,411 shares held in Mr. McKinnies' 401(k) Plan account, 500 shares held as trustee for the MJ Kraft Trust, 12,000 shares of restricted stock which have not vested and are subject to certain repurchase rights and 34,210 shares to which Mr. McKinnies has the right to acquire beneficial ownership through stock options.
  - (9) Included in the amount shown are 13,000 shares to which Mr. Miller has the right to acquire beneficial ownership through stock options, 1,500 shares of restricted stock which have not vested and are subject to certain repurchase rights and 5,450 shares held in Mr. Miller's 401(k) Plan account.
  - (10) Included in the amount shown are 28,300 shares to which Mr. Schlager has the right to acquire beneficial ownership through stock options and 19,380 shares held in Mr. Schlager's 401(k) Plan account.
  - (11) Does not include 296,277 shares held by Arch Coal, Inc. Mr. Shanklin is Vice President of Coal Technology at Arch Coal and disclaims beneficial ownership of such shares.
  - (12) Included in the amount shown are 7,832 shares held in Ms. Sjostrom's 401(k) Plan account.
  - (13) As of December 31, 2012, per Schedule 13G filed with the SEC on January 11, 2013, which reported as follows: BlackRock, Inc. owned and had sole voting and dispositive power of 1,042,606 shares.
  - (14) As of December 31, 2012, per Schedule 13G/A filed with the SEC on February 14, 2013, which reported as follows: Wellington Management, LLC owned 1,284,837 shares and had voting power of 803,800 shares and dispositive power of 1,284,837 shares.
  - (15) The amount shown includes options to purchase 156,000 shares of our common stock held by individuals in the group.

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## EXECUTIVE COMPENSATION

Our philosophy for executive compensation is set forth in a document entitled “Amended and Restated ADA-ES Executive Compensation Plan” (the “EC Plan”) which was adopted by the Compensation Committee of the Board on February 22, 2012. The ADA-ES compensation philosophy is designed to support achievement of our Company strategies and goals, thereby creating long-term value for our shareholders and customers and ensuring our ability to recruit and retain highly qualified executive employees. The EC Plan:

- Employs a process that fully complies with all legal, regulatory and disclosure requirements.
- Supports our Company’s vision, mission, strategy, and values in the long-term best interests of our shareholders.
- Requires Board approval of the philosophy underlying executive compensation and periodic reports on the program’s adherence to these guidelines.
- Vests in the Compensation Committee responsibility for oversight, implementation and administration of executive compensation and benefits, including the establishment of appropriate measures of materiality which determine those matters that are subject to committee review and approval.
- Ensures that members of the Compensation Committee, together with their legal counsel and consultants, are independent and do not have a conflict of interest relative to the executive or compensation being reviewed or any related products/services being utilized or considered.
- Attracts and retains the best executive talent and a highly qualified diverse workforce within a non-discriminatory, merit-based compensation program.
- Utilizes external compensation data to benchmark comparable positions in similar industries and companies within our geographical region as one key factor in establishing the competitiveness of our executive salaries, incentives and benefits.
- Provides internal equity and fairness by considering differences among executive-level job qualification/skill requirements, responsibility/accountability, value creation and performance.
- Gives flexibility to the Compensation Committee to make compensation decisions adaptable to changing business conditions and within budgetary guidelines.
- Encourages competency-building by linking career development, performance management and compensation rewards.
- Achieves a performance-driven leadership culture that generates growth, profitability and long-term shareholder value.
- Provides clear prioritization, focus and measurement on strategic and operational goals with a meaningful link to rewards.
- Recognizes and rewards individual and executive-group leadership, innovation, achievement, contribution and excellence.
- Encourages recruitment, retention, and motivation of outstanding executives so that the organization can achieve its mission and objectives.
- Includes periodic adjustments to pay ranges based upon changes in the marketplace.

The EC Plan applies to the Executive Team, which includes the President/Chief Executive Officer, the Chief Operating Officer, the Chief Financial Officer, Chief Technology Officer and all Vice Presidents of the Company. Executives become eligible to participate in this plan after completing 12 months of continuous service with ADA-ES. Participation may be modified based on the Board’s approval.

The Compensation Committee establishes the base salary for all executive officers and establishes annual performance incentive metrics. The CEO makes recommendations as to base salary and incentive compensation of all other executive officers to the Compensation Committee.

### Base Salaries

Base salary is defined as ongoing, cash compensation paid bi-weekly based on such factors as job responsibilities, external competitiveness, and the individual’s experience and performance. Pay ranges have been set based on the local market for similar positions, with consideration given to regional and national rates of pay for employees serving similar functions in comparable companies. Base salary is typically increased



annually based on cost of labor/living increases. In determining appropriate merit increases, the Compensation Committee has considered the actual market change for various job families in addition to published local CPI-U data. The market change is determined by tracking the year-over-year change in the median rate for a given position or job family using regional salary surveys. ADA-ES attempts to ensure middle market pay for solid performers and consider higher levels of pay for outstanding performers. ADA-ES does not intend to be a market leader in base compensation. A decision to materially increase or decrease compensation would be based on the aforementioned factors. Mountain States Employers Council, a regional compensation consultant, was engaged by the Compensation Committee and assisted with the design and application of the EC Plan and has advised on the appropriateness of incentive levels for executive positions.

The Compensation Committee engaged Mountain States Employers Council, a regional compensation consultant (“MSEC”), to assist with the initial design and application of the EC Plan and reviewed data provided by MSEC in determining the appropriateness of base pay and incentive compensation for executive positions in 2010 through 2012. MSEC did not provide any other services to the Company.

On July 27, 2010, the Compensation Committee approved an increase in Dr. Durham’s base salary to \$405,000, in Mr. McKinnies’ base salary to \$300,000, in Ms. Bustard’s base salary to \$255,000, in Ms. Sjostrom’s base salary to \$175,000 and increases in the salaries of the Company’s other executive officers, all to be effective as of July 1, 2010. In determining the base pay increases in 2010, the Compensation Committee considered data from MSEC that showed higher salary levels for public company executives. Data considered by the Compensation Committee prior to July 2010 was primarily for private companies. The pay increase for Mr. McKinnies also reflected the desire of the Compensation Committee to distinguish his compensation from that of Ms. Bustard.

On January 25, 2011, the Board appointed Ms. Sjostrom as Chief Technology Officer and, based on data from MSEC, approved an increase in her base salary to \$200,000, to be effective as of January 1, 2011. On June 7, 2011, the Board appointed Ms. Amrhein as Corporate Counsel and Vice President to commence July 18, 2013 (she was later appointed as Vice President and General Counsel on June 6, 2012) and approved a base salary of \$175,000 based on data from MSEC.

On January 16, 2012, the Compensation Committee approved an increase in Dr. Durham’s base salary to \$485,000, in Mr. McKinnies’ base salary to \$325,000, in Ms. Bustard’s base salary to \$275,000, in Ms. Sjostrom’s base salary to \$220,000, in Ms. Amrhein’s base salary to \$200,000 and increases in the salaries of the Company’s other executive officers, all to be effective as of January 1, 2012 based on data from MSEC and performance of the Company’s executive officers.

#### Incentive Compensation

Annual performance incentives are designed to motivate the management team to achieve critical short-term goals, typically one to two years, which are expected to contribute to the long-term health and value of the Company. Incentives may be paid in cash or equity as determined by the Board. We generally grant restricted stock awards to new executives at the Board meeting following the commencement of employment.

Incentive amounts are set based on job position and market practices. The performance metrics under the EC Plan focus on specific business objectives set during the first half of each year. Objectives are those metrics which management and the Board determine are most important to the short and long term health and value of the organization. The objectives for 2012 were based on revenues, gross margins, ratio of contracts awarded for certain products, share price performance, general and administrative expense rate, commercial advancement of certain products, CO2 Capture projects, new product development and exploration of new business opportunities. Potential incentive amounts for 2012 performance were established at 50% and 40% of base salary for the CEO and other members of the executive team, respectively.

Annual incentive awards under the EC Plan for the CEO and the other executive officers as a group are made by the Compensation Committee in January or February of each year with respect to the previous year’s performance. The CEO has the discretion to allocate the incentive pool set by the Committee to the other executive officers, subject to final approval by the Committee Chairman over such allocations. Annual incentives, if any, are generally planned for payment by February 28<sup>th</sup> of the calendar year following the incentive period. Incentives paid in cash are subject

to payroll taxes and other customary withholdings. These incentives can be deferred and paid to a designated beneficiary, although that has not been the case with any incentives awarded thus far. In early 2011, 2012 and 2013 the Compensation Committee approved incentive awards earned by the executive officers based on 2010, 2011 and 2012 performance, respectively, under the EC Plan with a value of \$626,952 and \$742,810 and \$569,487, respectively, in the aggregate for the CEO and the other executive officers as a group. The Compensation Committee allocated 21%, 28% and 27% of the 2010, 2011 and 2012 incentive awards to the CEO and gave the CEO discretion to allocate the remaining amounts to the other executive officers.

From time to time the Board may recognize exemplary performance of any executive with a cash or stock award. Exemplary performance is performance that the Board determines to have required significant effort and commitment and is determined to have had a significant positive impact on the current or future performance of the organization. No such payments were made in 2010, 2011 and 2012 other than the RC Bonus described below.

The use of equity payments to make incentive payments and the award of stock-based incentives for achieving specific project milestones, is intended to link short-term success to long-term performance and decision making, and to align management and shareholder interests. Payments may be made in shares or options, as determined by the Board, considering accounting and regulatory restrictions, and the financial condition of the Company. The stock portions of the 2012, 2011 and 2010 incentive awards are shown below in the Summary Compensation table under the “Stock Awards” column. The cash portions of the 2012, 2011 and 2010 incentive awards are shown below in the Summary Compensation table under the “Non-Equity Incentive Plan Compensation” column.

#### Crowfoot Incentive Program for Certain Executive Management

In March 2008, the Compensation Committee and the Board approved an incentive program (the “Crowfoot Incentive Program”) pursuant to the 2007 Equity Incentive Plan (the “2007 Plan”) under which 172,500 shares of ADA-ES common stock were awarded (but not vested) to four of our executive officers and an independent consultant as an incentive for the executives and the consultant to work diligently to attain certain milestones related to progress on the development, construction and operation of an activated carbon production facility (the “Crowfoot Project”). The facility was developed by Red River Environmental Products, LLC, a wholly owned subsidiary of ADA-CS.

The eligible recipients of awards under the Crowfoot Incentive Program, and the number of shares awarded to each, were as follows: Michael Durham – 57,500 shares, Mark McKinnies – 46,000 shares, C. Jean Bustard – 46,000 shares, Richard Miller – 11,500 shares and a financial consultant to the Company – 11,500 shares. A portion of the shares awarded to each of the recipients “vests” upon attainment of each defined milestones. Unvested shares are subject to repurchase rights of the Company. Based on the satisfaction of milestones and waivers of certain conditions in 2010, the following table identifies the number of shares that are vested, forfeited and unvested for each recipient:

| <b>Name of Individual and<br/>Principal Position</b>     | <b>Total Shares<br/>Awarded<br/>(#)</b> | <b>Total Shares<br/>Vested<br/>(#)</b> | <b>Total<br/>Shares<br/>Forfeited<br/>(#)</b> | <b>Total<br/>Shares<br/>Unvested<br/>(#)</b> |
|--|---|--|---|--|
| Michael D. Durham<br>PEO                                 | 57,500                                  | 41,625                                 | 875   | 15,000                                       |
| Mark H. McKinnies<br>PFO                                 | 46,000                                  | 33,300                                 | 700   | 12,000                                       |
| C. Jean Bustard<br>COO                                   | 46,000                                  | 33,300                                 | 700   | 12,000                                       |
| Richard Miller<br>Vice President of Business Development | 11,500                                  | 10,000                                 | -   | 1,500  |
| Financial Consultant                                     | 11,500                                  | 9,833                                  | 167   | 1,500  |
| <b>Totals</b>  | <b><u>172,500</u></b>                   | <b><u>128,058</u></b>                  | <b><u>2,442</u></b>                           | <b><u>42,000</u></b>                         |

Effective as of November 28, 2011, the Compensation Committee terminated the Crowfoot Incentive Program due to the relinquishment of the Company's interest in ADA-CS. The Committee determined not to repurchase the unvested shares at such time and may reallocate such shares to future incentive programs.

#### Refined Coal Activities Supplemental Compensation Plan

On April 20, 2010, the Compensation Committee of our Board adopted the Refined Coal Activities Supplemental Compensation Plan, which was amended and restated on November 9, 2011 (the "RC Plan"). The RC Plan provides for the allocation of annual incentive awards in an amount equal to seven percent of the "Net Contribution Margin" (as defined in the RC Plan) resulting from our "Refined Coal Activities" (as defined in the RC Plan). Refined Coal Activities currently include the activities of CCS and may include such other activities that the Compensation Committee designates. The amount of each incentive award is calculated and paid annually following the close of each fiscal year and allocated as follows: three percent of Net Contribution Margin, or 42.85% of the amount of the award, is allocated to our Chief Executive Officer, Dr. Michael Durham, and four percent of Net Contribution Margin, or 57.15% of the amount of the award, is allocated to those eligible RC Plan participants selected by Dr. Durham based on their contributions to our Refined Coal Activities during the prior fiscal year. The RC Plan was amended in November 2011 to clarify the "Revenue" and "Expense" components that are used to calculate the Net Contribution Margin and to include "Claw-Back Rights" pursuant to which we would be entitled to a return of amounts paid out under the RC Plan if we are required to refund any of the Revenue upon which an award was made. In February 2012, the Compensation Committee limited the "Claw-Back Rights" to apply only to our executive officers, set a minimum threshold for their application and provided that any claw-back would be an offset against any future incentive compensation. These changes were made based on concerns as to the possible negative impact any exercise of such rights may have on employee morale, the costs and difficulty of administering any claw-back and the unlikelihood that any such claw-back right may arise.

In early 2011, the Compensation Committee approved the calculation of an award amount of approximately \$430,000 under the RC Plan based on Refined Coal Activities in 2010. In February 2012, the Compensation Committee approved the calculation of an award amount of approximately \$283,000 under the RC Plan based on Refined Coal Activities in 2011. In March 2013, the Compensation Committee approved the calculation of an award amount of approximately \$223,000 under the RC Plan based on Refined Coal Activities in 2011 due to cash distributions from Clean Coal in 2013; this award was earned in 2013 and is not included in the Summary Compensation Table below.

During 2012, the Compensation Committee discussed various changes to the RC Plan based on input from senior management and in March 2013 terminated the RC Plan in favor of a replacement long-term incentive plan being developed. In lieu of an award under the RC Plan with respect to Refined Coal Activities in 2012, on March 20, 2013, the Compensation Committee approved a discretionary bonus in the amount of approximately \$723,000 based on the calculations that would have been made pursuant to certain of the changes discussed during 2012, including inclusion of an award based on tax credits earned by Clean Coal during 2012 due to Refined Coal Activities. This discretionary bonus was earned in 2013 and is not included in the Summary Compensation Table below.

#### Clean Coal Activities Supplemental Bonus

On November 9, 2011, the Compensation Committee approved a \$1 million discretionary bonus (outside of the RC Plan) (the "2011 RC Bonus") to reward the management team and employees for their work that resulted in the \$60 million investment by GSFS Investments I Corp., an affiliate of the Goldman Sachs Group, Inc. to Clean Coal. The discretionary bonus included a cash portion and up to \$300,000 to be paid in shares of common stock reserved under the 2007 Equity Incentive Plan. The shares were issued to the Company's 401(k) Plan for eligible recipients (including all executive officers) and issued directly to recipients not eligible to participate in the Company's 401(k) Plan. Dr. Durham received \$300,000 (\$10,045 in common stock and the remainder in cash), and he allocated the remaining amount to the other executive officers, a contractor and employees.

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## 2013 Executive Compensation and Compensation Adviser

Our Compensation Committee determined it was in the best interest of the Company to engage a compensation adviser to assist with the design and implementation of compensation arrangements starting in 2013. In November 2012, our Compensation Committee completed a competitive bidding process and selected Longnecker & Associates (“Longnecker”). Longnecker has advised the Company on:

- selection of a peer group for purposes of analyzing and comparing executive compensation data,
- executive officer base salaries for 2013,
- development of short-term incentive metrics for 2013 under our EC Plan,
- termination of the RC Plan and
- replacement of the RC Plan with a long term incentive plan for our executive officers and a profit sharing incentive plan for our employees, both of which are still in the process of being developed.

Based on disclosures made by Longnecker, the Compensation Committee determined that Longnecker meets the independence criteria of Rule 10C-1 of the Securities and Exchange Act of 1934, as amended. Longnecker does not provide any other services to the Company.

## Other Aspects of Executive Employment

There is no severance pay policy or other benefits payable after termination for any executive except for Mr. Lagarenne. See “Employment Contracts and Termination of Employment and Change-in-Control Arrangements” below regarding executives’ obligations after termination.

In the event of a restatement of income, any overpayments of incentive pay made to executives based on such restatement of income may be reclaimed at the discretion of the Board of Directors. The Company restated its financial statements for the fiscal years ended December 31, 2010 and 2011 in October of 2012. The Compensation Committee determined there was no overpayment of incentive pay as a result of such restatements.

We have key person term insurance for our CEO in the amount of \$5 million and for our CFO, COO and CTO in the amount of \$2 million for each individual. The policies may be assigned to the individuals upon termination of employment other than for cause whereupon the executive would be responsible for any premium payments.

Executives are encouraged to own a number of shares of stock equal to a value of at least one (1) times the annual base salary as a condition of continued employment with ADA-ES. Executives have five (5) years from the date of their hire/promotion to accomplish this level of ownership. Ownership is calculated considering holdings of restricted stock, whether or not the restrictions have expired, private holdings, and shares held in retirement accounts. Holding of options also will be considered in the ownership calculation by adding the value of the spread of in-the-money options to the total value of other holdings. The Compensation Committee reviewed executive equity ownership against the ownership goals for our executives in August 2012 and confirmed all executives met the ownership guidelines at that time.

After the stock ownership guidelines have been met, executives may sell unrestricted stock they have owned for a period greater than 12 months, and may exercise vested stock options and sell shares to pay for the exercise price and withholding tax, except as otherwise provided for in the underlying stock option agreement. The Company must be advised of any sale of stock options or shares of stock at least 30 days in advance or the executive must be engaged in a pre-announced program sale in compliance with federal securities laws, and such sales must be made in compliance with our insider trading policy.

Executives leaving the Company may be required to hold their stock in the Company for at least 6 months after leaving the Company.

The ADA-ES, Inc. Profit Sharing Retirement Plan, which is a plan qualified under Section 401(k) of the Internal Revenue Code (the “401(k) Plan”) covers all eligible employees. Pursuant to that plan, we make matching contributions to each eligible employee’s account up to 7% of the employee’s eligible compensation, and may make, at the discretion of the Board, contributions based on the profitability of the Company to those accounts.

Beginning in June 2009, we have made our matching contributions in shares of the Company's common stock. No discretionary contributions were made to the 401(k) Plan in 2010, 2011 and 2012 other than as discussed above. Investments in an employee's account may be made in stocks, bonds, mutual funds and other investments permitted by the Plan's administrator.

Employee contributions to the 401(k) Plan are 100% vested. Company contributions become 100% vested if an employee's employment ends after the date such employee attains normal retirement age (age 65), dies or becomes disabled. If an employee's employment is terminated prior to the date the employee attains normal retirement age (65) or dies or becomes disabled, the employee will become vested in the Company's matching contributions and any discretionary contributions according to the schedule below:

| Years of Vesting Service | Vested Percentage |
|--------------------------|-------------------|
| Less than 2              | 0%                |
| 2                        | 20%               |
| 3                        | 40%               |
| 4                        | 60%               |
| 5                        | 80%               |
| 6 or more                | 100%              |

The following table shows compensation of those persons who were our principal executive officer ("PEO"), principal financial officer ("PFO"), and the three other most highly compensated executive officers other than the PEO and PFO (collectively, the "NEOs") for each of the years they were so designated. The structure of pay for each NEO is the same, although as noted above the potential incentive amounts under the EC Plan for 2010, 2011 and 2012 performance were established at 50% of base salary for the PEO and 40% of base salary for other NEOs.

#### Summary Compensation Table for Years Ended December 31, 2010, 2011 and 2012

| Name of Individual and Principal Position                      | Year | Salary (\$)<br>(1) | Stock Awards (\$)<br>(2) | Non-Equity Incentive Plan Compensation (\$)<br>(3) | All Other Compensation (\$)(4) | Total (\$) |
|--|------|--------------------|--------------------------|--|--------------------------------|------------|
|  |      |                    |                          |  |                                |            |
| Michael D. Durham<br>President, CEO and<br>Director (PEO)      | 2012 | 481,923            | -                        | 218,537  | 22,527                         | 722,987    |
|  | 2011 | 395,520            | 10,045                   | 545,835  | 17,156                         | 968,556    |
|  | 2010 | 332,027            | -                        | 319,180  | 17,504                         | 668,711    |
| Mark H. McKinnies<br>Senior VP, CFO and<br>Director (PFO)      | 2012 | 324,038            | -                        | 120,401  | 22,080                         | 466,519    |
|  | 2011 | 295,983            | 10,045                   | 118,892  | 17,161                         | 442,081    |
|  | 2010 | 266,903            | 29,860                   | 105,237  | 15,056                         | 417,056    |
| C. Jean Bustard<br>COO   | 2012 | 274,231            | -                        | 102,030  | 18,477                         | 394,738    |
|  | 2011 | 252,949            | 10,045                   | 107,078  | 9,247                          | 379,319    |
|  | 2010 | 253,199            | 29,860                   | 94,408   | 13,082                         | 390,549    |
| Sharon M. Sjostrom<br>CTO                                      | 2012 | 219,231            | -                        | 81,095   | 15,454                         | 315,780    |
|  | 2011 | 199,037            | 8,200                    | 52,594   | 14,730                         | 274,561    |
|  | 2010 | 154,956            | 22,096                   | 50,906   | 11,742                         | 239,700    |
| Christine Amrhein<br>Vice President and<br>General Counsel (5) | 2012 | 199,038            | -                        | 57,405   | 7,562                          | 264,005    |
|  | 2011 | 74,038             | 44,887                   | 15,340   | -                              | 134,265    |

- (1) The 2010 amounts include deferred wages from 2009 that were earned and paid in shares of common stock in 2010 under the 2007 Plan and were valued at the fair value of the awards determined in accordance with FASB Accounting Standards Codification ("ASC") Topic 718 as discussed in (2) below.

- (2) Amounts for 2010 represent portions of the 2010 EC Plan award executives elected to receive in stock. Amounts for 2011 include the stock portion of the 2011 RC Bonus and for Ms. Amrhein, restricted stock issued upon commencement of her employment. Ms. Amrhein's restricted stock consists of a \$25,000 starting bonus, which stock vested upon completion of one year of service, and the standard award to all new employees equal to 10% of her base salary, which vests pursuant to a five year vesting schedule with 10% vesting on the second anniversary, 20% on the third anniversary, 30% on the fourth anniversary and 40% on the fifth anniversary of her start date. These awards were valued at the grant date fair value determined in accordance with FASB ASC Topic 718, which is based on the closing sales price of the common stock on the grant date. The Company recognizes stock-based compensation expense for restricted stock awards over the vesting period.
- (3) Amounts shown for 2012 represent the 2012 EC Plan award and amounts earned for the 2011 EC Plan award in 2012. Amounts shown for 2011 represent the amounts earned for the 2011 EC Plan award, under the RC Plan for Refined Coal Activities in 2011 and for the 2011 RC Bonus. The 2010 amounts represent the amounts earned for the 2010 EC Plan award and under the RC Plan for Refined Coal Activities in 2010.
- (4) Amounts represent matching contributions in stock made by the Company under our 401(k) Plan for the benefit of the named individual.
- (5) The 2011 amounts for Ms. Amrhein are for the period from July 2011, when she commenced employment, through December 2011.

#### Grants of Plan-Based Awards

| <u>Name of Individual and<br/>Principal Position</u>       | <b>Estimated Future Payments Under Non-Equity<br/>Incentive Plan Awards (1)</b> |                        |                         |
|--|---|------------------------|-------------------------|
|  | <b>Threshold</b>  |                        |                         |
|  | <b>(\$)</b>   | <b>Target<br/>(\$)</b> | <b>Maximum<br/>(\$)</b> |
| Michael D. Durham<br>PEO                                   | 97,000  | 242,500                | 363,750                 |
| Mark H. McKinnies<br>PFO                                   | 52,000  | 130,000                | 195,000                 |
| C. Jean Bustard<br>COO                                     | 44,000  | 110,000                | 165,000                 |
| Sharon M. Sjostrom<br>CTO                                  | 35,200  | 88,000                 | 176,000                 |
| Christine Amrhein<br>Vice President and<br>General Counsel | 32,000  | 80,000                 | 160,000                 |

- (1) The target non-equity incentive award under the EC Plan for 2012 was 50% of base salary for the PEO and 40% of base salary for all other executive officers. The threshold non-equity incentive award was 40% of the target and the maximum non-equity incentive award was 150% of the target. The metrics used to determine the non-equity incentive awards for our executives under the EC Plan are discussed above. Actual non-equity incentive awards earned for 2012 are included in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table.

## Outstanding Equity Awards at December 31, 2012

| Name                 | Option Awards   |   |   |                                 |                        | Stock Awards  |   |
|----------------------|---|---|---|---------------------------------|------------------------|---|---|
|                      | Number of Securities Underlying Unexercised Options (#) Exercisable (1) | Number of Securities Underlying Unexercised Options (#) Unexercisable | Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options | Option Exercise Price per Share | Option Expiration Date | Equity Incentive Plan Award: Number of Unearned Shares That Have Not Vested (2) | Equity Incentive Plan Award: Market Value of Unearned Shares That Have Not Vested (2) |
| Michael D. Durham    | 49,010  | -   | -   | \$ 8.60                         | 8/23/14                | 15,000  | \$253,200   |
| Mark H. McKinnies    | 34,210  | -   | -   | \$ 8.60                         | 8/23/14                | 12,000  | \$202,560   |
| C. Jean Bustard      | 24,543  | -   | -   | \$ 8.60                         | 8/23/14                | 12,000  | \$202,560   |
| Sharon M. Sjostrom   | 2,363   | -   | -   | \$13.80                         | 11/4/14                | -   | \$ -  |
| Christine B. Amrhein | -   | -   | -   | \$ -                            | -                      | 1,186   | \$ 17,488   |

- (1) Represents options granted on August 23, 2004 pursuant to our 2004 ESO Plan for Mr. Durham, Mr. McKinnies and Ms. Bustard and options granted on November 4, 2004 pursuant to the 2002 ADA-ES, Inc. Stock Option Plan for Ms. Sjostrom.
- (2) The shares for all executives except Ms. Amrhein consist of Crowfoot Incentive Program awards granted on March 17, 2008. Effective November 28, 2011, the Program was terminated. The Compensation Committee determined not to repurchase the unvested shares at such time and may reallocate such shares to future incentive programs. The shares for Ms. Amrhein consist of restricted stock issued upon commencement of service with the Company in July 2011 and pursuant to the 2011 RC Bonus that have not yet vested. The market value of such shares was determined based on a share price of \$16.88 at December 31, 2012.

### Option Exercises and Stock Vested

| Name of Individual and Principal Position                | Stock Awards                             |                                |
|--|--|--------------------------------|
|  | Number of Shares Acquired on Vesting (#) | Value Realized on Vesting (\$) |
| Michael D. Durham (PEO)                                  | -  | -                              |
| Mark H. McKinnies (PFO)                                  | -  | -                              |
| C. Jean Bustard COO                                      | -  | -                              |
| Sharon M. Sjostrom CTO                                   | -  | -                              |
| Christine Amrhein Vice President and General Counsel (1) | 1,480                                    | 35,698                         |

- (1) Amounts shown represent restricted stock awarded to Ms. Amrhein upon commencement of employment and that vested in July 2012.

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## Pension Benefits

No retirement payments or benefits were paid to any NEO of the Company in the fiscal year ended December 31, 2012 except those matching contributions paid under the Company's Profit Sharing Retirement Plan, which is a tax-qualified defined contribution plan.

## Nonqualified Deferred Compensation

Although our EC Plan allows for deferrals of payment, the Company does not currently have any nonqualified deferred compensation plans that apply to the NEOs.

## Employment Contracts and Termination of Employment and Change-in-Control Arrangements

We have executed employment agreements with every full-time employee, including our executive officers. The agreements with all of our executive officers contain the following provisions:

1. Description of position, duties, authority, compensation, benefits and obligation of the employee to devote full time to the fulfillment of his/her obligations under the agreement.
2. Obligations to disclose and Company ownership of inventions and confidential subject matter, which obligations survive for two years after termination of employment.
3. Assignment of inventions, obligations regarding inventions and confirmation of no Company obligation to commercialize inventions, all of which survive after termination of employment.
4. Acknowledgement that copyright works are "works for hire" and obligation of employee to maintain written records of all inventions and confidential subject matter.
5. Restrictive obligations relating to confidential subject matter, which survive after termination of employment.
6. Acknowledgement and agreement regarding no conflicting obligations and obligations upon termination of employment.

The agreements with our Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, Chief Technology Officer and Vice President and General Counsel also contain the following provisions:

1. Automatic extensions for one-year periods unless previously terminated with appropriate advance notice.
2. Three months' prior written notice of intent to terminate by either the Company other than for cause, death or permanent disability or the employee.

The compensation amounts included in the employment agreements are subject to annual adjustment and the compensation levels for the named executive officers are shown in the tables above. None of our employment contracts or other agreements contain any provisions for the payment of any amounts that result from or will result from the resignation, retirement or any other termination of any executive officer's employment with us or from a change-in-control of the Company or a change in the named executive officer's responsibilities following a change-in-control except as described below.

Under our stock incentive plans, unless otherwise provided in a stock option agreement, options held by a director, executive or employee become exercisable after such person's death or permanent disability without regard to any vesting requirements of such options.

## Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our officers and directors and persons who beneficially own more than ten percent of a registered class of our equity securities to file reports of ownership with the SEC. Officers, directors and greater than ten percent shareholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

Based solely on our review of the copies of such forms filed or received by us, or written representations from the reporting persons, two executive officers filed two late reports and four executive officers filed one late report, each of which contained one transaction not reported on a timely basis. One director filed one late report that contained five transactions not reported on a timely basis.



## **Risks Arising from Compensation Policies and Practices**

We believe that our compensation policies and practices do not motivate excessive or imprudent risk-taking. We note the following key aspects of our compensation policies and practices in making this determination:

- The Company's EC Plan is based on balanced performance metrics that promote disciplined progress towards long-term Company goals in addition to the short-term health of the organization;
- We do not offer significant short-term incentives that might drive high-risk investments at the expense of long-term Company value;
- Our RC Plan was based on a portion of the net profit, on a cash received basis, resulting from our "Refined Coal Activities," which took into account both revenues and costs associated with that business; and
- When considering the Company's executive share ownership and holding objectives, the Company's compensation programs are weighted towards offering long-term incentives.

Because of these factors, we believe that our compensation policies and practices, both for our employees generally and for our executive officers, do not create risks that are reasonably likely to have a material adverse effect on the Company.

### **Golden Parachute Compensation**

There are no agreements or understandings between the Company and its NEOs concerning any type of compensation that is based on or otherwise relates to the reorganization proposal.

### **DIRECTOR COMPENSATION**

Our Nominating and Governance Committee has responsibility for reviewing the compensation plan for our non-management directors annually and making recommendations to the entire Board for approval. The Committee has not delegated authority to any other person to determine director compensation. Our two executive officers who serve on the Board have provided their views as to the appropriate amount and form of director compensation, and Mr. McKinnies, our Chief Financial Officer, has made recommendations to the Committee regarding the form of compensation (i.e. cash or stock) and tax and accounting ramifications of awards. In addition, the two executive officers who serve on our Board vote on the recommendations for director compensation made by the Committee to the Board.

In October 2011 the Committee reviewed industry data from the National Association of Corporate Directors Director Compensation Report and Survey Data. In February 2012, Committee authorized the increases to director compensation described below after evaluating industry averages, personal liability risks and other factors.

- **Annual Retainer.** As of February 2012, each non-management director is entitled to receive a \$95,000 annual retainer, at least \$47,500 of which was payable in stock (not to exceed any limits in the 2007 Plan) and the remainder of which is payable in cash. Prior to February 2012, that annual retainer was \$80,000.
- **Initial Appointment or Election.** Directors receive a one-time award of options to acquire 5,000 shares of our common stock upon initial appointment or election to the Board.
- **Chairman Retainers.** As of February 2012, the Chairman of the Board and Chairman of the Audit Committee each receive an annual retainer of \$12,500, and the Chairman of the Compensation Committee and the Chairman of the Nominating and Governance Committee each receive an annual retainer of \$7,500 for their services in such positions. These amounts are all paid in cash. Prior to February 2012, the Chairman of the Board and Chairman of the Audit Committee each received an annual retainer of \$10,000, and the Chairman of the Compensation Committee and the Chairman of the Nominating and Governance Committee each received an annual retainer of \$5,000 for their services in such positions.
- **Committee Service Retainers.** As of February 2012, directors receive an annual retainer of \$5,000, payable in cash, for each standing committee on which such director serves (unless such director is receiving compensation for acting as Chairman of such Committee, in which case no additional sum is paid). Prior to February 2012, directors received an annual retainer of \$2,500 for each standing committee on which such director served. From time to time, the Board of Directors may also establish

special committees. In 2011 and 2012, Messrs. Caruso, Derek Johnson, Marcum and Swanson each served on a special committee established by the Board. The members of the special committee were compensated in 2011 in cash for their service on the special committee from the inception of the special committee through March 31, 2012 as follows: Mr. Caruso—\$70,000, Messrs. Derek Johnson and Swanson—\$40,000, and Mr. Marcum—\$30,000. These amounts are not included in the 2012 Director Compensation table below because these amounts were paid in 2011. The special committee completed its obligations as delegated by the Board on June 5, 2012.

We have maintained directors and officers insurance coverage for our directors and executive officers since May 2006. The annual cost of such coverage is approximately \$82,000.

#### Director Compensation During the Year Ended December 31, 2012

The following table pertains to our non-management directors who served during 2012. Dr. Durham and Mr. McKinnies do not receive any additional compensation for their service on the Board or any special committees.

| Name                   | Fees Earned<br>or Paid<br>in Cash<br>\$(6) | Stock<br>Awards<br>\$(7) | Option<br>Awards<br>\$(8) | Total<br>(\$)  |
|------------------------|--|--------------------------|---------------------------|----------------|
| Robert N. Caruso (1)   | 49,583                                     | 3,583                    |                           | 53,166         |
| Alan Bradley Gabbard   | 9,583                                      | -                        | 54,658                    | 64,241         |
| Robert E. Shanklin (2) | 51,667                                     | 2,650                    |                           | 54,317         |
| Derek Johnson (3)      | 56,458                                     | 2,550                    |                           | 59,008         |
| Ronald B. Johnson (4)  | 56,458                                     | 2,650                    |                           | 59,108         |
| W. Phillip Marcum      | 68,750                                     | 2,550                    |                           | 71,300         |
| Jeffrey C. Smith       | 58,958                                     | 2,550                    |                           | 61,508         |
| Richard Swanson (5)    | 63,958                                     | 2,550                    |                           | 66,508         |
| <b>Totals</b>          | <b>415,415</b>                             | <b>19,082</b>            | <b>54,658</b>             | <b>489,155</b> |

- (1) Cash fees and shares issued for services from Mr. Caruso are paid to a limited liability company owned by such individual.
- (2) Cash fees and shares issued for services from Mr. Shanklin are paid or issued to Arch Coal, Inc.
- (3) Cash fees for services from Mr. Derek Johnson are paid to a limited liability company owned by such individual.
- (4) Cash fees and shares issued for services from Mr. Ronald Johnson are paid or issued to Twin-Kem International, Inc.
- (5) Cash fees and shares issued for services from Mr. Swanson are paid or issued to R&K Corporation.
- (6) Amounts represent retainers for services on the Board and on the Audit, Nominating and Governance, Compensation and Special committees. The amounts in the table include fees earned in December 2012 that were paid in January 2013.
- (7) Amounts shown are the fair value of stock awards granted in 2012, determined in accordance with FASB ASC Topic 718, as a portion of the compensation for each non-management director's services performed in 2012. The Company issues shares based on the stock price as of July 1 of each year after election of the directors at the annual meeting for services to be provided from June 1 to May 31 of the following year. Shares for the period of June 1, 2012 through May 31, 2013 were issued in January 2013 and are not included in this table.
- (8) The aggregate number of fully vested outstanding stock options for each non-management director, in the order listed in the table, as of December 31, 2012 was -0-, -0-, -0-, -0-, -0-, 5,000, -0-, and -0-, respectively. Upon commencement of service on October 29, 2012, Mr. Gabbard was awarded an option to purchase 5,000 shares of common stock, which was unvested and outstanding as of December 31, 2012. The fair value of the option was estimated on the date of grant using a Black-Scholes valuation model. The shares subject to the option vest over a three-year period, the option expires five years from the grant date. The Company recognizes expense from the grant of options on a straight-line basis over the vesting period.

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## STOCK INCENTIVE PLANS

### ***2002 ADA-ES, Inc. Stock Option Plan***

During 2003, the Company adopted the 2002 ADA-ES, Inc. Stock Option Plan, which was originally referred to as the 2002 Stock Option Plan (the “2003 Plan”), and reserved 400,000 shares of common stock for issuance under the plan. In general, all options granted under the 2003 Plan expire ten years from the date of grant unless otherwise specified by the Company’s Board. The exercise price of options was determined by the Compensation Committee of the Board at the time the option was granted of not less than 100% of the fair market value of a share of our common stock on the date the option is granted. During the first quarter of 2006, 19,900 options were granted under this plan. This plan was replaced by the 2007 Equity Incentive Plan described below, and as a result, 148,506 shares of common stock that were originally reserved for issuance upon exercise of options grantable under the 2003 Plan were removed from the 2003 Plan. As of December 31, 2012, 39,913 options remained outstanding and exercisable.

### ***2004 ESO Plan***

During 2004, we adopted the 2004 ESO Plan, which did not require shareholder approval. The 2004 ESO Plan authorized the grant of up to 200,000 options to purchase shares of our common stock to our executive officers. The 2004 ESO Plan is intended to promote our growth and profitability by awarding options to purchase our common stock in exchange for services performed and to be performed in the future. Options granted under the 2004 ESO Plan are generally intended to be non-qualified stock options (“NQSO”) for federal income tax purposes. The 2004 ESO Plan is administered by our Compensation Committee. In general, the exercise price of an option will be determined by the Compensation Committee at the time the option is granted and will not be less than 100% of the fair market value of a share of our common stock on the date the option is granted. Under the 2004 ESO Plan, the grant of options is limited to 60,000 per individual. The options are exercisable over a 10-year period based on a vesting schedule, typically between 5% and 20% per year, which may be accelerated based on performance of the individual recipients as determined by our Compensation Committee. During 2004, all 200,000 options were granted under the 2004 ESO Plan to five executive officers, each of whom is a full-time employee. In 2009, all options were fully vested. As of December 31, 2012, 136,063 options remain outstanding and exercisable under this plan.

### ***2005 Directors’ Compensation Plan***

During 2005 we adopted the 2005 Directors’ Compensation Plan (the “2005 Plan”), which authorized the issuance of shares of common stock and the grant of options to purchase shares of our common stock to non-management directors. The 2005 Plan was approved by our shareholders at the 2005 Annual Meeting. The 2005 Plan is intended to advance our interests by providing eligible non-management directors an opportunity to acquire or increase an equity interest in the Company, create an increased incentive to expend maximum effort for our growth and success and encourage such eligible individuals to continue to service the Company. The 2005 Plan provides a portion of the annual compensation to our non-management directors in the form of awards of shares of common stock and vesting of options to purchase common stock for services performed for the Company. Under the 2005 Plan, the award of stock is limited to 1,000 shares per individual per year, and the grant of options is limited to 5,000 per individual in total. The aggregate number of shares of common stock reserved for issuance under the 2005 Plan totals 90,000 shares (50,000 in the form of stock awards and 40,000 in the form of options). The exercise price is the market price on the date of grant, the shares of common stock underlying the option will vest at a rate of no more than 1,667 shares per annual period per individual, and any unvested shares of Stock that are outstanding at the date the individual is no longer a director are forfeited. Shares may be issued and options may be granted under the 2005 Plan only to non-management directors of the Company or its subsidiaries.

The 2005 Plan will terminate ten years after the date of its adoption, if not earlier terminated by the Board. It may be amended, modified or terminated at any time if and when it is advisable in the absolute discretion of the Board, although certain amendments are subject to approval of regulatory bodies and our shareholders. No such amendment may adversely affect any options previously granted under the Plan without the consent of the recipient(s). The 2005 Plan is currently administered by the Compensation Committee of the Board. During

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2012, an option to purchase 5,000 shares was awarded and as of December 31, 2012, two 5,000 five year options remain outstanding and exercisable. 35,065 shares of common stock, 30,000 of which are designated to underlie options to purchase shares, remain available for issuance under the 2005 Plan.

#### ***2007 Plan***

During 2007, the Company adopted the 2007 Equity Incentive Plan (the “2007 Plan”), which replaced the 2003 Plan. The 2007 Plan was amended and restated as of August 31, 2010 to make non-material changes to assure Internal Revenue Code Section 409A compliance and to increase the non-management director annual grant limit to 15,000 shares of common stock from 10,000 shares. The 2007 Plan was amended pursuant to Amendment No. 1 to the plan, approved by the Board on January 25, 2011, re-approved by the Board on February 24, 2012 and approved by the Company’s shareholders on July 19, 2012, to increase the amount of authorized and issuable shares as well as the limits of shares that may be granted to individuals and directors. The 2007 Plan authorizes the issuance to employees, directors and consultants of up to 1,300,000 shares of common stock, subject to automatic increases pursuant to the 2007 Plan’s evergreen provision, either as restricted stock, grants to underlie options to purchase shares of our common stock or other benefits under the plan (with a maximum number of shares of 1,800,000 authorized). Under the 2007 Plan, the award of stock is limited to not more than 50,000 shares per individual per year with a maximum of 30,000 shares grantable in any year to non-management Directors. In general, all options granted under the 2007 Plan will expire ten years from the date of grant unless otherwise specified by the Board. The exercise price for options granted under the 2007 Plan will be the market price on the date of grant and the shares of common stock underlying the option will vest on the passage of specified times following the date of grant, the occurrence of one of more events, the satisfaction of performance criteria or other conditions specified by the Board. As of December 31, 2012, no options have been granted and 531,764 shares have been reserved but not yet issued under the 2007 Plan.

In March 2008, in connection with the Crowfoot Incentive Program, 172,500 of restricted stock were awarded to four of our executive officers and an independent consultant for that Program. The shares awarded pursuant to the Crowfoot Incentive Program only vest upon attainment of certain milestones, as described above under “Executive Compensation.” As of December 31, 2012, 42,000 shares remain to be vested. Such shares have not been repurchased by the Company but may be reallocated to other incentive programs under the 2007 Plan. This program was terminated effective November 28, 2011.

#### ***2009 Profit Sharing Retirement Plan***

In June 2009, the Company revised its ADA-ES, Inc. Profit Sharing Retirement Plan, which is a plan qualified under Section 401(k) of the Internal Revenue Code (the “401(k) Plan”). The revision allows the Company to issue shares of common stock to employees to satisfy its obligation to match employee contributions under the terms of the 401(k) Plan in lieu of matching contributions in cash. The Company reserved 300,000 shares of its common stock for this purpose. The value of common stock issued as matching contributions under the 401(k) Plan is determined based on the per share market value of our common stock on the date of issuance. As of December 31, 2012, 136,582 shares of common stock are available for issuance under the 401(k) Plan.

#### ***2010 Non-Management Compensation and Incentive Plan***

During 2010 the Board adopted the 2010 Non-Management Compensation and Incentive Plan (the “2010 Plan”), which authorized the issuance of shares of common stock, restricted stock or other rights or benefits under the plan to non-management employees and consultants. Our Board re-adopted the Plan in February 2012, and our shareholders approved the plan at the 2012 Annual Meeting. The purposes of the 2010 Plan are to attract and retain the best available personnel, to provide additional incentives to non-management employees and consultants and to promote the success of the Company’s business. The number of shares authorized for issuance under the 2010 Plan is limited to 300,000.

The 2010 Plan will terminate ten years after the date of its adoption, if not earlier terminated by the Board. It may be amended, modified or terminated at any time if and when it is advisable in the absolute discretion of the Board, although certain amendments are subject to approval of regulatory bodies and our shareholders. The 2010 Plan is administered by the Board or a committee designated by the Board. As of December 31, 2012, 298,102 shares of common stock are available for issuance under the 2010 Plan.

**EQUITY COMPENSATION PLAN INFORMATION  
AS OF DECEMBER 31, 2012**

| <u>Plan category</u>  | <u>Number of securities to be issued upon exercise of outstanding options, warrants and rights</u><br><i>(a)</i> | <u>Weighted-average exercise price of outstanding options, warrants and rights</u><br><i>(b)</i> | <u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))</u><br><i>(c)</i> |
|---|--|--|--|
| <b>Equity compensation plans approved by security holders (1)</b>     | 10,000   | \$14.56  | 834,931  |
| <b>Equity compensation plans not approved by security holders (2)</b> | 175,976  | \$9.18   | 136,582  |
| <b>Total</b>  | <u>185,976</u>   | <u>\$10.20</u>   | <u>971,513</u>   |

- (1) Amounts shown represent two 5,000 5-year option awards to two directors at exercise prices of \$10.20 and \$19.54, respectively, covered under our 2005 Plan and 5,065 shares covered under our 2005 Plan, 531,764 shares covered under our 2007 Plan and 298,102 shares covered under our 2010 Plan.
- (2) Amounts shown in column (a) and column (b) represent 10-year options to purchase a total of 35,288 shares granted to employees at exercise prices ranging from \$8.60 to \$15.18 under our 2003 Plan, 10-year options to purchase a total of 4,625 shares granted to two consultants at an exercise price of \$13.80 under our 2003 Plan, and 10-year options to purchase a total of 136,063 shares granted to executive officers at an exercise price of \$8.60 under our 2004 ESO Plan. Amounts shown in column (c) represent shares available for issuance under our 401(k) Plan described above.

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## CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

### Review and Approval of Related Party Transactions

Our Board recognizes that related party transactions present a heightened risk of conflicts of interest and/or improper valuation (or the perception thereof) and therefore has adopted a written policy with respect to all related party transactions involving the Company. Under this policy, any related party transaction, as defined (which excludes transactions available to all employees generally and transactions involving less than \$5,000), may be consummated or may continue only if:

1. the Audit Committee has approved or ratified such transaction in accordance with the guidelines set forth in the policy and if the transaction is on terms comparable to those that could be obtained in arm's length dealings with an unrelated third party;
2. the transaction has been approved by the disinterested members of the Board; and
3. the compensation with respect to such transaction has been approved by our Compensation Committee.

Management must recommend any related party transactions it proposes that the Company enter into to the Audit Committee at its first regularly scheduled meeting each year. After review, the Audit Committee will approve or disapprove such transactions and at each subsequently scheduled meeting, management must update the Audit Committee as to any material change to those proposed transactions. If management recommends any additional related party transactions subsequent to such meeting, such transactions may be presented to the Audit Committee for approval or preliminarily entered into by management subject to ratification by such Committee. If the Audit Committee does not ratify the transaction, however, management must make all reasonable efforts to cancel or annul such transaction.

Any material related party transaction must be disclosed to our full Board of Directors, and management must assure that all related party transactions are approved in accordance with any requirements of our financing or other agreements.

### 2012 Related Party Transactions

We had one related party transaction during the 2012 fiscal year. To assist with Mr. Lagarenne's relocation to Colorado, we purchased a \$285,000 interest in Mr. Lagarenne's real estate owned in New Jersey, consisting of a single family residence and an adjacent vacant lot. The Company has a right to the net proceeds of the sale of the property and is obligated to reimburse Mr. Lagarenne for the monthly carrying costs for the property until the property is sold. This transaction was ratified by our Audit Committee and the Board.

**PROPOSAL NO. 4**

**APPROVAL OF THE FREQUENCY UPON WHICH THE COMPANY WILL SEEK AN ADVISORY VOTE TO APPROVE THE COMPANY'S COMPENSATION PAID TO NAMED EXECUTIVE OFFICERS**

As required by Section 14A of the Exchange Act, we are conducting a non-binding advisory vote on the frequency upon which the Company will conduct an advisory vote to approve the compensation of named executive officers as disclosed in the Company's proxy statements under the section "Executive Compensation." On January 25, 2011, the Company's Board of Directors found it to be in the best interests of the Company and its shareholders to annually submit to the shareholders an advisory vote to approve the Company's compensation paid to named executive officers beginning in the year required by applicable law. The Company's Board of Directors proposes the following resolution for approval by the shareholders:

**RESOLVED**, that the shareholders approve that the Company annually submit to the shareholders an advisory vote to approve the Company's compensation paid to named executive officers.

**Board Recommendation**

**OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE PROPOSAL TO APPROVE THAT THE COMPANY WILL ANNUALLY SUBMIT TO THE SHAREHOLDERS AN ADVISORY VOTE TO APPROVE THE COMPANY'S COMPENSATION PAID TO NAMED EXECUTIVE OFFICERS.**

**PROPOSAL NO. 5**

**APPROVAL OF THE COMPANY'S COMPENSATION PAID TO NAMED EXECUTIVE OFFICERS**

As required by Section 14A of the Exchange Act, we are seeking a non-binding advisory vote on the compensation of named executive officers as disclosed in the section of this proxy statement titled "Executive Compensation." The Company's Board of Directors proposes the following resolution for approval by the shareholders:

**RESOLVED**, that the shareholders approve the compensation of the Company's named executive officers as disclosed in this proxy statement pursuant to the compensation disclosure rules of the Securities and Exchange Commission (which includes the Compensation Discussion and Analysis, the compensation tables and related narrative discussion).

**Board Recommendation**

**OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE PROPOSAL TO APPROVE THE COMPANY'S COMPENSATION PAID TO NAMED EXECUTIVE OFFICERS.**

**PROPOSALS OF SHAREHOLDERS FOR PRESENTATION AT THE NEXT ANNUAL MEETING OF SHAREHOLDERS**

We anticipate that the next Annual Meeting of Shareholders for ADA-ES, or ADES if the reorganization is complete, will be held in June 2014.

Any shareholder of record who desires to submit a proper proposal for inclusion in the proxy material related to the next Annual Meeting of Shareholders must do so in writing and it must be received at our principal executive offices on or before [ **December 30, 2013** ]. If a shareholder intends to submit a proposal at the meeting that is not included in our proxy statement/prospectus, and the shareholder fails to notify us prior to [ **February 18, 2014** ] of such proposal, then to the extent permitted by law, the proxies appointed by our management would be allowed to use their discretionary voting authority when the proposal is raised at the annual meeting, without any discussion of the matter in the proxy statement/prospectus. The proponent must own 1% or more of the outstanding shares or \$2,000 in market value of our common stock and must have continuously owned such shares for one year and intend to continue to hold such shares through the date of the Annual Meeting in order to present a shareholder proposal to us. If the reorganization occurs, under the ADES Bylaws, the stockholder must

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disclose, among other items, certain information related to the business to be proposed at the meeting, its beneficial ownership in ADES and whether it is acting in concert with other stockholders or interested parties. See Section 2.03 of the ADES Bylaws.

#### **ANNUAL REPORT ON FORM 10-K**

**We will provide our Annual Report on Form 10-K concerning our operations during the fiscal year ended December 31, 2012, including certified consolidated financial statements and any financial statement schedules for the year then ended, to our shareholders without charge upon request to Graham O. Mattison, Vice President of Investor Relations, ADA-ES, Inc., 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129. Exhibits listed in the Form 10-K are available upon request to shareholders at a nominal charge for printing and mailing.**

#### **OTHER MATTERS**

The Board knows of no other business to be presented at the Annual Meeting of Shareholders. If other matters properly come before the Annual Meeting, to the extent permitted by law, the persons named in the accompanying form of proxy intend to vote on such other matters in accordance with their best judgment.

#### **VALIDITY OF SHARES**

Schuchat, Herzog & Brenman, LLC, Denver, Colorado will pass upon the validity of the shares of ADES common stock offered by this proxy statement/prospectus.

#### **EXPERTS**

EKS&H, LLLP has audited ADA-ES's consolidated financial statements included in ADA-ES's Annual Report on Form 10-K for the year ended December 31, 2012, as set forth in their report dated March 18, 2013, which is incorporated by reference in this prospectus and elsewhere in the registration statement. ADA-ES's financial statements are incorporated by reference in reliance on such firm's report, given on their authority as experts in accounting and auditing.



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**WHERE YOU CAN  
FIND MORE INFORMATION**

**Registration Statement**

ADES filed a registration statement on Form S-4 to register with the SEC the shares of ADES common stock offered by this proxy statement/prospectus. This proxy statement/prospectus is a part of that registration statement and constitutes a prospectus of ADES in addition to being a proxy statement of ADA-ES for the Annual Meeting. As permitted by SEC rules, this proxy statement/prospectus does not contain all the information you can find in the registration statement or in exhibits to the registration statement.

**Other SEC Filings**

ADA-ES files annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any of the information on file with the SEC at the SEC's public reference room, located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800- SEC-0330 for further information on the public reference room. ADA-ES's SEC filings are also available on the SEC's web site located at <http://www.sec.gov>, and certain filings are available on ADA-ES's web site at [www.adaes.com](http://www.adaes.com).

**Documents Incorporated by Reference**

The SEC allows us to "incorporate by reference" information into this proxy statement/prospectus, which means that we can disclose important information to you by referring you to another document filed separately by ADA-ES with the SEC. The information incorporated by reference is deemed to be part of this proxy statement/prospectus except for any information superseded by information in this proxy statement/prospectus or in any document subsequently filed with the SEC, which is also incorporated by reference. This proxy statement/prospectus incorporates by reference the documents set forth below, including the exhibits that these documents specifically incorporate by reference, that ADA-ES, Inc. has previously filed with the SEC. These documents contain important information about ADA-ES, Inc. and its financial performance.

- ADA-ES, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012 filed with the SEC on March 18, 2013 (File No. 000-50216);
- Exhibit 3.1 to ADA-ES, Inc.'s Form 10-QSB filed with the SEC for the period ended September 30, 2005 filed on November 10, 2005 (File No. 000-50216);
- Exhibit 3.2 to ADA-ES, Inc.'s Form 10-Q filed with the SEC for the period ended September 30, 2010 filed on November 12, 2010 (File No. 000-50216); and
- All reports and definitive proxy or information statements filed by ADA-ES or ADES pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 after the date of this proxy statement/prospectus and before the date of the Annual Meeting.

Following the reorganization described in this proxy statement/prospectus, ADES will become subject to the same informational requirements as ADA-ES was prior to the reorganization, and will file annual, quarterly and special reports, proxy statements and other information with the SEC in accordance with the Exchange Act and the NASDAQ Capital Market pursuant to the Exchange Act and NASDAQ Listing Rules. ADA-ES does not expect to be subject to such requirements following the reorganization.

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**Documents Available Without Charge from Us**

You can obtain any document incorporated by reference, excluding all exhibits that have not been specifically incorporated by reference, from us or the SEC. Documents incorporated by reference are available from us without charge.

Shareholders may obtain documents incorporated by reference in this document by requesting them in writing or by telephone at the following address:

**ADA-ES, Inc.**

9135 South Ridgeline Boulevard, Suite 200

Highlands Ranch, Colorado 80129

Telephone: 888-822-8617

Attn: Vice President of Investor Relations

**If you would like to request documents from us, please do so by June 6, 2013 to receive them before the Annual Meeting. We will send requested documents by first-class mail within one business day after receiving the request.**

You should rely only on the information contained or incorporated by reference in this proxy statement/prospectus and the registration statement of which this proxy statement/prospectus is a part to vote on the Annual Meeting proposals. No one has been authorized to provide you with information that is different from what is contained in this proxy statement/prospectus or in the incorporated documents.

This proxy statement/prospectus is dated April [ 26 ], 2013. You should not assume the information contained in this proxy statement/prospectus is accurate as of any date other than this date, and neither the mailing of this proxy statement/prospectus to shareholders nor the issuance of the ADES common stock in the reorganization shall imply information is accurate as of any other date.

BY ORDER OF THE BOARD OF DIRECTORS

By: \_\_\_\_\_

Mark H. McKinnies

*Secretary*

Dated: April [ 26 ], 2013

Annex I  
Reorganization Agreement

**AGREEMENT AND PLAN OF MERGER**

This AGREEMENT AND PLAN OF MERGER (this “Agreement”), dated as of March 25, 2013, is among ADA-ES, Inc., a Colorado corporation (the “Company”), Advanced Emissions Solutions, Inc., a Delaware corporation and a direct, wholly owned subsidiary of the Company (“HoldingCo”), and ADA Merger Corp., a Colorado corporation and a direct, wholly owned subsidiary of HoldingCo (“MergerCo”).

**RECITALS**

WHEREAS, as of the date hereof, the authorized capital stock of the Company consists of (i) 50,000,000 shares of common stock, no par value per share (“Company Common Stock”), of which approximately 10,063,135 shares are issued and outstanding, approximately 1,122,623 shares are reserved for issuance under the Company’s Plans (as defined below) and upon exercise of outstanding Company Awards (as hereinafter defined) and 122 shares are held in treasury, and (ii) 50,000,000 shares of preferred stock, no par value per share (“Company Preferred Stock”), of which none are outstanding;

WHEREAS, before the closing date of the transaction contemplated herein, the authorized capital stock of HoldingCo will consist of (i) 100,000,000 shares of common stock, par value \$0.001 per share (“HoldingCo Common Stock”), of which one share is issued and outstanding and no shares are held in treasury, and (ii) 50,000,000 shares of preferred stock, par value \$0.001 per share (“HoldingCo Preferred Stock”), of which none are outstanding;

WHEREAS, as of the date hereof, all of the issued and outstanding common stock of MergerCo (“MergerCo Common Stock”) is held by HoldingCo;

WHEREAS, HoldingCo and MergerCo were organized for the purpose of participating in the transactions herein contemplated;

WHEREAS, the Board of Directors of each of the Company, HoldingCo and MergerCo have unanimously determined that it is advisable and in the best interests of their respective security holders to reorganize to create a new holding company structure by merging the Company with MergerCo with the Company being the surviving entity (sometimes hereinafter referred to as the “Surviving Company”), and converting each outstanding share of Company Common Stock into one share of HoldingCo Common Stock, all in accordance with the terms of this Agreement;

WHEREAS, the Board of Directors of the Company has unanimously determined that it is advisable and in the best interests of its shareholders to reorganize the Company’s operations, such that the public company owned by its shareholders is incorporated in the State of Delaware and, accordingly, HoldingCo has been incorporated in the State of Delaware;

WHEREAS, the Boards of Directors of each of HoldingCo, the Company and MergerCo and the sole shareholder of MergerCo have adopted or approved this Agreement and the merger of the Company with MergerCo upon the terms and subject to the conditions set forth in this Agreement (the “Merger”);

WHEREAS, the Boards of Directors of each of the Company and MergerCo have declared advisable this Agreement and the Merger upon the terms and subject to the conditions set forth in this Agreement, and the Boards of Directors of each of the Company and MergerCo have unanimously determined to recommend to their respective shareholders the approval of this Agreement and the Merger, subject to the terms and conditions hereof and in accordance with the provisions of the Colorado Business Corporation Act (the “CBCA”); and

WHEREAS, the parties intend, by executing this Agreement, to adopt a plan of reorganization within the meaning of Section 368 of the Internal Revenue Code of 1986, as amended (the “Code”), and to cause the Merger to qualify as a reorganization under the provisions of Section 368(a)(1)(A) and (a)(2)(E) of the Code, as well as a transaction to which Section 351(a) of the Code applies.

NOW, THEREFORE, in consideration of the premises and the covenants and agreements contained in this Agreement, and intending to be legally bound hereby, the Company, HoldingCo and MergerCo hereby agree as follows:

**ARTICLE 1**  
**THE MERGER**

1.1 The Merger. In accordance with Section 7-111-101 of the CBCA, and subject to and upon the terms and conditions of this Agreement, the Company shall, at the Effective Time (as defined below), be merged with MergerCo, the separate corporate existence of MergerCo shall cease and the Company shall continue as the Surviving Company. At the Effective Time, the effect of the Merger shall be as provided in Sections 7-90-204 and 7-111-106(1) of the CBCA.

1.2 Effective Time. The Merger shall become effective upon the filing of a Certificate of Merger with the Secretary of the State of the State of Colorado or a later date specified therein (the “Effective Time”). It is currently anticipated by the parties that the Effective Time will be on or about July 1, 2013.

1.3 Organizational Documents of the Surviving Company.

1.3.1 From and after the Effective Time, the amended and restated articles of incorporation of the Company, as in effect immediately prior to the Effective Time, shall continue in full force and effect as the articles of incorporation of the Surviving Company until thereafter amended as provided therein or by applicable law.

1.3.2 From and after the Effective Time, the second amended and restated bylaws of the Company, as in effect immediately prior to the Effective Time, shall continue in full force and effect as the bylaws of the Surviving Company (the “Surviving Company Bylaws”) until thereafter amended as provided therein or by applicable law.

1.4 Directors. The directors of the MergerCo immediately prior to the Effective Time shall be the initial directors of the Surviving Company and will hold office from the Effective Time until their successors are duly elected or appointed and qualified in the manner provided in the Surviving Company Bylaws or as otherwise provided by law.

1.5 Officers. The officers of the Company immediately prior to the Effective Time shall be the initial officers of the Surviving Company and will hold office from the Effective Time until their successors are duly elected or appointed and qualified in the manner provided in the Surviving Company Bylaws or as otherwise provided by law.

1.6 Directors and Officers of HoldingCo. Prior to the Effective Time, the Company in its capacity as the sole stockholder of HoldingCo, agrees to take or cause to be taken all such actions as are necessary to cause those persons serving as (i) the directors of the Company immediately prior to the Effective Time to be elected or appointed as the directors of HoldingCo and (ii) the (a) President and Chief Executive Officer, (b) Senior Vice President, Chief Financial Officer and Secretary, (c) Executive Vice President, (d) Chief Operating Officer, (e) Chief Technology Officer, (f) Vice President and General Counsel and (g) Vice President of Investor Relations of the Company immediately prior to the Effective Time to be elected or appointed as the executive officers of HoldingCo, each such person to have the same office(s) with HoldingCo (and the same committee memberships in the case of directors) as he or she held with the Company, with the directors serving until the earlier of the next meeting of the HoldingCo stockholders at which an election of directors of such class is held and until their successors are elected or appointed (or their earlier death, disability or retirement).

1.7 Additional Actions. Subject to the terms of this Agreement, the parties hereto shall take all such reasonable and lawful action as may be necessary or appropriate in order to effectuate the Merger and to comply with the requirements of the CBCA. If, at any time after the Effective Time, the Surviving Company shall consider or be advised that any deeds, bills of sale, assignments, assurances or any other actions or things are necessary or desirable to vest, perfect or confirm, of record or otherwise, in the Surviving Company its right, title or interest in, to or under any of the rights, properties or assets of either of MergerCo or the Company acquired or to be acquired by

the Surviving Company as a result of, or in connection with, the Merger or otherwise to carry out this Agreement, the officers of the Surviving Company shall be authorized to execute and deliver, in the name and on behalf of each of MergerCo and the Company, all such deeds, bills of sale, assignments and assurances and to take and do, in the name and on behalf of each of MergerCo and the Company or otherwise, all such other actions and things as may be necessary or desirable to vest, perfect or confirm any and all right, title and interest in, to and under such rights, properties or assets in the Surviving Company or otherwise to carry out this Agreement.

1.8 Conversion of Securities. At the Effective Time, by virtue of the Merger and without any action on the part of HoldingCo, MergerCo, the Company or the holder of any of the following securities:

1.8.1 Each share of Company Common Stock issued and outstanding immediately prior to the Effective Time (other than any shares held in treasury, which shall be automatically cancelled and retired without the payment of any consideration therefor) shall be converted into one duly issued, fully paid and nonassessable share of HoldingCo Common Stock (the “Merger Consideration”).

1.8.2 The MergerCo common stock held by HoldingCo will automatically be converted into, and thereafter represent, 100% of the common stock of the Surviving Company.

1.8.3 Each share of HoldingCo Common Stock owned by the Company immediately prior to the Merger shall automatically be cancelled and retired and shall cease to exist.

1.8.4 From and after the Effective Time, holders of certificates formerly evidencing Company Common Stock shall cease to have any rights as shareholders of the Company, except as provided by law; provided, however, that such holders shall have the rights set forth in Section 1.9 herein.

1.8.5 In accordance with Section 7-113-102 of the CBCA, no appraisal rights shall be available to holders of Company Common Stock in connection with the Merger.

1.9 No Surrender of Certificates; Direct Registration of HoldingCo Common Stock. At the Effective Time, each outstanding share of Company Common Stock (other than any shares of Company Common Stock to be cancelled in accordance with Section 1.8) shall automatically represent the same number of shares of HoldingCo Common Stock without any further act or deed by the shareholders of the Company and record of such ownership shall be kept in uncertificated, book entry form by HoldingCo’s transfer agent. Until thereafter surrendered for transfer or exchange in the ordinary course, each outstanding certificate that, immediately prior to the Effective Time, evidenced Company Common Stock shall, from and after the Effective Time, be deemed and treated for all corporate purposes to evidence the ownership of the same number of shares of HoldingCo Common Stock.

1.10 Stock Transfer Books. At the Effective Time, the stock transfer books of the Company shall be closed and thereafter shall be no further registration of transfers of shares of Company Common Stock theretofore outstanding on the records of the Company. From and after the Effective Time, the holders of certificates representing shares of Company Common Stock outstanding immediately prior to the Effective Time shall cease to have any rights with respect to such shares of Company Common Stock except as otherwise provided in this Agreement or by law. On or after the Effective Time, any certificates presented to the exchange agent or HoldingCo for any reason shall solely represent the right to receive the Merger Consideration issuable in respect of the shares of Company Common Stock formerly represented by such certificates without any interest thereon.

1.11 Plan of Reorganization. This Agreement is intended to constitute a “plan of reorganization” within the meaning of Treasury Regulations Section 1.368-2(g). Each party hereto shall use its commercially reasonable efforts to cause the Merger to qualify, and will not knowingly take any actions or cause any actions to be taken which could reasonably be expected to prevent the Merger from qualifying, as a reorganization within the meaning of Section 368(a)(1)(A) and (a)(2)(E) of the Code, as well as a transaction to which Section 351(a) of the Code applies.

1.12 Successor Issuer. It is the intent of the parties hereto that HoldingCo be deemed a “successor issuer” of the Company in accordance with Rule 12g-3 under the Securities Exchange Act of 1934, as amended, and Rule 414 under the Securities Act of 1933, as amended. At or after the Effective Time, HoldingCo shall file (i) an appropriate report on Form 8-K describing the Merger and (ii) appropriate pre-effective and/or post-effective amendments, as applicable, to any Registration Statements of the Company on Forms S-3 and S-8.

## ARTICLE 2

### ACTIONS TO BE TAKEN IN CONNECTION WITH THE MERGER

2.1 Assumption of Company Awards. At the Effective Time, all unexercised and unexpired options to purchase Company Common Stock (“Company Options”) or shares of restricted stock (collectively with Company Options, “Company Awards”) then outstanding under any of the Company’s 2003 Stock Option Plan, 2003 Stock Compensation Plan #1, 2003 Stock Compensation Plan #2, 2004 Executive Stock Option Plan, 2004 Stock Compensation Plan #2, 2004 Directors Stock Compensation Plan #1, 2005 Directors’ Compensation Plan, Amended and Restated 2007 Equity Incentive Plan, as amended, Amended and Restated 2010 Non-Management Compensation and Incentive Plan or the other rights to acquire Company Common Stock under the ADA-ES, Inc. Profit Sharing Retirement Plan (collectively, the “Company Plans”), whether or not then exercisable, will be assumed by HoldingCo. Each Company Award so assumed by HoldingCo under this Agreement will continue to have, and be subject to, the same terms and conditions as set forth in the applicable Company Plan and any agreements thereunder immediately prior to the Effective Time (including, without limitation, the vesting schedule (without acceleration thereof by virtue of the Merger and the transactions contemplated hereby) and per share exercise price), except that each Company Award will be exercisable (or will become exercisable in accordance with its terms) for, or shall be denominated with reference to, that number of shares of HoldingCo Common Stock equal to the number of shares of Company Common Stock that were subject to such Company Award immediately prior to the Effective Time. The conversion of any Company Options that are “incentive stock options” within the meaning of Section 422 of the Code, into options to purchase HoldingCo Common Stock shall be made in a manner consistent with Section 424(a) of the Code so as not to constitute a “modification” of such Company Options within the meaning of Section 424 of the Code.

2.2 Assignment and Assumption of Agreements. Effective as of the Effective Time, the Company hereby assigns to HoldingCo, and HoldingCo hereby assumes and agrees to perform, all obligations of the Company pursuant to the Company Plans, each stock option agreement and restricted stock agreement entered into pursuant to the Company Plans, and each outstanding Company Award granted thereunder.

2.3 Reservation of Shares. On or prior to the Effective Time, HoldingCo will reserve sufficient shares of HoldingCo Common Stock to provide for the issuance of HoldingCo Common Stock upon exercise of the Company Awards outstanding under the Company Plans.

#### 2.4 Registration Statement; Proxy/Prospectus.

2.4.1 As promptly as practicable after the execution of this Agreement, the Company shall prepare and file with the Securities and Exchange Commission (the “SEC”) a proxy statement in preliminary form relating to the Shareholders’ Meeting (as hereinafter defined) (together with any amendments thereof or supplements thereto, the “Proxy Statement”) and HoldingCo shall prepare and file with the SEC a registration statement on Form S-4 (together with all amendments thereto, the “Registration Statement”) and the prospectus contained in the Registration Statement together with the Proxy Statement, the “Proxy/Prospectus”), in which the Proxy Statement shall be included, in connection with the registration under the Securities Act of 1933, as amended (the “Securities Act”) of the shares of HoldingCo Common Stock to be issued to the shareholders of the Company as the Merger Consideration. Each of HoldingCo and the Company shall use its reasonable best efforts to cause the Registration Statement to become effective and the Proxy Statement to be cleared by the SEC as promptly as practicable, and, prior to the effective date of Registration Statement, HoldingCo shall take all actions reasonably required under any applicable federal securities laws or state blue sky laws in connection with the issuance of shares of HoldingCo Common Stock pursuant to the Merger. As promptly as reasonably practicable after the Registration Statement shall have become effective and the Proxy Statement shall have been cleared by the SEC, the Company shall mail or cause to be mailed or otherwise make available in accordance with the Securities Act and the Securities Exchange Act of 1934, as amended (the “Exchange Act”), the Proxy/Prospectus to its shareholders; provided, however, that the parties shall consult and cooperate with each other in determining the appropriate time for mailing or otherwise making available to the Company’s shareholders the Proxy/Prospectus in light of the date set for the Shareholders’ Meeting.

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## 2.5 Meeting of Company Shareholders; Board Recommendation.

2.5.1 Meeting of Company Shareholders. The Company shall take all action necessary in accordance with the CBCA and its amended and restated articles of incorporation and second amended and restated bylaws to call, hold and convene a meeting of its shareholders to consider the adoption of this Agreement (the “Shareholders’ Meeting”) to be held no less than 10 nor more than 60 days following the distribution of the definitive Proxy/Prospectus to its shareholders. The Company will use its reasonable best efforts to solicit from its shareholders proxies in favor of the approval of this Agreement and the Merger. The Company may adjourn or postpone the Shareholders’ Meeting to the extent necessary to ensure that any necessary supplement or amendment to the Proxy/Prospectus is provided to its shareholders in advance of any vote on this Agreement and the Merger or, if as of the time for which the Shareholders’ Meeting is originally scheduled (as set forth in the Proxy/Prospectus) there are insufficient shares of Company Common Stock voting in favor of the approval of this Agreement and the Merger or represented (either in person or by proxy) to constitute a quorum necessary to conduct the business of such Shareholders’ Meeting.

2.6 Section 16 Matters. Prior to the Effective Time, the Board of Directors of the Company or an appropriate committee of non-employee directors thereof (as such term is defined for purposes of Rule 16b-3 promulgated under the Exchange Act) shall adopt a resolution consistent with the interpretive guidance of the SEC so that the receipt by any officer or director of the Company who is a covered person for purposes of Section 16(a) of the Exchange Act of shares of HoldingCo Common Stock in exchange for shares of Company Common Stock or Company Options pursuant to this Agreement and the Merger is intended to be an exempt transaction pursuant to Section 16b-3 of the Exchange Act. Prior to the Effective Time, the Board of Directors of HoldingCo or an appropriate committee of non-employee directors (as such term is defined for purposes of Rule 16b-3 promulgated under the Exchange Act) shall adopt a resolution consistent with the interpretive guidance of the SEC so that the receipt by any officer or director of the Company or HoldingCo who is a covered person for purposes of Section 16(a) of the Exchange Act of shares of HoldingCo Common Stock or options in exchange for shares of Company Common Stock or Company Options pursuant to this Agreement and the Merger is intended to be an exempt transaction for purposes of Section 16b-3 of the Exchange Act.

## **ARTICLE 3 CONDITIONS OF MERGER**

3.1 Conditions Precedent. The obligations of the parties to this Agreement to consummate the Merger and the transactions contemplated by this Agreement shall be subject to fulfillment by the parties hereto at or prior to the Effective Time of each of the following conditions:

3.1.1 The Registration Statement shall have been declared effective by the SEC under the Securities Act and no stop order suspending the effectiveness of the Registration Statement shall have been issued by the SEC and no proceeding for that purpose shall have been initiated or, to the knowledge of HoldingCo or the Company, threatened by the SEC and not concluded or withdrawn. No similar proceeding with respect to the Proxy Statement shall have been initiated or, to the knowledge of HoldingCo or the Company, threatened by the SEC and not concluded or withdrawn.

3.1.2 This Agreement and the Merger shall have been approved by the requisite vote of the shareholders of the Company in accordance with the CBCA.

3.1.3 The HoldingCo Common Stock to be issued pursuant to the Merger shall have been approved for listing by The NASDAQ Capital Market (“NASDAQ”).

3.1.4 No order, statute, rule, regulation, executive order, injunction, stay, decree, judgment or restraining order that is in effect shall have been enacted, entered, promulgated or enforced by any court or governmental or regulatory authority or instrumentality that prohibits or makes illegal the consummation of the Merger or the transactions contemplated hereby.

3.1.5 The Boards of Directors of the Company and HoldingCo shall have received a legal opinion of Sparkman + Foote LLP in form and substance reasonably satisfactory to them indicating that holders of Company Common Stock will not recognize gain or loss for United States federal income tax purposes as a result of the transactions contemplated by this Agreement.

#### **ARTICLE 4**

##### **COVENANTS**

4.1 Listing of HoldingCo Common Stock. HoldingCo will use its reasonable best efforts to obtain, at or before the Effective Time, confirmation of listing on the NASDAQ of the HoldingCo Common Stock issuable pursuant to the Merger.

4.2 The Plans. The Company and HoldingCo will take or cause to be taken all actions necessary or desirable in order to implement the assumption by HoldingCo pursuant to Section 2.2 of the Company Plans, each stock option agreement or restricted stock agreement entered into pursuant thereto, and each Company Award granted thereunder, all to the extent deemed appropriate by the Company and HoldingCo and permitted under applicable law.

4.3 Insurance. HoldingCo shall procure insurance or cause the execution, amendment or endorsement of the insurance policies of the Company such that, upon consummation of the Merger, HoldingCo shall have insurance coverage that is substantially identical to the insurance coverage held by the Company immediately prior to the Merger.

#### **ARTICLE 5**

##### **TERMINATION AND AMENDMENT**

5.1 Termination. This Agreement may be terminated and the Merger contemplated hereby may be abandoned at any time prior to the Effective Time by action of the Board of Directors of the Company if such Board of Directors should determine that for any reason the completion of the transactions provided for herein would be inadvisable or not in the best interest of the Company or its shareholders. In the event of such termination and abandonment, this Agreement shall become void and none of the Company, HoldingCo or MergerCo or their respective security holders, directors or officers shall have any liability with respect to such termination and abandonment.

5.2 Amendment. At any time prior to the Effective Time, this Agreement may, to the extent permitted by the CBCA, be supplemented, amended or modified by the mutual consent of the parties to this Agreement.

#### **ARTICLE 6**

##### **MISCELLANEOUS PROVISIONS**

6.1 Governing Law. This Agreement shall be governed by and construed and enforced under the laws of the State of Colorado.

6.2 Counterparts. This Agreement may be executed in one or more counterparts, each of which when executed shall be deemed to be an original but all of which shall constitute one and the same agreement.

6.3 Entire Agreement. This Agreement constitutes the entire agreement and supersedes all other agreements and undertakings, both written and oral, among the parties, or any of them, with respect to the subject matter hereof.

6.4 Severability. The provisions of this Agreement are severable, and in the event any provision hereof is determined to be invalid or unenforceable, such invalidity or unenforceability shall not in any way affect the validity or enforceability of the remaining provisions hereof.

6.5 No Third-Party Beneficiaries. Nothing contained in this Agreement is intended by the parties hereto to expand the rights and remedies of any person or entity not party hereto against any party hereto as compared to the rights and remedies which such person or entity would have had against any party hereto had the parties hereto not consummated the transactions contemplated hereby.



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6.6 Tax Matters. Each of the Company and HoldingCo will comply with the recordkeeping and information reporting requirements of the Code that are imposed as a result of the transactions contemplated hereby, and will provide information reporting statements to holders of Company Common Stock at the time and in the manner prescribed by the Code and applicable Treasury Regulations.

[REMAINDER OF PAGE LEFT BLANK INTENTIONALLY]

IN WITNESS WHEREOF, the Company, HoldingCo and MergerCo have caused this Agreement to be executed as of the date first written above by their respective officers thereunto duly authorized.

ADA-ES, INC.

By:

/s/ Mark H. McKinnies

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Mark H. McKinnies

Senior Vice President and Chief Financial Officer

ADVANCED EMISSIONS SOLUTIONS, INC.

By:

/s/ Mark H. McKinnies

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Mark H. McKinnies

Senior Vice President, Chief Financial Officer,  
Secretary and Treasurer

ADA MERGER CORP.

By:

/s/ Mark H. McKinnies

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Mark H. McKinnies

Senior Vice President and Chief Financial Officer

Annex II

Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc.

**SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION  
OF**

**ADVANCED EMISSIONS SOLUTIONS, INC.**

**ARTICLE I  
NAME**

The name of the corporation is ADVANCED EMISSIONS SOLUTIONS, INC. (the “ **Corporation** ”).

**ARTICLE II  
REGISTERED OFFICES**

The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, 19801. The name of its registered agent is The Corporation Trust Company.

**ARTICLE III  
PURPOSE**

The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware (the “ **DGCL** ”).

**ARTICLE IV  
AUTHORIZED CAPITAL STOCK**

The total number of shares of common stock which the corporation is authorized to issue is 100,000,000 at a par value of \$.001 per share (the “ **Common Stock** ”) and the total number of shares of preferred stock which the corporation is authorized to issue is 50,000,000 at a par value of \$.001 per share (“ **Preferred Stock** ”).

The board of directors is hereby expressly authorized to provide, out of the unissued shares of Preferred Stock, for one or more series of Preferred Stock and, with respect to each such series, to fix the number of shares constituting such series and the designation of such series, the voting powers, if any, of the shares of such series, and the preferences and relative, participating, optional or other special rights, if any, and any qualifications, limitations or restrictions thereof, of the shares of such series. The powers, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding.

Except as otherwise provided by law or by the resolution or resolutions adopted by the board of directors designating the rights, powers and preferences of any series of Preferred Stock, the Common Stock shall have the exclusive right to vote for the election of directors and for all other purposes. Each share of Common Stock shall have one vote on each matter properly submitted to the stockholders of the Corporation for their vote, and the holders of the Common Stock shall vote together as a single class.

**ARTICLE V  
CERTAIN DEFINITIONS**

“**Affiliate or Associate**” shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect on March 11, 2011.

“**Announcement Date**” shall have the meaning set forth in Section 6.02(b)(i).

“**Beneficial Owner or beneficially owned**” shall have the meaning ascribed to such term in Rule 13d-3 of the General Rules and Regulations of the Securities Exchange Act of 1934, as amended. In addition, a Person shall be the “Beneficial Owner” of any voting stock which such Person or any of its Affiliates or Associates has

(a) the right to acquire (whether such right is exercisable immediately or only after the passage of time), pursuant to any agreement, arrangement or understanding or upon the exercise of conversion rights, exchange rights, warrants or options or otherwise or (b) the right to vote pursuant to any agreement, arrangement or understanding (but neither such Person nor any such Affiliate or Associate shall be deemed to be the Beneficial Owner of any shares of voting stock solely by reason of a revocable proxy or consent granted for a particular meeting of stockholders, pursuant to a public solicitation of proxies or consents for such meeting, and with respect to which shares neither such Person nor any such Affiliate or Associate is otherwise deemed the Beneficial Owner). Notwithstanding the foregoing, a Person shall not be a “Beneficial Owner” of any voting stock for the purposes of this Article V which such person may have the right to acquire pursuant to the rights agreement from time to time in effect and the rights issued thereunder.

“**Business Combination**” shall mean any of the transactions described in any one or more of clauses (a) through (f) of Section 6.01.

“**Commencement Date**” shall have the meaning set forth in Section 6.02(b)(i).

“**Continuing Director**” means any member of the Board who is unaffiliated with the Interested Stockholder and was a member of the Board before the Interested Stockholder became an Interested Stockholder, and any director who is thereafter chosen to fill any vacancy on the Board or who is elected and who, in either event, is unaffiliated with the Interested Stockholder and in connection with his or her initial assumption of office is recommended for appointment or election by a majority of Continuing Directors then on the Board.

“**Determination Date**” shall have the meaning set forth in Section 6.02(b)(i).

“**Entity**” means a corporation, partnership, joint venture, limited liability company, trust, unincorporated organization, association or other similar entity.

“**Excluded Preferred Stock**” means any series of Preferred Stock with respect to which a majority of the Continuing Directors have approved a Preferred Stock Designation creating such series that expressly provides that the provisions of Article VI shall not apply.

“**Fair Market Value**” shall mean (a) in the case of stock, the highest closing sale price during the 30-day period immediately preceding the date in question of a share of such stock on the Composite Tape for New York Stock Exchange listed stocks, or, if such stock is not quoted on the Composite Tape, on the New York Stock Exchange, or, if such stock is not listed on such exchange, on the principal U.S. securities exchange registered under the Securities Exchange Act of 1934, as amended, on which such stock is listed, or, if such stock is not listed on any such exchange, the highest closing sale price during the 30-day period immediately preceding the date in question of a share of such stock on the National Association of Securities Dealers, Inc. Automated Quotation System, or any system then in use, or if no such quotations are available, the fair market value on the date in question of a share of such stock as determined by the Board in accordance with Section 6.03; and (b) in the case of property other than cash or stock, the fair market value of such property on the date in question as determined by the Board in accordance with Section 6.03.

“**Interested Stockholder**” shall mean any Person (other than the Corporation or any Subsidiary and other than any profit-sharing, employee stock ownership or other employee benefit plan of the Corporation or any Subsidiary or any trustee or fiduciary with respect to any such plan or holding voting stock for the purpose of funding any such plan or funding other employee benefits for employees of the Corporation or any Subsidiary when acting in such capacity) who or which: (a) itself, or along with its Affiliates, is the Beneficial Owner, directly or indirectly, of more than 10% of the then outstanding voting stock; or (b) is an Affiliate of the Corporation and at any time within the two-year period immediately prior to the date in question was itself, or along with its Affiliates, the Beneficial Owner, directly or indirectly, of 10% or more of the then outstanding voting stock; or (c) is an assignee of or has otherwise succeeded to any voting stock which was at any time within the two-year period immediately prior to the date in question beneficially owned by an Interested Stockholder, if such assignment or succession shall have occurred in the course of a transaction or series of transactions not involving a public offering within the meaning of the Securities Act of 1933, as amended. For the purpose of determining whether a Person is an Interested Stockholder, the number of shares of voting stock deemed to be

outstanding shall include shares deemed beneficially owned by the Interested Stockholder, but shall not include any other shares of voting stock which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options or otherwise.

“**Person**” means an individual, governmental or regulatory body or Entity.

“**Subsidiary**” shall mean any Entity of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other persons performing similar functions are at any time directly or indirectly owned by the Corporation.

## **ARTICLE VI HIGHER VOTE REQUIRED FOR CERTAIN BUSINESS COMBINATIONS**

**Section 6.01 Higher Vote Required for Certain Business Combinations.** In addition to any affirmative vote required by applicable law or this Amended and Restated Certificate of Incorporation, and except as otherwise expressly provided in Section 6.02 below:

(a) any merger or consolidation of the Corporation or any Subsidiary with any Interested Stockholder or any other Entity (whether or not an Interested Stockholder) which is, or after such merger or consolidation would be, an Affiliate of an Interested Stockholder;

(b) any sale, lease, exclusive license, exchange, mortgage, pledge, transfer or other disposition (in one transaction or a series of transactions) to or with any Interested Stockholder or any Affiliate of an Interested Stockholder, of any assets of the Corporation or any Subsidiary having an aggregate Fair Market Value of more than the lower of either (i) 10% of the market capitalization of the Corporation’s stock, excluding the value of stock held by any Interested Stockholder and any Affiliate of an Interested Stockholder, at any point during any such transaction or series of transactions or (ii) 10% of the value of the Corporation’s assets as such value is reported on the most recent balance sheet filed by the Corporation with the Securities and Exchange Commission (“**SEC**”) in accordance with generally accepted accounting principles (“**GAAP**”);

(c) the issuance or transfer by the Corporation or any Subsidiary (in one transaction or a series of transactions) of any securities of the Corporation or any Subsidiary to any Interested Stockholder or any Affiliate of an Interested Stockholder, in exchange for cash, securities or other property (or a combination thereof) having an aggregate Fair Market Value of more than the lower of either (i) 10% of the market capitalization of the Corporation’s stock, excluding the value of stock held by any Interested Stockholder and any Affiliate of an Interested Stockholder, at any point during any such transaction or series of transactions or (ii) 10% of the value of the Corporation’s assets as such value is reported on the most recent balance sheet filed by the Corporation with the SEC in accordance with GAAP;

(d) the adoption of any plan or proposal for the liquidation or dissolution of the Corporation proposed by or on behalf of an Interested Stockholder or any Affiliate of an Interested Stockholder;

(e) any reclassification of securities (including any reverse stock split), recapitalization of the Corporation or any merger or consolidation of the Corporation with any of its Subsidiaries or any other transaction (whether or not an Interested Stockholder is a party thereto) which has the effect, directly or indirectly, of increasing the proportionate share of the outstanding shares of any class of equity or convertible securities of the Corporation or any Subsidiary which are directly or indirectly owned by any Interested Stockholder or any Affiliate of an Interested Stockholder; or

(f) any agreement, contract or other arrangement providing for any one or more of the actions specified in the foregoing (a) to (e).

shall require, except as otherwise prohibited by applicable law, the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock, voting together as a single class, including the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock not owned directly or indirectly by any Interested Stockholder or any Affiliate of an Interested Stockholder. Such affirmative vote shall be required notwithstanding the fact that no vote may be required, or that a lesser percentage may be permitted, by applicable law or in any agreement with any national securities exchange or otherwise.

**Section 6.02 When Higher Vote Not Required.** The provisions of Section 6.01 shall not be applicable to any particular Business Combination, and such Business Combination shall require only such affirmative vote as is required by applicable law or any other provision of this Amended and Restated Certificate of Incorporation, if the conditions specified in either of the following paragraphs (a) or (b) are met:

(a) The Business Combination has been approved by a majority of the Continuing Directors; or

(b) All of the following conditions have been met:

(i) The aggregate amount, as of the date (the “**Consummation Date**”) of the consummation of the Business Combination, of (A) the cash and (B) the Fair Market Value of the consideration other than cash to be received per share by holders of Common Stock in such Business Combination shall be at least equal to the higher of the following (in each case appropriately adjusted in the event of any stock dividend, stock split, combination of shares or similar event): (x) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder or any of its Affiliates for any shares of Common Stock acquired by them (1) within the two-year period immediately prior to the date of the first public announcement of the proposal of the Business Combination (the “**Announcement Date**”), or (2) in any transaction in which the Interested Stockholder became an Interested Stockholder (the “**Determination Date**”), whichever is higher; (y) the Fair Market Value per share of Common Stock on the Announcement Date or the Determination Date, whichever is higher; and (z) (if applicable) the price per share equal to the Fair Market Value per share of Common Stock, multiplied by the ratio of (1) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder for any shares of Common Stock acquired by it within the two-year period immediately prior to the Announcement Date to (2) the Fair Market Value per share of Common Stock on the first day in such two-year period upon which the Interested Stockholder acquired any shares of Common Stock;

(ii) The aggregate amount, as of the Consummation Date, of (A) the cash and (B) the Fair Market Value of the consideration other than cash to be received per share by holders of shares of any class or series (other than Common Stock or Excluded Preferred Stock) of outstanding capital stock shall be at least equal to the highest of the following (in each case appropriately adjusted in the event of any stock dividend, stock split, combination of shares or similar event), it being intended that the requirements of this paragraph (b)(ii) shall be required to be met with respect to every such class or series of outstanding capital stock whether or not the Interested Stockholder or any of its Affiliates has previously acquired any shares of a particular class or series of capital stock: (w) (if applicable) the price per share equal to the Fair Market Value per share of such class of capital stock, multiplied by the ratio of (1) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder for any shares of such class of capital stock acquired by it within the two-year period immediately prior to the Announcement Date to (2) the Fair Market Value per share of such class of capital stock on the first day in such two-year period upon which the Interested Stockholder acquired any shares of such class of capital stock; (x) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder or any of its Affiliates for any shares of such class or series of capital stock acquired by them (1) within the two-year period immediately prior to the Announcement Date or (2) in any transactions in which it became an Interested Stockholder, whichever is higher; (y) the Fair Market Value per share of such class or series of capital stock on the Announcement Date or on the Determination Date, whichever is higher; and (z) the highest preferential amount per share, if any, to which the holders of shares of such class or series of capital stock would be entitled in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation;

(iii) The consideration to be received by holders of a particular class of outstanding voting stock (including Common Stock and other than Excluded Preferred Stock) shall be in cash or in the same form as the Interested Stockholder has previously paid for shares of such class of voting stock. If the Interested Stockholder has paid for shares of any class of voting stock with varying forms of consideration, the form of consideration for such class of voting stock shall be either cash or the form used to acquire the largest number of shares of such class of voting stock previously acquired by it;

(iv) After such Interested Stockholder has become an Interested Stockholder and prior to the consummation of such Business Combination: (A) there shall have been no failure to declare and pay at the regular date therefor any full quarterly dividends (whether or not cumulative) on any outstanding Preferred Stock, except as approved by a majority of the Continuing Directors; (B) there shall have been no reduction in the annual rate of dividends paid on the Common Stock (except as necessary to reflect any subdivision of the Common Stock), except as approved by a majority of the Continuing Directors; (C) there shall have been an increase in the annual rate of dividends as necessary fully to reflect any recapitalization (including any reverse stock split) or any similar reorganization which has the effect of reducing the number of outstanding shares of the Common Stock, unless the failure so to increase such annual rate is approved by a majority of the Continuing Directors; and (D) such Interested Stockholder shall not have become the Beneficial Owner of any additional voting stock except as part of the transaction which results in such Interested Stockholder becoming an Interested Stockholder;

(v) After such Interested Stockholder has become an Interested Stockholder, such Interested Stockholder shall not have received the benefit, directly or indirectly (except proportionately as a stockholder), of any loans, advances, guarantees, pledges or other financial assistance or any tax credits or other tax advantages provided by the Corporation, whether in anticipation of, or in connection with, such Business Combination or otherwise; and

(vi) A proxy or information statement describing the proposed Business Combination and complying with the requirements of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (or any subsequent provisions replacing such act, rules or regulations) shall have been mailed to stockholders of the Corporation at least 30 days prior to the consummation of such Business Combination (whether or not such proxy or information statement is required to be mailed pursuant to such act or subsequent provisions).

**Section 6.03 Determination by the Continuing Directors.** The Continuing Directors of the Corporation shall have the power and duty to determine for the purposes of this Article VI on the basis of information known to them after reasonable inquiry, all facts necessary to determine compliance with this Article VI including, without limitation (a) whether a Person is an Interested Stockholder; (b) the number of shares of capital stock beneficially owned by any Person; (c) whether a Person is an Affiliate or Associate of another; (d) whether the applicable conditions set forth in Section 6.02 have been met with respect to any Business Combination; (e) the Fair Market Value of stock or other property; and (f) whether the assets that are the subject of any Business Combination have, or the consideration to be received for the issuance or transfer of securities by the Corporation or any Subsidiary in any Business Combination has, an aggregate Fair Market Value of more than the lower of either (i) 10% of the market capitalization of the Corporation's stock, excluding the value of stock held by any Interested Stockholder and any Affiliate of an Interested Stockholder, at any point during any such transaction or series of transactions or (ii) 10% of the value of the Corporation's assets as such value is reported on the most recent balance sheet filed by the Corporation with the SEC in accordance with GAAP. Any such determination made in good faith shall be binding and conclusive on all parties.

**Section 6.04 No Effect on Fiduciary Obligations of Interested Stockholders.** Nothing contained in this Article VI shall be construed to relieve any Interested Stockholder from any fiduciary obligation imposed by applicable law.

**Section 6.05 Amendment or Repeal.** Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or the Bylaws (and notwithstanding the fact that a lesser percentage may be permitted by applicable law, this Amended and Restated Certificate of Incorporation or the Bylaws), but in addition to any affirmative vote of the holders of any particular class of the voting stock required by applicable law or this Amended and Restated Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of the shares of the then outstanding voting stock voting together as a single class, including the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock not owned directly or indirectly by any Interested Stockholder or any Affiliate of any Interested Stockholder, shall be required to amend, repeal or adopt any provisions inconsistent with, this Article VI or Article V.

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**ARTICLE VII  
DIRECTOR ELECTION**

Unless and except to the extent that the bylaws of the Corporation (the “Bylaws”) so require, the election of directors of the Corporation need not be by written ballot.

**ARTICLE VIII  
DIRECTOR LIABILITY**

To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or to its stockholders for monetary damages for any breach of fiduciary duty as a director. No amendment to, modification of or repeal of this Article VIII shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment.

**ARTICLE IX  
DIRECTOR INDEMNIFICATION**

The Corporation shall indemnify, advance expenses, and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a “ **Covered Person** ”) who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a “ **Proceeding** ”), by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except for claims for indemnification (following the final disposition of such Proceeding) or advancement of expenses not paid in full, the Corporation shall be required to indemnify a Covered Person in connection with a Proceeding (or part thereof) commenced by such Covered Person only if the commencement of such Proceeding (or part thereof) by the Covered Person was authorized in the specific case by the Board of Directors of the Corporation. Any amendment, repeal or modification of this Article IX shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

**ARTICLE X  
BYLAWS**

In furtherance and not in limitation of the powers conferred by statute, the board of directors is expressly empowered to adopt, amend or repeal bylaws of the Corporation. Any adoption, amendment or repeal of the bylaws of the Corporation by the board of directors shall require the approval of a majority of the entire board of directors. Except as otherwise required by law or this Amended and Restated Certificate of Incorporation, the stockholders shall also have the power to adopt, amend or repeal any provision of the bylaws of the Corporation with the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Notwithstanding anything to the contrary in this Amended and Restated Certificate of Incorporation, in addition to the holders of any class or series of stock of the corporation required by law or by this Amended and Restated Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of the shares of the then outstanding voting stock voting together as a single class, including the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock not owned directly or indirectly by any Interested Stockholder or any Affiliate of any Interested Stockholder, shall be required to amend, repeal or adopt any provisions inconsistent with, this Article X of this Amended and Restated Certificate of Incorporation.



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**ARTICLE XI  
AMENDMENT OF CERTIFICATE OF INCORPORATION**

The Corporation shall have the right, subject to any express provisions or restrictions contained in the Amended and Restated Certificate of Incorporation of the Corporation or the Bylaws, from time to time, to amend the Amended and Restated Certificate of Incorporation or any provision thereof in any manner now or hereafter provided by law, and all rights and powers of any kind conferred upon a director or stockholder of the Corporation by the Amended and Restated Certificate of Incorporation or any amendment thereof are conferred subject to such right.

**ARTICLE XII  
OPT-OUT OF RESTRICTIONS ON BUSINESS COMBINATIONS WITH  
INTERESTED STOCKHOLDERS.**

The Corporation shall not be governed by or subject to Section 203 of the DGCL.

**ARTICLE XIII  
WRITTEN CONSENT**

Any action to be taken at any annual or special meeting of stockholders may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action to be so taken, are signed by all of the holders of outstanding stock entitled to vote with respect to the subject matter thereof and delivered (by hand or by certified or registered mail, return receipt requested) to the Corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the Corporation having custody of the books in which proceedings of meetings of stockholders are recorded.

Annex III  
Bylaws of Advanced Emissions Solutions, Inc.

**BYLAWS OF  
ADVANCED EMISSIONS SOLUTIONS, INC.**

**ARTICLE I  
OFFICES**

**Section 1.01 Offices.** Advanced Emissions Solutions, Inc. (hereinafter called the “**Corporation**”) may have offices at such places, both within and without the State of Delaware, as the board of directors of the Corporation (the “**Board of Directors**”) from time to time shall determine or the business of the Corporation may require.

**Section 1.02 Books and Records.** Any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account and minute books, may be maintained on any information storage device or method so long as such records so kept can be converted into clearly legible paper form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect such records pursuant to applicable law.

**ARTICLE II  
MEETINGS OF THE STOCKHOLDERS**

**Section 2.01 Place of Meetings.** All meetings of the stockholders shall be held at such place, if any, either within or without the State of Delaware, as is designated from time to time by resolution of the Board of Directors and stated in the notice of meeting.

**Section 2.02 Annual Meeting.** The annual meeting of the stockholders for the election of directors and for the transaction of such other business as may properly come before the meeting shall be held at such date, time and place, if any, as are determined by the Board of Directors and stated in the notice of the meeting.

**Section 2.03 Advance Notice of Stockholder Nominations and Proposals.**

**(a) Definitions.**

“**Affiliate or Associate**” shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect March 11, 2011.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“**Public Disclosure**” or “**Publicly Disclosed**” means a disclosure made in a press release reported by the Dow Jones News Services, The Associated Press or a comparable national news service or in a document filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

**(b) Timely Notice.** At a meeting of the stockholders, only such nominations of persons for the election of directors and such other business shall be conducted as have been properly brought before the meeting. To be properly brought before an annual meeting, nominations or such other business must be: (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the board of directors or any committee thereof, (ii) otherwise properly brought before the meeting by or at the direction of the board of directors or any committee thereof, or (iii) otherwise properly brought before an annual meeting by a stockholder who is a stockholder of record of the Corporation at the time such notice of meeting is delivered, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 2.03. In addition, any proposal of business (other than the nomination of persons for election to the board of directors, which shall be governed by Section 2.03(c) below) must be a proper matter for stockholder action. For business (including, but not limited to, director nominations) to be properly brought before an annual meeting by a stockholder, the stockholder or

stockholders of record intending to propose the business (the “ **Proposing Stockholder** ”) must have given timely notice thereof pursuant to this Section 2.03(b) or Section 2.03(d) below, as applicable, in writing to the secretary of the Corporation even if such matter is already the subject of any notice to the stockholders or Public Disclosure from the board of directors. To be timely, a Proposing Stockholder’s notice must be delivered to or mailed and received at the principal executive offices of the Corporation in the case of an annual meeting of the stockholders, not less than one hundred twenty (120) calendar days in advance of the date specified in the Corporation’s proxy statement released to stockholders in connection with the previous year’s annual meeting of stockholders; provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date on which the previous year’s annual meeting was held, notice by the stockholder to be timely must be so received not later than the close of business on the later of one hundred twenty (120) calendar days in advance of such annual meeting or ten (10) calendar days following the date of Public Disclosure of the date of such meeting. In no event shall the Public Disclosure of an adjournment or postponement of an annual meeting commence a new notice time period (or extend any notice time period).

(c) **Stockholder Nominations.** For the nomination of any person or persons for election to the board of directors, a Proposing Stockholder’s notice to the secretary of the Corporation shall set forth (i) the name, age, business address and residence address of each nominee proposed in such notice, (ii) the principal occupation or employment of each such nominee, (iii) the number of shares of capital stock of the Corporation that are owned of record and beneficially by each such nominee (if any), (iv) such other information concerning each such nominee as would be required to be disclosed in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved) or that is otherwise required to be disclosed, under Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder, (v) the consent of the nominee to being named in the proxy statement as a nominee and to serving as a director if elected, and (vi) as to the Proposing Stockholder: (A) the name and address of the Proposing Stockholder as they appear on the Corporation’s books and of the beneficial owner, if any, on whose behalf the nomination is being made, (B) the class and number of shares of the Corporation that are owned by the Proposing Stockholder (beneficially and of record) and owned by the beneficial owner, if any, on whose behalf the nomination is being made, as of the date of the Proposing Stockholder’s notice, and a representation that the Proposing Stockholder will notify the Corporation in writing of the class and number of such shares owned of record and beneficially as of the record date for the meeting promptly following the later of the record date or the date notice of the record date is first Publicly Disclosed, (C) a description of any agreement, arrangement or understanding with respect to such nomination between or among the Proposing Stockholder and any of its Affiliates or Associates, and any others (including their names) acting in concert with any of the foregoing, and a representation that the Proposing Stockholder will notify the Corporation in writing of any such agreement, arrangement or understanding in effect as of the record date for the meeting promptly following the later of the record date or the date notice of the record date is first Publicly Disclosed, (D) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the Proposing Stockholder’s notice by, or on behalf of, the Proposing Stockholder or any of its Affiliates or Associates, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of the Proposing Stockholder or any of its Affiliates or Associates with respect to shares of stock of the Corporation, and a representation that the Proposing Stockholder will notify the Corporation in writing of any such agreement, arrangement or understanding in effect as of the record date for the meeting promptly following the later of the record date or the date notice of the record date is first Publicly Disclosed, (E) a representation that the Proposing Stockholder is a holder of record of shares of the Corporation entitled to vote at the meeting and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice, and (F) a representation whether the Proposing Stockholder intends to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation’s outstanding capital stock required to approve the nomination and/or otherwise to solicit proxies from stockholders in support of the nomination. The Corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation or that could be material to a reasonable stockholder’s understanding of the qualifications and independence, or lack thereof, of such nominee.

(d) **Other Stockholder Proposals.** For all business other than director nominations, a Proposing Stockholder's notice to the secretary of the Corporation shall set forth as to each matter the Proposing Stockholder proposes to bring before the annual meeting: (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) any other information relating to such stockholder and beneficial owner, if any, on whose behalf the proposal is being made, required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for the proposal and pursuant to and in accordance with Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder and (iii) the information required by Section 2.03(c)(vi) above.

(e) **Proxy Rules.** The foregoing notice requirements of Sections 2.03(c) and 2.03(d) shall be deemed satisfied by a stockholder with respect to business or a nomination if the stockholder has notified the Corporation of his, her or its intention to present a proposal or make a nomination at an annual meeting in compliance with the applicable rules and regulations promulgated under Section 14(a) of the Exchange Act and such stockholder's proposal or nomination has been included in a proxy statement that has been prepared by the Corporation to solicit proxies for such annual meeting.

(f) **Special Meetings of Stockholders.** Only such business shall be conducted at a special meeting of stockholders as has properly been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations of persons for election to the board of directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (x) by or at the direction of the board of directors or any committee thereof (or stockholders pursuant to Section 2.04 hereof) or (y) provided that the board of directors (or stockholders pursuant to Section 2.04 hereof) have determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time the notice provided for in this Section 2.03 is delivered to the secretary of the Corporation, who is entitled to vote at the meeting and upon such election and who complies with the notice procedures set forth in this Section 2.03. If the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the board of directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice required by this Section 2.03 shall be delivered to the secretary at the principal executive offices of the Corporation not less than one hundred twenty (120) days prior to the special meeting at which such business will be considered or the tenth (10th) day following the date of Public Disclosure of the date of the special meeting and of the nominees proposed by the board of directors to be elected at such meeting. The foregoing notice requirements of this paragraph (f) of this Section 2.03 shall be deemed satisfied by a stockholder with respect to a nomination if the stockholder has notified the Corporation of his, her or its intention to present a nomination at such special meeting in compliance with Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder and such stockholder's nomination has been included in a proxy statement that has been prepared by the Corporation to solicit proxies for such special meeting. In no event shall the Public Disclosure of an adjournment or postponement of a special meeting commence a new time period (or extend any notice time period).

(g) **Effect of Noncompliance.** Notwithstanding anything in these Bylaws to the contrary: (i) no nominations shall be made or business shall be conducted at any annual meeting except in accordance with the procedures set forth in this Section 2.03, and (ii) otherwise required by law, if a Proposing Stockholder intending to propose business or make nominations at an annual meeting pursuant to this Section 2.03 does not provide the information required under this Section 2.03 to the Corporation promptly following the later of the record date or the date notice of the record date is first Publicly Disclosed, or the Proposing Stockholder (or a qualified representative of the Proposing Stockholder) does not appear at the meeting to present the proposed business or nominations, such business or nominations shall not be considered, notwithstanding that proxies in respect of such business or nominations may have been received by the Corporation. The requirements of this Section 2.03 shall apply to any business or nominations to be brought before an annual meeting by a stockholder whether such business or nominations are to be included in the Corporation's proxy statement pursuant to Rule 14a-8 or Rule 14a-11 of the Exchange Act or presented to stockholders by means of an independently financed proxy solicitation. The requirements of the Section 2.03 are included to provide the Corporation notice of a

stockholder's intention to bring business or nominations before an annual meeting and shall in no event be construed as imposing upon any stockholder the requirement to seek approval from the Corporation as a condition precedent to bringing any such business or make such nominations before an annual meeting.

**Section 2.04 Special Meetings.** Special meetings of stockholders for any purpose or purposes may be called pursuant to a resolution approved by the Board of Directors or by the holders of shares entitled to cast not less than twenty percent (20%) of the votes at the meeting, and shall be held at such place, on such date, and at such time as the Board of Directors shall fix. The only business that may be conducted at a special meeting shall be the matter or matters set forth in the notice of such meeting. If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted in compliance with the same advance notice requirements of Section 2.03(c) and 2.03(d), and shall be delivered personally or sent by certified or registered mail, return receipt requested, or by telegraphic or other facsimile transmission to the secretary of the Corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the secretary shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 2.07 of these Bylaws. Nothing contained in this Section 2.04 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

**Section 2.05 Adjournments.** Any meeting of the stockholders, annual or special, may be adjourned from time to time to reconvene at the same or some other place, if any, and notice need not be given of any such adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business that may have been transacted at the original meeting. If the adjournment is for more than 30 days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date is fixed for stockholders entitled to vote at the adjourned meeting, the Board of Directors shall fix a new record date for notice of the adjourned meeting and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at the meeting as of the record date for notice of such adjourned meeting.

**Section 2.06 Notice of Meetings.** Notice of the place, if any, date, hour, the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting) and means of remote communication, if any, of every meeting of stockholders shall be given by the Corporation not less than ten days nor more than 60 days before such meeting (unless a different time is specified by law) to every stockholder entitled to vote at the meeting as of the record date for determining the stockholders entitled to notice of the meeting. Notices of special meetings shall also specify the purpose or purposes for which the meeting has been called. Except as otherwise provided herein or permitted by applicable law, notice to stockholders shall be in writing and delivered personally or mailed to the stockholders at their addresses appearing on the books of the Corporation. Without limiting the manner by which notice otherwise may be given effectively to stockholders, notice of meetings may be given to stockholders by means of electronic transmission in accordance with applicable law. Notice of any meeting need not be given to any stockholder who, either before or after the meeting, submits a waiver of notice or attends such meeting, except when the stockholder attends for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

**Section 2.07 List of Stockholders.** The officer of the Corporation who has charge of the stock ledger shall prepare a complete list of the stockholders entitled to vote at any meeting of stockholders (provided, however, if the record date for determining the stockholders entitled to vote is less than ten days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date), arranged in alphabetical order, and showing the address of each stockholder and the number of shares of each class of capital stock of the Corporation registered in the name of each stockholder at least ten days before any meeting of the stockholders. Such list shall be open to the examination of any stockholder, for any purpose

germane to the meeting, during ordinary business hours, at the principal place of business of the Corporation. If the meeting is to be held at a place, the list shall also be produced and kept at the time and place of the meeting the whole time thereof and may be inspected by any stockholder who is present. If the meeting is held solely by means of remote communication, the list shall also be open for inspection by any stockholder during the whole time of the meeting as provided by applicable law. Except as provided by applicable law, the stock ledger of the Corporation shall be the only evidence as to who are the stockholders entitled to examine the stock ledger and the list of stockholders or to vote in person or by proxy at any meeting of stockholders.

**Section 2.08 Quorum.** Unless otherwise required by law, the Certificate of Incorporation of the Corporation (the “**Certificate of Incorporation**”) or these bylaws, at each meeting of the stockholders, one-third of the voting power of the outstanding shares of the Corporation entitled to vote at the meeting, present in person or represented by proxy, shall constitute a quorum. If, however, such quorum is not present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, in the manner provided in Section 2.05, until a quorum is present or represented. A quorum, once established, shall not be broken by the subsequent withdrawal of enough votes to leave less than a quorum. At any such adjourned meeting at which there is a quorum, any business may be transacted that may have been transacted at the meeting originally called.

**Section 2.09 Conduct of Meetings.** The Board of Directors of the Corporation may adopt by resolution such rules and regulations for the conduct of the meeting of the stockholders as it deems appropriate. At every meeting of stockholders, the president or in his or her absence or inability to act, the secretary or, in his or her absence or inability to act, the person whom the president appoints, shall act as chairman of, and preside at, the meeting. The secretary or, in his or her absence or inability to act, the person whom the chairman of the meeting appoints secretary of the meeting, shall act as secretary of the meeting and keep the minutes thereof. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the chairman of any meeting of the stockholders has the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chairman of the meeting, may include, without limitation, the following: (a) the establishment of an agenda or order of business for the meeting; (b) the determination of when the polls open and close for any given matter to be voted on at the meeting; (c) rules and procedures for maintaining order at the meeting and the safety of those present; (d) limitations on attendance at or participation in the meeting to stockholders of record of the Corporation, their duly authorized and constituted proxies or such other persons as the chairman of the meeting determines; (e) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (f) limitations on the time allotted to questions or comments by participants.

**Section 2.10 Voting; Proxies.** Unless otherwise required by law or the Certificate of Incorporation, the election of directors and proposals so designated by the directors shall be decided by a plurality of the votes cast at a meeting of the stockholders by the holders of stock entitled to vote in the election. Unless otherwise required by law, the Certificate of Incorporation or these bylaws, any matter, other than the election of directors and proposals designated by the directors as being subject to a plurality vote, brought before any meeting of stockholders shall be approved if the votes cast favoring the matter exceed the votes cast opposing the matter at a meeting of the stockholders by the holders of stock entitled to vote thereon. Each stockholder entitled to vote at a meeting of stockholders or to express consent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A stockholder may revoke any proxy that is not irrevocable by attending the meeting and voting in person or by delivering to the secretary of the Corporation a revocation of the proxy or a new proxy bearing a later date. Voting at meetings of stockholders need not be by written ballot.

**Section 2.11 Inspectors at Meetings of Stockholders.** The Board of Directors, in advance of any meeting of stockholders, may, and shall if required by law, appoint one or more inspectors, who may be employees of the Corporation, to act at the meeting or any postponement or adjournment thereof and make a written report

thereof. The Board of Directors may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall (a) ascertain the number of shares outstanding and the voting power of each, (b) determine the shares represented at the meeting, the existence of a quorum and the validity of proxies and ballots, (c) count all votes and ballots, (d) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors and (e) certify their determination of the number of shares represented at the meeting and their count of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of their duties. Unless otherwise provided by the Board of Directors, the date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be determined by the person presiding at the meeting and shall be announced at the meeting. No ballot, proxies, votes or any revocation thereof or change thereto, shall be accepted by the inspectors after the closing of the polls unless the Court of Chancery of the State of Delaware upon application by a stockholder determines otherwise. In determining the validity and counting of proxies and ballots cast at any meeting of stockholders, the inspectors may consider such information as is permitted by applicable law. No person who is a candidate for office at an election may serve as an inspector at such election.

**Section 2.12 Written Consent of Stockholders Without a Meeting.** Any action to be taken at any annual or special meeting of stockholders may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action to be so taken, are signed by all of the holders of outstanding stock entitled to vote with respect to the subject matter thereof and delivered (by hand or by certified or registered mail, return receipt requested) to the Corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the Corporation having custody of the books in which proceedings of meetings of stockholders are recorded. Every written consent shall bear the date of signature of each stockholder, and no written consent shall be effective to take the corporate action referred to therein unless, within 60 days of the earliest dated consent delivered in the manner required by this Section 2.12, written consents signed by all of the holders of outstanding stock entitled to vote with respect to the subject matter thereof are delivered to the Corporation as aforesaid.

**Section 2.13 Fixing the Record Date.**

(a) In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment or postponement thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than 60 nor less than ten days before the date of such meeting. If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment or postponement of the meeting; provided, however, that the Board of Directors may fix a new record date for the determination of stockholders entitled to vote at the adjourned or postponed meeting and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned or postponed meeting the same or an earlier date as that fixed for the determination of stockholders entitled to vote therewith at the adjourned or postponed meeting.

(b) In order that the Corporation may determine the stockholders entitled to express consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than ten days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. If no record date has been fixed by the Board of Directors, the record

date for determining stockholders entitled to express consent to corporate action in writing without a meeting: (i) when no prior action by the Board of Directors is required by law, the record date for such purpose shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Corporation by delivery to its registered office in the State of Delaware, its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceedings of meetings of stockholders are recorded and (ii) if prior action by the Board of Directors is required by law, the record date for such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action. Delivery shall be by hand or by certified or registered mail, return receipt requested.

(c) In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

### **ARTICLE III B O A R D O F D I R E C T O R S**

**Section 3.01 General Powers.** The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. The Board of Directors may adopt such rules and procedures, not inconsistent with the Certificate of Incorporation, these bylaws or applicable law, as it may deem proper for the conduct of its meetings and the management of the Corporation.

**Section 3.02 Number; Term of Office.** The Board of Directors shall consist of no less than one or more than fifteen members. Each director shall hold office until a successor is duly elected and qualified or until the director's earlier death, resignation, disqualification or removal.

**Section 3.03 Newly Created Directorships and Vacancies.** Any newly created directorships resulting from an increase in the authorized number of directors and any vacancies occurring in the Board of Directors, may be filled by the affirmative votes of a majority of the remaining members of the Board of Directors, although less than a quorum. A director so elected shall hold office until the earlier of the expiration of the term of office of the director whom he or she has replaced, a successor is duly elected and qualified or the earlier of such director's death, resignation or removal.

**Section 3.04 Resignation.** Any director may resign at any time by notice given in writing or by electronic transmission to the Corporation. Such resignation shall take effect at the date of receipt of such notice by the Corporation or at such later time as is therein specified.

**Section 3.05 Regular Meetings.** Regular meetings of the Board of Directors may be held without notice at such times and at such places as may be determined from time to time by the Board of Directors or its chairman.

**Section 3.06 Special Meetings.** Special meetings of the Board of Directors may be held at such times and at such places as may be determined by the chairman or the president on at least 24 hours notice to each director given by one of the means specified in Section 3.09 hereof other than by mail or on at least three days notice if given by mail. Special meetings shall be called by the chairman or the president in like manner and on like notice on the written request of any two or more directors.

**Section 3.07 Telephone Meetings.** Board of Directors or Board of Directors committee meetings may be held by means of telephone conference or other communications equipment by means of which all persons participating in the meeting can hear each other and be heard. Participation by a director in a meeting pursuant to this Section 3.07 shall constitute presence in person at such meeting.

**Section 3.08 Adjourned Meetings.** A majority of the directors present at any meeting of the Board of Directors, including an adjourned meeting, whether or not a quorum is present, may adjourn and reconvene such meeting to another time and place. At least 24 hours notice of any adjourned or postponed meeting of the



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Board of Directors shall be given to each director whether or not present at the time of the adjournment or postponement, if such notice shall be given by one of the means specified in Section 3.09 hereof other than by mail, or at least three days notice if by mail. Any business may be transacted at an adjourned meeting that could have been transacted at the meeting as originally called.

**Section 3.09 Notices.** Subject to Section 3.06 and Section 3.10 hereof, whenever notice is required to be given to any director by applicable law, the Certificate of Incorporation or these bylaws, such notice shall be deemed given effectively if given in person or by telephone, mail addressed to such director at such director's address as it appears on the records of the Corporation, facsimile, email or by other means of electronic transmission.

**Section 3.10 Waiver of Notice.** Whenever the giving of any notice to directors is required by applicable law, the Certificate of Incorporation or these bylaws, a waiver thereof, given by the director entitled to the notice, whether before or after such notice is required, shall be deemed equivalent to notice. Attendance by a director at a meeting shall constitute a waiver of notice of such meeting except when the director attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business on the ground that the meeting was not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special Board of Directors or committee meeting need be specified in any waiver of notice.

**Section 3.11 Organization.** At each meeting of the Board of Directors, the chairman or, in his or her absence, another director selected by the Board of Directors shall preside. The secretary or a person designated by secretary shall act as secretary at each meeting of the Board of Directors. If the secretary is absent from any meeting of the Board of Directors, an assistant secretary shall perform the duties of secretary at such meeting; and in the absence from any such meeting of the secretary and all assistant secretaries, the person presiding at the meeting may appoint any person to act as secretary of the meeting.

**Section 3.12 Quorum of Directors.** The presence of a majority of the Board of Directors shall be necessary and sufficient to constitute a quorum for the transaction of business at any meeting of the Board of Directors.

**Section 3.13 Action by Majority Vote.** Except as otherwise expressly required by these bylaws, the Certificate of Incorporation or by applicable law, the vote of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors.

**Section 3.14 Action Without Meeting.** Unless otherwise restricted by the Certificate of Incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting if all directors or members of such committee, as the case may be, consent thereto in writing or by electronic transmission, and the writings or electronic transmissions are filed with the minutes of proceedings of the Board of Directors or committee in accordance with applicable law.

**Section 3.15 Committees of the Board of Directors.** The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of such committee. If a member of a committee is absent from any meeting, or disqualified from voting thereat, the remaining member or members present at the meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may, by a unanimous vote, appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent permitted by applicable law, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation and may authorize the seal of the Corporation to be affixed to all papers that may require it to the extent so authorized by the Board of Directors. Unless the Board of Directors provides otherwise, at all meetings of such committee, a majority of the then authorized members of the committee shall constitute a quorum for the transaction of business, and the vote of a majority of the members of the committee present at any meeting at

which there is a quorum shall be the act of the committee. Each committee shall keep regular minutes of its meetings. Unless the Board of Directors provides otherwise, each committee designated by the Board of Directors may make, alter and repeal rules and procedures for the conduct of its business. In the absence of such rules and procedures each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to this Article III.

#### **ARTICLE IV OFFICERS**

**Section 4.01 Positions and Election.** The officers of the Corporation shall be elected by the Board of Directors and shall include a president, a treasurer and a secretary. The Board of Directors, in its discretion, may also elect a chairman (who must be a director), one or more vice chairmen (who must be directors) and one or more vice presidents, assistant treasurers, assistant secretaries and other officers. Any individual may be elected to, and may hold, more than one office of the Corporation.

**Section 4.02 Term.** Each officer of the Corporation shall hold office until such officer's successor is elected and qualifies or until such officer's earlier death, resignation or removal. Any officer elected or appointed by the Board of Directors may be removed by the Board of Directors at any time with or without cause by the majority vote of the members of the Board of Directors then in office. The removal of an officer shall be without prejudice to his or her contract rights, if any. The election or appointment of an officer does not of itself create contract rights. Any officer of the Corporation may resign at any time by giving written notice of his or her resignation to the president or the secretary. Any such resignation shall take effect at the time specified therein or, if the time when it becomes effective is not specified therein, immediately upon its receipt. Unless otherwise specified therein, the acceptance of such resignation is not necessary to make it effective. If any vacancy occurs among the officers, the Board of Directors shall, if required by law, or may appoint a person to fill the position for the unexpired portion of the term.

**Section 4.03 The President.** The president shall have general supervision over the business of the Corporation and other duties incident to the office of president, and any other duties as may be from time to time assigned to the president by the Board of Directors and subject to the control of the Board of Directors in each case.

**Section 4.04 Vice Presidents.** Each vice president shall have such powers and perform such duties as may be assigned to him or her from time to time by the chairman of the Board of Directors or the president.

**Section 4.05 The Secretary.** The secretary, or a person appointed by the secretary, president or Board of Directors, shall attend all sessions of the Board of Directors and all meetings of the stockholders and record all votes and the minutes of all proceedings in a book to be kept for that purpose, and shall perform like duties for committees when required. He or she shall give, or cause to be given, notice of all meetings of the stockholders and meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or the president. The secretary shall keep in safe custody the seal of the Corporation and shall see that it is affixed to all documents, the execution of which, on behalf of the Corporation, under its seal, is necessary or proper, and when so affixed may attest the same.

**Section 4.06 The Treasurer.** The treasurer shall have the custody of the corporate funds and securities, except as otherwise provided by the Board of Directors, and shall cause to be kept full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. The treasurer shall disburse the funds of the Corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the president and the directors, at the regular meetings of the Board of Directors, or whenever they may require it, an account of all his or her or her transactions as treasurer and of the financial condition of the Corporation.

**Section 4.07 Duties of Officers May be Delegated.** In the case of the absence of any officer, or for any other reason that the Board of Directors may deem sufficient, the president or the Board of Directors may delegate for the time being the powers or duties of such officer to any other officer, director or person.

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**ARTICLE V**  
**S T O C K C E R T I F I C A T E S A N D T H E I R T R A N S F E R**

**Section 5.01 Certificates Representing Shares.** The shares of stock of the Corporation shall be represented by certificates unless the Board of Directors provides by resolution or resolutions that some or all of any class or series shall be uncertificated shares that may be evidenced by a book-entry system maintained by the registrar of such stock. If shares are represented by certificates, such certificates shall be in the form approved by the Board of Directors. The certificates representing shares of stock of each class shall be signed by, or in the name of, the Corporation by the chairman, any vice chairman, the president or any vice president, and by the secretary, any assistant secretary, the treasurer or any assistant treasurer. Any or all such signatures may be facsimiles. Although any officer, transfer agent or registrar whose manual or facsimile signature is affixed to such a certificate ceases to be such officer, transfer agent or registrar before such certificate has been issued, it may nevertheless be issued by the Corporation with the same effect as if such officer, transfer agent or registrar were still such at the date of its issue.

**Section 5.02 Transfers of Stock.** Stock of the Corporation shall be transferable in the manner prescribed by law and in these bylaws. Transfers of stock shall be made on the books of the Corporation only by the person named as the holder thereof on the stock records of the Corporation, by such person's attorney lawfully constituted in writing, and in the case of shares represented by a certificate upon the surrender of the certificate thereof, which shall be cancelled before a new certificate or uncertificated shares may be issued. No transfer of stock shall be valid as against the Corporation for any purpose until it has been entered in the stock records of the Corporation by an entry showing from and to whom such stock was transferred. To the extent designated by the president or any vice president or the treasurer of the Corporation, the Corporation may recognize the transfer of fractional uncertificated shares, but shall not otherwise be required to recognize the transfer of fractional shares.

**Section 5.03 Transfer Agents and Registrars.** The Board of Directors may appoint, or authorize any officer or officers to appoint, one or more transfer agents and one or more registrars.

**Section 5.04 Lost, Stolen or Destroyed Certificates.** The Board of Directors may direct a new certificate or uncertificated shares to be issued in place of any certificate theretofore issued by the Corporation alleged to have been lost, stolen or destroyed upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen or destroyed. When authorizing such issue of a new certificate or uncertificated shares, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate, or the owner's legal representative to give the Corporation a bond sufficient to indemnify it against any claim that may be made against the Corporation with respect to the certificate alleged to have been lost, stolen or destroyed or the issuance of such new certificate or uncertificated shares.

**ARTICLE VI**  
**G E N E R A L P R O V I S I O N S**

**Section 6.01 Seal.** The seal of the Corporation shall be in such form as is approved by the Board of Directors. The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise, as may be prescribed by law or custom or by the Board of Directors.

**Section 6.02 Fiscal Year.** The fiscal year of the Corporation shall be determined by the Board of Directors.

**Section 6.03 Checks, Notes, Drafts, Etc.** All checks, notes, drafts or other orders for the payment of money of the Corporation shall be signed, endorsed or accepted in the name of the Corporation by such officer, officers, person or persons as from time to time may be designated by the Board of Directors or by an officer or officers authorized by the Board of Directors to make such designation.

**Section 6.04 Dividends.** Subject to applicable law and the Certificate of Incorporation, dividends upon the shares of capital stock of the Corporation may be declared by the Board of Directors at any regular or special meeting of the Board of Directors. Dividends may be paid in cash, in property or in shares of stock of the Corporation, unless otherwise provided by applicable law or the Certificate of Incorporation.

**Section 6.05 Conflict with Applicable Law or Certificate of Incorporation.** These bylaws are adopted subject to any applicable law and the Certificate of Incorporation. Whenever these bylaws may conflict with any applicable law or the Certificate of Incorporation, such conflict shall be resolved in favor of such law or the Certificate of Incorporation.

**ARTICLE VII**  
**I NDEMNIFICATION**

**Section 7.01 Power to Indemnify in Actions, Suits or Proceedings Other Than Those By or in the Right of the Corporation .** Subject to Section 7.03, the Corporation shall indemnify, to the fullest extent permitted by applicable law, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation), by reason of the fact that such person is or was a director or officer of the Corporation, or is or was a director or officer of the Corporation serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that such person's conduct was unlawful.

**Section 7.02 Power to Indemnify in Actions, Suit or Proceedings By or in the Right of the Corporation.** Subject to Section 7.03, the Corporation shall indemnify, to the fullest extent permitted by applicable law, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Corporation, or is or was a director or officer of the Corporation serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

**Section 7.03 Authorization of Indemnification.** Any indemnification under this Article VII (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the present or former director or officer is proper in the circumstances because such person has met the applicable standard of conduct set forth in Section 7.01 or Section 7.02, as the case may be. Such determination shall be made, with respect to a person who is a director or officer at the time of such determination, (i) by a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum, or (ii) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion, or (iv) by the stockholders. Such determination shall be made, with respect to former directors and officers, by any person or persons having the authority to act on the matter on behalf of the Corporation. To the extent, however, that a present or former director or officer of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding described above, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith, without the necessity of authorization in the specific case.

**Section 7.04 Good Faith Defined** . For purposes of any determination under Section 7.03, a person shall be deemed to have acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Corporation, or, with respect to any criminal action or proceeding, to have had no reasonable cause to believe such person's conduct was unlawful, if such person's action is based on the records or books of account of the Corporation or another enterprise, or on information supplied to such person by the officers of the Corporation or another enterprise in the course of their duties, or on the advice of legal counsel for the Corporation or another enterprise or on information or records given or reports made to the Corporation or another enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Corporation or another enterprise. The provisions of this Section 7.04 shall not be deemed to be exclusive or to limit in any way the circumstances in which a person may be deemed to have met the applicable standard of conduct set forth in Section 7.01 or Section 7.02, as the case may be.

**Section 7.05 Indemnification by a Court.** Notwithstanding any contrary determination in the specific case under Section 7.03, and notwithstanding the absence of any determination thereunder, any director or officer may apply to the Court of Chancery of the State of Delaware or any other court of competent jurisdiction in the State of Delaware for indemnification (following the final disposition of such action, suit or proceeding) to the extent otherwise permissible under Section 7.01 or Section 7.02 or for advancement of expenses to the extent otherwise permissible under Section 7.06. The basis of such indemnification by a court shall be a determination by such court that indemnification of the director or officer is proper in the circumstances because such person has met the applicable standard of conduct set forth in Section 7.01 or Section 7.02, as the case may be. Neither a contrary determination in the specific case under Section 7.03 nor the absence of any determination thereunder shall be a defense to such application or create a presumption that the director or officer seeking indemnification has not met any applicable standard of conduct. Notice of any application for indemnification or advancement of expenses pursuant to this Section 7.05 shall be given to the Corporation promptly upon the filing of such application. If successful, in whole or in part, the director or officer seeking indemnification or advancement of expenses shall also be entitled to be paid the expense of prosecuting such application to the fullest extent permitted by applicable law.

**Section 7.06 Expenses Payable in Advance.** Expenses (including attorneys' fees) incurred by a director or officer in defending any civil, criminal, administrative or investigative action, suit or proceeding shall, to the fullest extent not prohibited by applicable law, be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the Corporation as authorized in this Article VII. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents may be so paid upon such terms and conditions, if any, as the Corporation deems appropriate.

**Section 7.07 Nonexclusivity of Indemnification and Advancement of Expenses.** The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VII shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under the certificate of incorporation, these by-laws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office, it being the policy of the Corporation that indemnification of the persons specified in Section 7.01 and Section 7.02 shall be made to the fullest extent permitted by law. The provisions of this Article VII shall not be deemed to preclude the indemnification of any person who is not specified in Section 7.01 or Section 7.02 but whom the Corporation has the power or obligation to indemnify under the provisions of the General Corporation Law of the State of Delaware, or otherwise.

**Section 7.08 Insurance** . The Corporation may purchase and maintain insurance on behalf of any person who is or was a director or officer of the Corporation, or is or was a director or officer of the Corporation serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power or the obligation to indemnify such person against such liability under the provisions of this Article VII.

**Section 7.09 Certain Definitions.** For purposes of this Article VII, references to “the Corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors or officers, so that any person who is or was a director or officer of such constituent corporation, or is or was a director or officer of such constituent corporation serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article VII with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued. The term “another enterprise” as used in this Article VII shall mean any other corporation or any partnership, joint venture, trust, employee benefit plan or other enterprise of which such person is or was serving at the request of the Corporation as a director, officer, employee or agent. For purposes of this Article VII, references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the Corporation” shall include any service as a director or officer of the Corporation which imposes duties on, or involves services by, such director or officer with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the Corporation” as referred to in this Article VII.

**Section 7.10 Survival of Indemnification and Advancement of Expenses .** The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VII shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director or officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

**Section 7.11 Limitation on Indemnification.** Notwithstanding anything contained in this Article VII to the contrary, except for proceedings to enforce rights to indemnification and to advancement of expenses (which shall be governed by Section 7.05), the Corporation shall not be obligated to indemnify any director or officer (or his or her heirs, executors or personal or legal representatives) or advance expenses in connection with a proceeding (or part thereof) initiated by such person unless such proceeding (or part thereof) was authorized or consented to by the Board of Directors.

**Section 7.12 Indemnification of Employees and Agents.** The Corporation may, to the extent authorized from time to time by the Board of Directors, provide rights to indemnification and to the advancement of expenses to employees and agents of the Corporation similar to those conferred in this Article VII to directors and officers of the Corporation.

**Section 7.13 Other Sources.** The Corporation’s obligation, if any, to indemnify or to advance expenses to any director or officer who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise shall be reduced by any amount such director or officer may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust or other enterprise.

**Section 7.14 Amendment or Repeal.** Any right to indemnification or to advancement of expenses of any director or officer arising hereunder shall not be eliminated or impaired by an amendment to or repeal of these by-laws after the occurrence of the act or omission that is the subject of the action, suit or proceeding for which indemnification or advancement of expenses is sought.

## **ARTICLE VIII**

### **AMENDMENTS**

These bylaws may be amended, altered, changed, adopted and repealed or new bylaws adopted by the Board of Directors. The stockholders may make additional bylaws and may alter and repeal any bylaws whether such bylaws were originally adopted by them or otherwise only to the extent required or permitted by the Corporations’ Certificate of Incorporation.

**PART II**  
**INFORMATION NOT REQUIRED IN THE PROSPECTUS**

**Item 20. Indemnification of Officers and Directors**

Section 145 of the DGCL empowers a corporation to indemnify its directors and officers and to purchase insurance with respect to liability arising out of their capacity or status as directors and officers, provided that the person acted in good faith and in a manner the person reasonably believed to be in the best interests of the Company, and, with respect to any criminal action, had no reasonable cause to believe the person's actions were unlawful. The DGCL further provides that the indemnification permitted thereunder shall not be deemed exclusive of any other rights to which the directors and officers may be entitled under the corporation's bylaws, any agreement, a vote of stockholders or otherwise.

ADES's bylaws require us to fully indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (whether civil, criminal, administrative or investigative) by reason of the fact that such person is or was a director or officer of ours, or is or was a director or officer of ours, serving at our request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, to the fullest extent permitted by applicable law.

Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for payments of unlawful dividends or unlawful stock repurchases or redemptions or (iv) for any transaction from which the director derived an improper personal benefit. Our certificate of incorporation provides that the personal liability of our directors is limited to the fullest extent permitted under the DGCL. This provision of our certificate of incorporation does not eliminate all fiduciary duties of our directors to us and, in appropriate circumstances, equitable remedies such as injunctive or other forms of nonmonetary relief will remain available to us.

We maintain insurance policies under which our directors and officers are insured, within the limits and subject to the limitations of those policies, against certain expenses in connection with the defense of, and certain liabilities which might be imposed as a result of, actions, suits or proceedings to which they are parties by reason of being or having been directors or officers. The coverage provided by these policies may apply whether or not we would have the power to indemnify such person against such liability under the provisions of the DGCL.

**Item 21. Exhibits and Financial Statement Schedules**

(a) Exhibits

**INDEX TO EXHIBITS**

| <b>Exhibit Number</b> | <b>Description of Document</b>  |
|-----------------------|---|
| 2.1*                  | Agreement and Plan of Merger, dated as of March 25, 2013, by and among ADA-ES, Inc., Advanced Emissions Solutions, Inc. and ADA Merger Corp. (attached as Annex I to the proxy statement/prospectus included in the Registration Statement and incorporated by reference) |
| 3.1*                  | Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc.   |
| 3.2**                 | Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc. (attached as Annex II to the proxy statement/prospectus included in this Registration Statement and incorporated herein by reference)                                      |
| 3.3                   | Amended and Restated Articles of Incorporation of ADA-ES, Inc. (incorporated by reference to Exhibit 3.1 to the Quarterly Report on Form 10-QSB for the quarter ended September 30, 2005 filed on November 10, 2005 (File No. 000-50216))                                 |

| Exhibit Number | Description of Document   |
|----------------|---|
| 3.4            | Second Amended and Restated Bylaws of ADA-ES, Inc. (incorporated by reference to Exhibit 3.2 to the Quarterly report on Form 10-Q for the period ended September 30, 2010, filed on November 12, 2010 (File No. 000-50216)) |
| 3.5*           | Bylaws of Advanced Emissions Solutions, Inc. (attached as Annex III to the proxy statement/prospectus included in this Registration Statement and incorporated herein by reference)   |
| 4.1*           | Specimen Common Stock Certificate   |
| 5.1*           | Opinion of Schuchat, Herzog & Brenman, LLC as to the validity of the shares being offered   |
| 8.1*           | Opinion of Sparkman + Foote LLP   |
| 23.1*          | Consent of EKS&H, LLLP  |
| 23.2*          | Consent of Schuchat, Herzog & Brenman, LLC (included in Exhibit 5.1)  |
| 24.1           | Power of Attorney (included on signature page)  |
| 99.1*          | Form of Proxy Card  |

\* Filed herewith.

\*\* Filed herewith and to be filed with the Secretary of State of the State of Delaware prior to the effective date of the reorganization.

## Item 22. Undertakings

The undersigned registrant hereby undertakes:

(a) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed 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.

(b) 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.

(c) That every prospectus: (i) that is filed pursuant to paragraph (b) immediately preceding, or (ii) that purports to meet the requirements of Section 10(a)(3) of the Securities 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, 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.

(d) To respond to requests for information that is incorporated by reference into the prospectus pursuant to Item 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.

(e) 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.

Insofar as indemnification by the registrant for liabilities arising under the Securities Act 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 SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such



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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 and will be governed by the final adjudication of such issue.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act, 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 Douglas County, in the State of Colorado on March 25, 2013.

ADVANCED EMISSIONS SOLUTIONS, INC.

By:                     /s/ Michael D. Durham                      
                    Michael D. Durham  
                    President and Chief Executive Officer  
                    (Principal Executive Officer)

By:                     /s/ Mark H. McKinnies                      
                    Mark H. McKinnies  
                    Senior Vice President and Chief Financial Officer  
                    (Principal Financial and Accounting Officer)

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**SIGNATURES**  
**(INCLUDING POWER OF ATTORNEY)**

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Michael D. Durham and Mark H. McKinnies, and each or any one of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

/s/ Mark H. McKinnies

Mark H. McKinnies, Director, Senior Vice President and  
Chief Financial Officer

(Principal Financial and Accounting Officer)

Date: March 25, 2013

/s/ Michael D. Durham

Michael D. Durham, Director, President and  
Chief Executive Officer

(Principal Executive Officer)

Date: March 25, 2013

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| 99.1*          | Form of Proxy Card  |

\* Filed herewith.

\*\* Filed herewith and to be filed with the Secretary of State of the State of Delaware prior to the effective date of the reorganization.

**AMENDED AND RESTATED CERTIFICATE OF INCORPORATION  
OF  
ADVANCED EMISSIONS SOLUTIONS, INC.**

Advanced Emissions Solutions Inc. (the “**Corporation**”), a corporation organized and existing under the laws of the State of Delaware, does hereby certify that:

A. The name of the Corporation is Advanced Emissions Solutions, Inc. The Corporation’s original Certificate of Incorporation was filed with the Secretary of State of Delaware on March 10, 2011.

B. This Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 242 and 245 of the General Corporation Law of the State of Delaware (the “**DGCL**”), and restates, integrates and further amends the provisions of the Corporation’s Certificate of Incorporation.

C. The text of the Certificate of Incorporation of this Corporation is hereby amended and restated in its entirety to read as follows:

**ARTICLE I  
NAME**

The name of the corporation is ADVANCED EMISSIONS SOLUTIONS, INC.

**ARTICLE II  
REGISTERED OFFICES**

The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle, 19801. The name of its registered agent is The Corporation Trust Company.

**ARTICLE III  
PURPOSE**

The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

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**ARTICLE IV  
AUTHORIZED CAPITAL STOCK**

The total number of shares of common stock which the corporation is authorized to issue is 1,000 at a par value of \$.001 per share (the “ **Common Stock** ”) and the total number of shares of preferred stock which the corporation is authorized to issue is 500 at a par value of \$.001 per share (“ **Preferred Stock** ”).

The board of directors is hereby expressly authorized to provide, out of the unissued shares of Preferred Stock, for one or more series of Preferred Stock and, with respect to each such series, to fix the number of shares constituting such series and the designation of such series, the voting powers, if any, of the shares of such series, and the preferences and relative, participating, optional or other special rights, if any, and any qualifications, limitations or restrictions thereof, of the shares of such series. The powers, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding.

Except as otherwise provided by law or by the resolution or resolutions adopted by the board of directors designating the rights, powers and preferences of any series of Preferred Stock, the Common Stock shall have the exclusive right to vote for the election of directors and for all other purposes. Each share of Common Stock shall have one vote on each matter properly submitted to the stockholders of the Corporation for their vote, and the holders of the Common Stock shall vote together as a single class.

**ARTICLE V  
CERTAIN DEFINITIONS**

“**Affiliate or Associate**” shall have the respective meanings ascribed to such terms in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect on March 11, 2011.

“**Announcement Date**” shall have the meaning set forth in Section 6.02(b)(i).

“**Beneficial Owner or beneficially owned**” shall have the meaning ascribed to such term in Rule 13d-3 of the General Rules and Regulations of the Securities Exchange Act of 1934, as amended. In addition, a Person shall be the “Beneficial Owner” of any voting stock which such Person or any of its Affiliates or Associates has (a) the right to acquire (whether such right is exercisable immediately or only after the passage of time), pursuant to any agreement, arrangement or understanding or upon the exercise of conversion rights, exchange rights, warrants or options or otherwise or (b) the right to vote pursuant to any agreement, arrangement or understanding (but neither such Person nor any such Affiliate or Associate shall be deemed to be the Beneficial Owner of any shares of voting stock solely by reason of a revocable proxy or consent granted for a particular meeting of stockholders, pursuant to a public solicitation of proxies or consents for such meeting, and with respect to which shares neither such Person nor any such Affiliate or Associate is otherwise deemed the Beneficial Owner). Notwithstanding the foregoing, a Person shall not be a “Beneficial Owner” of any voting stock for the purposes of this Article V which such person may have the right to acquire pursuant to the rights agreement from time to time in effect and the rights issued thereunder.

“**Business Combination**” shall mean any of the transactions described in any one or more of clauses (a) through (f) of Section 6.01.

“**Commencement Date**” shall have the meaning set forth in Section 6.02(b)(i).

“**Continuing Director**” means any member of the Board who is unaffiliated with the Interested Stockholder and was a member of the Board before the Interested Stockholder became an Interested Stockholder, and any director who is thereafter chosen to fill any vacancy on the Board or who is elected and who, in either event, is unaffiliated with the Interested Stockholder and in connection with his or her initial assumption of office is recommended for appointment or election by a majority of Continuing Directors then on the Board.

“**Determination Date**” shall have the meaning set forth in Section 6.02(b)(i).

“**Entity**” means a corporation, partnership, joint venture, limited liability company, trust, unincorporated organization, association or other similar entity.

“**Excluded Preferred Stock**” means any series of Preferred Stock with respect to which a majority of the Continuing Directors have approved a Preferred Stock Designation creating such series that expressly provides that the provisions of Article VI shall not apply.

**“Fair Market Value”** shall mean (a) in the case of stock, the highest closing sale price during the 30-day period immediately preceding the date in question of a share of such stock on the Composite Tape for New York Stock Exchange listed stocks, or, if such stock is not quoted on the Composite Tape, on the New York Stock Exchange, or, if such stock is not listed on such exchange, on the principal U.S. securities exchange registered under the Securities Exchange Act of 1934, as amended, on which such stock is listed, or, if such stock is not listed on any such exchange, the highest closing sale price during the 30-day period immediately preceding the date in question of a share of such stock on the National Association of Securities Dealers, Inc. Automated Quotation System, or any system then in use, or if no such quotations are available, the fair market value on the date in question of a share of such stock as determined by the Board in accordance with Section 6.03; and (b) in the case of property other than cash or stock, the fair market value of such property on the date in question as determined by the Board in accordance with Section 6.03.

**“Interested Stockholder”** shall mean any Person (other than the Corporation or any Subsidiary and other than any profit-sharing, employee stock ownership or other employee benefit plan of the Corporation or any Subsidiary or any trustee or fiduciary with respect to any such plan or holding voting stock for the purpose of funding any such plan or funding other employee benefits for employees of the Corporation or any Subsidiary when acting in such capacity) who or which: (a) itself, or along with its Affiliates, is the Beneficial Owner, directly or indirectly, of more than 10% of the then outstanding voting stock; or (b) is an Affiliate of the Corporation and at any time within the two-year period immediately prior to the date in question was itself, or along with its Affiliates, the Beneficial Owner, directly or indirectly, of 10% or more of the then outstanding voting stock; or (c) is an assignee of or has otherwise succeeded to any voting stock which was at any time within the two-year period immediately prior to the date in question beneficially owned by an Interested Stockholder, if such assignment or succession shall have occurred in the course of a transaction or series of transactions not involving a public offering within the meaning of the Securities Act of 1933, as amended. For the purpose of determining whether a Person is an Interested Stockholder, the number of shares of voting stock deemed to be outstanding shall include shares deemed beneficially owned by the Interested Stockholder, but shall not include any other shares of voting stock which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options or otherwise.

**“Person”** means an individual, governmental or regulatory body or Entity.

**“Subsidiary”** shall mean any Entity of which securities or other ownership interests having ordinary voting power to elect a majority of the board of directors or other persons performing similar functions are at any time directly or indirectly owned by the Corporation.

## **ARTICLE VI HIGHER VOTE REQUIRED FOR CERTAIN BUSINESS COMBINATIONS**

**Section 6.01 Higher Vote Required for Certain Business Combinations.** In addition to any affirmative vote required by applicable law or this Amended and Restated Certificate of Incorporation, and except as otherwise expressly provided in Section 6.02 below:

(a) any merger or consolidation of the Corporation or any Subsidiary with any Interested Stockholder or any other Entity (whether or not an Interested Stockholder) which is, or after such merger or consolidation would be, an Affiliate of an Interested Stockholder;

(b) any sale, lease, exclusive license, exchange, mortgage, pledge, transfer or other disposition (in one transaction or a series of transactions) to or with any Interested Stockholder or any Affiliate of an Interested Stockholder, of any assets of the Corporation or any Subsidiary having an aggregate Fair Market Value of more than the lower of either (i) 10% of the market capitalization of the Corporation’s stock, excluding the value of stock held by any Interested Stockholder and any Affiliate of an Interested Stockholder, at any point during any such transaction or series of transactions or (ii) 10% of the value of the Corporation’s assets as such value is reported on the most recent balance sheet filed by the Corporation with the Securities and Exchange Commission (“**SEC**”) in accordance with generally accepted accounting principles (“**GAAP**”);

(c) the issuance or transfer by the Corporation or any Subsidiary (in one transaction or a series of transactions) of any securities of the Corporation or any Subsidiary to any Interested Stockholder or any Affiliate of an Interested Stockholder, in exchange for cash, securities or other property (or a combination thereof) having an aggregate Fair Market Value of more than the lower of either (i) 10% of the market capitalization of the Corporation’s stock, excluding the value of stock held by any Interested Stockholder and any Affiliate of an Interested Stockholder, at any point during any such transaction or series of transactions or (ii) 10% of the value of the Corporation’s assets as such value is reported on the most recent balance sheet filed by the Corporation with the SEC in accordance with GAAP;

(d) the adoption of any plan or proposal for the liquidation or dissolution of the Corporation proposed by or on behalf of an Interested Stockholder or any Affiliate of an Interested Stockholder;

(e) any reclassification of securities (including any reverse stock split), recapitalization of the Corporation or any merger or consolidation of the Corporation with any of its Subsidiaries or any other transaction (whether or not an Interested Stockholder is a party thereto) which has the effect, directly or indirectly, of increasing the proportionate share of the outstanding shares of any class of equity or convertible securities of the Corporation or any Subsidiary which are directly or indirectly owned by any Interested Stockholder or any Affiliate of an Interested Stockholder; or

(f) any agreement, contract or other arrangement providing for any one or more of the actions specified in the foregoing (a) to (e).

shall require, except as otherwise prohibited by applicable law, the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock, voting together as a single class, including the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock not owned directly or indirectly by any Interested Stockholder or any Affiliate of an Interested Stockholder. Such affirmative vote shall be required notwithstanding the fact that no vote may be required, or that a lesser percentage may be permitted, by applicable law or in any agreement with any national securities exchange or otherwise.

**Section 6.02 When Higher Vote Not Required.** The provisions of Section 6.01 shall not be applicable to any particular Business Combination, and such Business Combination shall require only such affirmative vote as is required by applicable law or any other provision of this Amended and Restated Certificate of Incorporation, if the conditions specified in either of the following paragraphs (a) or (b) are met:

(a) The Business Combination has been approved by a majority of the Continuing Directors; or

(b) All of the following conditions have been met:

(i) The aggregate amount, as of the date (the “**Consummation Date**”) of the consummation of the Business Combination, of (A) the cash and (B) the Fair Market Value of the consideration other than cash to be received per share by holders of Common Stock in such Business Combination shall be at least equal to the higher of the following (in each case appropriately adjusted in the event of any stock dividend, stock split, combination of shares or similar event): (x) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder or any of its Affiliates for any shares of Common Stock acquired by them (1) within the two-year period immediately prior to the date of the first public announcement of the proposal of the Business Combination (the “**Announcement Date**”), or (2) in any transaction in which the Interested Stockholder became an Interested Stockholder (the “**Determination Date**”), whichever is higher; (y) the Fair Market Value per share of Common Stock on the Announcement Date or the Determination Date, whichever is higher; and (z) (if applicable) the price per share equal to the Fair Market Value per share of Common Stock, multiplied by the ratio of (1) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder for any shares of Common Stock acquired by it within the two-year period immediately prior to the Announcement Date to (2) the Fair Market Value per share of Common Stock on the first day in such two-year period upon which the Interested Stockholder acquired any shares of Common Stock;

(ii) The aggregate amount, as of the Consummation Date, of (A) the cash and (B) the Fair Market Value of the consideration other than cash to be received per share by holders of shares of any class or series (other than Common Stock or Excluded Preferred Stock) of outstanding capital stock shall be at least equal to the highest of the following (in each case appropriately adjusted in the event of any stock dividend, stock split, combination of shares or similar event), it being intended that the requirements of this paragraph (b)(ii) shall be required to be met with respect to every such class or series of outstanding capital stock whether or not the Interested Stockholder or any of its Affiliates has previously acquired any shares of a particular class or series of capital stock: (w) (if applicable) the price per share equal to the Fair Market Value per share of such class of capital stock, multiplied by the ratio of (1) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder for any shares of such class of capital stock acquired by it within the two-year period immediately prior to the Announcement Date to (2) the Fair Market Value per share of such class of capital stock on the first day in such two-year period upon which the Interested Stockholder acquired any shares of such class of capital stock; (x) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers’ fees) paid by the Interested Stockholder or any of its Affiliates for any shares of such class or series of capital stock acquired by them (1) within the two-year period immediately prior to the Announcement Date or (2) in any transactions in which it became an Interested Stockholder, whichever is higher; (y) the Fair Market Value per share of such class or series of capital stock on the Announcement Date or on the Determination Date, whichever is higher; and (z) the highest preferential amount per share, if any, to which the holders of shares of such class or series of capital stock would be entitled in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation;



(iii) The consideration to be received by holders of a particular class of outstanding voting stock (including Common Stock and other than Excluded Preferred Stock) shall be in cash or in the same form as the Interested Stockholder has previously paid for shares of such class of voting stock. If the Interested Stockholder has paid for shares of any class of voting stock with varying forms of consideration, the form of consideration for such class of voting stock shall be either cash or the form used to acquire the largest number of shares of such class of voting stock previously acquired by it;

(iv) After such Interested Stockholder has become an Interested Stockholder and prior to the consummation of such Business Combination: (A) there shall have been no failure to declare and pay at the regular date therefor any full quarterly dividends (whether or not cumulative) on any outstanding Preferred Stock, except as approved by a majority of the Continuing Directors; (B) there shall have been no reduction in the annual rate of dividends paid on the Common Stock (except as necessary to reflect any subdivision of the Common Stock), except as approved by a majority of the Continuing Directors; (C) there shall have been an increase in the annual rate of dividends as necessary fully to reflect any recapitalization (including any reverse stock split) or any similar reorganization which has the effect of reducing the number of outstanding shares of the Common Stock, unless the failure so to increase such annual rate is approved by a majority of the Continuing Directors; and (D) such Interested Stockholder shall not have become the Beneficial Owner of any additional voting stock except as part of the transaction which results in such Interested Stockholder becoming an Interested Stockholder;

(v) After such Interested Stockholder has become an Interested Stockholder, such Interested Stockholder shall not have received the benefit, directly or indirectly (except proportionately as a stockholder), of any loans, advances, guarantees, pledges or other financial assistance or any tax credits or other tax advantages provided by the Corporation, whether in anticipation of, or in connection with, such Business Combination or otherwise; and

(vi) A proxy or information statement describing the proposed Business Combination and complying with the requirements of the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (or any subsequent provisions replacing such act, rules or regulations) shall have been mailed to stockholders of the Corporation at least 30 days prior to the consummation of such Business Combination (whether or not such proxy or information statement is required to be mailed pursuant to such act or subsequent provisions).

**Section 6.03 Determination by the Continuing Directors.** The Continuing Directors of the Corporation shall have the power and duty to determine for the purposes of this Article VI on the basis of information known to them after reasonable inquiry, all facts necessary to determine compliance with this Article VI including, without limitation (a) whether a Person is an Interested Stockholder; (b) the number of shares of capital stock beneficially owned by any Person; (c) whether a Person is an Affiliate or Associate of another; (d) whether the applicable conditions set forth in Section 6.02 have been met with respect to any Business Combination; (e) the Fair Market Value of stock or other property; and (f) whether the assets that are the subject of any Business Combination have, or the consideration to be received for the issuance or transfer of securities by the Corporation or any Subsidiary in any Business Combination has, an aggregate Fair Market Value of more than the lower of either (i) 10% of the market capitalization of the Corporation's stock, excluding the value of stock held by any Interested Stockholder and any Affiliate of an Interested Stockholder, at any point during any such transaction or series of transactions or (ii) 10% of the value of the Corporation's assets as such value is reported on the most recent balance sheet filed by the Corporation with the SEC in accordance with GAAP. Any such determination made in good faith shall be binding and conclusive on all parties.

**Section 6.04 No Effect on Fiduciary Obligations of Interested Stockholders.** Nothing contained in this Article VI shall be construed to relieve any Interested Stockholder from any fiduciary obligation imposed by applicable law.

**Section 6.05 Amendment or Repeal.** Notwithstanding any other provisions of this Amended and Restated Certificate of Incorporation or the Bylaws (and notwithstanding the fact that a lesser percentage may be permitted by applicable law, this Amended and Restated Certificate of Incorporation or the Bylaws), but in addition to any affirmative vote of the holders of any particular class of the voting stock required by applicable law or this Amended and Restated Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of the shares of the then outstanding voting stock voting together as a single class, including the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock not owned directly or indirectly by any Interested Stockholder or any Affiliate of any Interested Stockholder, shall be required to amend, repeal or adopt any provisions inconsistent with, this Article VI or Article V.

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**ARTICLE VII  
DIRECTOR ELECTION**

Unless and except to the extent that the bylaws of the Corporation (the “**Bylaws**”) so require, the election of directors of the Corporation need not be by written ballot.

**ARTICLE VIII  
DIRECTOR LIABILITY**

To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or to its stockholders for monetary damages for any breach of fiduciary duty as a director. No amendment to, modification of or repeal of this Article VIII shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment.

**ARTICLE IX  
DIRECTOR INDEMNIFICATION**

The Corporation shall indemnify, advance expenses, and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a “**Covered Person**”) who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a “**Proceeding**”), by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys’ fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except for claims for indemnification (following the final disposition of such Proceeding) or advancement of expenses not paid in full, the Corporation shall be required to indemnify a Covered Person in connection with a Proceeding (or part thereof) commenced by such Covered Person only if the commencement of such Proceeding (or part thereof) by the Covered Person was authorized in the specific case by the Board of Directors of the Corporation. Any amendment, repeal or modification of this Article IX shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

**ARTICLE X  
BYLAWS**

In furtherance and not in limitation of the powers conferred by statute, the board of directors is expressly empowered to adopt, amend or repeal bylaws of the Corporation. Any adoption, amendment or repeal of the bylaws of the Corporation by the board of directors shall require the approval of a majority of the entire board of directors. Except as otherwise required by law or this Amended and Restated Certificate of Incorporation, the stockholders shall also have the power to adopt, amend or repeal any provision of the bylaws of the Corporation with the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Notwithstanding anything to the contrary in this Amended and Restated Certificate of Incorporation, in addition to the holders of any class or series of stock of the corporation required by law or by this Amended and Restated Certificate of Incorporation, the affirmative vote of the holders of at least a majority of the voting power of the shares of the then outstanding voting stock voting together as a single class, including the affirmative vote of the holders of at least a majority of the voting power of the then outstanding voting stock not owned directly or indirectly by any Interested Stockholder or any Affiliate of any Interested Stockholder, shall be required to amend, repeal or adopt any provisions inconsistent with, this Article X of this Amended and Restated Certificate of Incorporation.

**ARTICLE XI  
AMENDMENT OF CERTIFICATE OF INCORPORATION**

The Corporation shall have the right, subject to any express provisions or restrictions contained in the Amended and Restated Certificate of Incorporation of the Corporation or the Bylaws, from time to time, to amend the Amended and Restated Certificate of Incorporation or any provision thereof in any manner now or hereafter provided by law, and all rights and powers of any kind conferred upon a director or stockholder of the Corporation by the Amended and Restated Certificate of Incorporation or any amendment thereof are conferred subject to such right.

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**ARTICLE XII**  
**OPT-OUT OF RESTRICTIONS ON BUSINESS COMBINATIONS WITH**  
**INTERESTED STOCKHOLDERS.**

The Corporation shall not be governed by or subject to Section 203 of the DGCL.

**ARTICLE XIII**  
**WRITTEN CONSENT**

Any action to be taken at any annual or special meeting of stockholders may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action to be so taken, are signed by all of the holders of outstanding stock entitled to vote with respect to the subject matter thereof and delivered (by hand or by certified or registered mail, return receipt requested) to the Corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the Corporation having custody of the books in which proceedings of meetings of stockholders are recorded.

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IN WITNESS WHEREOF, the Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by the undersigned, a duly authorized officer of the Corporation, on May 25, 2011.

By: /s/ Mark H. McKinnies  
Mark H. McKinnies  
Senior Vice President and Chief Financial  
Officer

1234567

0165701 003660127C|RESTRICTED|41057-423

**COMMON STOCK**  
NO PAR VALUE

**Certificate Number**  
**ZQ 000000**

**COMMON STOCK**  
THIS CERTIFICATE IS TRANSFERABLE IN  
CANTON, MA AND NEW YORK, NY

**Shares**  
••••• 600620 •••••  
••••• 600620 •••••  
••••• 600620 •••••  
••••• 600620 •••••

**CUSIP 007790C 10 1**  
SEE REVERSE FOR CERTAIN DEFINITIONS

**ADVANCED EMISSIONS SOLUTIONS, INC.**  
INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

**MR. SAMPLE & MRS. SAMPLE &**  
**MR. SAMPLE & MRS. SAMPLE**

**SIX HUNDRED THOUSAND**  
**SIX HUNDRED AND TWENTY**

**THIS CERTIFIES THAT**

\_\_\_\_\_ is the owner of

**FULLY-PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK OF**

**Advanced Emissions Solutions, Inc. (hereinafter called the "Company")**, transferable on the books of the Company in person or by duly authorized attorney, upon surrender of this Certificate properly endorsed. This Certificate and the shares represented hereby, are issued and shall be held subject to all of the provisions of the Certificate of Incorporation, as amended, and the Bylaws, as amended, of the Company (copies of which are on file with the Company and with the Transfer Agent), to all of which each holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

**Witness** the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.

DATED: *October 10, 2010*  
COUNTERSIGNED AND REGISTERED:  
**COMPUTERSHARE TRUST COMPANY, N.A.**  
TRANSFER AGENT AND REGISTRAR

By: \_\_\_\_\_  
ATTORNEY-IN-FACT

**COMMON STOCK**  
NO PAR VALUE

**Certificate Number**  
**ZQ 000000**

**COMMON STOCK**  
THIS CERTIFICATE IS TRANSFERABLE IN  
CANTON, MA AND NEW YORK, NY

**Shares**  
••••• 600620 •••••  
••••• 600620 •••••  
••••• 600620 •••••  
••••• 600620 •••••

**THIS CERTIFIES THAT**

\_\_\_\_\_ is the owner of

**FULLY-PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK OF**

**Advanced Emissions Solutions, Inc. (hereinafter called the "Company")**, transferable on the books of the Company in person or by duly authorized attorney, upon surrender of this Certificate properly endorsed. This Certificate and the shares represented hereby, are issued and shall be held subject to all of the provisions of the Certificate of Incorporation, as amended, and the Bylaws, as amended, of the Company (copies of which are on file with the Company and with the Transfer Agent), to all of which each holder, by acceptance hereof, assents. This Certificate is not valid unless countersigned and registered by the Transfer Agent and Registrar.

**Witness** the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.

DATED: *October 10, 2010*  
COUNTERSIGNED AND REGISTERED:  
**COMPUTERSHARE TRUST COMPANY, N.A.**  
TRANSFER AGENT AND REGISTRAR

By: \_\_\_\_\_  
ATTORNEY-IN-FACT

**COMMON STOCK**  
NO PAR VALUE

**Certificate Number**  
**ZQ 000000**

**COMMON STOCK**  
THIS CERTIFICATE IS TRANSFERABLE IN  
CANTON, MA AND NEW YORK, NY

**Shares**  
••••• 600620 •••••  
••~•• 600620 ••~••  
••~•• 600620 ••~••  
••~•• 600620 ••~••

**THIS CERTIFIES THAT**

\_\_\_\_\_ is the owner of

**FULLY-PAID AND NON-ASSESSABLE SHARES OF THE COMMON STOCK OF**

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**Witness** the facsimile seal of the Company and the facsimile signatures of its duly authorized officers.

DATED: *October 10, 2010*  
COUNTERSIGNED AND REGISTERED:  
**COMPUTERSHARE TRUST COMPANY, N.A.**  
TRANSFER AGENT AND REGISTRAR

By: \_\_\_\_\_  
ATTORNEY-IN-FACT

**ADVANCED EMISSIONS SOLUTIONS, INC.**

PO BOX 43064, Providence, RI 02940-3064

MR A SAMPLE  
DESIGNATION (IF ANY)  
ADD 1  
ADD 2  
ADD 3  
ADD 4



|                            |                             |
|----------------------------|-----------------------------|
| CUSIP                      | XXXXXX XX X                 |
| Holder ID                  | XXXXXXXXXX                  |
| Insurance Value            | 1,000,000.00                |
| Number of Shares           | 123456                      |
| DTC                        | 12345678 123456789012345    |
| <b>Certificate Numbers</b> | <b>Num/No. Denom. Total</b> |
| 12345678901234567890       | 1 1 1                       |
| 12345678901234567890       | 2 2 2                       |
| 12345678901234567890       | 3 3 3                       |
| 12345678901234567890       | 4 4 4                       |
| 12345678901234567890       | 5 5 5                       |
| 12345678901234567890       | 6 6 6                       |
| <b>Total Transaction</b>   | <b>7</b>                    |



## S CHUCHAT , H ERZOG &amp; B RENMAN , LLC

March 25, 2013

Advanced Emissions Solutions, Inc.  
9135 South Ridgeline Boulevard, Suite 200  
Highlands Ranch, Colorado 80129

Re: Advanced Emissions Solutions, Inc. Registration Statement on Form S-4

Ladies and Gentlemen:

We have acted as counsel to Advanced Emissions Solutions, Inc., a Delaware corporation (“ADES” or the “Registrant”), in connection with the Agreement and Plan of Merger dated as of March 25, 2013 (the “Reorganization Agreement”), by and among ADA-ES, Inc., a Colorado corporation (“ADA-ES”), ADES, a wholly owned subsidiary of ADA-ES, and ADA Merger Corp., a Colorado corporation (“MergerCo”) and a wholly owned subsidiary of ADES. The Reorganization Agreement provides for the merger (the “Merger”) of ADA-ES with MergerCo, with ADA-ES surviving as a wholly owned subsidiary of ADES, and the conversion of each share of common stock, no par value, of ADA-ES issued and outstanding immediately prior to the effective time of the Merger, into one duly-issued, fully-paid and non-assessable share of common stock of ADES, par value \$0.001 per share (the “Shares”) (collectively with the other transactions contemplated by the Reorganization Agreement, the “Reorganization”). In connection with the Reorganization, ADES will issue the ADES Common Stock upon the terms and conditions set forth in the Reorganization Agreement and as described in the above-captioned Registration Statement on Form S-4 (the “Registration Statement”) of ADES, filed with the Securities and Exchange Commission (the “Commission”).

In connection with rendering this opinion, we have reviewed and relied upon the Reorganization Agreement, the Registration Statement, the charter documents of ADES and ADA-ES, and such other corporate records and documents as we have deemed relevant and necessary as the basis for this opinion. We have also examined the corporate laws of the State of Colorado and the State of Delaware and the federal laws of the United States of America, as we have deemed relevant.

In rendering this opinion, we have: (a) assumed (i) the genuineness of all signatures on all documents reviewed by us, (ii) the authenticity of all documents submitted to us as originals and (iii) the conformity to original documents of all documents submitted to us as photostatic or

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conformed copies and the authenticity of the originals of such copies; and (b) relied upon (i) representations, statements and certificates of public officials and others and (ii) representations, statements and certificates of officers and representatives of the Registrant as to matters of fact.

Based upon the foregoing, we are of the opinion that the Shares will, upon their issuance in accordance with the terms of the Reorganization Agreement and as described in the Registration Statement, be duly authorized, validly issued, fully paid and non-assessable.

We hereby consent to the use of this opinion as an exhibit to the Registration Statement and to the references to this firm in the Registration Statement in the section entitled "VALIDITY OF SHARES." In giving the foregoing consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission thereunder.

In rendering the following opinion, we express no opinion as to the laws of any jurisdiction other than to (i) the corporate laws of the State of Colorado and the State of Delaware, including all applicable statutory provisions of the Colorado Business Corporation Act and the Delaware General Corporate Law, all rules and regulations underlying such statutory provisions of law, and all applicable judicial and regulatory determinations concerning such laws as reported in publicly available compilations of such judicial and regulatory determinations and (ii) the federal law of the United States to the extent specifically referred to herein. All opinions expressed are as of the date hereof except where expressly stated otherwise.

Very truly yours,

/s/ Schuchat, Herzog & Brenman, LLC  
Schuchat, Herzog & Brenman, LLC

SPARKMAN + FOOTE LLP

1616 17<sup>th</sup> St, Ste. 564, Denver, CO 80202-1278  
sparkman@sparkmanfoote.com

March 25, 2013

ADA-ES, Inc.  
2135 South Ridgeline Boulevard, Suite 200  
Highlands Ranch, CO 80129

Ladies and Gentlemen:

We have acted as tax counsel to ADA-ES, Inc. (the "Company"), a Colorado corporation, in connection with its proposed reorganization consisting of: (a) the merger of ADA Merger Co. ("Merger Co."), a Colorado corporation and a direct, wholly owned subsidiary of Advanced Emissions Solutions, Inc. ("AES"), a Delaware corporation, with and into the Company pursuant to the Agreement and Plan of Merger (the "Merger Agreement") dated March 25, 2013 by and among the Company, AES, and Merger Co., pursuant to which all of the outstanding stock of the Company will be converted into stock of AES, and the Company will become a wholly owned subsidiary of AES. Capitalized terms used but not defined herein shall have the meanings assigned to such terms in the Merger Agreement.

In providing our opinion, we have examined the Proxy/Prospectus, which is included in the Registration Statement on Form S-4 (the "Registration Statement"), as filed by the Company on March 25, 2013, with the Securities and Exchange Commission, the Merger Agreement, the certificates provided by the Company on behalf of itself, AES, and Merger Co. to the undersigned (the "Certificates") and such other documents and matters of law and fact as we have considered necessary or appropriate in our judgment. In addition, we have assumed that (i) the Merger will be consummated in the manner contemplated by, and in accordance with, the Merger Agreement; (ii) the facts and information contained in the Merger Agreement and the Registration Statement are true, correct, and complete; (iii) the representations made by the Company, AES, and Merger Co. in the Certificates are true and correct as of the date hereof and will continue to be true and correct through and including the Effective Time of the Merger; (iv) any representation made in such Certificates which are qualified by knowledge or qualification of like import are and will continue to be accurate without regard to such qualifications; (v) we have your express consent to rely on each of the statements in the Certificates; (vi) the resolutions recommended to the Company's shareholders by its Board of Directors in the Company's Proxy Statement included in the Registration Statement will be approved by such shareholders at the annual meeting to be held on June 13, 2013 in substantially the same form, in all material respects, as so recommended; and (vii) original documents submitted to us (including signatures thereto) are authentic, documents submitted to us as copies conform to the original documents, and all such documents have been (or will be by the Effective Date of the Merger) duly and validly executed and delivered where due execution and delivery are a prerequisite to the effectiveness thereof.

The opinions expressed herein are based on the Internal Revenue Code of 1986, as amended (the "Code"), Treasury Regulations promulgated thereunder (including proposed and temporary regulations) and interpretations of the foregoing as expressed in court decisions, administrative determinations, and legislative history, as of the date hereof. The opinions expressed are subject to change in the event of a change in the applicable law or change in the interpretation of such law by the courts or by the Internal Revenue Service, or a change in any of the facts and assumptions upon which such opinions are based. There is no assurance that legislative or administrative changes or court decisions may or may not be retroactive with respect to transactions prior to the date of such changes. These opinions represent only counsel's best legal judgment, and have no binding effect or official status of any kind, so that no assurance can be given that the positions set forth below will be sustained by a court, if contested.



Based on the foregoing, the discussion set forth in the section entitled "Material U.S. Federal Income Tax Consequences" in the Registration Statement represents the opinions of Sparkman + Foote LLP as to the material U.S. federal income tax consequences applicable to the stockholders of the Company with respect to the Merger. In particular, it is our opinion that the Merger will constitute an exchange of the common stock of the Company for AES common stock governed by Section 351 of the Code, as well as a reorganization within the meaning of Section 368(a) of the Code, and, therefore, no gain or loss will be recognized by the shareholders of the Company upon the receipt of AES common stock pursuant to the Merger.

Further, it is our opinion that utilization of the Company's pre-Merger net operating losses will not be limited by the provisions of Section 382 of the Code by reason of the Merger.

This opinion is furnished to you solely for its use in connection with the Registration Statement. We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the references to our firm name in the Proxy/Prospectus in connection with the references to this opinion and the material U.S. federal income tax consequences of the Merger. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act of 1933, as amended, or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,  
/s/ Sparkman + Foote LLP  
Sparkman + Foote LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in this Registration Statement on Form S-4 of our report dated March 18, 2013 relating to the consolidated financial statements of ADA-ES, Inc. and Subsidiaries as of December 31, 2012, 2011 and 2010 and for the years then ended. We also consent to the reference to us under the heading "Experts" in this Registration Statement.

March 25, 2013  
Denver, Colorado

/s/ EKS&H, LLLP

EKS&H, LLLP

PROXY

For an Annual Meeting of Shareholders of  
ADA-ES, INC.

PROXY

Proxy Solicited on Behalf of the Board of Directors

**This proxy will be voted in respect of the matters listed in accordance with the choice, if any, indicated in the spaces provided. If no choice is indicated, the proxy will be voted for such matter. If any amendments or variations are to be voted on, or any further matter properly comes before the Meeting, to the extent permitted by law, this proxy will be voted according to the best judgment of the person voting the proxy at the Meeting. This form should be read in conjunction with the accompanying Notice of Meeting and Proxy Statement/Prospectus.**

## NOTES:

1. Please date and sign (exactly as the shares represented by this Proxy are registered) and return promptly. When shares are held by joint tenants, both should sign. When signing as attorney, executor, administrator, trustee or guardian, please give full title as such. If a corporation, please sign in full corporate name by the President or other authorized officer. If a partnership, please sign in partnership name by an authorized person. If no date is stated by the shareholder(s), the Proxy is deemed to bear the date upon which it was mailed by management to the shareholder(s).

2. To be valid, this Proxy form, duly signed and dated, must arrive at the office of the Company's transfer agent, Computershare Investor Services, 350 Indiana Street, Suite 800, Golden, Colorado 80401, not less than forty-eight (48) hours (excluding Saturdays, Sundays and holidays) before the day of the Meeting or any postponement or adjournment thereof.

The undersigned shareholder of ADA-ES, Inc. (the "Company") hereby appoints Michael D. Durham and W. Phillip Marcum or, failing them, Mark H. McKinnies, as nominee of the undersigned to attend, vote and act for and in the name of the undersigned at the Annual Meeting of the Shareholders of the Company (the "Meeting") to be held at the Company's offices located at 9135 South Ridgeline Boulevard, Suite 200, Highlands Ranch, Colorado 80129 on Thursday, June 13, 2013, at 9:00 a.m. (local time), and at any postponement or adjournment thereof, and the undersigned hereby revokes any former proxy given to attend and vote at the Meeting.

THE NOMINEE IS HEREBY INSTRUCTED TO VOTE AS FOLLOWS WITH RESPECT TO THE FOLLOWING MATTERS PROPOSED BY THE COMPANY:

1. PROPOSAL TO APPROVE THE REORGANIZATION PROPOSAL TO REINCORPORATE IN DELAWARE AND TO APPROVE THE RELATED REORGANIZATION AGREEMENT:

- FOR  
 AGAINST  
 ABSTAIN

2. PROPOSAL TO ELECT THE FOLLOWING NOMINEES TO THE BOARD OF DIRECTORS:

Nominees:  
 Kim B. Clarke  
 Michael D. Durham  
 Alan Bradley Gabbard  
 Derek C. Johnson  
 W. Phillip Marcum  
 Mark H. McKinnies  
 Robert E. Shanklin  
 Jeffrey C. Smith  
 Richard J. Swanson

- FOR ALL NOMINEES  
 WITHHOLD AUTHORITY FOR ALL NOMINEES  
 FOR ALL NOMINEES, EXCEPT THE FOLLOWING: \_\_\_\_\_

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3. PROPOSAL TO RATIFY THE AUDIT COMMITTEE'S SELECTION OF KPMG LLP AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2013:

FOR

AGAINST

ABSTAIN

4. PROPOSAL TO APPROVE THE FREQUENCY UPON WHICH THE COMPANY WILL SEEK AN ADVISORY VOTE TO APPROVE THE COMPANY'S COMPENSATION PAID TO NAMED EXECUTIVE OFFICERS:

FOR

AGAINST

ABSTAIN

5. PROPOSAL TO APPROVE THE COMPANY'S COMPENSATION PAID TO NAMED EXECUTIVE OFFICERS:

FOR

AGAINST

ABSTAIN

6. To the extent permitted by law, consider and vote upon such other matters as may properly come before the Meeting or any postponement or adjournment thereof.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
Signature of Shareholder(s)

\_\_\_\_\_  
(Please print name of Shareholder[s])

PLEASE MARK, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE.