

United States
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under §240.14a-12

Advanced Emissions Solutions, Inc.

(Name of Registrant as specified in its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Check the appropriate box:

- No fee required
- Fee paid previously with preliminary materials.
- Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11



Advanced Emissions Solutions, Inc.
Advancing Cleaner Energy

March [], 2022

Dear Fellow Stockholder:

On behalf of the Board of Directors, we are pleased to invite you to the 2022 Annual Meeting of Advanced Emissions Solutions, Inc.'s Stockholders, which will be held at 9:00 a.m. (Mountain Time) on May 16, 2022. We are pleased to announce that this year's Annual Meeting will be a virtual meeting via live webcast on the Internet. You will be able to electronically attend the Annual Meeting and vote during the meeting by visiting www.virtualshareholdermeeting.com/ADES2022. To enter the Annual Meeting, you will need the 16-digit control number located on the Notice of Internet Availability of the Proxy Materials, on your proxy card or in the instructions that accompanied your proxy materials. We recommend that you log in at least 10 minutes before the meeting to ensure you are logged in when the meeting starts.

At the Annual Meeting, you will be asked to elect four directors named in the Proxy Statement, provide your advisory approval of our executive compensation, ratify the appointment of Moss Adams LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022, approve the Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan and approve the Fifth Amendment of the Company's Tax Asset Protection Plan.

The accompanying notice of meeting and this Proxy Statement provide specific information about the Annual Meeting and explain the various proposals. Please read these materials carefully.

Thank you for your continued support of and interest in our Company.

Greg P. Marken
President, Chief Executive Officer and Treasurer



Advanced Emissions Solutions, Inc.
Advancing **Cleaner** Energy

ADVANCED EMISSIONS SOLUTIONS, INC.
8051 E. Maplewood Ave., Ste. 210
Greenwood Village, Colorado 80111
Telephone: (888) 822-8617

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Our Stockholders:

The Annual Meeting of Stockholders of Advanced Emissions Solutions, Inc. ("ADES" or the "Company"), a Delaware corporation, will be held at 9:00 a.m. (Mountain Time) on May 16, 2022 via live webcast on the Internet, which can be accessed by visiting www.virtualshareholdermeeting.com/ADES2022, where you will be able to electronically attend the Annual Meeting and vote or adjournment thereof, for the following:

1. To elect four directors of the Company named in this Proxy Statement;
2. To approve, in an advisory vote, our executive compensation;
3. To ratify the appointment of Moss Adams LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022;
4. To approve the Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan;
5. To approve the Fifth Amendment of the Company's Tax Asset Protection Plan; and
6. To transact such other business as may properly come before the Annual Meeting or any postponement or adjournment thereof.

Stockholders of record at the close of business on March 22, 2022 are entitled to notice of and to vote at the Annual Meeting. The approximate date on which this Proxy Statement is first being made available to stockholders is March [], 2022.

Our stockholders are cordially invited to attend the Annual Meeting via a virtual meeting. You will be able to electronically attend the Annual Meeting as well as vote during the live webcast of the meeting by visiting www.virtualshareholdermeeting.com/ADES2022 and entering the 16-digit control number included in our notice of Internet Availability of the Proxy Materials, on your proxy card or in the instructions that accompanied your proxy materials. We recommend that you log in at least 10 minutes before the meeting to ensure you are logged in when the meeting starts.

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

By Order of the Board of Directors,

Greg P. Marken
President, Chief Executive Officer and Treasurer

March [], 2022

Important Notice
Regarding Internet Availability of Proxy Materials for the Annual Meeting of Stockholders to be Held on May 16, 2022

The Company's Proxy Statement and Annual Report to Stockholders are Available at: www.proxyvote.com

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PROXY STATEMENT

This Proxy Statement is furnished to the stockholders of Advanced Emissions Solutions, Inc., a Delaware corporation, ("ADES" or the "Company") in connection with the solicitation of proxies by the Company's Board of Directors (the "Board"), to be voted at our annual meeting of stockholders ("Annual Meeting" or "meeting") to be held at 9:00 AM (Mountain Time) on Monday, May 16, 2022, via virtual meeting, and any postponements or adjournments thereof. This Proxy Statement and accompanying form of proxy is first being made available to our stockholders on or about March 29, 2022. 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, the terms "we," "us," "our" and "our Company" refer to Advanced Emissions Solutions, Inc. and, unless the context indicates otherwise, our consolidated subsidiaries.

PARTICIPATION IN VIRTUAL MEETING

In accordance with Delaware law, the Board has authorized that the Annual Meeting be held via virtual meeting, and accordingly, stockholders and proxy holders virtually attending the Annual Meeting are deemed present in person for purposes of determining the presence of a quorum.

The only item of information needed to access the Annual Meeting from the website is the 16-digit control number located in the Notice of Internet Availability of Proxy Materials or on your proxy card.

Please have the Notice of Internet Availability of Proxy Materials or proxy card in hand when you access the website and then follow the instructions. If you are a stockholder of record, you are already registered for the virtual meeting.

VOTING RIGHTS AND VOTE REQUIRED

Our Board has fixed the close of business on March 22, 2022 as the record date (the "Record Date") for determination of stockholders 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. A minimum of one-third of the shares of our common stock issued and outstanding must be represented at the Annual Meeting in person or by proxy in order to constitute a quorum. An abstention or a "broker non-vote" (as explained below) 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 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 Delaware General Corporation Law (the "DGCL") or our Second Amended and Restated Certificate of Incorporation. The four nominees receiving the highest number of votes cast will be elected as directors. Cumulative voting is not allowed for any purpose.

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 stockholder 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 fiscal year ending December 31, 2022 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 independent registered public accounting firm.

Abstentions and "broker non-votes" will have no effect on the outcome of proposals voted upon at the Annual Meeting, except "broker non-votes" will be treated as an "against" vote for purposes of the ratification of our independent registered public accounting firm.

If you are a beneficial owner and not a stockholder 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.

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

FOR ALL the persons nominated by the Board for Directors, being: Carol Eicher, Gilbert Li, J. Taylor Simonton, and L. Spencer Wells;

FOR the approval, on an advisory basis, of the compensation of the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including compensation tables and narrative discussion as set forth under the Executive Compensation section of this Proxy Statement;

FOR the ratification of the appointment of Moss Adams LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022;

FOR the approval of the Advanced Emissions Solutions 2022 Omnibus Incentive Plan; and

FOR the approval of the Fifth Amendment of the Company's Tax Asset Protection Plan.

We do not know of any other matter or motion to be presented at the Annual Meeting. If any other matter or motion should be presented at the Annual 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 the discretion of such person as the directors of the Company may recommend, including any matter or motion dealing with the conduct of the Annual Meeting.

Voting by Mail, Facsimile, via the Internet or by Telephone

Stockholders whose shares are registered in their own names may vote by mailing or faxing a completed proxy card, via the internet or by telephone. Instructions for voting via the internet or by telephone are set forth on the included proxy card. To vote by mailing or faxing a proxy card, sign and return the available proxy card to the Company 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 voting instructions card provided by the bank or brokerage firm.

Any stockholder 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's Interim General Counsel and Secretary (Clay Smith), 8051 E. Maplewood Ave., Ste. 210, Greenwood Village, 80111, by submitting a new proxy executed at a later date, or by joining the virtual meeting and voting such stockholder's shares in a manner different to his, her, or its previously completed proxy card.

The Company is bearing the costs of this solicitation of proxies.

PROPOSAL ONE

ELECTION OF DIRECTORS OF THE COMPANY

Our Nominating and Governance Committee has recommended to our Board the slate of four directors for election by our stockholders, and the Board approved the recommendation and the slate of directors. Each director will hold office until the next annual meeting of stockholders and thereafter until a successor is elected and qualified. The four nominees receiving the highest number of votes cast will be elected as directors. Cumulative voting is not permitted in the election of directors.

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. Because the Annual Meeting will be held virtually this year, we anticipate that all directors will participate in the Annual Meeting this year. Last year all four directors participated in the annual meeting.

Detailed biographical information about each director nominee can be found under the Corporate Governance section of this Proxy Statement. The following table sets forth certain information, including expected committee membership as of May 16, 2022, as to each director nominee of the Company:

<u>Director Name</u>	<u>Audit</u>	<u>Compensation</u>	<u>Nominating and Governance</u>
Carol Eicher	◆	◆	◆
Gilbert Li		◆	◆
J. Taylor Simonton	◆		◆
L. Spencer Wells ⁽¹⁾	◆	◆	

◆ = Chair

◆ = Member

(1) Mr. Wells is the Chair of the Board

No family relationship exists between any directors or executive officers.

Director Compensation information for the fiscal year ended December 31, 2021 can be found under the "Director Compensation" section of this Proxy Statement.

Board Recommendation

Our Board recommends that you vote "**FOR**" all of the persons nominated above, being Carol Eicher, Gilbert Li, J. Taylor Simonton and L. Spencer Wells.

CORPORATE GOVERNANCE

Directors of the Company

Effective as of April 9, 2021, the Board reduced the size of the board from seven members to five members. Our Board is currently comprised of four members – Carol Eicher, Gilbert Li, J. Taylor Simonton, and L. Spencer Wells – and these same four directors are nominated for re-election at the Annual Meeting. Brian Leen and R. Carter Pate were directors for a period during 2021, but Mr. Leen resigned from the Board effective April 8, 2021, and R. Carter Pate chose not to stand for re-election to the Board at the 2021 annual meeting. Although the fixed size of our board of directors is five, we have nominated only four directors and have left one vacancy due to the ongoing strategic review process, cost containment strategies and current complexities of the Company. Proxies cannot be voted for a greater number of persons than the number of nominees named.

The Nominating and Governance Committee of the Board seeks directors with strong reputations and experience in areas relevant to our strategy and operations, such as environmental and diversified chemical technologies, and government regulation and relations, as well as overall business acumen and experience in financial matters. Each of our director nominees set forth in this Proxy Statement 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 director 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 director 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 director for election by our stockholders is as follows:



Carol Eicher

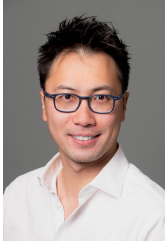
Director since 2019

Age 63

Ms. Eicher has extensive public company executive leadership and operational expertise, having worked more than 35 years in the chemical industry. She held senior management roles with Dow Chemical Co., Rohm and Haas Co., Ashland, Inc. and E.I. DuPont de Nemours and Co. In addition, she was CEO and Chair of a private equity portfolio company and led the successful sale of that company. She has extensive public and private company board leadership experience having served on public company boards for more than 10 years, with a specific expertise in Governance.

Other Boards and Positions:

- Arconic Corporation (NYSE: ARNC) since 2020: independent director, member of Governance Committee
- Tennant Company (NYSE: TNC) since 2008: independent director, Chair of the Governance Committee, member of the Compensation Committee, former member of the Audit Committee
- A Schulman Company (Nasdaq:SHLM): 2017-2018; independent director and member of the Audit and Compensation Committees
- Innocor, Inc.: 2014 -2017 CEO; 2017-2018 non-executive board chair



Gilbert Li

Director since 2016

Age 44

Mr. Li is currently the Co-Founder and Managing Partner of Alta Fundamental Advisers LLC, a private investment company, holding this position since January 2013. Alta Fundamental Advisers LLC holds approximately 10.57% of the equity interests in the Company. From February 1, 2018 to May 1, 2021, Mr. Li also served as a manager on the Board of Managers of Tinuum Group, LLC ("Tinuum Group"), in which we hold equity interests of 42.5% as of December 31, 2021. He has spent his career focused on value-oriented investing across the capital structure. From January 2009 through January 2013, Mr. Li was an investment analyst for JMB Capital Partners, a \$1.3 billion hedge fund. He has also previously held the roles of portfolio manager, trader and investment analyst at Merrill Lynch, Watershed Asset Management and J.P. Morgan Investment Management.

Mr. Li has over 20 years of industry experience and provides unique insights to various energy, alternative energy, coal and tax credit-related companies.

Other Boards and Positions:

- Alta Fundamental Advisers since 2013: Co-Founder and Managing Partner



J. Taylor Simonton

Director since 2014

Age 77

Mr. Simonton has extensive and varied experience for over 45 years in financial accounting and auditing, including 35 years at PwC. Mr. Simonton's experiences at PwC included 23 years as an Assurance Partner and seven years in the firm's SEC Department of its National Professional Services Group, four of which were international. He has extensive public and private company board leadership experience, having served on seven public and two private companies' boards of directors since 2003 and as Audit Committee Chair at eight of those companies. He is an Audit Committee Financial Expert. Mr. Simonton was an active CPA through 2021, when he changed to CPA, Retired status. Further, he is a member of the American Institute of CPAs and the Colorado Society of CPAs.

Mr. Simonton most recently was a director and Audit Committee Chair of CEA Industries Inc. (formerly Surna Inc.), which develops innovative technologies and products that monitor, control, and address the energy and resource-intensive nature of indoor cultivation (2017 - 2020). He also was a director, Audit Committee Chair, and Nominating and Governance Committee member at a family-owned company in the specialty industrial fluids industry (2017 -2021); and a director of Escalera Resources Co., a developer of natural gas and crude oil properties in the Rocky Mountain region, where he served as the Audit Committee Chair and a member of the Compensation and Nominating and Governance Committees (2013 - 2018). In addition, Mr. Simonton was an advisor on internal controls, corporate governance, strategic planning, acquisitions due diligence, and similar matters to another family-owned larger business with four primary business platforms (2019 - 2020).

Other Boards and Positions:

- CEA Industries Inc. (formerly Surna Inc.), (Nasdaq-CM: CEAD) from 2017 to 2020: Director, Chair of the Audit Committee
- Escalera Resources CO (OTC: ESCR) from 2013 to 2018: Director, Chair of the Audit Committee, member of the Compensation and Nominating and Governance Committees



L. Spencer Wells

Director since 2014

Age 51

Mr. Wells has over 20 years of experience as an investor and financial analyst and is a founding Partner of Drivetrain Advisors, a provider of fiduciary services to the alternative investment community. Prior to founding Drivetrain Advisors in 2013, Mr. Wells served as a Senior Advisor at TPG Special Situations Partners from 2010 to 2012. Mr. Wells was a partner of TPG Special Situations Partners, during which time he helped to create and manage an investment portfolio approximated at \$2.5 billion. From 2002 until 2009, Mr. Wells served as a Partner and a Portfolio Manager at Silverpoint Capital. While at Silverpoint, he covered the energy, chemicals and building products sectors and managed an investment portfolio estimated at \$1.3 billion. Mr. Wells has previously served on the Boards of public companies over the last five years, including Roust Corporation, Affinion Group, Inc. and Syncora Holdings, Ltd.

Mr. Wells has extensive executive leadership and financial expertise, having over 20 years of involvement as a financial analyst and senior advisor to various companies. He has extensive public and private company board leadership experience having served on public company boards for more than 10 years, with specific expertise in governance of companies undergoing significant change such as asset purchases and sales, in-court or out-of-court restructurings and liability management.

Other Boards and Positions:

- NextDecade Corporation (Nasdaq: NEXT) since 2017: Director, Chair of the Audit Committee, member of the Nominating and Corporate Governance Committee
- Vantage Drilling International since 2016: Director, Chair of the Compensation Committee, member of the Audit Committee
- Parker Drilling Company since 2018: Director, Chair of the Compensation Committee, member of the Finance and Strategic Planning Committee, member of the Nominating and Corporate Governance Committee
- Town Sports International Holdings, Inc. from 2014 to 2020: Director, Chair of the Compensation Committee and member of the Audit Committee
- Samson Resources II, LLC since 2017: Director
- Jones Energy, Inc. from 2018 -2019: Director

Director Independence

Our current directors, who are also the director nominees - Carol Eicher, Gilbert Li, J. Taylor Simonton and L. Spencer Wells - qualify as independent directors as defined in Nasdaq Marketplace Rule 4200(a)(15). Brian Leen, who resigned from the Board effective April 8, 2021, did not qualify as independent directors under applicable independence standards during his service on the Board during 2021. R. Carter Pate, who chose not to stand for re-election to the Board at the 2021 annual meeting, did qualify as an independent director under applicable independence standards during his service on the Board during 2021.

The Board maintains audit, compensation, and nominating and governance committees, each of which was at all times during 2021 and is currently comprised solely of independent directors under applicable independence standards of the SEC and Nasdaq Stock Market.

Board and Committee Meetings and Attendance at Meeting of Stockholders

The Board currently has three committees: the Audit Committee, the Compensation Committee, the Nominating and Governance Committee.

The Board met 24 times in 2021. At each of the Board meetings, the independent directors then serving on the Board were polled to determine if they believed an "executive session" was needed. In 2021, the Board or Committees held ten executive sessions where management of the Company was excluded. The Audit Committee met seven times in 2021. The Compensation Committee met six times in 2021. The Nominating and Governance Committee met four times in 2021. The Steering Committee met two times in 2021. All of the incumbent directors were present for more than 75% of the meetings of the Board and the committees of which they were members.

Directors are expected to attend all Board and respective Committee meetings. In addition, directors shall make their best efforts to attend the Company's annual meeting of stockholders either in person or telephonically.

Stockholder Communications to Directors

Any stockholder may communicate directly with the Board (or any individual director) by writing to the Chair of the Board, Advanced Emissions Solutions, Inc., 8051 E. Maplewood Ave., Ste. 210 Greenwood Village 80111 or by emailing the Board through the "Contact" page on our website at www.advancedemissionssolutions.com. Any such communication should state the number of shares beneficially owned by the stockholder making the communication. Provided that such communication addresses a legitimate business issue, the Company or the Chair will forward the stockholder's communication to the appropriate director. For any communication relating to accounting, auditing or fraud, such communication will be forwarded promptly to the Chair of the Audit Committee.

Code of Ethics

We have adopted a Code of Ethics and Business Conduct that includes a code of ethics as defined in Item 406(b) of SEC Regulation S-K. Our Code of Ethics and Business Conduct incorporates our Insider Trading Policy, which 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. A copy of our Code of Ethics and Business Conduct is available on our website at www.advancedemissionssolutions.com. We intend to disclose any amendments to our Code of Ethics and Business Conduct, or waivers of such provisions granted to executive officers and directors, on our website. Please note that the information on our website is not part of this Proxy Statement and is not incorporated by reference herein.

Board Leadership Structure and Role in Risk Oversight

We have a policy of keeping the roles of Chief Executive Officer and Chair 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, whose position is more heavily oriented towards day-to-day management, while the Chair, as an independent director, oversees the Board and is also able to participate in and chair executive sessions of the Board.

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 analysis and reports sent to them weekly and monthly, and through discussions with the CEO and other officers.

The Board has designated the Audit Committee oversee risk management, and the Audit Committee periodically reports to the Board regarding briefings provided by management and advisors, as well as its 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, and management is committed to promoting, a corporate culture that incorporates risk management into the Company's strategy and day-to-day business operations. The Board and management continually work together to assess and analyze our most likely areas of risk.

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"). For 2021, our Board appointed an Audit Committee currently consisting of Messrs. Simonton and Wells and Ms. Eicher. Mr. Simonton currently serves as the Chair of the Audit Committee. For 2020, our Board appointed Messrs. Simonton and Pate and Ms. Eicher to serve on the Audit Committee. Mr. Pate did not stand for reelection to the Board in June 2021. Our Board determined that Messrs. Simonton and Wells and Ms. Eicher are each an "audit committee financial expert." Each Audit Committee member is "independent" under the applicable independence standards of the SEC and Nasdaq Stock Market, and a brief listing of their relevant experience is stated in their biography above under the caption entitled "Directors of the Company."

The role and functions of the Audit Committee are set out in the Audit Committee Charter, originally adopted by the Company's Board and most recently amended in 2016. The role of the Audit Committee is one of oversight of the services performed by the Company's independent registered public accounting firm. 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, including the Code of Ethics and Business Conduct and approving related party transactions; 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 Auditing Standard No. 1301 adopted by the Public Company Accounting Oversight Board ("PCAOB") 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; reviewing the financial reporting process and discussing with management and our independent registered public accounting firm the interim and annual financial statements that we file with the 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. The Audit Committee pre-approves all audit or non-audit services performed by our independent registered public accounting firm in accordance with Audit Committee policy and applicable law.

The Audit Committee has a written charter, a copy of which is available on our website at www.advancedemissionssolutions.com under the "Leadership & Governance" section of "ADES Investors." Please note that the information on our website is not part of this Proxy Statement and is not incorporated by reference herein.

Compensation Committee

For 2021, our Board appointed a Compensation Committee currently consisting of Ms. Eicher and Messrs. Li and Wells. Mr. Wells currently serves as the Chair of the Compensation Committee. For 2020, our Board appointed a Compensation Committee consisting of Messrs. Li, Pate and Wells. Mr. Pate did not stand for reelection to the Board in June 2021. The responsibilities of the Compensation Committee, as set forth in the Compensation Committee Charter, 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, approving and, when appropriate, making recommendations concerning our long-term incentive plans; reviewing and making recommendations regarding stockholder proposals related to compensation; and administering our equity-based and employee benefit plans.

Each year, the Compensation Committee reviews, modifies (if necessary), and approves the goals and objectives relevant to the compensation of the Chief Executive Officer and the other Named Executive Officers, as well as the executive compensation program as a whole, including performance goals for the annual cash incentive program, if applicable, and long-term equity awards. In addition, the Compensation Committee is responsible for reviewing the performance of the Chief Executive Officer within the framework of our executive compensation goals and objectives. Based on this evaluation, the Compensation Committee sets the compensation of the Chief Executive Officer. See "Executive Compensation" below for additional information.

The Compensation Committee has a written charter, a copy of which is available on our website at www.advancedemissionssolutions.com under the "Leadership & Governance" section of "ADES Investors." Please note that the information on our website is not part of this Proxy Statement and is not incorporated by reference herein.

Nominating and Governance Committee

For 2021, our Board appointed a Nominating and Governance Committee currently consisting of Ms. Eicher and Messrs. Li and Simonton. Ms. Eicher currently serves as the Chair of the Nominating and Governance Committee. For 2020, our Board appointed a Nominating and Governance Committee consisting of Ms. Eicher and Messrs. Li and Pate. Mr. Pate did not stand for reelection to the Board in June 2021. The responsibilities of the Nominating and Governance Committee include

recommending the number of directors to serve on the Board; selecting director nominees for the Board; reviewing director compensation and benefits; 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; monitoring in conjunction with the Audit Committee compliance with our Code of Ethics and Business Conduct; granting any waivers thereto with respect to directors and executive officers; recommending individuals to serve as Chair 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:

- An understanding of business and financial affairs and the complexities of an organization that operates as a public company;
- A genuine interest in representing all of our stockholders and the interests of the Company overall;
- A willingness and ability to spend the necessary time required to function effectively as a director;
- An open-minded approach to matters and the resolve and ability to independently analyze matters presented for consideration;
- A reputation for honesty and integrity that is above reproach;
- Any qualifications required of independent directors by the Nasdaq Stock Market and applicable law; and
- 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 amongst the Board 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 directors, stockholders or officers 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 backgrounds and complementary skills so that, as a group, the Board possesses the appropriate talent, skills, perspectives 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 stockholders. Recommendations of individuals that meet the criteria set forth in the Nominating and Governance Committee Charter for election at our 2023 annual meeting of stockholders may be submitted to the Nominating and Governance Committee in care of Clay Smith, Interim General Counsel and Secretary, at 8051 E. Maplewood Ave., Ste. 210, Greenwood Village 80111 no later than December 31, 2022.

The Nominating and Governance Committee has a written charter, a copy of which is available on our website at www.advancedemissionssolutions.com under the "Leadership & Governance" section of "ADES Investors." Please note that the information on our website is not part of this Proxy Statement and is not incorporated by reference herein.

RELATED PARTY TRANSACTIONS

Since January 1, 2021, there were no related person transactions. The charter of our Audit Committee requires all related person transactions to be reviewed and approved by the Audit Committee.

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 Nominating and Governance Committee has not delegated authority to any other person to determine director compensation. Our management has made recommendations to the Nominating and Governance Committee regarding their views as to the appropriate amount and form of compensation (i.e., cash or stock) and tax and accounting ramifications of awards.

The Compensation Committee retained Lyons, Benenson & Company ("LB & Co."), to provide a market analysis of the Company's director compensation relative to our peer companies and to recommend the amount and form of such compensation to be paid in the future. Based on this peer company information and other matters considered, the Compensation Committee adjusted director compensation for 2021. For the Annual Retainer, directors will be paid at least 50% in grants of restricted Common Stock, subject to vesting in four quarterly installments, as described below.

Compensation Component	January 1, 2021 - December 31, 2021*
Annual Retainer	\$147,850, with at least 50% paid in restricted stock
Chair of the Board Retainer	\$ 32,500
Chair of the Audit Committee Retainer	\$ 20,000
Chair of the Compensation Committee Retainer	\$ 12,500
Chair of the Nominating and Governance Committee Retainer	\$ 10,000
Compensation Committee Member Service Retainer	\$ 10,000
Audit Committee Member Service Retainer	\$ 7,500
Nominating and Governance Member Service Retainer	\$ 5,000
Board of Managers of Tinuum Group, LLC Service Retainer	\$ 20,000

*Amounts shown are on an annual basis. Unless specified otherwise, all amounts are payable in cash.

On February 25, 2021, the Board created a limited term Steering Committee, which was created to assist management with cost containment and gross margin improvements. This committee was established and remained in place for 90 days and Messrs. Wells and Leen and Ms. Eicher served on the committee. Each committee member was compensated \$7,500 for their service on this committee.

The following table provides information regarding the compensation of our non-employee directors for the fiscal year ended December 31, 2021:

Name	Fees earned or paid in cash (\$) (1)	Stock awards (\$) (2)(3)	Option awards (\$)	All other compensation	Total (\$)
Carol Eicher	104,759	72,644	—	—	177,403
Gilbert Li	97,255	72,644	—	—	169,899
J. Taylor Simonton	96,843	72,644	—	—	169,487
L. Spencer Wells	149,759	72,644	—	—	222,403
Brian Leen (4)	32,140	—	—	—	32,140
R. Carter Pate (5)	45,342	—	—	—	45,342

(1) The cash amounts earned by each director are made up of the following amounts:

Name	Annual Retainer (\$)	Annual Committee Chair Retainer (\$)	Annual Committee Retainer (\$)	Total (\$)
Carol Eicher	73,925	10,000	20,834	104,759
Gilbert Li	73,925	—	23,330	97,255
J. Taylor Simonton	73,925	20,000	2,918	96,843
L. Spencer Wells	73,925	39,792	36,042	149,759
Brian Leen (4)	24,640	—	7,500	32,140
R. Carter Pate (5)	33,882	5,730	5,730	45,342

(2) The grant date fair value of the restricted shares granted to non-employee directors in fiscal 2021 set forth in the following table and is computed in accordance with FASB ASC Topic 718, based on the closing price on the date of grant. Mr. Leen forfeited 3,811 shares upon his resignation in April 2021.

Grantees	Shares	Value	Grant Date
Eicher, Li, Simonton and Wells	39,696	\$ 290,575	7/1/2021

(3) As of December 31, 2021, our non-employee directors held the following number of shares of unvested restricted stock, which were granted in 2021: Ms. Eicher—4,962, Mr. Li—4,962, Mr. Simonton—4,962 and Mr. Wells—4,962. As of such date, neither Messrs. Leen nor Pate held any unvested restricted shares.

(4) Mr. Leen resigned from the Board effective April 8, 2021.

(5) Mr. Pate did not stand for re-election at the 2021 annual meeting of stockholders and ceased being a director at that time.

All directors receive reimbursement for reasonable out-of-pocket expenses incurred in connection with meetings of our Board.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Common Stock

The following table provides information with respect to the beneficial ownership of our Common Stock by: (1) each current director of the Company, (2) each named executive officer currently serving the Company, (3) all directors and executive officers as a group, and (4) each person beneficially owning more than 5% of our outstanding Common Stock, of which there were none (except for Alta Fundamental Advisers LLC, for which shares are reported below as being beneficially owned by Mr. Li). We base the share amounts shown on each person's beneficial ownership as of February 25, 2022, including options exercisable within 60 days thereof, unless we indicate some other basis for the share amounts. Percentage ownership is calculated based on 18,841,000 shares outstanding as of February 25, 2022, including securities deemed outstanding pursuant to Rule 13d-3(d)(1) under the Exchange Act. For persons beneficially owning more than 5% of our outstanding Common Stock, we have used the most recent ownership filings related to the below table. Except as noted below, each of the persons named below has sole voting and investment power for the respective shares.

Name ⁽¹⁾	Current Shares Beneficially Owned ⁽¹⁾	Percent of Shares Beneficially Owned
Carol Eicher	29,649	*
Morgan Fields	28,382	*
Gilbert Li ⁽²⁾	1,991,813	10.57 %
Greg P. Marken	83,709	*
J. Taylor Simonton	50,662	*
L. Spencer Wells	50,618	*
Joe M. Wong	39,046	*
All Directors and Executive Officers as a Group (7 persons)	2,273,879	12.07 %

* Less than 1%

- (1) Except as otherwise noted and for shares held by a spouse and other members of the person's immediate family who share a household with the named person, the named persons have sole voting and investment power over the indicated shares. This column also includes shares held in trust that are beneficially owned. Beneficial ownership of some or all of the shares listed may be disclaimed. The address of each of our named executive officers and directors is 8051 E. Maplewood Ave., Ste. 210, Greenwood Village 80111.
- (2) Based on a Form 4 filed by Alta Fundamental Advisers LLC ("Alta") and Alta Fundamental Advisers SP LLC on July 6, 2021 with the SEC reporting beneficial ownership as of July 6, 2021. Alta and Alta Fundamental Advisers SP LLC report being the beneficial owner of 1,991,813 shares that are directly held by its clients, funds, and affiliates (the "Accounts") that are managed by Alta. Mr. Li, a director of the Company, is a Managing Partner of Alta. In addition, Mr. Li is an investor in one or more of these Accounts and therefore is an indirect beneficial owner of a portion of these shares. Alta and Mr. Li disclaim beneficial ownership of these shares except to the extent of their pecuniary interest therein. Alta's address is 1500 Broadway, Suite 704, New York, NY 10036.

PROPOSAL TWO

APPROVAL, ON AN ADVISORY BASIS, OF THE COMPENSATION PAID TO COMPANY'S NAMED EXECUTIVE OFFICERS

Pursuant to Section 14A of the Exchange Act, we are seeking a non-binding advisory vote to approve the compensation of named executive officers as disclosed in the section of this Proxy Statement titled "Executive Compensation." Although this vote is advisory and is not binding on the Company, the Compensation Committee of the Board will take into account the outcome of the vote when considering future executive compensation decisions. We believe that our compensation philosophy and practices are consistent with market practices, designed to retain key executives and reward company performance, and aligned with long-term stockholder interests. This proposal will be deemed approved, on a non-binding advisory basis, if the votes cast in favor of the proposal exceed the votes cast opposing the proposal.

The Board proposes the following resolution for approval by the stockholders:

RESOLVED, that the stockholders 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 tables and related narrative discussion).

Board Recommendation

Our Board recommends a vote "**FOR**" the proposal to approve, on an advisory basis, the Company's compensation paid to named executive officers.

Executive Officers of the Company

The following table sets forth certain information about our named executive officers as of the date of this Proxy Statement:

Name	Age	Position
Greg P. Marken	40	President, Chief Executive Officer, Treasurer
Morgan Fields	41	Chief Accounting Officer
Joe M. Wong	61	Chief Technology Officer

The specific experience, qualifications and background of each current executive officer are as follows:

Greg P. Marken



Chief Executive Officer and Treasurer

Business Experience:

Greg P. Marken is the President, Chief Executive Officer and Treasurer of ADES since July 2020. Prior to his appointment as President and Chief Executive Officer, Mr. Marken served as the Chief Financial Officer, Treasurer and Secretary from March 2018 through June 2020. He also has previously served as the Company's Chief Accounting Officer and various other roles with the Company since joining the Company in 2015. Mr. Marken also serves as a Manager on the Board of Managers of Tinuum Group, LLC., in which we hold equity interests of 42.5% as of December 31, 2021, and a Manager and Officer of other ADES subsidiaries. Mr. Marken has over 15 years of experience related to accounting, finance and leadership of various teams.

Prior to joining ADES, Mr. Marken was a Senior Manager in the assurance practice at Ernst & Young, LLP in both Dallas and Denver, where he served a variety of public and private clients.

Education:

Mr. Marken holds a Bachelor's degree in Accounting and Master's degree in Finance from Texas A&M University. Mr. Marken has a CPA license in Texas and Colorado and is a member of the AICPA and the Colorado Society of CPAs.

Morgan Fields



Chief Accounting Officer

Business Experience:

Ms. Fields served as VP of Accounting from March 1, 2021 to August 12, 2021, when the Board appointed Ms. Fields as Chief Accounting Officer. Ms. Fields has consulted with the Company on various projects since 2019, including assisting with system implementations and oversight of internal control over financial reporting framework. Prior to working with the Company, Ms. Fields' career included being the Director of Accounting for Cerapedics, Inc. from 2018 to 2019 and the Chief Accounting Officer for Rezolute, Inc. (RZLT) from 2014 to 2018. Before that, she held various other accounting and finance roles, including Assurance Director, with RSM US LLP. Ms. Fields has over 15 years of accounting and consulting experience serving a variety of companies and industries.

Education:

Ms. Fields holds a Bachelors and Masters of Accounting from the University of Northern Iowa.



Chief Technology Officer

Business Experience:

Mr. Wong has over 35 years of industrial leadership experience in research & development, product development and business growth in specialty materials. Prior to joining ADES in 2018, Mr. Wong served as the Chief Technology Officer for ADA Carbon Solutions since 2011. Before ADA Carbon Solutions, Mr. Wong worked for three years in private consulting, preceded by 21 years with MeadWestvaco Corporation in senior leadership positions for the Specialty Chemicals and Research & Development sectors.

Education:

Mr. Wong holds a PhD in Chemical Engineering from the University of Texas.

EXECUTIVE COMPENSATION

In this section, we provide an analysis and explanation of our compensation program and the compensation earned by our named executive officers in the fiscal year ended December 31, 2021. We are a "smaller reporting company" and the following compensation disclosures are intended to comply with the requirements applicable to smaller reporting companies. Although the rules allow us to provide less detail about its executive compensation program, our Compensation Committee is committed to providing the information necessary to help stockholders understand its executive compensation-related decisions. Accordingly, this section includes supplemental narratives that describe the 2021 executive compensation program for our named executive officers.

The Company's named executive officers ("NEOs") for 2021 were:

Name	Age	Positions
Greg P. Marken	40	President, Chief Executive Officer, Treasurer (1)
Morgan Fields	41	Chief Accounting Officer (2)
Joe M. Wong	61	Chief Technology Officer

- (1) The Board appointed Mr. Marken, the Company's prior Chief Financial Officer, Treasurer and Secretary as Interim President and Chief Executive Officer, effective July 1, 2020, upon the resignation of the Company's prior President and Chief Executive Officer. Effective November 8, 2021 the Board approved the change of Mr. Marken's officer title to President and Chief Executive Officer.
- (2) The Board appointed Morgan Fields as VP of Accounting, effective March 1, 2021. Subsequently, the Board appointed Ms. Fields as Chief Accounting Officer, effective August 12, 2021.

Summary Compensation Table

The following table presents information regarding compensation earned by or awards to our NEOs during fiscal years 2021 and 2020:

Name and Principal Position	Year	Salary (\$)	Bonus (\$) (1)	Stock Awards (\$ (2)	Non-Equity Incentive Plan Compensation (\$ (3)	All Other Compensation (\$ (4)	Total (\$)
Greg P. Marken (5) <i>President, Chief Executive Officer, Treasurer</i>	2021	457,308	—	361,987	170,000	11,978	1,001,273
	2020	341,539	75,875	103,985	129,375	8,550	659,324
Morgan Fields (6) <i>Chief Accounting Officer</i>	2021	193,962	—	176,722	—	5,189	375,873
Joe M. Wong <i>Chief Technology Officer</i>	2021	304,386	—	208,692	91,500	17,772	622,350
	2020	334,617	22,500	100,955	69,000	8,550	535,622

- (1) Because the Short-Term Incentive Plan (the "STIP") has mandatory performance measures that must be achieved before there is any payout to NEOs, amounts paid under the STIP are shown in the Non-Equity Incentive Plan Compensation column of the table, rather than the Bonus column. Amounts earned in 2020 represent bonuses paid to certain executives relating to the completion of a significant customer contract.
- (2) The amounts in this column represent the aggregate grant date fair values of restricted stock awards ("RSAs") and performance share units ("PSUs") computed in accordance with FASB ASC Topic 718. These grant date fair values have been determined based on the assumptions and methodologies discussed in Note 16 of the Consolidated Financial Statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2021. PSU awards are subject to market-based performance conditions relating to the relative placement of the Company's total stockholder return ("TSR") for the three-year performance period based on the relative performance of the Company's TSR performance compared to the respective TSRs of a specified group of peer companies. The table below presents the PSU awards granted for the fiscal year ended December 31, 2021 based on an earned percentage of 100% (grant date fair value disclosed above) and an earned percentage of 200%, which is the highest level of performance conditions that can be achieved. The difference between the "Stock Award" amounts in the table above and the "PSU-if earned, target (\$)" amounts in the table below represents the grant date fair values attributable to the RSAs.

Name and Principal Position	Year	PSU - if earned, target (\$)	PSU - if earned, maximum (\$)
Greg P. Marken (5)	2021	207,645	415,290
Joe M. Wong	2021	119,708	239,416

- (3) The amounts in this column represent the bonuses earned in the year under the STIP.
- (4) The All Other Compensation amounts earned by each NEO for 2021 are made up of the amounts in the table below:

Name	Year	Matching contributions to 401(k) (\$)	Other (\$) (7)	Total (\$)
Greg P. Marken (5)	2021	8,700	3,278	11,978
Morgan Fields (6)	2021	5,189	—	5,189
Joe M. Wong	2021	8,700	9,072	17,772

- (5) Effective July 1, 2020, Mr. Marken was appointed Interim Chief Executive Officer and Treasurer of the Company. Prior to that date he was the Company's Chief Financial Officer, Secretary and Treasurer. Effective November 8, 2021, Mr. Marken was appointed Chief Executive Officer.
- (6) Effective March 1, 2021, Ms. Fields was appointed as our VP of Accounting and became our principal financial officer. Effective August 12, 2021, Ms. Fields was appointed Chief Accounting Officer.
- (7) The amounts in this column represent premiums paid by the Company for individual disability insurance policies maintained for Messrs. Marken and Wong for up to \$102,000 per year.

Narrative Disclosure to Summary Compensation Table

Overview of Executive Compensation Program

Our Compensation Committee is charged with establishing the Company's philosophy for executive compensation and the approval, oversight, implementation and administration of executive compensation and benefits. Generally, the President and Chief Executive Officer of the Company makes recommendations to the Compensation Committee regarding executive compensation other than for himself; however, authority to approve compensation, performance goals and objectives for all NEOs is vested in the Compensation Committee.

Our philosophy for executive compensation is set forth in a document entitled "Executive Compensation Philosophy and Objectives" (the "EC Philosophy") adopted by the Compensation Committee on January 2, 2014 and reviewed annually by the Compensation Committee to ensure the EC Philosophy remains appropriate. The EC Philosophy is designed to support achievement of our strategies and goals, thereby creating long-term value for our stockholders and customers and ensuring our ability to recruit and retain highly qualified executive employees. Our EC Philosophy:

- Supports the Company's vision, mission, strategy, and values to generate profitability and sustained growth in the long-term best interests of our stockholders;
- Aligns executive compensation with measures of performance tied to the strategic and operational performance of the business and stockholder returns;
- Rewards executives on the basis of merit for individually and collectively achieving a leadership culture, innovation and excellence within the Company, and delivering sustained high performance to the Company, taking into consideration each executive's qualifications, level of responsibility and contribution to the Company's long-term performance;
- Encourages competency-building by linking career development, performance management and compensation rewards;
- Attracts and retains the best executive talent and a highly qualified diverse workforce within a non-discriminatory, merit-based compensation program; and
- Uses 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.

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 Philosophy 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; and
- The Company's compensation programs are weighted towards long-term incentives.

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

Say-on-Pay

The Company provides its stockholders with the opportunity to cast an advisory vote on annual executive compensation (a "say-on-pay proposal"). At the Company's annual meeting of stockholders in 2021, approximately 97% of the votes cast on the say-on-pay proposal were in favor of the proposal, which the Compensation Committee reviewed in assessing executive compensation for the fiscal year ending December 31, 2021. Proposal 2 included in the Proxy Statement is a say-on-pay advisory vote regarding the executive compensation for the fiscal year ending December 31, 2021 as described in this Proxy Statement. The Compensation Committee will continue to consider the results of the Company's say-on-pay votes when making future compensation decisions for the Company's executive officers, including the named executive officers.

Independent Compensation Consultant and Peer Group

The Compensation Committee retained an independent compensation consultant, Lyons, Benenson & Company Inc. ("LB & Co."), in 2020 to provide a market analysis of the Company's executive and director compensation relative to our peer companies and to recommend the amount and form of such compensation to be paid in the future. LB & Co. was determined to have no conflicts of interest and only provided services with respect to director and executive compensation.

LB & Co. compared the compensation practices of the Company to 17 peer group companies, see table below, from a number of similar industries, including Commodity Chemicals, Environmental and Facility Services, Fertilizers and Agricultural Chemicals, Industrial Machinery, Oil and Gas Equipment and Services, Oil and Gas Refining and Marketing, and Specialty Chemicals. The Compensation Committee reviewed these peer companies and approved their use for comparison to the Company. For compensation related to 2021, the Compensation Committee reviewed this market compensation analysis and peer group compensation data to ensure executive and director compensation was consistent with LB & Co's 2020 analysis.

Peer group companies:

Aemetis, Inc.	Graham Corporation
American Vanguard Corporation	Hawkins, Inc.
CECO Environmental Corp.	Marrone Bio Innovation, Inc.
Clean Energy Fuels Corp.	Nuverra Environmental Solutions, Inc.
Energy Recovery, Inc.	Perma-Fix Environmental Services, Inc.
Flotek Industries, Inc.	Profire Energy, Inc.
Fuel Tech, Inc.	Trecora Resources
FutureFuel Corp.	Vertex Energy, Inc.
Gevo, Inc.	

Base Salary

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 market where the Company competes for similar positions, with consideration given for employees serving similar functions in comparable companies. Base salary is typically increased annually based on performance and cost of labor/living increases. With the use of market data, the Compensation Committee considers the size of and whether to grant merit increases based on data from comparable companies, as well as review of an officer's annual performance and meeting of objectives. The Company attempts to ensure middle market pay for solid performers and to consider higher levels of pay for outstanding performers. The Company does not intend to be a market leader in base compensation.

On February 24, 2021, the Compensation Committee approved an increase in Mr. Marken's base salary to \$460,000 based on general market data.

In connection with her appointment as Vice President of Accounting, Ms. Fields' initial base salary was set at \$215,000, and in connection with her appointment as Chief Accounting Officer, in August 2021, Ms. Field's base salary was increased to \$275,000.

On February 24, 2021, the Compensation Committee approved an increase in Mr. Wong's base salary to \$306,000.

Short-Term Incentive Plan

The STIP is designed to motivate executives to achieve critical short-term goals, typically within a twelve-month period, that 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 Compensation Committee. The Compensation Committee adopted the Executive Short-Term Incentive Plan ("ESTIP") in September 2015 to further establish terms and conditions for cash awards made under the STIP. The Compensation Committee makes STIP awards under the 2017 Omnibus Incentive Plan (the "2017 Plan") and the ESTIP.

On April 9, 2021, the Compensation Committee established cash bonus targets equal to 75% of base salary for Mr. Marken and 50% of base salary for each of Ms. Fields and Mr. Wong. The performance goals on which the awards are based on Company and individual performance goals approved by the Committee. Company performance goals include the attainment of performance-based metrics reviewed and approved by the Compensation Committee. Budgeted Revenue and Adjusted EBITDA, as defined by the Compensation Committee, were the specific metrics used in assessing cash bonus targets. Both performance metrics were exceeded during the year.

In 2022, the Compensation Committee approved 2021 performance bonuses for Messrs. Marken and Wong and Ms. Fields at 158%, 158% and 158%, respectively, of the target based on Company and individual performance goals.

Long-Term Incentive Compensation

The Long-Term Incentive Plan ("LTIP") is designed to align executives' interests with those of the Company's stockholders and to provide consistency with the Compensation Committee's approach to performance-based pay. Equity awards are the primary long-term incentive instrument and may be in the form of RSAs or PSUs. Equity awards vest over time based on continuous service, or over time based on achievement of certain performance measures set by the Compensation Committee at the time of the grant, considering accounting and regulatory restrictions and the financial condition of the Company. Awards under the LTIP to a participant will typically be made 50% as RSAs and 50% as PSUs. PSUs are vested upon achievement, as certified by the Compensation Committee, of one or more performance measures measured over one to three years. The Company's updated LTIP was adopted February 26, 2020. LTIP awards are made under the 2017 Plan.

On February 24, 2021, the Compensation Committee approved grants of RSAs and PSUs to the NEOs as set forth in the table below, effective March 23, 2021. The RSAs for Messrs. Marken and Wong and Ms. Fields vest annually at a rate of one-third each year over a three-year vesting period subject to each respective officer's continuous service to the Company. The PSUs for Messrs. Marken and Wong vest after three years based on the placement of the Company's TSR for the three-year performance period relative to the TSR performance of a specified group of peer companies. On August 12, 2021, the Compensation Committee approved a grant of RSAs to Ms. Fields in connection with her promotion to Chief Accounting Officer, effective August 12, 2021 and included in the table below. The RSA was for 13,781 shares and vest annually at a rate of one-third per year over a three-year vesting period subject to Ms. Fields' continuous service to the Company.

Named Executive Officer	Percentage of Base Salary	Number of Restricted Shares	Number of Performance Stock Units
Greg P. Marken	75%	29,287	29,287
Morgan Fields	65%	28,382	—
Joe M. Wong	65%	16,885	16,884

The Compensation Committee, in consultation with LB & Co, establishes the group of peer companies for purposes of benchmarking the Company's stock price performance for PSU awards. The peer group is reviewed and adjusted on an annual basis or as needed to reflect changes to the Company and the potential peer group to reflect such things as merger and acquisition activity, revenue projections and strategic initiatives. PSU awards include provisions to accommodate changes in the peer group such as, for example, if one peer company merges with another. The threshold, target and maximum payout amounts for the 2021 PSUs are 50%, 100% and 200%, respectively.

For the 2021 PSUs, the group of peer companies was:

Aemetis, Inc.	Graham Corporation
American Vanguard Corporation	Hawkins, Inc.
CECO Environmental Corp.	Marrone Bio Innovation, Inc.
Clean Energy Fuels Corp.	Perma-Fix Environmental Services, Inc.
Energy Recovery, Inc.	Profire Energy, Inc.
Flotek Industries, Inc.	Trecora Resources
Gevo, Inc.	Vertex Energy, Inc.

2021 Retention Agreements

In May 2021, the Company entered into agreements ("Retention Agreements") with all of its executive officers to retain those officers in order to maintain the Company's current business operations while it pursues and executes on its strategic initiatives. In order to receive the Retention Agreement payments, the employee must remain employed at the Company through the earliest of the following: (i) the date the employee's employment is terminated without cause or for good reason, (ii) 90 days after a transaction date or a change in control, or (iii) 15 days following the date the Company's Form 10-Q for the quarter ended June 30, 2022 is filed with the Securities and Exchange Commission. Under the Retention Agreements Messrs. Marken and Wong and Ms. Fields will be paid \$460,000, \$153,001, and \$165,000, respectively, if they satisfy the conditions for payment.

Employment Agreements

Greg P. Marken

We are party to an employment agreement with Mr. Marken, effective January 12, 2015, which was amended on June 12, 2016 and May 9, 2018 (the "Marken Agreement"). The Marken Agreement contains provisions related to Mr. Marken's position, duties, authority, obligations, compensation and benefits, including his eligibility to receive incentive awards under the ESTIP and the LTIP. The Marken Agreement also contains certain covenants addressing non-competition, non-solicitation and non-divergence and provides for separation payments and benefits in the event of certain terminations of employment, as described under "Additional Narrative Disclosure—Employment Agreements" below.

Morgan Fields

We are a party to an employment agreement with Ms. Fields, effective March 1, 2021, which was amended on August 18, 2021 (the "Fields Agreement"). The Fields Agreement contains provisions related to Ms. Fields' position, duties, authority, obligations, compensation and benefits, including her eligibility to receive incentive awards under the ESTIP and the LTIP. The Fields Agreement also contains certain covenants addressing non-competition, non-solicitation and non-divergence and provides for separation payments and benefits in the event of certain terminations of employment, as described under "Additional Narrative Disclosure—Employment Agreements" below.

Joe M. Wong

We are a party to an employment agreement with Mr. Wong, effective February 14, 2011, which was amended on August 18, 2021 (the "Wong Agreement"). The Wong Agreement contains provisions related to his position, duties, authority, obligations, compensation and benefits, including his eligibility to receive incentive awards under the ESTIP and the LTIP. The Wong Agreement also contains certain covenants addressing non-competition, non-solicitation and non-divergence and provides for separation payments and benefits in the event of certain terminations of employment, as described under "Additional Narrative Disclosure—Employment Agreements" below.

Outstanding Equity Awards at Fiscal Year End

The following table provides information regarding outstanding RSA and PSU equity awards held by our NEO's as of December 31, 2021.

Name	Stock awards			
	Number of shares that have not vested (#)	Market value of shares that have not vested (\$) (1)	Equity incentive plan awards: number of unearned units that have not vested (#)	Equity incentive plan awards: market or payout value of unearned units that have not vested (\$) (1)
Greg P. Marken	4,905 (2)	32,471	—	—
	6,087 (3)	40,296	— (6)	—
	29,287 (4)	193,880	58,574 (7)	387,760
Morgan Fields (2)	14,601 (4)	96,659	—	—
	13,781 (5)	91,230	—	—
Joe M. Wong	4,433 (2)	29,346	—	—
	5,910 (3)	39,124	— (6)	—
	16,885 (4)	111,779	33,768 (7)	223,544

(1) The market value of RSAs and PSUs that have not vested is calculated using the closing price of \$6.62 of our Common Stock on December 31, 2021. The market value of PSUs is calculated based upon an earned amount as of December 31, 2021.

(2) These RSAs will vest in full on March 23, 2022.

- (3) These RSAs vested one-third on March 23, 2021, one-third will vest on March 23, 2022, and the remaining one-third will vest on March 23, 2023.
- (4) These RSAs will vest one-third on March 23, 2022, one-third on March 23, 2023, and one-third on March 23, 2024.
- (5) These RSAs will vest one-third on August 17, 2022, one-third on August 17, 2023, and one-third on August 17, 2024.
- (6) These PSUs vest on March 10, 2023. The PSUs are subject to a three-year performance period ending December 31, 2022. The award is reported at an earned percentage of 0%.
- (7) These PSUs vest on March 10, 2024. The PSUs are subject to a three-year performance period ending December 31, 2023. The award is reported at an earned percentage of 200%.

Additional Narrative Disclosure

Retirement Benefits

The Company's Profit Sharing Retirement Plan ("401(k) Plan") is available to all eligible employees, including NEOs. Pursuant to the 401(k) Plan, we currently make contributions to each eligible employee's account in an amount equal to three percent of eligible compensation. Additionally, at the discretion of the Board, the Company may make contributions based on the profitability of the Company to those accounts. In 2021, we made our contributions to the Plan in cash. No discretionary contributions were made to the 401(k) Plan in 2021 other than as discussed above. Employee and Company contributions to the 401(k) Plan are 100% vested.

The Company does not currently have any pension or retirement benefits (other than the 401(k) Plan) or nonqualified deferred compensation plans that apply to the NEOs, nor are any such plans contemplated at this time.

Employment Agreements

Under the Marken Agreement, upon a termination without "Cause" or a resignation for "Good Reason," Mr. Marken is eligible to receive severance of 12 months of base salary; however, if such termination occurs within 12 months following a "Change in Control," Mr. Marken is also eligible to receive (i) the short-term incentive cash bonus for the year of termination based on actual performance, (ii) accelerated vesting of all unvested restricted stock awards, and (iii) accelerated vesting of all unvested performance share units based on actual performance as of the date of such termination.

Under the Fields Agreement and the Wong Agreement, upon a termination without Cause or a resignation for Good Reason, the NEO is eligible to receive severance of (i) 12 months of base salary, (ii) the short-term incentive cash bonus for the year of termination based on actual performance, (iii) accelerated vesting of all unvested restricted stock awards, (iv) accelerated vesting of all unvested performance share units based on actual performance as of the date of such termination, and (v) coverage of COBRA continuation premiums for 12 months (or until the NEO is eligible for medical insurance benefits from another employer).

Under the Marken Agreement, the Fields Agreement and the Wong Agreement, upon a termination as a result of the NEO's death or disability, the NEO (or the NEO's beneficiary, as applicable) is eligible to receive (A) the short-term incentive cash bonus for the year of termination assuming target performance (or 50% thereof if such termination occurs within the first six months of the year), (B) accelerated vesting of all unvested restricted stock awards, and (C) accelerated vesting of all unvested performance share units based on actual performance as of the date of such termination.

Under the Marken Agreement:

- "Cause" means one or more of the following, where such conduct has had or is reasonably likely to have a material detrimental effect on the Company or a related person: (i) dishonesty, willful misconduct, or material breach of the Company's Code of Conduct; (ii) felony conviction of a crime involving dishonestly, breach of trust or physical harm to any person; or (iii) a breach of any fiduciary duty.
- "Good Reason" means a material reduction in the executive's compensation, a material diminution in authority, duties or responsibilities, or a relocation of more than 50 miles, subject to our right to cure.
- "Change in Control" means a change in our ownership or control effected by a direct or indirect acquisition of more than 50% of our total combined voting power, replacement of our directors by directors whose appointment or election is not endorsed by our directors serving immediately prior to such replacement, or a change in the ownership of a substantial portion of our assets.

Under the Fields Agreement and the Wong Agreement:

- "Cause" means (i) the failure by an executive to substantially perform the essential functions of executive's duties or obligations in a satisfactory manner or material breach of any written agreement with us or an affiliate; (ii) dishonesty, willful misconduct, or material breach of our Code of Ethics and Business Conduct, knowing violation of any federal or state securities or tax laws, or any misconduct that is, or is reasonably likely to be, materially injurious to us or an

affiliate; (iii) conviction of or plea of guilty or no contest to a crime involving dishonesty, breach of trust or physical harm to any person; or (iv) a breach of any fiduciary duty and such conduct has had or is reasonably likely to have a material detrimental effect on us or a related person.

- "Good Reason" generally has the meaning described above under the Marken Agreement.

Company Policies Relating to Executive Compensation

Insider Trading Policy

Our Insider Trading Policy, which applies to our employees, officers and directors, prohibits hedging of our securities and engaging in any other transactions involving ADES-based derivative securities, regardless of whether the covered person is in possession of material, non-public information (except with regard to the vesting of securities acquired pursuant to our incentive plans), or other transactions involving purchases and sales of company securities between a covered person and us. The Insider Trading Policy also prohibits all employees, officers and directors from entering into any transaction relating to hedging ADES securities, including zero-cost collars or forward-sale transactions.

Equity Ownership Guidelines

So long as the stock ownership guidelines are met, executives may sell unrestricted stock and may exercise vested stock options and sell shares of the Company's Common Stock to pay for the exercise price and withholding tax, except as otherwise provided for in the underlying stock option agreement. It is preferred that executives own shares of the Company's Common Stock for a period greater than twelve months before selling such shares. Executives are advised to seek pre-approval of any exercise of stock options or sale of shares of our Common 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. All executive stock transactions must be made in compliance with our insider trading policy.

Executives are encouraged to own a number of shares of our Common Stock equal to a value of at least one times their annual base salary. Ownership is calculated considering holdings of restricted stock and PSUs, whether or not such holdings have vested, private holdings, shares held in retirement accounts and other shares attributed to the executive in accordance with Section 16 of the Exchange Act. Holding of options to purchase shares of our Common Stock 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. Mr. Marken met the executive equity ownership guidelines as of December 31, 2021. Mr. Wong, a new NEO in 2019, and Ms. Fields, a new NEO in 2021, have generally a 3-year period in which to meet the executive equity ownership guidelines.

Clawback Policy

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 Compensation Committee.

PROPOSAL THREE

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our Audit Committee has appointed Moss Adams LLP ("Moss Adams") to be the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022. Moss Adams has served as the Company's independent registered public accounting firm since 2017, including the fiscal year ended December 31, 2017.

Stockholder ratification of the Audit Committee's selection of Moss Adams 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 stockholders for ratification as a matter of good corporate practice. If the stockholders fail to ratify the selection, the Audit Committee will reconsider whether or not to retain this firm. This proposal will be deemed approved if the votes cast in favor of the proposal exceed the votes cast opposing the proposal. Broker non-votes are treated as a vote "against" this proposal.

We anticipate that a representative of Moss Adams will be available at the Annual Meeting to respond to stockholder questions and will have the opportunity to make a statement at that time if the representative desires to do so.

Additional information about Audit Fees and Audit Committee Approval of Services can be found under the Independent Registered Public Accounting Firm section of this Proxy Statement.

Board Recommendation

Our Board recommends a vote "**FOR**" the ratification of the Audit Committee's appointment of Moss Adams LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2022.

REPORT OF THE AUDIT COMMITTEE

The Audit Committee's role and functions are described under the "Corporate Governance" section of this Proxy Statement.

The Audit Committee held seven meetings in 2021. The Audit Committee has (i) reviewed and discussed the Company's consolidated audited financial statements for the year ended December 31, 2021 with the Company's management; (ii) discussed with the Company's current independent registered public accounting firm, Moss Adams, the matters required to be discussed by Public Company Accounting Oversight Board ("PCAOB") and the SEC; and (iii) received the written disclosures and the letter from Moss Adams required by applicable requirements of the PCAOB regarding Moss Adams's communications with the Audit Committee concerning independence and has discussed with Moss Adams the independence of Moss Adams.

Based on the review and discussions with management and Moss Adams, the Audit Committee recommended to the Board that the audited consolidated financial statements as of December 31, 2021 and 2020 and for the fiscal years ended December 31, 2021 and 2020 be included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

On February 22, 2022, the Audit Committee approved the engagement of Moss Adams to serve as the Company's independent registered public accounting firm to audit the Company's financial statements for the fiscal year ending December 31, 2022. This appointment for 2022 was based on the Audit Committee's and management's completion of a written evaluation of Moss Adams' performance which included, among other criteria, quality of services provided; sufficiency of the firm's resources; communications and interaction; and independence, objectivity and professional skepticism.

Respectfully submitted,

The Audit Committee: J. Taylor Simonton, Chair
 Carol Eicher
 L. Spencer Wells

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The following table summarizes the fees of Moss Adams, our independent registered public accounting firm, for the fiscal years ended December 31, 2021 and 2020, respectively.

(in thousands)

	2021	2020
Audit fees (1)	\$ 496	\$ 522
Audit-related fees (2)	12	—
Tax fees (3)	—	—
All other fees (4)	—	—
	<u>\$ 508</u>	<u>\$ 522</u>

- (1) This category includes fees related to the audit of our annual consolidated financial statements; the review of our quarterly consolidated financial statements; comfort letters, consents, and assistance with and review of documents filed with the SEC; and financial reporting consultation and research work billed as audit fees or necessary to comply with the standards of the PCAOB.
- (2) This category consists of fees for audit-related services that are reasonably related to the performance of the audit or review of our consolidated financial statements. Audit-related fees include fees related to audits of employee benefit plans and compliance audits. We did not pay our independent registered public accounting firm audit-related fees for services during the year ended December 31, 2020.
- (3) This category consists of fees for tax compliance, tax advice and tax planning services. We did not pay our independent registered public accounting firm tax fees for services during the years ended December 31, 2021 and 2020.
- (4) This category consists of fees for services that are not included in the above categories. We did not pay our independent registered public accounting firm any other fees for services during the years ended December 31, 2021 and 2020.

There were no disagreements on matters of accounting principles or practices, financial statement disclosures or audit scope or procedures between the Company and Moss Adams during the most recent fiscal year or any subsequent year.

AUDIT COMMITTEE APPROVAL OF SERVICES

The Audit Committee pre-approves all audit or non-audit services performed by our independent registered public accounting firm 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 the Company from obtaining certain non-audit services from its independent registered public accounting firm. The Audit Committee has delegated authority to approve permissible services to its Chair. The Chair reports such pre-approvals to the full Audit Committee at its next scheduled meeting. The Audit Committee Chair pre-approved 100% of the services provided by the independent registered public accounting firm in 2021. None of the services of the independent registered public accounting firms in 2021 were of the type specified in Rule 2-01(c)(7)(i)(C) of Regulation S-X.

PROPOSAL FOUR

APPROVAL OF ADVANCED EMISSIONS SOLUTIONS, INC. 2022 OMNIBUS INCENTIVE PLAN

The Board believes that attracting and retaining highly qualified officers and key employees, and motivating them to serve the Company and to expend maximum efforts are important to our continued growth and success. In this regard, equity, stock-based and cash-based awards have been and will continue to be an important element of our compensation program because they enable our officers and other key employees to acquire or increase their proprietary interest in the operations and future success of our Company, thereby promoting a close identity of interests between such individuals and our stockholders.

We currently maintain the Advanced Emissions Solutions, Inc. 2017 Omnibus Incentive Plan (the "2017 Plan"). The Board believes that equity, stock-based and cash-based awards to key employees, officers and non-employee directors serve the best interests of stockholders by promoting a long-term focus for such individuals to increase the value of our Common Stock. Accordingly, on March 15, 2022, the Board adopted, subject to stockholder approval, the Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan (the "2022 Plan"). If stockholder approval is obtained for the 2022 Plan, we will cease to grant awards under the 2017 Plan, but if our stockholders do not approve the 2022 Plan, we will continue to grant awards under the 2017 Plan until its termination date or until such time as no shares of Common Stock remain available for issuance thereunder.

As of March 25, 2022, there are [●] shares of Common Stock currently remaining available for awards under the 2017 Plan. As of March 25, 2022, a total of [●] shares of Common Stock were subject to outstanding awards under the 2017 Plan (assuming achievement of maximum performance with respect to outstanding PSUs), of which [●] are subject to outstanding options with a weighted average exercise price of \$[●] and a weighted average remaining contractual term of [●] years. As of March 25, 2022, we had a total of [●] shares of Common Stock outstanding and the closing price per share of Common Stock as reported on the Nasdaq Global Market was \$[●].

The 2022 Plan provides for the grant of options (both nonqualified stock options ("NSOs") and incentive stock options ("ISOs")), stock appreciation rights ("SARs"), restricted stock, restricted stock units ("RSUs"), PSUs, and other stock-based awards and cash-based awards.

Burn Rate Analysis

We currently do not expect significant changes to our historical equity award granting process or award levels from what we have made under the 2017 Plan. We believe our burn rates for 2019-2021 under the 2017 Plan remain at reasonable levels as set forth in the table below.

Fiscal Year	Total ⁽¹⁾	Weighted average number of common shares outstanding	Burn Rate	Weighted average number of units outstanding	Fully Diluted Burn Rate
2021	445,383	18,258,212	2.44%	18,461,612	2.41%
2020	315,383	18,044,190	1.75%	18,044,190	1.75%
2019	127,943	18,153,759	0.70%	18,371,339	0.70%
Three-Year Average	296,236	18,152,054	1.63%	18,292,380	1.62%

(1) PSUs are included in the total equity awards outstanding for the fiscal year in which the PSUs are earned. A tabular reconciliation of PSUs granted and earned by year is as follows:

Fiscal Year	PSUs Granted	PSUs Earned
2021	62,448	—
2020	50,127	—
2019	—	—

Key Features and Best Practices of the 2022 Plan

The 2022 Plan contains a number of best practices aimed to protect stockholders and reflect good corporate governance principles, including the following:

- No Repricing. The 2022 Plan prohibits the reduction of the exercise price or grant price for outstanding options or SARs and prohibits the surrender of outstanding options or SARs for cash or a new award with a lower or no exercise price or grant price, in each case, without the approve of our stockholders.
- No Liberal Share Recycling. The 2022 Plan prohibits liberal share recycling on all awards.

- **No Dividends or Dividend Equivalents on Unvested Awards.** Dividends and dividend equivalents on awards under the 2022 Plan accrue but will not be paid until the underlying award vests.
- **Director Compensation Limit.** The 2022 Plan contains an annual limit on cash and equity-based compensation that may be paid or granted, whether under the 2022 Plan or otherwise, to non-employee directors of \$350,000 (or \$400,000 in a non-employee director's first year of service or if the non-employee director is serving as chairman or lead director).
- **Clawback Provisions.** Awards under the 2022 Plan will be subject to any clawback policy adopted by the Company and any other clawback or recoupment provisions set forth in any award agreement.
- **Term and Exercise Price Limits on Options and SARs.** Options and SARs granted under the 2022 Plan are subject to a maximum term of 10 years and options and SARs may not be granted at a discount to the fair market value of our Common Stock on the date of grant.

Summary of the 2022 Plan

The following summary of the 2022 Plan is qualified by reference to the full text of the 2022 Plan, a copy of which is attached to this Proxy Statement as Appendix A.

Administration. The 2022 Plan is administered by our Compensation Committee or any committee designated by the Board consisting of two or more members of the Board, each of whom is intended to be a "non-employee director" within the meaning of Rule 16b-3 of the Exchange Act and an "independent director" under the Nasdaq Marketplace Rules (or the rules of any securities exchange on which the Common Stock is listed). For purposes of this summary of the 2022 Plan, the Compensation Committee or other designated committee will be referred to as the "Committee."

Subject to the terms and conditions of the 2022 Plan, the Committee is authorized to select participants who are employees, directors or consultants of the Company or its subsidiaries, determine the awards to be made, set terms and conditions of such awards, determine the form of award agreements, and establish performance goals for any performance period and determine whether such goals were satisfied. The Committee also has the authority, among other things, to: (i) amend the terms of any outstanding award, subject to the repricing restrictions described below, so long as such amendment does not adversely affect a participant's rights without the participant's written consent, (ii) construe and interpret the terms of the 2022 Plan and any award agreement and to decide all questions of fact arising in its application, and (iii) take such other action, not inconsistent with the terms of the 2022 Plan, as it deems appropriate.

Eligibility. Any employee, director, or consultant of the Company or its subsidiaries is eligible to receive awards under the 2022 Plan. As of the date of this Proxy Statement, there are currently four non-employee directors, three executive officers and approximately 142 other employees and zero consultants who are eligible under the 2022 Plan.

The 2022 Plan contains an annual limit on cash and equity-based compensation that may be paid or granted, whether under the 2022 Plan or otherwise, to non-employee directors of \$350,000 (or \$400,000 in a non-employee director's first year of service or if the non-employee director is serving as chairman or lead director).

Shares Subject to the 2022 Plan. Subject to the adjustments upon changes in capitalization described below, 2,000,000 shares of Common Stock will be authorized for issuance of awards under the 2022 Plan, plus (i) any shares of Common Stock that remain available for grant under the 2017 Plan as of the date of stockholder approval of the 2022 Plan and (ii) any shares of Common Stock that become available for issuance under the 2022 Plan as described below. For purposes of determining the number of shares remaining available for issuance under the 2022 Plan, to the extent an award under the 2022 Plan or the 2017 Plan is canceled, expired, forfeited, settled in cash, settled by issuance of fewer shares than the number underlying the award, or otherwise terminated without delivery of shares to the participant, the shares retained or returned to the Company will again be available for grant under the 2022 Plan. However, shares withheld in payment of the exercise price or taxes relating to an award are not available for reissuance. Shares issued under the 2022 Plan may be authorized and unissued shares or treasury shares.

The number of shares authorized for issuance of awards is subject to adjustment in the event of any stock dividend, stock split, spin off, rights offering, recapitalization through a large, nonrecurring cash dividend, or in the event of any other change in corporate capitalization, such as a merger, consolidation, any reorganization or any partial or complete liquidation of the Company.

Types of Awards

Options and SARs: The Committee is authorized to grant options as either ISOs, which can result in potentially favorable tax treatment to the participant, or NSOs and SARs under the 2022 Plan. The exercise or grant price per share of Common Stock subject to a stock option or SAR must be at least the fair market value of the underlying stock at the date of grant; provided, however, that an ISO granted to a participant who is the holder of record of more than 10% of the Common Stock must have an exercise price of at least 110% of the fair market value of the underlying Common Stock at the date of grant. The term of each

option and SAR and the times at which each Stock Option or SAR shall be exercisable generally will be fixed by the Committee, except that no option or SAR will have a term exceeding 10 years; provided, however, that an ISO granted to a participant who is the holder of record of more than 10% of the Common Stock will have a term not exceeding five years. Upon the termination of employment with us, the ability to exercise vested options and SARs and the expiration of such options and SARs will be determined in the discretion of the Committee as set forth in the applicable award agreement.

Restricted Stock and RSUs: The Committee may grant shares of restricted stock or RSUs (representing a right to receive shares of Common Stock, a cash equivalent amount or combination thereof) under the 2022 Plan. The Committee determines in the award agreement the restriction period during which the restricted stock or the RSUs are subject to a substantial risk of forfeiture based upon the passage of time, the achievement of performance goals or the occurrence of other events determined by the Committee. The Committee may impose other conditions, including a requirement that the participant pay a specified amount to purchase each share of restricted stock, restrictions based upon the achievement of specific performance goals, time-based restrictions on vesting, or holding requirements or sale restrictions upon vesting. Each award agreement will set forth the extent to which participants shall have the right to retain unvested restricted stock or RSUs following termination of employment or service.

Unless otherwise determined by the Committee or set forth in an award agreement, participants holding restricted stock generally may vote the shares. The Committee may provide in an award agreement that the holder of restricted stock may receive any dividends paid; however, such dividends must be subject to the same vesting conditions as the underlying restricted stock. Participants holding RSUs will have no rights of stockholders. The Committee may provide in an award agreement that the holder of such RSUs will be entitled to receive dividend equivalents; however, such dividend equivalents must be subject to the same vesting conditions as the underlying RSUs.

PSUs: The Committee may grant PSUs under the 2022 Plan. The Committee determines in the award agreement the applicable performance periods and performance measures. Earned PSUs may be settled in shares of Common Stock, a cash equivalent amount or a combination thereof, as set forth in the award agreement. Each award agreement will set forth the extent to which participants will have the right to receive a payout with respect to their PSUs following termination of employment or service. Participants holding PSUs will have no rights of stockholders. The Committee may provide in an award agreement that the holder of such PSUs will be entitled to receive dividend equivalents; however, such dividend equivalents must be subject to the same vesting and performance conditions as the underlying PSUs.

Other Stock-Based and Cash-Based Awards: The Committee may adopt other incentive arrangements under which participants may acquire shares of Common Stock by purchase, grant or otherwise, or receive an award payable in cash or Common Stock the value of which may be determined in whole or in part based on the value of the Common Stock. The Committee may also adopt other incentive arrangements under which participants may be awarded cash payments.

Replacement Awards. Awards may be granted in replacement of outstanding awards previously granted by an entity acquired by the Company or an affiliate, or with which the Company or an affiliate combines, as permitted under the terms of the 2022 Plan.

Transferability. Under the 2022 Plan, ISOs may not be sold, transferred, pledged, assigned or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution, and will be exercisable during a participant's lifetime only by the participant. Other awards under the 2022 Plan will be transferable by will, by the laws of descent and distribution or, solely to the extent and in the manner authorized by the Committee, by transfer to members of the participant's immediately family or pursuant to a qualified domestic relations order.

Adjustments and Change in Control. The 2022 Plan provides that, in the event of any non-reciprocal transaction between the Company and the stockholders of the Company that causes any change in our capital structure that effects an increase or decrease in the number of shares of our Common Stock without receipt of consideration, the maximum number of shares of Common Stock for which awards may be made under the 2022 Plan will be proportionately increased or decreased, and the number and kind of shares for which awards are outstanding may be proportionately increased or decreased. Any such adjustments will be in compliance with Section 409A of the Internal Revenue Code (the "Code").

Upon a change in control, outstanding awards will become fully vested and exercisable if such awards are not assumed, converted or replaced by the continuing entity. If such awards are assumed, converted or replaced by the continuing entity, then unless provided otherwise in an award agreement, such assumed, converted or replaced awards will vest in the event of a participant's termination without cause or a resignation with good reason within 12 months following the change in control. In addition, the Committee will have the discretion to provide for the termination and cash-out of outstanding awards (and the cancellation for no payment for underwater options and SARs) upon a change in control.

Amendment and Termination. The Board may alter, amend, suspend or terminate the 2022 Plan at any time, subject to stockholder approval requirements under the Nasdaq listing standards or other applicable laws.

No Repricing. The 2022 Plan prohibits the reduction of the exercise price or grant price for outstanding options or SARs and prohibits the surrender of outstanding options or SARs for cash or a new award with a lower or no exercise price or grant price, in each case, without the approve of our stockholders.

Clawback. Awards under the 2022 Plan will be subject to any clawback policy adopted by the Company and any other clawback or recoupment provisions set forth in any award agreement.

Federal Tax Consequences of the 2022 Plan

The following is a summary of the U.S. federal income tax treatment applicable to us and the participants who receive awards under the 2022 Plan based on the federal income tax laws in effect on the date of this proxy statement. This summary is not intended to be exhaustive and does not address all matters relevant to a particular participant based on their specific circumstances. The summary expressly does not discuss the income tax laws of any state, municipality, or non-U.S. taxing jurisdiction, or the gift, estate, excise (including the rules applicable to deferred compensation under Section 409A of the Code), or other tax laws other than U.S. federal income tax law. Because individual circumstances may vary, we recommend that all participants to consult their own tax advisor concerning the tax implications of awards granted under the 2022 Plan.

Option Grants. Options granted under the 2022 Plan may be either ISOs, which satisfy the requirements of Section 422 of the Code, or NSOs, which are not intended to meet such requirements. The U.S. federal income tax treatment for the two types of options differs as follows:

Incentive Stock Options. No taxable income is recognized by the optionee at the time of the ISO grant, and no taxable income is recognized for ordinary income tax purposes at the time the ISO is exercised, although taxable income may arise at that time for alternative minimum tax purposes. Unless there is a disqualifying disposition, as described below, the optionee will recognize long-term capital gain in an amount equal to the excess of (i) the amount realized upon the sale or other disposition of the purchased shares over (ii) the exercise price paid for the shares. A disqualifying disposition occurs if the disposition is less than two years after the date of grant or less than one year after the exercise date. If there is a disqualifying disposition of the shares, then the excess of (i) the fair market value of those shares on the exercise date or (if less) the amount realized upon such sale or disposition over (ii) the exercise price paid for the shares will be taxable as ordinary income to the optionee. Any additional gain or loss recognized upon the disposition will be a capital gain or loss.

If the optionee makes a disqualifying disposition of the purchased shares, then we will be entitled to an income tax deduction, for the taxable year in which such disposition occurs, equal to the amount of ordinary income recognized by the optionee as a result of the disposition. We will not be entitled to any income tax deduction if the optionee makes a qualifying disposition of the shares.

Non-Statutory Options. No taxable income is recognized by an optionee upon the grant of an NSO. The optionee in general will recognize ordinary income, in the year in which the NSO is exercised, equal to the excess of the fair market value of the purchased shares on the exercise date over the exercise price paid for the shares, and the optionee will be required to satisfy the tax withholding requirements applicable to such income. We will be entitled to an income tax deduction equal to the amount of ordinary income recognized by the optionee with respect to the exercised non-statutory option.

SARs. No taxable income is recognized upon receipt of a SAR. The holder will recognize ordinary income in the year in which the SAR is exercised, in an amount equal to the excess of the fair market value of the underlying shares of Common Stock on the exercise date over the base price in effect for the exercised right, and the holder will be required to satisfy the tax withholding requirements applicable to such income. We will be entitled to an income tax deduction equal to the amount of ordinary income recognized by the holder in connection with the exercise of the SAR.

Restricted Stock Awards. The recipient of unvested shares of Common Stock will not recognize any taxable income at the time those shares are issued but will have to report as ordinary income, as and when those shares subsequently vest, an amount equal to the excess of (i) the fair market value of the shares on the vesting date over (ii) the cash consideration (if any) paid for the shares. The recipient may, however, elect under Section 83(b) of the Code to include as ordinary income in the year the unvested shares are issued an amount equal to the excess of (a) the fair market value of those shares on the issue date over (b) the cash consideration (if any) paid for such shares. If the Section 83(b) election is made, the recipient will not recognize any additional income as and when the shares subsequently vest. We will be entitled to an income tax deduction equal to the amount of ordinary income recognized by the recipient with respect to the unvested shares at the time such ordinary income is recognized by the recipient.

RSUs; PSUs; Other Stock-Based Awards; Other Cash-Based Awards. No taxable income is recognized upon receipt of RSUs, PSUs, other stock-based awards or other cash-based awards. The holder will recognize ordinary income in the year in which the shares or cash subject to the award are actually issued or in the year in which the award is settled in cash. The amount of that income will be equal to the fair market value of the shares on the date of issuance or the amount of the cash paid in settlement of the award, and the holder will be required to satisfy the tax withholding requirements applicable to the income. We will be

entitled to an income tax deduction equal to the amount of ordinary income recognized by the holder at the time the shares are issued or the cash amount is paid.

Deductibility of Executive Compensation. Section 162(m) of the Code limits the deductibility for federal income tax purposes of certain compensation paid to any "covered employee" in excess of \$1 million. For purposes of Section 162(m), the term "covered employee" includes any individual who serves as chief executive officer, chief financial officer or one of the other three most highly compensated executive officers for 2017 or any subsequent calendar year. It is expected that compensation deductions for any covered employee with respect to awards under the 2022 Plan will be subject to the \$1 million annual deduction limitation. The Committee may grant awards under the 2022 Plan or otherwise that is or may become non-deductible when it believes doing so is in the best interests of the Company and our shareholders.

New Plan Benefits

As described above, the selection of participants who will receive awards under the 2022 Plan and the size and types of awards will be determined by the Committee in its discretion. Therefore, the amount of any future awards under the 2022 Plan is not yet determinable and it is not possible to predict the benefits or amounts that will be received by, or allocated to, particular individuals or groups of employees.

Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column) (2)
Equity compensation plans approved by security holders	—	\$ —	880,564
Equity compensation plans not approved by security holders	—	\$ —	—
Total	—		880,564

Board Recommendation

The Board recommends that you vote "**FOR**" the approval of the Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan.

PROPOSAL FIVE

APPROVAL OF THE FIFTH AMENDMENT TO THE COMPANY'S TAX ASSET PROTECTION PLAN

The Board is asking stockholders to approve the Tax Asset Protection Plan, as amended on April 6, 2018, April 5, 2019, April 8, 2020, April 9, 2021 and March 15, 2022 (the "TAPP"). If our stockholders do not approve the TAPP at the Annual Meeting, the TAPP will expire on December 31, 2022. This proposal will be deemed approved if the votes cast in favor of the proposal exceed the votes cast opposing the proposal.

Background

We believe that we have valuable tax attributes which are significant assets of the Company. As of December 31, 2021, we had domestic tax attributes, including federal employer and general business credit carry-overs of approximately \$86.1 million (the "Tax Assets"). Under the Internal Revenue Code and regulations promulgated by the U.S. Treasury Department, the Company may carry forward or otherwise utilize these Tax Assets in certain circumstances to offset any current and future taxable income and thus reduce the Company's federal income tax liability, subject to certain requirements and restrictions. To the extent that the Tax Assets do not otherwise become limited, the Company believes that it will have available a significant amount of Tax Assets in future years, and therefore these Tax Assets could be a substantial asset to the Company.

Our ability to use the Tax Assets could be substantially limited or delayed, however, if we experience an "ownership change," as defined in Section 382 of the Internal Revenue Code. In general, an ownership change occurs if there is a cumulative change in the ownership of the Company by "5- percent shareholders" (as defined for purposes of Section 382 of the Internal Revenue Code) that exceeds 50 percentage points over an applicable testing period (which is generally a rolling three-year period). Accordingly, on May 5, 2017, after consultation with the Company's legal and tax advisors, the Board adopted the TAPP in order to protect the Company's ability to utilize its Tax Assets and on April 6, 2018, April 5, 2019, April 8, 2020, April 9, 2021 the Board amended the TAPP to extend the expiration thereof and on March 15, 2022 the Board again amended the TAPP to further extend the expiration thereof.

Calculating whether an "ownership change" has occurred is subject to uncertainty. This uncertainty arises from the complexity and ambiguity inherent in Section 382 of the Internal Revenue Code, as well as limitations on the knowledge that any publicly traded company can have about the ownership of and transactions in its securities. We have analyzed the information available, along with various scenarios of possible future changes in ownership. In light of this analysis, we believe that, in the absence of the TAPP, it is possible that we could undergo a subsequent "ownership change" under Section 382 of the Internal Revenue Code, which would substantially reduce our ability to utilize the Tax Assets. We believe the continuation of the TAPP will serve the interests of all stockholders given the size of the Tax Assets and the potential loss of value should changes in our stock ownership occur that are sufficient to cause a 50 percentage point or greater "ownership change."

The TAPP is intended to act as a deterrent to any person acquiring beneficial ownership of 4.99% or more of the Company's outstanding Common Stock without the approval of the Board. Stockholders who beneficially owned 4.99% or more of the Company's outstanding Common Stock upon execution of the TAPP will not trigger the TAPP so long as they do not acquire beneficial ownership of additional shares of Common Stock. The Board may, in its sole discretion, also exempt any person from triggering the TAPP.

If the stockholders do not approve the TAPP, the TAPP will expire on December 31, 2022. If the stockholders approve the TAPP, it will expire on the earlier of (a) December 31, 2023, (b) the time at which the Rights (described below) are redeemed pursuant to the TAPP, (c) the time at which the Rights are exchanged in full pursuant to the TAPP, (d) the effective date of the repeal of both Section 382 and Section 383 of the Internal Revenue Code, or any successor provisions or replacement provisions, if the Board determines that the TAPP is no longer necessary for the preservation of tax benefits or (e) the beginning of a taxable year of the Company for which the Board determines that the Company has or will have no Tax Assets.

Summary of Terms of the TAPP

The following description of the terms of the TAPP does not purport to be complete and is qualified in its entirety by reference to the TAPP, which is attached as Appendix B and is incorporated herein by reference. We urge you to read carefully the TAPP in its entirety, as the discussion below is only a summary.

The Rights. On May 5, 2017, the Board declared a dividend of one preferred share purchase right (each, a "Right") for each outstanding share of Common Stock to stockholders of record as of the close of business on May 22, 2017. One Right is also issued together with each share of Common Stock issued after May 22, 2017 but before the Distribution Date (as defined below) and, in certain circumstances, after the Distribution Date. Subject to the terms, provisions and conditions of the TAPP, if the Rights become exercisable, each Right would initially represent the right to purchase from the Company one ten-thousandth of a share of the Company's Series B Junior Participating Preferred Stock, par value \$0.001 per share (the "Series B Preferred Stock") for a purchase price of \$50.00 (the "Purchase Price"). If issued, each fractional share of Series B Preferred Stock would give the stockholder approximately the same dividend, voting and liquidation rights as does one share of Common Stock.

However, prior to exercise, a Right does not give its holder any rights as a stockholder of the Company, including, without limitation, any dividend, voting or liquidation rights.

Initial Exercisability. The Rights will not be exercisable until the earlier of (i) ten business days after a public announcement that a person has become an "Acquiring Person" by acquiring beneficial ownership of 4.99% or more of the Company's outstanding Common Stock, or, in the case of a person that had beneficial ownership of 4.99% or more of the Company's outstanding Common Stock upon execution of the TAPP, by obtaining beneficial ownership of additional shares of Common Stock or (ii) ten business days (or such later date as may be specified by the Board prior to such time as any person becomes an Acquiring Person) after the commencement of a tender or exchange offer by or on behalf of a person that, if completed, would result in such person becoming an Acquiring Person.

The date that the Rights become exercisable is referred to as the "Distribution Date." Until the Distribution Date, Common Stock certificates or the ownership statements issued with respect to uncertificated shares of Common Stock will evidence the Rights. Any transfer of shares of Common Stock prior to the Distribution Date will also constitute a transfer of the associated Rights. After the Distribution Date, separate rights certificates will be issued and the Rights may be transferred other than in connection with the transfer of the underlying shares of Common Stock unless and until the Board has determined to effect an exchange pursuant to the TAPP (as described below).

Flip-In Event. In the event that a person becomes an Acquiring Person, each holder of a Right, other than Rights that are or, under certain circumstances, were beneficially owned by the Acquiring Person (which will thereupon become null and void), will thereafter have the right to receive upon exercise of a Right and payment of the Purchase Price, a number of shares of Common Stock having a market value of two times the Purchase Price.

Redemption. At any time until a person becomes an "Acquiring Person", the Board may redeem the Rights in whole, but not in part, at a price of \$0.00001 per Right (the "Redemption Price"). The redemption of the Rights may be made effective at such time, on such basis and with such conditions as the Board in its sole discretion may establish. Immediately upon any redemption of the Rights, the right to exercise the Rights will terminate and the only right of the holders of Rights will be to receive the Redemption Price.

Exchange. At any time after a person becomes an Acquiring Person, the Board may exchange the Rights (other than Rights that have become null and void), in whole or in part, at an exchange ratio of one share of Common Stock, or a fractional share of Series B Preferred Stock (or of a share of a similar class or series of the Company's preferred stock having similar rights, preferences and privileges) of equivalent value, per Right (subject to adjustment). Immediately upon an exchange of any Rights, the right to exercise such Rights will terminate and the only right of the holders of Rights will be to receive the number of shares of Common Stock (or fractional share of Series B Preferred Stock or of a share of a similar class or series of the Company's preferred stock having similar rights, preferences and privileges) equal to the number of such Rights held by such holder multiplied by the exchange ratio. The Board shall not be empowered to effect such exchange at any time after an Acquiring Person becomes the beneficial owner of 50% or more of the Company's outstanding Common Stock.

Expiration. The Rights and the TAPP will expire on the earlier of (i) the close of business on the earlier of (a) December 31, 2023, or (b) December 31, 2022 if stockholder approval has not been obtained prior to such date, (ii) the time at which the Rights are redeemed pursuant to the TAPP, (iii) the time at which the Rights are exchanged in full pursuant to the TAPP, (iv) the effective date of the repeal of both Section 382 and Section 383 of the Internal Revenue Code, or any successor provisions or replacement provisions, if the Board determines that the TAPP is no longer necessary for the preservation of tax benefits or (v) the beginning of a taxable year of the Company for which the Board determines that the Company has or will have no tax benefits.

Anti-Dilution Provisions. The Board may adjust the Purchase Price, the number of shares of Series B Preferred Stock or other securities or assets issuable and the number of outstanding Rights to prevent dilution that may occur as a result of certain events, including among others, a stock dividend, a stock split or a reclassification of the Series B Preferred Stock or Common Stock. With certain exceptions, no adjustments to the Purchase Price will be required until cumulative adjustments amount to at least 1% of the Purchase Price.

Amendments. For so long as the Rights are redeemable, the Board may supplement or amend any provision of the TAPP in any respect without the approval of the holders of the Rights. From and after the time the Rights are no longer redeemable, the Board may supplement or amend the TAPP only to cure an ambiguity, to alter time period provisions, to correct inconsistent provisions, or to make any additional changes to the TAPP which the Company may deem necessary or desirable, but only to the extent that those changes do not impair or adversely affect any Rights holder (other than an Acquiring Person or any Affiliate or Associate of an Acquiring Person or certain of their transferees) and do not result in the Rights again becoming redeemable or the TAPP again becoming amendable other than in accordance with this sentence.

Certain Considerations Related to the TAPP

Our Board believes that protecting the Tax Assets is in the Company's and our stockholders' best interests. Nonetheless, we cannot eliminate the possibility that changes in our stock ownership will occur sufficient to cause an "ownership change" even if the TAPP is approved. You should consider the factors below when making your decision.

Future Use and Amount of the Tax Assets is Uncertain. Our use of the Tax Assets depends on our ability to generate taxable income in the future. We cannot assure you whether we will have taxable income in any applicable period or, if we do, whether such income will exceed any potential Section 382 limitation and therefore we cannot assure you that we will realize the full value of the Tax Assets.

Potential Challenge to the Tax Assets. The amount of the Tax Assets has not been audited or otherwise validated by the Internal Revenue Service (the "IRS"). The IRS could challenge the amount of the Tax Assets, which could result in an increase in our liability for income taxes. In addition, determining whether an "ownership change" has occurred is subject to uncertainty, both because of the complexity and ambiguity of the Section 382 provisions and because of limitations on the knowledge that any publicly traded company can have about the ownership of, and transactions in, its securities on a timely basis. Therefore, we cannot assure you that the IRS or other taxing authority will not claim that we experienced an "ownership change" and attempt to reduce the benefit of the Tax Assets even if the TAPP is in place.

Continued Risk of Ownership Change. Although the TAPP is intended to diminish the likelihood of an "ownership change" under Section 382 of the Internal Revenue Code, we cannot assure you that it will be effective. The amount by which our ownership may change in the future could, for example, be affected by purchases and sales of stock by stockholders and new issuances or repurchases of stock by us, should we choose to do so.

Potential Effects on Liquidity. The TAPP is intended to deter persons or groups of persons from acquiring beneficial ownership of shares of our Common Stock in excess of the specified limitation. A stockholder's ability to dispose of our Common Stock may be limited if the TAPP reduces the number of persons willing to acquire our Common Stock or the amount they are willing to acquire.

Potential Impact on Value. The TAPP could negatively impact the value of our Common Stock by deterring persons or groups of persons from acquiring shares of our Common Stock, including in acquisitions for which some stockholders might receive a premium above market value.

Anti-Takeover Effect. Our Board adopted the TAPP to diminish the risk that our ability to use the Tax Assets to reduce potential federal income tax obligations becomes limited. Nonetheless, the TAPP may have an "anti-takeover effect" because it will deter a person or group of persons from acquiring beneficial ownership of 4.99% or more of our Common Stock or, in the case of persons or persons that already own 4.99% or more of our Common Stock, from acquiring any additional shares of our Common Stock. The TAPP could discourage a merger, tender offer or accumulations of substantial blocks of shares.

Board Recommendation

The Board recommends that you vote "**FOR**" the approval of the Company's Fifth Amendment of the Tax Attributes Protection Plan.

OTHER MATTERS

The Board knows of no other business to be presented at the Annual Meeting. 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.

PROPOSALS OF STOCKHOLDERS FOR PRESENTATION AT THE NEXT ANNUAL MEETING OF STOCKHOLDERS

We anticipate that the next annual meeting of stockholders for the Company will be held in June 2023.

Any stockholder of record who desires to submit a proper proposal for inclusion in the proxy material related to the 2023 annual meeting of stockholders pursuant to Rule 14a-8 of the Exchange Act or the Company's bylaws must do so in writing in care of Clay Smith, Interim General Counsel and Secretary, at 8051 E. Maplewood Ave., Ste. 210, Greenwood Village 80111 no later than November 29, 2022, provided, however, that the Company's bylaws provide that if 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. If a stockholder intends to submit a proposal at the 2023 Annual Meeting of Stockholders that is not included in our corresponding proxy statement, and the stockholder fails to timely notify us 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 next annual meeting, without any discussion of the matter in the Proxy Statement. The stockholder must disclose, among other items, certain information related to the business to be proposed at the meeting, its beneficial ownership in the Company and whether it is acting in concert with other stockholders or interested parties. For a complete list of information that stockholders must provide, see Section 2.03 of the Company's bylaws.

HOUSEHOLDING OF PROXY MATERIALS

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy statements, annual reports, or notices of internet availability of proxy materials with respect to two or more stockholders sharing the same address by delivering a single proxy statement, annual report, or notice of internet availability of proxy materials addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

Brokers with account holders who are Company stockholders may be "householding" our proxy materials. A single proxy statement, annual report, or notice of internet availability of proxy materials may be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that it will be "householding" communications to your address, "householding" will continue until you are notified otherwise or until you notify your broker or the Company that you no longer wish to participate in "householding."

If, at any time, you no longer wish to participate in "householding" and would prefer to receive a separate proxy statement, annual report, or notice of internet availability of proxy materials, you may (1) notify your broker, (2) direct your written request to: Advanced Emissions Solutions, Inc., Attn: Corporate Secretary, 8051 E. Maplewood Ave., Ste. 210, Greenwood Village 80111, Telephone: 888-822-8617 or (3) contact our Investor Relations department by telephone at 312-445-2870. Stockholders who currently receive multiple copies of the proxy statement, annual report, or notice of internet availability of proxy materials at their address and would like to request "householding" of their communications should contact their broker. In addition, the Company will deliver, upon written or oral request to the address or telephone number above, a separate copy of the proxy statement, annual report, or notice of internet availability of proxy materials promptly to any stockholder at a shared address to which a single copy of the documents was delivered.

ADDITIONAL INFORMATION

We filed our Annual Report on Form 10-K for the fiscal year ended December 31, 2021 (the "2021 Form 10-K") with the SEC on March 8, 2022. The 2021 Form 10-K is being made available to our stockholders concurrently with this Proxy Statement and does not form part of the proxy solicitation material. It is available free of charge at the Company's website at www.advancedemissionsolutions.com or the SEC's web site at www.sec.gov. Please note that the information on our website is not part of this Proxy Statement and is not incorporated by reference herein.

Upon written request by a stockholder, we will mail, without charge, a copy of the 2021 Form 10-K, including the financial statements and financial statement schedules, but excluding exhibits to the 2021 Form 10-K. Exhibits to the 2021 Form 10-K are available upon payment of a reasonable fee, which is limited to our expenses in furnishing the requested exhibit. Such requests may be made by writing to our Corporate Secretary at the following address or telephone number:

Advanced Emissions Solutions, Inc.
Attn: Corporate Secretary
8051 E. Maplewood Ave., Ste. 210
Greenwood Village 80111
Telephone: 888-822-8617

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

Alpha IR Group
Chris Hodges or Ryan Coleman
312-445-2870
ades@alpha-ir.com

WHERE YOU CAN FIND MORE INFORMATION

We file 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. Our SEC filings are also available on the SEC's web site located at www.sec.gov, and certain filings are available on the Company's web site at www.advancedemissionssolutions.com. Please note that the information on our website is not part of this Proxy Statement and is not incorporated by reference herein.

If you would like to request documents from us, please do so by May 2, 2022 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 in this Proxy Statement 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.

This Proxy Statement is dated March [], 2022. You should not assume the information contained in this Proxy Statement is accurate as of any date other than this date, and the mailing of this Proxy Statement to stockholders shall not imply information is accurate as of any other date.

BY ORDER OF THE BOARD OF DIRECTORS

By: /s/ Greg P. Marken

Greg P. Marken
Chief Executive Officer and Treasurer

Dated: March [], 2022

APPENDIX A

ADVANCED EMISSIONS SOLUTIONS, INC.

2022 OMNIBUS INCENTIVE PLAN

(Approved by stockholders on [●], 2022)

1. ESTABLISHMENT, OBJECTIVES AND DURATION.

(a) Establishment of the Plan. Advanced Emissions Solutions, Inc. hereby establishes an incentive compensation plan to be known as the "Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan." The Plan permits the granting of Nonqualified Stock Options, Incentive Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Stock Units, Other Stock-Based Awards and Cash-Based Awards. The Plan is effective as of March 15, 2022 (the "Effective Date"), subject to the approval of the Plan by the stockholders of the Company. Definitions of capitalized terms used in the Plan are contained in the attached Glossary, which is an integral part of the Plan.

(b) Objectives of the Plan. The objectives of the Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Participants and to optimize the profitability and growth of the Company through incentives that are consistent with the Company's goals and that link the personal interests of Participants to those of the Company's stockholders. The Plan is further intended to provide flexibility to the Company in its ability to motivate, attract, and retain the services of Participants who make or are expected to make significant contributions to the Company's success and to allow Participants to share in the success of the Company.

(c) Duration of the Plan. No Award may be granted under the Plan after the day immediately preceding the 10th anniversary of the Effective Date, or such earlier date as the Board shall determine. The Plan will remain in effect with respect to outstanding Awards until no Awards remain outstanding.

2. ADMINISTRATION OF THE PLAN.

(a) The Committee. The Plan shall be administered by the Compensation Committee of the Board or such other committee as the Board shall designate consisting of two or more members of the Board each of whom is intended to be a "non-employee director" within the meaning of Rule 16b-3 (or any successor rule) of the Exchange Act and an "independent director" under the Nasdaq Marketplace Rules or the rules of any securities exchange on which Shares are listed (such committee, the "Committee"). The members of the Committee shall be appointed from time to time by, and shall serve at the discretion of, the Board.

(b) Authority of the Committee. Subject to Applicable Laws and the provisions of the Plan (including any other powers given to the Committee hereunder), and except as otherwise provided by the Board, the Committee shall have full and final authority in its discretion to take all actions determined by the Committee to be necessary in the administration of the Plan, including discretion to:

- i. select the Employees, Directors and Consultants to whom Awards may from time to time be granted hereunder;
- ii. determine whether and to what extent Awards are granted hereunder;
- iii. determine the size and types of Awards granted hereunder;
- iv. approve forms of Award Agreement for use under the Plan;
- v. determine the terms and conditions of any Award granted hereunder;

vi. establish performance goals and performance measures for any performance period, adjust performance goals or measures, or the assessment of any performance goals or measures, applicable to any Award, including to account for any unusual in nature or infrequently occurring items, and determine whether such goals or measures were satisfied;

vii. amend the terms of any outstanding Award granted under the Plan, provided that, except as otherwise provided in Section 17, no such amendment shall reduce the Exercise Price of outstanding Options or the grant price of outstanding SARs without the approval of the stockholders of the Company, and provided further, that any amendment that would materially and adversely affect the Participant's rights under an outstanding vested Award without adequate compensation therefor shall not be made without the Participant's written consent;

viii. construe and interpret the terms of the Plan and any Award Agreement entered into under the Plan, and to decide all questions of fact arising in its application; and

- ix. take such other action, not inconsistent with the terms of the Plan, as the Committee deems appropriate.

As permitted by Applicable Laws, the Committee may delegate its authority as identified herein, including the power and authority to make Awards to Participants who are not "insiders" subject to Section 16(b) of the Exchange Act, pursuant to such conditions and limitations as the Committee may establish.

(c) Effect of Committee's Decision. All decisions, determinations and interpretations of the Committee shall be final, binding and conclusive on all persons, including the Company, its Subsidiaries, its stockholders, Employees, Directors, Consultants and their estates and beneficiaries.

3. **SHARES SUBJECT TO THE PLAN.**

(a) Number of Shares Available for Grants. Subject to adjustment as provided in Section 17 hereof, the maximum number of Shares that may be issued pursuant to Awards under the Plan shall be 2,000,000 plus (i) any Shares that remain available for grant under the Prior Plan as of the date of stockholder approval of this Plan and (ii) any Shares that become available for issuance under the Plan pursuant to Section 3(b). The Shares to be issued pursuant to the Awards may be authorized but unissued Shares or treasury Shares.

(b) Availability of Shares. To the extent that an Award under the Plan or an award under the Prior Plan is canceled, expired, forfeited, settled in cash, settled by issuance of fewer Shares than the number underlying the Award, or otherwise terminated without delivery of Shares to the Participant, the Shares retained or returned to the Company will again be counted for purposes of determining the maximum number of Shares available for Awards under the Plan under Section 3(a). For purposes of clarity, Shares that are tendered or withheld in payment of all or part of the Exercise Price of an Award or in satisfaction of tax withholding obligations, shall not be included in or added to the number of Shares available for issuance under the Plan.

4. **ELIGIBILITY AND PARTICIPATION.**

(a) Eligibility. Persons eligible to participate in the Plan include all Employees, Directors and Consultants.

(b) Actual Participation. Subject to the provisions of the Plan, the Committee may, from time to time, select from all eligible Employees, Directors and Consultants, those to whom Awards shall be granted and shall determine the nature and amount of each Award. The Committee may establish additional terms, conditions, rules or procedures to accommodate the rules or laws of applicable foreign jurisdictions and to afford Participants favorable treatment under such laws; provided, however, that no Award shall be granted under any such additional terms, conditions, rules or procedures with terms or conditions which are inconsistent with the provisions of the Plan.

(c) Limit on Director Compensation. The aggregate dollar value of equity-based compensation (based on the grant date fair value) and cash compensation granted under the Plan or otherwise to any Director shall not exceed \$350,000 during any calendar year; provided, however, that in the calendar year in which a Director first joins the Board or during any calendar year in which a Director is designated as Chairman of the Board or Lead Director, the maximum aggregate dollar value of equity-based and cash compensation granted to the Director may be up to \$400,000.

5. **TYPES OF AWARDS.**

(a) Type of Awards. Awards under the Plan may be in the form of Options (both Nonqualified Stock Options and Incentive Stock Options), Stock Appreciation Rights (SARs), Restricted Stock, Restricted Stock Units, Performance Stock Units, Other Stock-Based Awards and Cash-Based Awards.

(b) Designation of Award. Each Award shall be designated in the Award Agreement.

6. **OPTIONS.**

(a) Grant of Options. Subject to the terms and provisions of the Plan, Options may be granted to Participants in such number and upon such terms, and at any time and from time to time, as shall be determined by the Committee. Notwithstanding the preceding sentence, Incentive Stock Options may be granted only to eligible Employees.

(b) Award Agreement. Each Option grant shall be evidenced by an Award Agreement that shall specify the Exercise Price, the duration of the Option, the number of Shares to which the Option pertains, and such other provisions as the Committee shall determine including the Option vesting schedule, repurchase provisions, rights of first refusal, forfeiture provisions, form of payment (cash, Shares, or other consideration) upon settlement of the Award, and payment contingencies. The Award Agreement also shall specify whether the Option is intended to be an Incentive Stock Option or a Nonqualified Stock Option. Options that are intended to be Incentive Stock Options shall be subject to the limitations set forth in Section 422 of the Code.

(c) Exercise Price. Except for Options adjusted pursuant to Section 17 herein, and replacement Options granted in connection with a merger, acquisition, reorganization or similar transaction, the Exercise Price for each grant of an Option shall not be less than 100% of the Fair Market Value of a Share on the date the Option is granted.

i. However, in the case of an Incentive Stock Option granted to a Participant who, at the time the Option is granted, owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Subsidiary, the Exercise Price for each grant of an Option shall not be less than 110% of the Fair Market Value of a Share on the date the Option is granted.

ii. In addition, the aggregate Fair Market Value, as of the date of grant, of the Shares with respect to which an Incentive Stock Option first becomes exercisable during any calendar year may not exceed \$100,000. For purposes of this \$100,000 limit, the Participant's Incentive Stock Options under this Plan and all other plans maintained by the Company and its Subsidiaries shall be aggregated. To the extent any Incentive Stock Option would exceed this \$100,000 limit, the Incentive Stock Option shall afterwards be treated as a Nonqualified Stock Option for all purposes.

(d) Term of Options. The term of an Option granted under the Plan shall be determined by the Committee, in its sole discretion; provided, however, that such term shall not exceed 10 years. However, in the case of an Incentive Stock Option granted to a Participant who, at the time the Option is granted, owns stock representing more than 10% of the voting power of all classes of stock of the Company or any Subsidiary, the term of the Incentive Stock Option shall be five years from the date of grant thereof or such shorter term as may be provided in the Award Agreement.

(e) Exercise of Options. Options granted under this Section 6 shall be exercisable at such times and be subject to such restrictions and conditions as set forth in the Award Agreement and as the Committee shall in each instance approve, which need not be the same for each grant or for each Participant.

(f) Payments. Options granted under this Section 6 shall be exercised by the delivery of a written notice to the Company, setting forth the number of Shares with respect to which the Option is to be exercised and specifying the method of the Exercise Price. The Exercise Price of an Option shall be payable to the Company: (i) in cash or its equivalent, (ii) by tendering (either actually or constructively by attestation) Shares having an aggregate Fair Market Value at the time of exercise equal to the Exercise Price, (iii) in any other manner then permitted by the Committee, including a cashless exercise, or (iv) by a combination of any of the permitted methods of payment. The Committee may limit any method of payment, other than that specified under (i), for administrative convenience, to comply with Applicable Laws or otherwise.

(g) Restrictions on Share Transferability. The Committee may impose such restrictions on any Shares acquired pursuant to the exercise of an Option granted under this Section 6 as it may deem advisable, including restrictions under applicable federal securities laws, under the requirements of any stock exchange or market upon which such Shares are then listed and/or traded, and under any blue sky or state securities laws applicable to such Shares.

(h) Termination of Employment or Service. Each Participant's Award Agreement shall set forth the extent to which the Participant shall have the right to exercise the Option following termination of the Participant's employment or, if the Participant is a Director or Consultant, service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Options, and may reflect distinctions based on the reasons for termination of employment or service.

7. **STOCK APPRECIATION RIGHTS.**

(a) Grant of SARs. Subject to the terms and provisions of the Plan, SARs may be granted to Participants in such amounts and upon such terms, and at any time and from time to time, as shall be determined by the Committee.

(b) Award Agreement. Each SAR grant shall be evidenced by an Award Agreement that shall specify the grant price, the term of the SAR, and such other provisions as the Committee shall determine.

(c) Grant Price. The grant price of a SAR shall not be less than 100% of the Fair Market Value of a Share on the date of grant of the SAR; provided, however, that this limitation shall not apply to Awards that are adjusted pursuant to Section 17 herein.

(d) Term of SARs. The term of an SAR granted under the Plan shall be determined by the Committee, in its sole discretion; provided, however, that such term shall not exceed 10 years.

(e) Exercise of SARs. SARs may be exercised upon whatever terms and conditions the Committee, in its sole discretion, imposes upon them and sets forth in the Award Agreement.

(f) Payment of SAR Amount. Upon exercise of an SAR, a Participant shall be entitled to receive payment from the Company in an amount determined by multiplying:

- (i) the difference between the Fair Market Value of a Share on the date of exercise over the grant price; by
- (ii) the number of Shares with respect to which the SAR is exercised.

At the discretion of the Committee, the payment upon SAR exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

(g) Termination of Employment or Service. Each SAR Award Agreement shall set forth the extent to which the Participant shall have the right to exercise the SAR following termination of the Participant's employment or, if the Participant is a Director or Consultant, service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all SARs, and may reflect distinctions based on the reasons for termination of employment or service.

8. **RESTRICTED STOCK.**

(a) Grant of Restricted Stock. Subject to the terms and provisions of the Plan, Restricted Stock may be granted to Participants in such amounts and upon such terms, and at any time and from time to time, as shall be determined by the Committee.

(b) Award Agreement. Each Restricted Stock grant shall be evidenced by an Award Agreement that shall specify the Period(s) of Restriction, the number of Shares of Restricted Stock granted, and such other provisions as the Committee shall determine.

(c) Period of Restriction and Other Restrictions. The Period of Restriction applicable to an Award of Restricted Stock may, at the discretion of the Committee, lapse on a pro-rated, graded, or cliff basis (as specified in an Award Agreement). The Committee shall impose such other conditions and/or restrictions on any Shares of Restricted Stock granted pursuant to the Plan as it may deem advisable including a requirement that Participants pay a stipulated purchase price for each Share of Restricted Stock, a requirement that the issuance of Shares of Restricted Stock be delayed, restrictions based upon the achievement of specific performance goals, additional time-based restrictions, and/or restrictions under Applicable Laws or under the requirements of any stock exchange or market upon which such Shares are listed or traded, or holding requirements or sale restrictions placed on the Shares by the Company upon vesting of such Restricted Stock. The Company may retain in its custody any certificate evidencing the Shares of Restricted Stock and place thereon a legend and institute stop-transfer orders on such Shares, and the Participant shall be obligated to sign any stock power requested by the Company relating to the Shares to give effect to the forfeiture provisions of the Restricted Stock.

(d) Removal of Restrictions. Subject to Applicable Laws, Restricted Stock shall become freely transferable by the Participant after the last day of the Period of Restriction applicable thereto. Once Restricted Stock is released from the restrictions, the Participant shall be entitled to receive a certificate or book entry on the Company's records evidencing the Shares. The Committee may provide that settlement of Restricted Stock shall be deferred, on a mandatory basis or at the election of the Participant, in compliance with Applicable Laws, including Section 409A.

(e) Voting Rights. Unless otherwise determined by the Committee and set forth in a Participant's Award Agreement, to the extent permitted or required by Applicable Laws, as determined by the Committee, Participants holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares during the Period of Restriction.

(f) Dividends and Other Distributions. Regular cash Dividends paid with respect to the Shares of Restricted Stock will be subject to the same restrictions on transferability and vesting as the Restricted Stock with respect to which they were paid, and such Dividends will be paid within 30 days following the full vesting of the Shares of Restricted Stock with respect to which such distributions were made.

(g) Termination of Employment or Service. Each Award Agreement shall set forth the extent to which the Participant shall have the right to retain unvested Restricted Stock following termination of the Participant's employment or, if the Participant is a Director or Consultant, service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Awards of Restricted Stock, and may reflect distinctions based on the reasons for termination of employment or service.

9. **RESTRICTED STOCK UNITS.**

(a) Grant of Restricted Stock Units. Subject to the terms and provisions of the Plan, Restricted Stock Units may be granted to Participants in such amounts and upon such terms, and at any time and from time to time, as shall be determined by the Committee.

(b) Award Agreement. Each grant of Restricted Stock Units shall be evidenced by an Award Agreement that shall specify the applicable Period of Restriction, the number of Restricted Stock Units granted, and such other provisions as the Committee shall determine.

(c) Period of Restriction. The Period of Restriction subject to an Award of Restricted Stock Units may, at the discretion of the Committee, lapse on a pro-rated, graded, or cliff basis.

(d) Form and Timing of Payment. Except as otherwise provided in Section 17 herein or a Participant's Award Agreement, payment of Restricted Stock Units shall be made at a specified settlement date that shall not be earlier than the last day of the Period of Restriction. The Committee, in its sole discretion, may pay earned Restricted Stock Units by delivery of Shares or by payment in cash of an amount equal to the Fair Market Value of such Shares (or a combination thereof). The Committee may provide that settlement of Restricted Stock Units shall be deferred, on a mandatory basis or at the election of the Participant, in compliance with Applicable Laws, including Section 409A.

(e) Voting Rights. A Participant shall have no voting rights with respect to any Restricted Stock Units granted hereunder.

(f) Termination of Employment or Service. Each Award Agreement shall set forth the extent to which the Participant shall have the right to receive a payout respecting an Award of Restricted Stock Units following termination of the Participant's employment or, if the Participant is a Director or Consultant, service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Restricted Stock Units, and may reflect distinctions based on the reasons for termination of employment or service.

10. PERFORMANCE STOCK UNITS.

(a) Grant of Performance Stock Units. Subject to the terms and provisions of the Plan, Performance Stock Units may be granted to Participants in such amounts and upon such terms, and at any time and from time to time, as shall be determined by the Committee.

(b) Award Agreement. Each grant of Performance Stock Units shall be evidenced by an Award Agreement that shall specify the applicable performance period(s) and performance measure(s), the number of Performance Stock Units granted, and such other provisions as the Committee shall determine.

(c) Form and Timing of Payment. Except as otherwise provided in Section 17 herein or a Participant's Award Agreement, payment of Performance Stock Units shall be made at a specified settlement date. The Committee, in its sole discretion, may pay earned Performance Stock Units by delivery of Shares or by payment in cash of an amount equal to the Fair Market Value of such Shares (or a combination thereof). The Committee may provide that settlement of Performance Stock Units shall be deferred, on a mandatory basis or at the election of the Participant, in compliance with Applicable Laws, including Section 409A.

(d) Voting Rights. A Participant shall have no voting rights with respect to any Performance Stock Units granted hereunder.

(e) Termination of Employment or Service. Each Award Agreement shall set forth the extent to which the Participant shall have the right to receive a payout respecting an Award of Performance Stock Units following termination of the Participant's employment or, if the Participant is a Consultant, service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Participants, and may reflect distinctions based on the reasons for termination of employment or service.

11. OTHER STOCK-BASED AWARDS.

(a) Grant. The Committee shall have the right to grant other Awards that may include, without limitation, the grant of Shares based on attainment of performance goals established by the Committee, the payment of Shares as a bonus or in lieu of cash based on attainment of performance goals established by the Committee, and the payment of Shares in lieu of cash under other Company incentive or bonus programs.

(b) Period of Restriction. The Period of Restriction subject to an Other Stock-Based Award may, at the discretion of the Committee, lapse on a pro-rated, graded, or cliff basis (as specified in an Award Agreement). Notwithstanding the above, an Award of payment Shares in lieu of cash under other Company incentive or bonus programs shall not be subject to the minimum Period of Restriction limitations described above.

(c) Payment of Other Stock-Based Awards. Subject to Section 11(b) hereof, payment under or settlement of any such Awards shall be made in such manner and at such times as the Committee may determine. The Committee may provide that settlement of Other Stock-Based Awards shall be deferred, on a mandatory basis or at the election of the Participant, in compliance with Applicable Laws, including Section 409A.

(d) Termination of Employment or Service. The Committee shall determine the extent to which the Participant shall have the right to receive Other Stock-Based Awards following termination of the Participant's employment or, if the Participant is a Director or Consultant, service with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, such provisions may be included in an agreement entered into with each Participant, but need not be uniform among all Other Stock-Based Awards, and may reflect distinctions based on the reasons for termination of employment or service.

12. **CASH-BASED AWARDS.**

(a) Grant of Cash-Based Awards. Subject to the terms and provisions of the Plan, Cash-Based Awards may be granted to Participants in such amounts and upon such terms, and at any time and from time to time, as shall be determined by the Committee.

(b) Award Agreement. Each grant of a Cash-Based Award may be evidenced by an Award Agreement that shall specify the terms and conditions, restrictions and contingencies, if any, as the Committee shall determine and as set forth in the Award Agreement. Restrictions and contingencies limiting the right to receive a cash payment pursuant to a Cash-Based Award shall be based upon the achievement of single or multiple performance measures over a performance period established by the Committee.

(c) Form and Timing of Payment. Except as otherwise provided in Section 17 herein or a Participant's Award Agreement, payment of Cash-Based Awards shall be made in cash at a specified payment date that shall not be earlier than the last day of the performance period. The Committee may provide that the payment of Cash-Based Awards shall be deferred, on a mandatory basis or at the election of the Participant, in compliance with Applicable Laws, including Section 409A.

(d) Termination of Employment or Service. Each Award Agreement shall set forth the extent to which the Participant shall have the right to receive a payout respecting a Cash-Based Award following termination of the Participant's employment with the Company and its Subsidiaries. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Participants, and may reflect distinctions based on the reasons for termination of employment.

13. **DIVIDEND EQUIVALENTS.** At the discretion of the Committee, Awards (other than Options and SARs) granted pursuant to the Plan may provide Participants with the right to receive Dividend Equivalents. No payment shall be made with respect to any Dividend Equivalents granted in connection with an Award unless, until and only to the extent that the related vesting conditions of such Award are satisfied. Any crediting of Dividend Equivalents may be subject to such restrictions and conditions as the Committee may establish, including reinvestment in additional Restricted Stock Units, Performance Stock Units, or Other Stock-Based Awards and may be settled in cash or in Shares as determined by the Committee.

14. **TRANSFERABILITY OF AWARDS.** Incentive Stock Options may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution, and shall be exercisable during a Participant's lifetime only by such Participant. Other Awards shall be transferable by will, by the laws of descent and distribution or, solely to the extent and in the manner authorized by the Committee, by transfer to members of the Participant's Immediate Family or pursuant to a qualified domestic relations order.

15. **WITHHOLDING OF TAXES.**

(a) Options and Stock Appreciation Rights. Subject to Section 15(d), as a condition to the delivery of Shares pursuant to the exercise of an Option or Stock Appreciation Right, the Committee may require that the Participant, at the time of exercise, pay to the Company by cash, certified check, bank draft, wire transfer or postal or express money order an amount sufficient to satisfy any applicable tax withholding obligations, as calculated at the applicable minimum statutory rate. The Committee may also, in its discretion, accept payment of tax withholding obligations by the withholding of Shares subject to the Award or by withholding amounts due from other wages.

(b) Other Awards Payable in Shares. Subject to Section 15(d), the Company shall satisfy a Participant's tax withholding obligations, calculated at the applicable minimum statutory rate, arising in connection with the release of restrictions on and/or settlement of Restricted Stock, Restricted Stock Units, Performance Stock Units and Other Stock-Based Awards by withholding Shares that would otherwise be available for delivery. Alternatively, the Company, in its discretion, may allow the Participant to satisfy the Participant's tax withholding obligations by payment to the Company in cash or by certified check, bank draft, wire transfer, postal or express money order, or by withholding amounts due from other wages.

(c) Cash Awards. The Company shall satisfy a Participant's tax withholding obligation arising in connection with the payment of any Award in cash by withholding cash from such payment.

(d) Withholding Amount. The Committee, in consideration of applicable accounting standards, has full discretion to either (i) allow Participants to elect, or (ii) otherwise direct as a general rule, to have the Company withhold Shares for taxes at an amount greater than the applicable minimum statutory amount.

16. **CONDITIONS UPON ISSUANCE OF SHARES.**

(a) Shares shall not be issued pursuant to the exercise or vesting of an Award unless the exercise or vesting of such Award and the issuance and delivery of such Shares pursuant thereto shall comply with all Applicable Laws, and to the extent required by the Committee shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) As a condition to the exercise or vesting of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise or vesting that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, to the extent required by the Committee and in the opinion of counsel for the Company, such a representation is required by any Applicable Laws.

17. **ADJUSTMENTS UPON CHANGES IN CAPITALIZATION.** In the event of any non reciprocal transaction between the Company and the stockholders of the Company that causes the per Share value of Shares underlying an Award to change, such as a stock dividend, stock split, spin off, rights offering, or recapitalization through a large, nonrecurring cash dividend, and in the event of any other change in corporate capitalization, such as a merger, consolidation, any reorganization (whether or not such reorganization comes within the definition of such term in Section 368 of the Code) or any partial or complete liquidation of the Company, the Company, in its sole discretion, may cause there to be made an equitable adjustment to the number and kind shares that may be issued under the Plan, or to any individual under the Plan, and to the number and kind of shares or other property subject to and the Exercise Price (if applicable) of any then outstanding Awards, and such adjustment shall be conclusive and binding for all purposes of the Plan.

18. **CHANGE IN CONTROL, CASH-OUT AND TERMINATION OF UNDERWATER OPTIONS/SARS, AND SUBSIDIARY DISPOSITION.**

(a) Change in Control. Except as otherwise provided in a Participant's Award Agreement or pursuant to Section 18(b) hereof, upon the occurrence of a Change in Control, unless otherwise specifically prohibited under Applicable Laws, or by the rules and regulations of any governing governmental agencies or national securities exchanges:

(i) any and all outstanding Options and SARs granted hereunder shall become immediately exercisable unless such Awards are assumed, converted or replaced by the continuing entity; provided, however, that in the event of a Participant's termination of employment without Cause or termination with Good Reason within 12 months following consummation of a Change in Control, any replacement awards shall become immediately exercisable;

(ii) any Period of Restriction or other restriction imposed on Restricted Stock, Restricted Stock Units, and Other Stock-Based Awards shall lapse unless such Awards are assumed, converted or replaced by the continuing entity; provided, however, that in the event of a Participant's termination of employment without Cause or termination with Good Reason within 12 months following consummation of a Change in Control, the Period of Restriction on any replacement awards shall lapse upon such termination; and

(iii) any and all Performance Stock Units and other Awards (if performance-based) shall vest (with the level of performance determined by the Committee) unless such Awards are assumed, converted or replaced by the continuing entity; provided, however, that in the event of a Participant's termination of employment without Cause or termination with Good Reason within 12 months following the consummation of a Change in Control, any replacement awards shall fully vest upon such termination (with the level of performance determined by the Committee); provided, further, that the performance measures applicable to any assumed, converted or replaced award may, in the Committee's discretion, (A) be determined based on performance achieved as of the date of the Change in Control, if determinable, (B) be determined based on a specified level of performance as of the date of the Change in Control, or (C) may be continued or adjusted to reflect such Change in Control.

(b) Cash-Out and Termination of Awards. The Committee may, in its sole discretion, provide that:

(i) all outstanding Awards shall be terminated upon the occurrence of a Change in Control and that each Participant shall receive, with respect to each Share subject to such Award, an amount in cash equal to the excess of the Fair Market Value of a Share immediately prior to the occurrence of the Change in Control over the Option Exercise Price or the SAR grant price, if applicable; and

(ii) Options and SARs outstanding as of the date of the Change in Control may be cancelled and terminated without payment therefore if the Fair Market Value of a Share as of the date of the Change in Control is equal to or less than the Option Exercise Price or the SAR grant price.

(c) Subsidiary Disposition. The Committee shall have the authority, exercisable either in advance of any actual or anticipated Subsidiary Disposition or at the time of an actual Subsidiary Disposition and either at the time of the grant of an Award or at any time while an Award remains outstanding, to provide for the automatic full vesting and exercisability of one or more outstanding unvested Awards under the Plan and the termination of restrictions on transfer and repurchase or forfeiture rights on such Awards, in connection with a Subsidiary Disposition, but only with respect to those Participants who are at the time engaged primarily in Continuous Service with the Subsidiary involved in such Subsidiary Disposition. The Committee also shall have the authority to condition any such Award vesting and exercisability or release from such limitations upon the subsequent termination of the affected Participant's Continuous Service with that Subsidiary within a specified period following the effective date of the Subsidiary Disposition. The Committee may provide that any Awards so vested or released

from such limitations in connection with a Subsidiary Disposition, shall remain fully exercisable until the expiration or sooner termination of the Award.

19. AMENDMENT, SUSPENSION OR TERMINATION OF THE PLAN.

(a) Amendment, Modification and Termination. The Board may at any time and from time to time, alter, amend, suspend or terminate the Plan in whole or in part; provided, however, that no amendment that requires stockholder approval in order for the Plan to continue to comply with the Nasdaq listing standards or any rule promulgated by the SEC or any securities exchange on which Shares are listed or any other Applicable Laws shall be effective unless such amendment shall be approved by the requisite vote of stockholders of the Company entitled to vote thereon within the time period required under such applicable listing standard or rule.

(b) Adjustment of Awards Upon the Occurrence of Certain Unusual or Nonrecurring Events. The Committee may make adjustments in the terms and conditions of, and the criteria included in, Awards in recognition of unusual or nonrecurring events (including the events described in Section 18 hereof) affecting the Company or the financial statements of the Company or of changes in Applicable Laws, regulations, or accounting principles, whenever the Committee determines that such adjustments are appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan.

(c) Awards Previously Granted. No termination, amendment or modification of the Plan or of any Award shall adversely affect in any material way any Award previously granted under the Plan without the written consent of the Participant holding such Award, unless such termination, modification or amendment is compensated by adequate consideration or required by Applicable Laws and except as otherwise provided herein.

(d) No Repricing. Except for adjustments made pursuant to Section 17, no amendment shall reduce the Exercise Price of outstanding Options or the grant price of outstanding SARs, nor may any outstanding Options or outstanding SARs be surrendered to the Company as consideration for (i) the grant of new Options or SARs with a lower Exercise Price or grant price or (ii) for cash or a new Award with a lower (or no) Exercise Price, in each case, without the approval of the stockholders of the Company.

20. RESERVATION OF SHARES.

(a) The Company, during the term of the Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

(b) The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

21. RIGHTS OF PARTICIPANTS.

(a) Continued Service. The Plan shall not confer upon any Participant any right with respect to continuation of employment or consulting relationship with the Company, nor shall it interfere in any way with his or her right or the Company's right to terminate his or her employment or consulting relationship at any time, with or without Cause.

(b) Participant. No Employee, Director or Consultant shall have the right to be selected to receive an Award under the Plan, or, having been so selected, to be selected to receive future Awards.

22. SUCCESSORS. All obligations of the Company under the Plan and with respect to Awards shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or other event, or a sale or disposition of all or substantially all of the business and/or assets of the Company and references to the "Company" herein and in any Award Agreements shall be deemed to refer to such successors.

23. LEGAL CONSTRUCTION.

(a) Interpretation. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine, the plural shall include the singular and the singular shall include the plural. Any reference in the Plan to a Section of the Plan either in the Plan or any Award Agreement or to an agreement, act, code, rule or regulation shall be deemed to refer to such Section of the Plan, agreement, act, code, section, rule or regulation, as may be amended from time to time, or to any successor Section of the Plan, act, code, section, rule or regulation. All references to "including" shall be construed as meaning "including without limitation."

(b) Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

(c) Requirements of Law. The granting of Awards and the issuance of Shares or cash under the Plan shall be subject to all Applicable Laws and to such approvals by any governmental agencies or national securities exchanges as may be required.

(d) Governing Law. To the extent not preempted by federal law, the Plan, and all agreements hereunder, shall be construed in accordance with and governed by the laws of the State of Delaware, excluding any conflicts or choice of law rule or principle that might otherwise refer construction or interpretation of this Plan to the substantive law of another jurisdiction.

(e) Non-Exclusive Plan. Neither the adoption of the Plan by the Board nor its submission to the stockholders of the Company for approval shall be construed as creating any limitations on the power of the Board or a committee thereof to adopt such other incentive arrangements as it may deem desirable.

(f) Code Section 409A Compliance. To the extent applicable, it is intended that this Plan and any Awards granted hereunder be exempt from, or comply, with the requirements of Section 409A. Any provision that would cause the Plan or any Award granted hereunder to fail to satisfy Section 409A shall have no force or effect until amended to comply with Section 409A, which amendment may be retroactive to the extent permitted by Section 409A. Notwithstanding anything in this Plan or Award granted hereunder to the contrary, in no event will the Committee provide for the deferral of settlement or vesting of any Award, on a mandatory basis or Participant elective basis, unless such deferral is documented in writing and administered in compliance with Section 409A. In no event shall the number, kinds, or Exercise Price of any Award granted hereunder be modified or extended if such modification or extension would result in a violation of Section 409A.

24. **CLAWBACK.** Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company adopts or is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Committee may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Committee determines necessary or appropriate, including a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of misconduct. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or be deemed a "constructive termination" (or any similar term) as such terms are used in any agreement between any Participant and the Company.

GLOSSARY OF DEFINED TERMS

1. **Definitions.** As used in the Plan, the following definitions shall apply:

"Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 of the Exchange Act.

"Applicable Laws" means the legal requirements relating to the administration of stock incentive plans, if any, under applicable provisions of federal securities laws, state corporate and securities laws, the Code, and the rules of any applicable stock exchange or national market system.

"Award" means, individually or collectively, Nonqualified Stock Options, Incentive Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Stock Units, Other Stock-Based Awards, and Cash-Based Awards granted under the Plan.

"Award Agreement" means an agreement entered into by the Company and a Participant setting forth the terms and provisions applicable to an Award.

"Board" means the Board of Directors of the Company.

"Cash-Based Award" means an Award other than a Nonqualified Stock Option, Incentive Stock Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit, Performance Stock Unit or Other Stock-Based Award granted under the Plan.

"Cause" means, with respect to the termination by the Company or a Subsidiary of the Participant's Continuous Service, that such termination is for "Cause" as such term is expressly defined in a then-effective written agreement between the Participant and the Company or such Subsidiary, or in the absence of such then-effective written agreement and definition, is based on, in the determination of the Committee, the Participant's: (i) performance of any act or failure to perform any act in bad faith and to the detriment of the Company or a Subsidiary; (ii) dishonesty, intentional misconduct or material breach of any agreement with the Company or a Subsidiary; or (iii) commission of a crime involving dishonesty, breach of trust or physical or emotional harm to any person.

"Change in Control" means a change in ownership or control of the Company effected through any of the following transactions:

(a) the direct or indirect acquisition by any person or related group of persons ("Person") (other than an acquisition from or by the Company or by a Company-sponsored employee benefit plan or by a Person that directly or indirectly controls, is controlled by or is under common control with, the Company) of beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) of securities possessing more than 50% of the total combined voting power of the Company's outstanding securities pursuant to a tender or exchange offer made directly to the Company's stockholders which a majority of the members of the Board who are not Affiliates or Associates of the offeror do not recommend such stockholders accept;

(b) a change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any 12-month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this subsection (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(c) a change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets. For purposes of this subsection (iii), persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding anything herein to the contrary, with respect to any amounts that constitute deferred compensation under Section 409A, to the extent required to avoid accelerated taxation or penalties, no Change in Control will be deemed to have occurred unless such Change in Control also constitutes a change in the ownership or effective control of the Company or a change in the ownership of a substantial portion of the Company's assets under Section 409A.

"Code" means the Internal Revenue Code of 1986.

"Company" means Advanced Emissions Solutions, Inc. and any successor thereto as provided in Section 22 herein.

"Consultant" means any current or prospective non-employee consultant or advisor to the Company or a Subsidiary.

"Continuous Service" means that the provision of services to the Company or any Subsidiary in any capacity of Employee or Consultant is not interrupted or terminated. Continuous Service shall not be considered interrupted in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, any Subsidiary, or any successor. A leave of absence approved by the Company shall include sick leave, military leave, or any other personal leave approved by an authorized representative of the Company. For purposes of Incentive Stock Options, no such leave may exceed 90 days, unless reemployment upon expiration of such leave is guaranteed by statute or contract.

"Corporate Transaction" means any of the following transactions:

- (a) a merger or consolidation in which the Company is not the surviving entity, except for a transaction the principal purpose of which is to change the state in which the Company is incorporated;
- (b) the sale, transfer or other disposition of all or substantially all of the assets of the Company;
- (c) the complete liquidation or dissolution of the Company;
- (d) any reverse merger or series of related transactions culminating in a reverse merger (including, but not limited to, a tender offer followed by a reverse merger) in which the Company is the surviving entity but in which securities possessing more than 50% of the total combined voting power of the Company's outstanding securities are transferred to a person or persons different from those who held such securities immediately prior to such merger but excluding any such transaction or series of related transactions that the Committee determines shall not be a Corporate Transaction; or
- (e) acquisition in a single or series of related transactions by any person or related group of persons (other than the Company or by a Company-sponsored employee benefit plan) of beneficial ownership (within the meaning of Rule 13d-3 of the Exchange Act) of securities possessing more than 50% of the total combined voting power of the Company's outstanding securities but excluding any such transaction or series of related transactions that the Committee determines shall not be a Corporate Transaction.

"Director" means any individual who is a member of the Board of Directors of the Company or a Subsidiary who is not an Employee.

"Dividend" means the dividends declared and paid on Shares subject to an Award.

"Dividend Equivalent" means, with respect to Shares subject to an Award, a right to be paid an amount equal to the Dividends declared and paid on an equal number of outstanding Shares.

"Employee" means any current or prospective employee of the Company or a Subsidiary.

"Exchange Act" means the Securities Exchange Act of 1934.

"Exercise Price" means the price at which a Share may be purchased by a Participant pursuant to an Option.

"Fair Market Value" means, as of any date, the value of a Share determined as follows:

- (a) Where there exists a public market for the Share, the Fair Market Value shall be (A) the closing sales price for a Share for the last market trading day prior to the time of the determination (or, if no sales were reported on that date, on the last trading date on which sales were reported) on the New York Stock Exchange, the Nasdaq National Market System or the principal securities exchange on which the Share is listed for trading, whichever is applicable, or (B) if the Share is not traded on any such exchange or national market system, the average of the closing bid and asked prices on the date of determination, in each case, as reported in The Wall Street Journal or such other source as the Committee deems reliable; or
- (b) In the absence of an established market of the type described above, for the Shares, the Fair Market Value thereof shall be determined by the Committee in good faith, and such determination shall be conclusive and binding on all persons.

"Good Reason" means the occurrence, after a Corporate Transaction or Change in Control, of any of the following events or conditions unless consented to by the Participant (and the Participant shall be deemed to have consented to any such event or condition unless the Participant provides written notice of the Participant's non-acquiescence within 90 days of the

effective time of such event or condition and the Company cannot cure any such event or condition within 30 days upon such notice):

(a) a change in the Participant's responsibilities or duties which represents a material and substantial diminution in the Participant's responsibilities or duties as in effect immediately preceding the consummation of a Corporate Transaction or Change in Control;

(b) a reduction in the Participant's base salary to a level below that in effect at any time within six months preceding the consummation of a Corporate Transaction or Change in Control or at any time thereafter; or

(c) requiring the Participant to be based at any place outside a 50-mile radius from the Participant's job location or residence prior to the Corporate Transaction or Change in Control except for reasonably required travel on business which is not materially greater than such travel requirements prior to the Corporate Transaction or Change in Control.

"Immediate Family" means any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law, including adoptive relationships, any person sharing the Participant's household (other than a tenant or employee), a trust in which these persons (or the Participant) have more than 50% of the beneficial interest, a foundation in which these persons (or the Participant) control the management of assets, and any other entity in which these persons (or the Participant) own more than 50% of the voting interests.

"Incentive Stock Option" or "ISO" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

"Nonqualified Stock Option" means an Option that is not intended to meet the requirement of Section 422 of the Code.

"Option" means an Incentive Stock Option or a Nonqualified Stock Option granted under the Plan, as described in Section 6 herein.

"Other Stock-Based Award" means a Share-based or Share-related Award granted pursuant to Section 11 herein.

"Participant" means a current or former Employee, Director or Consultant who has rights relating to an outstanding Award.

"Performance Stock Unit" means an Award granted to a Participant, as described in Section 10 herein.

"Period of Restriction" means the period Restricted Stock, Restricted Stock Units or Other Stock-Based Awards are subject to a substantial risk of forfeiture and are not transferable, as provided in Sections 8, 9 and 11 herein.

"Plan" means this Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan.

"Prior Plan" means the Advanced Emissions Solutions, Inc. 2017 Omnibus Incentive Plan.

"Restricted Stock" means an Award granted to a Participant, as described in Section 8 herein.

"Restricted Stock Units" means an Award granted to a Participant, as described in Section 9 herein.

"SEC" means the United States Securities and Exchange Commission.

"Section 409A" means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

"Share" means a share of common stock of the Company, par value \$0.001 per share, subject to adjustment pursuant to Section 17 herein.

"Stock Appreciation Right" or "SAR" means an Award granted to a Participant, as described in Section 7 herein.

"Subsidiary" means any corporation in which the Company owns, directly or indirectly, at least 50% of the total combined voting power of all classes of stock, or any other entity (including, but not limited to, partnerships and joint ventures) in which the Company owns, directly or indirectly, at least 50% of the combined equity thereof. Notwithstanding the foregoing, for purposes of determining whether any individual may be a Participant for purposes of any grant of Incentive Stock Options, the term "Subsidiary" shall have the meaning ascribed to such term in Code Section 424(f).

"Subsidiary Disposition" means the disposition by the Company of its equity holdings in any Subsidiary effected by a merger or consolidation involving that Subsidiary, the sale of all or substantially all of the assets of that Subsidiary or the Company's sale or distribution of substantially all of the outstanding capital stock of such Subsidiary.

APPENDIX B

FIFTH AMENDMENT TO TAX ASSET PROTECTION PLAN

This FIFTH AMENDMENT TO TAX ASSET PROTECTION PLAN (this "Amendment") is entered into as of March 15, 2022, by and between Advanced Emissions Solutions, Inc., a Delaware corporation (the "Company"), and Computershare Trust Company, N.A., a federally chartered trust company (the "Rights Agent"). All capitalized terms used herein and not otherwise defined herein shall have the meaning(s) ascribed to them in that certain Tax Asset Protection Plan dated as of May 5, 2017, by and between the Company and the Rights Agent, as amended by the First Amendment to Tax Asset Protection Plan, dated as of April 6, 2018, the Second Amendment to Tax Asset Protection Plan, dated as of April 5, 2019, the Third Amendment to Tax Asset Protection Plan, dated as of April 8, 2020 and the Fourth Amendment to Tax Asset Protection Plan, dated as of April 9, 2021 (collectively, the "TAPP").

RECITALS

WHEREAS, the Company and the Rights Agent are parties to the TAPP; and

WHEREAS, pursuant to Section 26 of the TAPP, the Company and the Rights Agent desire to amend the TAPP as set forth in this Amendment.

AGREEMENT

NOW, THEREFORE, in consideration of the promises and the mutual agreements herein set forth, the parties hereto hereby agree as follows:

1. Amendment of Section 1(w). The definition of "Final Expiration Date" set forth in Section 1(w) of the TAPP is hereby amended and restated to read in its entirety as follows:

"(w) "Final Expiration Date" shall mean the Close of Business on the earlier of (i) December 31, 2023 or (ii) December 31, 2022 if Stockholder Approval has not been obtained prior to such date."

2. Amendment of Exhibit B (Form of Rights Certificate). The introductory paragraph of Exhibit B to the TAPP is hereby deleted and replaced with the following:

"NOT EXERCISABLE AFTER THE EARLIER OF (I) DECEMBER 31, 2023 OR (II) DECEMBER 31, 2022 if Stockholder Approval has not been obtained prior to such date, OR SUCH EARLIER DATE AS PROVIDED BY THE TAX ASSET PROTECTION PLAN. THE RIGHTS ARE SUBJECT TO REDEMPTION AND EXCHANGE AT THE OPTION OF THE COMPANY, ON THE TERMS SET FORTH IN THE TAX ASSET PROTECTION PLAN. UNDER CERTAIN CIRCUMSTANCES AS SET FORTH IN THE TAX ASSET PROTECTION PLAN, RIGHTS THAT ARE OR WERE BENEFICIALLY OWNED BY AN ACQUIRING PERSON OR ANY AFFILIATE OR ASSOCIATE OF AN ACQUIRING PERSON (AS SUCH TERMS ARE DEFINED IN THE TAX ASSET PROTECTION PLAN) MAY BECOME NULL AND VOID."

3. Amendment of Exhibit C (Summary of Rights). Exhibit C to the TAPP is hereby amended in that the section titled "Expiration" is deleted and replaced with the following:

"Expiration. The Rights and the Plan will expire on the earlier of (i) the Close of Business on the earlier of (a) December 31, 2023 or (b) December 31, 2022 if Stockholder Approval has not been obtained prior to such date, (ii) the time at which the Rights are redeemed pursuant to the Plan, (iii) the time at which the Rights are exchanged in full pursuant to the Plan, (iv) the effective date of the repeal of both Section 382 and Section 383 of the Internal Revenue Code, or any successor provisions or replacement provisions, if the Board determines that the Plan is no longer necessary for the preservation of Tax Benefits or (v) the beginning of a taxable year of the Company for which the Board determines that the Company has or will have no Tax Benefits."

4. Agreement as Amended. The term "Agreement" as used in the TAPP shall be deemed to refer to the TAPP as amended. Except as set forth herein, the TAPP shall remain in full force and effect and otherwise shall be unaffected hereby, and each of the Company and the Rights Agent shall continue to be subject to its terms and conditions.

5. Severability. If any term, provision, covenant or restriction of this Amendment is held by a court of competent jurisdiction or other authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Amendment shall remain in full force and effect and shall in no way be affected, impaired or invalidated; provided, however, that if such excluded terms, provisions, covenants or restrictions shall adversely affect the rights, immunities, liabilities, duties, responsibilities or obligations of the Rights Agent, the Rights Agent shall be entitled to resign immediately.

6. Governing Law. This Amendment shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be governed by and construed in accordance with the laws of such State applicable to contracts made and to be performed entirely within such State.
7. Counterparts. This Amendment may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and all such counterparts shall together constitute but one and the same instrument. A facsimile or .pdf signature delivered electronically shall constitute an original signature for all purposes.
8. Descriptive Headings. Descriptive headings of the several Sections of this Amendment are inserted for convenience only and shall not control or affect the meaning or construction of any of the provisions hereof.

[Signature Page Follows]

IN WITNESS WHEREOF, each of the parties hereto has caused this Amendment to be duly executed as of the date first above written.

ADVANCED EMISSIONS SOLUTIONS, INC.

By: /s/ Greg Marken
Name: Greg Marken
Title: Chief Executive Officer

COMPUTERSHARE TRUST COMPANY, N.A.

By: /s/ Kathy Heagerty
Name: Kathy Heagerty
Title: Manager, Client Management

ADVANCED EMISSIONS SOLUTIONS, INC.
8051 E. MARLEWOOD AVE., SUITE 210
GREENWOOD VILLAGE, COLORADO 80111



SCAN TO
VIEW MATERIALS & VOTE



VOTE BY INTERNET - www.proxyvote.com or scan the QR Barcode above
Use the Internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 P.M. Eastern Time on May 15, 2022. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.
During The Meeting - Go to www.virtualshareholdermeeting.com/ADES2022
You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.
VOTE BY PHONE - 1-800-880-8803
Use any touch-tone telephone to transmit your voting instructions. Vote by 11:59 P.M. Eastern Time on May 15, 2022. Have your proxy card in hand when you call and then follow the instructions.
VOTE BY MAIL
Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

KEEP THIS PORTION FOR YOUR RECORDS
DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

<p>The Board of Directors recommends you vote FOR ALL of the following:</p>		<p>For All</p>	<p>Withhold All</p>	<p>For All Except</p>	<p>To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.</p>
<p>1. Election of four directors, each set to serve for a term of one year to expire at the later of the next Annual Meeting of Stockholders or May 31, 2023:</p> <p>Nominees</p> <p>01) Carol Eichar 02) Gilbert Li 03) J. Taylor Simonton 04) L. Spencer Wells</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>_____</p>
<p>The Board of Directors recommends you vote FOR the following proposals:</p>					
<p>2. To approve, on an advisory basis, the compensation of the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including compensation tables and narrative discussion as set forth under the Executive Compensation section of the proxy statement for the 2022 Annual Meeting of Stockholders;</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>3. To ratify the Audit Committee's selection of Moss Adams LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022;</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>4. To approve the Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan; and</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>5. To approve the Fifth Amendment to the Company's Tax Asset Protection Plan.</p>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>NOTE: The undersigned stockholder(s) authorize(s) the individuals designated to vote the proxy to vote, in their discretion, to the extent permitted by applicable law, upon such other matters (none known by the Company at the time of solicitation of this proxy) as may properly come before the Annual Meeting or any adjournment or postponement.</p>					
<p>Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.</p>					
<p>Signature (PLEASE SIGN WITHIN BOX)</p>		<p>Date</p>		<p>Signature (Joint Owners)</p>	
<p>_____</p>		<p>_____</p>		<p>_____</p>	

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice and Proxy Statement, Annual Report and Supplement are available at www.proxyvote.com

ADVANCED EMISSIONS SOLUTIONS, INC.
PROXY FOR ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MAY 16, 2022
THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF THE COMPANY

The holder(s) of common shares of Advanced Emissions Solutions, Inc. (the "Company") identified on this proxy card hereby appoint(s) L. Spencer Wells or, failing him, Greg Marken, the proxies of the stockholder(s), with full power of substitution in each, to attend, vote and act for and in the name of such stockholder(s) at the Annual Meeting of Stockholders of the Company (the "Annual Meeting") to be held via live webcast on the Internet, which can be accessed by visiting www.virtualshareholdermeeting.com/ADES2022, on Monday, May 16, 2022, at 9:00 a.m. Mountain Time, and any adjournment or postponement thereof.

Where a choice is indicated, the common shares represented by this proxy card, when properly executed and returned, will be voted or not voted as specified. If no choice is indicated, the common shares represented by this proxy card when properly executed and returned will be voted in accordance with the recommendations of the Board of Directors. If any other matters are properly brought before the Annual Meeting or any adjournment or postponement thereof, or if a nominee for election as a director named in the Proxy Statement who would have otherwise received the required number of votes is unable to serve or for good cause will not serve, the common shares represented by this proxy card will be voted in the discretion of the individual(s) designated to vote this proxy card, to the extent permitted by applicable law, on such matters or for such substitute nominee(s) as the directors of the Company may recommend.

To be valid, this Proxy form, duly signed and dated, must arrive at the office of Broadridge Financial Solutions, 51 Mercedes Way, Edgewood, NY 11717 the day before the day of the Annual Meeting or any postponement or adjournment thereof.

The stockholder(s) hereby acknowledge(s) receipt of the Notice of Annual Meeting of Stockholders and the related Proxy Statement for the May 16, 2022, Annual Meeting, as well as the Company's 2021 Annual Report. Any proxy heretofore given to vote the common shares which the stockholder(s) is/are entitled to vote at the Annual Meeting is hereby revoked.

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(This proxy card continues and must be signed and dated on the reverse side.)