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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549**

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**FORM S-8**

**REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933**

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**Advanced Emissions Solutions, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**27-5472457**

(I.R.S. Employer Identification No.)

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**8051 E. Maplewood Ave., Suite 210**

**Greenwood Village, CO 80111**

(Address of principal executive offices, Zip Code)

**Inducement Stock Option Award  
Inducement Restricted Stock Unit Award**

(Full title of the plan)

**Clay Smith**

**General Counsel & Secretary**

**8051 E. Maplewood Ave., Suite 210**

**Greenwood Village, CO 80111**

**(720) 598-3500**

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

*Copy to:*

Krista Hanvey

Gibson, Dunn & Crutcher LLP

2001 Ross Avenue, Suite 2100

Dallas, TX 75201

Telephone: (214) 698-3100

Facsimile: (214) 571-2900

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

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## EXPLANATORY NOTE

This Registration Statement on Form S-8 (this "Registration Statement") is filed by Advanced Emissions Solutions, Inc. (the "Registrant") relating to (i) up to 1,000,000 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), issuable pursuant to the grant of stock options and (ii) up to 400,000 shares of Common Stock issuable pursuant to the grant of restricted stock units, in each case, granted as inducement awards for employment with the Registrant pursuant to Nasdaq Listing Rule 5635(c)(4).

### PART I

#### INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

##### Item 1. Plan Information

The documents containing the information specified in Part I of this Registration Statement will be delivered to employees as specified by Rule 428(b) (1) of the Securities Act of 1933, as amended (the "Securities Act"). In accordance with the instructions of Part I of Form S-8, such documents are not being filed with the Securities and Exchange Commission (the "Commission") either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. Such documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

### PART II

#### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

##### Item 3. Incorporation of Certain Documents by Reference.

The following documents, which have previously been filed by the Registrant with the Commission pursuant to the Securities Act and pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are incorporated by reference herein and shall be deemed to be a part hereof:

- (a) [the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2022 filed with the Commission on March 8, 2023](#);
- (b) [the Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2023 filed with the Commission on May 9, 2023](#);
- (c) the Registrant's Current Reports on Form 8-K filed with the Commission on [February 1, 2023](#) (as amended by the Form 8-K/A filed with the Commission on [March 2, 2023](#)), [March 29, 2023](#), [April 14, 2023](#), [June 6, 2023](#), [June 15, 2023](#), and [July 17, 2023](#); and
- (d) the description of the Registrant's common stock contained in the Registrant's Registration Statement on Form S-4 filed with the Commission on [March 25, 2013](#), as amended by Form S-4/A filed with the Commission on [April 15, 2013](#).

In addition, all documents subsequently filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this Registration Statement which indicate that all securities offered hereby have been sold or which deregister all securities remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents. Notwithstanding the foregoing, unless specifically stated to the contrary, none of the information that the Registrant discloses under Items 2.02 or 7.01 of any Current Report on Form 8-K that it may from time to time furnish to the Commission will be incorporated by reference into, or otherwise included in, this Registration Statement.

Any statement, including financial statements, contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or therein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

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**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

Section 145 of the Delaware General Corporation Law provides in part that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. Similar indemnity is authorized for such persons against expenses (including attorneys' fees) actually and reasonably incurred in defense or settlement of any threatened, pending or completed action or suit by or in the right of the corporation, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and provided further (unless a court of competent jurisdiction otherwise provides) such person shall not have been adjudged liable to the corporation. Any such indemnification may be made only as authorized in each specific case upon a determination by the stockholders or disinterested directors that indemnification is proper because the indemnitee has met the applicable standard of conduct.

Additionally, the Registrant's Second Amended and Restated Certificate of Incorporation and Bylaws provide for the elimination of liability for monetary damages for breach of the directors' fiduciary duty of care to the Registrant and its stockholders. These provisions do not eliminate the directors' duty of care and, in appropriate circumstances, equitable remedies such as injunctive or other forms of non-monetary relief will remain available under Delaware law. In addition, each director will continue to be subject to liability for breach of the director's duty of loyalty, for acts or omissions not in good faith or involving intentional misconduct, for knowing violations of law, for any transaction from which the director derived an improper personal benefit, and for payments of dividends or approval of stock repurchases or redemptions that are unlawful under Delaware law. The provisions do not affect a director's responsibilities under any other laws, such as the federal securities laws or state or federal environmental laws.

As permitted by Section 145 of the Delaware General Corporation Law, the Registrant's Second Amended and Restated Certificate of Incorporation requires the Registrant to indemnify, advance expenses, and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Registrant or, while a director or officer of the Registrant, is or was serving at the request of the Registrant as a director, officer, employee or agent of another corporation, or of a partnership, joint venture, trust, enterprise, or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person.

Article VII of the Registrant's Bylaws provides that the Registrant shall indemnify its directors and officers to the fullest extent not prohibited by Delaware law.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

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## Item 8. Exhibits

<u>Exhibit No.</u>	<u>Description</u>
4.1	<a href="#">Second Amended and Restated Certificate of Incorporation of Advanced Emissions Solutions, Inc. (incorporated by reference to Exhibit 3.1 of the Registrant's Quarterly Report on Form 10-Q filed with the Commission on August 9, 2013).</a>
4.2	<a href="#">Conformed Copy of the Bylaws of Advanced Emissions Solutions, Inc. (incorporated by reference to Exhibit 3.2 of the Registrant's Annual Report on Form 10-K filed with the Commission on March 12, 2018).</a>
5.1*	<a href="#">Opinion of Gibson, Dunn &amp; Crutcher LLP.</a>
23.1*	<a href="#">Consent of Gibson, Dunn &amp; Crutcher LLP (included in Exhibit 5.1).</a>
23.2*	<a href="#">Consent of Moss Adams LLP.</a>
23.3*	<a href="#">Consent of Ernst &amp; Young LLP, UK.</a>
24.1*	Power of Attorney (included on signature page hereto).
99.1*	<a href="#">Advanced Emissions Solutions, Inc. Inducement Award Grant Notice for Nonqualified Stock Options and Standard Terms and Conditions for Nonqualified Stock Options.</a>
99.2*	<a href="#">Advanced Emissions Solutions, Inc. Inducement Award Grant Notice for Restricted Stock Unit Award and Standard Terms and Conditions for Restricted Stock Units.</a>
107.1*	<a href="#">Filing Fee Table.</a>

\* Filed herewith.

## Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

*provided, however,* that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

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

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

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

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

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## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Greenwood Village, State of Colorado, on July 25, 2023.

### ADVANCED EMISSIONS SOLUTIONS, INC.

By: /s/ Robert E. Rasmus

Name: Robert E. Rasmus

Title: President and Chief Executive Officer and Director

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Robert E. Rasmus, Clay Smith and Morgan Fields, and each of them, as the individual's true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution in each of them singly, for him or her and in his or her name, place and stead, and in any and all capacities, to sign any and all amendments, including post-effective amendments, to this Registration Statement, and any registration statement relating to the offering covered by this Registration Statement and filed pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting to the attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that the attorneys-in-fact and agents or any of each of them or their substitutes may lawfully do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Robert E. Rasmus</u> Robert E. Rasmus	President and Chief Executive Officer and Director (Principal Executive Officer)	July 25, 2023
<u>/s/ Morgan Fields</u> Morgan Fields	Chief Accounting Officer (Principal Financial and Accounting Officer)	July 25, 2023
<u>/s/ L. Spencer Wells</u> L. Spencer Wells	Director	July 25, 2023
<u>/s/ Jeremy Blank</u> Jeremy Blank	Director	July 25, 2023
<u>/s/ Richard Campbell-Breeden</u> Richard Campbell-Breeden	Director	July 25, 2023

/s/ Carol Eicher Director July 25, 2023  
Carol Eicher

/s/ Gilbert Li Director July 25, 2023  
Gilbert Li

/s/ Julian McIntyre Director July 25, 2023  
Julian McIntyre

/s/ Laurie Bergman Director July 25, 2023  
Laurie Bergman



**Calculation of Filing Fee Tables**

**FORM S-8**

(Form Type)

**ADVANCED EMISSIONS SOLUTIONS, INC.**

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title (1)	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common stock, \$0.001 par value per share	Rule 457(a) (2)	1,000,000 (1) (3)	\$3.00 (2)	\$3,000,000	\$110.20 per \$1,000,000	\$ 330.60
Equity	Common stock, \$0.001 par value per share	Rule 457(a) (4)	400,000 (1)(5)	\$2.09 (4)	\$836,000	\$110.20 per \$1,000,000	\$ 92.13
<b>Total Offering Amounts</b>					\$3,836,000		\$ 422.73
<b>Total Fees Offset</b>							—
<b>Net Fees Due</b>							\$ 422.73

- (1) Rule 416 of the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement on Form S-8 shall also cover such indeterminate number of additional shares of common stock, par value \$0.001 per share, of the Registrant (the “Common Stock”) as may become issuable to prevent dilution in the event of stock splits, stock dividends or similar transactions pursuant to the terms of the Grant Notice for Nonqualified Stock Options and Standard Terms and Conditions for Nonqualified Stock Options (the “Option Award”) and the Grant Notice for Restricted Stock Unit Award and Standard Terms and Conditions for Restricted Stock Units (the “Restricted Stock Unit Award”).
- (2) For purpose of calculating the registration fee pursuant to Rule 457(h) of the Securities Act based on the exercise price of the Option Award.
- (3) Represents 1,000,000 shares of Common Stock issuable pursuant to the Option Award.
- (4) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and (h) of the Securities Act based on the average of the high and low sale prices of the Common Stock, as quoted on the Nasdaq Global Market, on July 19, 2023.
- (5) Represents 400,000 shares of Common Stock issuable pursuant to the Restricted Stock Unit Award.

## GIBSON DUNN

Gibson, Dunn &amp; Crutcher LLP

2001 Ross Avenue  
Dallas, TX 75201-2911  
Tel 214.698.3100  
www.gibsondunn.com

July 25, 2023

Advanced Emissions Solutions, Inc.  
8051 E. Maplewood Avenue, Suite 210  
Greenwood Village, CO 80111

Re: Advanced Emissions Solutions, Inc. Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "Registration Statement") of Advanced Emissions Solutions, Inc., a Delaware corporation (the "Company"), to be filed with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), relating to (i) up to 1,000,000 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock"), issuable pursuant to the grant of a stock option award and (ii) up to 400,000 shares of Common Stock issuable pursuant to the grant of restricted stock units, in each case, granted as inducement awards to Mr. Robert E. Rasmus for employment with the Company pursuant to Nasdaq Listing Rule 5635(c)(4) (collectively, the "Inducement Awards").

We have examined the originals, or photostatic or certified copies, of such records of the Company and certificates of officers of the Company and of public officials and such other documents as we have deemed relevant and necessary as the basis for the opinions set forth below. In our examination, we have assumed the genuineness of all signatures, the legal capacity and competency of all natural persons, the authenticity of all documents submitted to us as originals and the conformity to original documents of all documents submitted to us as copies. We have also assumed that there are no agreements or understandings between or among the Company and Mr. Rasmus that would expand, modify or otherwise affect the terms of the Inducement Awards or the rights or obligations of Mr. Rasmus thereunder. Finally, we have assumed the accuracy of all other information provided to us by the Company during the course of our investigations, on which we have relied in issuing the opinion expressed below.

Based upon the foregoing examination and in reliance thereon, and subject to the qualifications, assumptions and limitations stated herein and in reliance on the statements of fact contained in the documents that we have examined, we are of the opinion that the Shares, when issued and sold in accordance with the terms set forth in the Inducement Awards, as applicable, and against payment therefor in accordance with the terms of the agreements documenting the Inducement Awards under which the Shares may be issued, and when the Registration Statement has become effective under the Securities Act, will be validly issued, fully paid and non-assessable.

We render no opinion herein as to matters involving the laws of any jurisdiction other than the Delaware General Corporation Law (the "DGCL"). This opinion is limited to the effect of the current state of the DGCL and the facts as they currently exist. We assume no obligation to revise or supplement this opinion in the event of future changes in such law or the interpretations thereof or such facts. We express no opinion regarding any state securities laws or regulations.

We consent to the filing of this opinion as an exhibit to the Registration Statement, and we further consent to the use of our name in the Registration Statement and the prospectus that forms a part thereof. In giving these consents, we do not thereby admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the Rules and Regulations of the Commission.

Very truly yours,

/s/ Gibson, Dunn & Crutcher LLP

Gibson, Dunn &amp; Crutcher LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-8 of Advanced Emissions Solutions, Inc., of our reports dated March 8, 2023, relating to the consolidated financial statements of Advanced Emissions Solutions, Inc. and subsidiaries (the "Company") and the effectiveness of internal control over financial reporting of the Company, appearing in the Annual Report on Form 10-K of the Company for the year ended December 31, 2022, filed with the Securities and Exchange Commission.

/s/ Moss Adams LLP

Denver, Colorado  
July 25, 2023

**CONSENT OF INDEPENDENT AUDITORS**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Inducement Stock Option Award and the Inducement Restricted Stock Unit Award of Advanced Emissions Solutions, Inc. of our report dated 19 October 2022, with respect to the consolidated financial statements of Arq Limited included in Amendment No.1 to the Current Report on Form 8-K/A dated 2 March 2023 of Advanced Emissions Solutions, Inc., filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP  
London, United Kingdom  
25 July 2023

**ADVANCED EMISSIONS SOLUTIONS, INC. INDUCEMENT AWARD**

**GRANT NOTICE FOR  
NONQUALIFIED STOCK OPTIONS**

FOR GOOD AND VALUABLE CONSIDERATION, Advanced Emissions Solutions, Inc. (the “Company”), hereby grants to Participant named below the Nonqualified Stock Option (the “Option”) to purchase any part or all of the number of shares of common stock, par value \$0.001 per share, of the Company (the “Common Stock”) that are covered by this Option at the Exercise Price per share, each specified below, and upon the terms and subject to the conditions set forth in this Grant Notice and the Standard Terms and Conditions (the “Standard Terms and Conditions”) attached hereto as Exhibit A. This Option is granted outside of the Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan (the “Plan”), but shall be subject to terms and conditions substantially identical to the terms and conditions set forth in the Plan as if the Option were a Nonqualified Stock Option granted under the Plan. This Option is an inducement material to Participant’s entry into employment with the Company within the meaning of Nasdaq Listing Rule 5635(c)(4). This Option is not intended to qualify as an incentive stock option under Section 422 of the Code. Capitalized terms not otherwise defined herein shall have the meaning set forth in the Plan.

Name of Participant:	Robert E. Rasmus								
Grant Date:	July 17, 2023								
Number of Shares of Common Stock covered by Option:	1,000,000								
Exercise Price Per Share:	\$3.00								
Expiration Date:	July 17, 2033								
Vesting Commencement Date:	July 17, 2023								
Vesting Schedule:	<p>Subject to the Plan and the Standard Terms and Conditions, the Option shall vest in accordance with the following schedule, so long as Participant remains continuously employed by the Company or its Subsidiaries from the Grant Date through such vesting date:</p> <table border="1"> <thead> <tr> <th align="center">Vesting Date</th> <th align="center">Cumulative Shares That Are Exercisable</th> </tr> </thead> <tbody> <tr> <td>First Anniversary of the Vesting Commencement Date</td> <td align="center">333,333</td> </tr> <tr> <td>Second Anniversary of the Vesting Commencement Date</td> <td align="center">666,666</td> </tr> <tr> <td>Third Anniversary of the Vesting Commencement Date</td> <td align="center">1,000,000</td> </tr> </tbody> </table> <p>Notwithstanding the foregoing, the Option shall become fully vested and exercisable upon (i) the Company’s termination of Participant’s employment without Cause (as defined in that certain Employment Agreement between the Company and Participant dated July 17, 2023 (the “Employment Agreement”)), (ii) Participant’s resignation for Good Reason (as defined in the Employment Agreement), or (iii) a Change in Control.</p>	Vesting Date	Cumulative Shares That Are Exercisable	First Anniversary of the Vesting Commencement Date	333,333	Second Anniversary of the Vesting Commencement Date	666,666	Third Anniversary of the Vesting Commencement Date	1,000,000
Vesting Date	Cumulative Shares That Are Exercisable								
First Anniversary of the Vesting Commencement Date	333,333								
Second Anniversary of the Vesting Commencement Date	666,666								
Third Anniversary of the Vesting Commencement Date	1,000,000								

By accepting this Grant Notice, Participant acknowledges that he or she has received and read, and agrees that this Option shall be subject to, the terms of this Grant Notice, the Plan, and the Standard Terms and Conditions.

**ADVANCED EMISSIONS SOLUTIONS, INC.**

By: /s/ L. Spencer Wells  
Name: L. Spencer Wells  
Title: Chairman of the Board of Directors

**PARTICIPANT**

/s/ Robert E. Rasmus  
Robert E. Rasmus

**EXHIBIT A**  
**ADVANCED EMISSIONS SOLUTIONS, INC. INDUCEMENT AWARD**  
**STANDARD TERMS AND CONDITIONS FOR NONQUALIFIED STOCK OPTIONS**

These Standard Terms and Conditions apply to the Options granted pursuant to the Grant Notice to which these Standard Terms and Conditions are attached (the "Grant Notice"). Although the Option is granted outside of the Plan, the Option shall be subject to the terms of the Plan as if granted thereunder, which are incorporated into these Standard Terms and Conditions by this reference. Capitalized terms not otherwise defined herein shall have the meaning set forth in the Plan or the Grant Notice, as applicable.

**1. TERMS OF OPTION**

The Company has granted to the Participant the Option to purchase up to the number of shares of Common Stock at an Exercise Price per share, each as set forth in the Grant Notice. The Option is subject to the conditions set forth in the Grant Notice, these Standard Terms and Conditions, and the Plan. For purposes of these Standard Terms and Conditions and the Grant Notice, any reference to the Company shall include a reference to any Subsidiary.

**2. NONQUALIFIED STOCK OPTION**

The Option is not intended to be an incentive stock option under Section 422 of the Code and will be interpreted accordingly.

**3. EXERCISE OF OPTION**

- (a) The Option shall not be exercisable as of the Grant Date set forth in the Grant Notice. After the Grant Date, to the extent not previously exercised, and subject to termination or acceleration as provided in these Standard Terms and Conditions and the Plan, the Option shall be exercisable only to the extent it becomes vested, as described in the Grant Notice or the terms of the Plan, to purchase up to that number of shares of Common Stock as set forth in the Grant Notice; provided, that the Participant remains employed with the Company and does not experience a termination of employment.
- (b) To exercise the Option (or any part thereof), the Participant shall deliver a written notice to the Company, setting forth the number of shares of Common Stock with respect to which the Option is to be exercised and specifying the method of payment of the Exercise Price.
- (c) The Exercise Price of the Option is set forth in the Grant Notice. The Company shall not be obligated to issue any shares of Common Stock until the Participant shall have paid the total Exercise Price for that number of shares of Common Stock. The Exercise Price of shall be payable to the Company: (i) in cash or its equivalent, (ii) by tendering (either actually or constructively by attestation) shares of Common Stock 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 clause (i), to comply with Applicable Laws or Company policy applicable to Company executives and directors.
- (d) Fractional shares may not be exercised. Shares of Common Stock will be issued as soon as practical after exercise. Notwithstanding the above, the Company shall not be obligated to deliver any shares of Common Stock during any period when the Company determines that the exercisability of the Option or the delivery of shares of Common Stock hereunder would violate Company policy or any federal, state or other applicable laws.

**4. EXPIRATION OF OPTION**

The Option shall expire and cease to be exercisable as of the earlier of (i) the Expiration Date set forth in the Grant Notice or (ii) the date specified below in connection with the Participant's termination of employment:

- (a) If the Participant's termination of employment is as a result of (i) the Company's termination of the Participant's employment without Cause, (ii) the Participant's resignation for Good Reason or (iii) the Participant's death or Disability (as defined in the Employment Agreement), the Participant (or in the event of the Participant's death, the Participant's estate) may exercise any portion of the Option that is vested and exercisable at the time of such termination of employment (after taking into account any accelerated vesting under the Grant Notice or any other agreement between the Participant and the Company) until the first anniversary of the date of the Participant's termination of employment (the "Termination Date").
- (b) If the Participant's termination of employment is by the Company for Cause, the entire Option, whether or not then vested and exercisable, shall be immediately forfeited and canceled as of the Termination Date.
- (c) If the Participant's termination of employment is for any reason other than as set forth in Section 4(a) or 4(b), the Participant may exercise any portion of the Option that is vested and exercisable at the time of such termination of employment until the date that is 90 days following the Termination Date.
- (d) Any portion of the Option that is not vested and exercisable at the time of a termination of employment (after taking into account any accelerated vesting under the Grant Notice or any other agreement between the Participant and the Company) shall be forfeited and canceled as of the Termination Date.

#### **5. RESTRICTIONS ON SHARE TRANSFERABILITY**

The Committee may impose such restrictions on any shares of Common Stock acquired pursuant to the exercise of the Option as may be required under Applicable Laws, under the requirements of any stock exchange or market upon which the Common Stock is then listed and/or traded, under any Company policy applicable to Company executives and directors, and under any blue sky or state securities laws applicable to the shares of Common Stock.

#### **6. INCOME TAXES**

As a condition to the delivery of Common Stock upon exercise of the Option, 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. Subject to a determination by the Committee in good faith that the Company has sufficient available cash, the Committee will also accept payment of tax withholding obligations by the withholding of Common Stock subject to the Option or by withholding amounts due from other wages. The Committee, in consideration of applicable accounting standards, may allow the Participant to elect, or otherwise direct as a general rule, to have the Company withhold Common Stock for taxes at an amount greater than the applicable minimum statutory amount.

#### **7. NON-TRANSFERABILITY OF OPTION**

Except as permitted by the Committee or as permitted under Section 14 of the Plan, the Participant may not sell, transfer, pledge, assign or otherwise alienate or hypothecate the Option, other than by will or the laws of descent and distribution, and the Option shall be exercisable only by the Participant during his or her lifetime. The Company may cancel the Option if the Participant attempts to assign or transfer it in a manner inconsistent with this Section 7.

#### **8. OTHER AGREEMENTS SUPERSEDED**

The Grant Notice, these Standard Terms and Conditions and the Plan constitute the entire understanding between the Participant and the Company regarding the Option. Any prior agreements, commitments or negotiations concerning the Option are superseded.



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**9. LIMITATION OF INTEREST IN SHARES SUBJECT TO OPTION**

Neither the Participant (individually or as a member of a group) nor any beneficiary or other person claiming under or through the Participant shall have any right, title, interest, or privilege in or to any shares of Common Stock except as to such shares of Common Stock, if any, as shall have been issued to such person upon exercise of the Option or any part of it. Nothing in the Grant Notice or these Standard Terms and Conditions shall confer upon the Participant any right to continue in the Company's employ or service nor limit in any way the Company's right to terminate the Participant's employment at any time for any reason.

**10. NO LIABILITY OF COMPANY**

The Company and any affiliate which is in existence or hereafter comes into existence shall not be liable to the Participant or any other person as to: (a) the non-issuance or sale of shares of Common Stock as to which the Company has been unable to obtain from any regulatory body having jurisdiction the authority deemed by the Company's counsel to be necessary to the lawful issuance and sale of any shares hereunder; and (b) any tax consequence expected, but not realized, by the Participant or other person due to the receipt, exercise or settlement of any Option granted hereunder.

**11. GENERAL**

- (a) In the event that any provision of these Standard Terms and Conditions is declared to be illegal, invalid or otherwise unenforceable by a court of competent jurisdiction, such provision shall be reformed, if possible, to the extent necessary to render it legal, valid and enforceable, or otherwise deleted, and the remainder of these Standard Terms and Conditions shall not be affected except to the extent necessary to reform or delete such illegal, invalid or unenforceable provision.
- (b) The headings preceding the text of the sections hereof are inserted solely for convenience of reference, and shall not constitute a part of these Standard Terms and Conditions, nor shall they affect its meaning, construction or effect. Words in the masculine gender shall include the feminine gender, and where appropriate, the plural shall include the singular and the singular shall include the plural. The use herein of the word "including" following any general statement, term or matter shall not be construed to limit such statement, term or matter to the specific items or matters set forth immediately following such word or to similar items or matters, whether or not non-limiting language (such as "without limitation", "but not limited to", or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement, term or matter. References herein to any agreement, instrument or other document means such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and not prohibited by the Plan or these Standard Terms and Conditions.
- (c) These Standard Terms and Conditions shall inure to the benefit of and be binding upon the parties hereto and their respective permitted heirs, beneficiaries, successors and assigns.
- (d) To the extent not preempted by federal law, these Standard Terms and Conditions 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 these Standard Terms and Conditions to the substantive law of another jurisdiction. Notwithstanding anything in the Plan or herein, the Option, the Grant Notice and these Standard Terms and Conditions shall be subject to the arbitration provisions set forth in the Employment Agreement.
- (e) In the event of any conflict between the Grant Notice, these Standard Terms and Conditions and the Plan, the Grant Notice and these Standard Terms and Conditions shall control. In the event of any conflict between the Grant Notice and these Standard Terms and Conditions, the Grant Notice shall control.
- (f) All questions arising under these Standard Terms and Conditions shall be decided by the Committee in its total and absolute discretion.
- (g) Notwithstanding Section 24 of the Plan, the Option shall be subject to the clawback provisions set forth in the Employment Agreement.

**12. ELECTRONIC DELIVERY**

By executing the Grant Notice, the Participant hereby consents to the delivery of information (including information required to be delivered to the Participant pursuant to applicable securities laws) regarding the Company and the Subsidiaries, the Option and the Common Stock via Company web site or other electronic delivery.

**ADVANCED EMISSIONS SOLUTIONS, INC. INDUCEMENT AWARD**  
**GRANT NOTICE FOR RESTRICTED STOCK UNIT AWARD**

FOR GOOD AND VALUABLE CONSIDERATION, Advanced Emissions Solutions, Inc. (the “Company”), hereby grants to Participant named below the number of Restricted Stock Units (the “RSUs”) specified below (the “Award”). Each RSU represents the right to receive one share of common stock, par value \$0.001 per share, of the Company (the “Common Stock”) upon the terms and subject to the conditions set forth in this Grant Notice and the Standard Terms and Conditions (the “Standard Terms and Conditions”) attached hereto as Exhibit A. This Award is granted outside of the Advanced Emissions Solutions, Inc. 2022 Omnibus Incentive Plan (the “Plan”), but shall be subject to terms and conditions substantially identical to the terms and conditions set forth in the Plan as if the Award were Restricted Stock Units granted under the Plan. This Award is an inducement material to Participant’s entry into employment with the Company within the meaning of Nasdaq Listing Rule 5635(c)(4). Capitalized terms not otherwise defined herein shall have the meanings set forth in the Plan.

Name of Participant:	Robert E. Rasmus
Grant Date:	July 17, 2023
Number of RSUs:	400,000
Vesting Schedule:	<p>Subject to the Plan and the Standard Terms and Conditions, the RSUs shall vest in accordance with the following schedule, so long as Participant remains continuously employed by the Company or its Subsidiaries from the Grant Date through such vesting date: (i) 250,000 RSUs shall vest when the volume-weighted average price (“VWAP”) per share of the Common Stock over any 30-day period equal \$10.00 per share (“<u>Tranche 1 RSUs</u>”) and (ii) 150,000 RSUs shall vest when the VWAP per share of the Common Stock over any 30-day period equals \$15.00 per share (“<u>Tranche 2 RSUs</u>”); provided, however, that in the event of a Change in Control on or prior to the third anniversary of the Start Date (as defined in that certain Employment Agreement between the Company and Participant dated July 17, 2023 (the “<u>Employment Agreement</u>”)) in which the Company’s stockholders receive value per share of \$3.00 or greater, (a) between 30% and 100% of the Tranche 1 RSUs will vest based on the value per share received by the Company’s stockholders in such Change in Control where \$3.00 results in 30% of the Tranche 1 RSUs vesting and \$10.00 results in 100% of the Tranche 1 RSUs vesting (with linear interpolation between such amounts) and (b) (a) between 20% and 100% of the Tranche 2 RSUs will vest based on the value per share received by the Company’s stockholders in such Change in Control where \$3.00 results in 20% of the Tranche 2 RSUs vesting and \$15.00 results in 100% of the Tranche 2 RSUs vesting (with linear interpolation between such amounts).</p> <p>Notwithstanding the foregoing, any RSUs that have not vested on or prior to the third anniversary of the Start Date shall be automatically forfeited immediately following the third anniversary of the Start Date.</p>

By accepting this Grant Notice, Participant acknowledges that Participant has received and read, and agrees that this Award shall be subject to, the terms of this Grant Notice, the Plan, and the Standard Terms and Conditions.

**ADVANCED EMISSIONS SOLUTIONS, INC.**

By: /s/ L. Spencer Wells  
Name: L. Spencer Wells  
Title: Chairman of the Board of Directors

**PARTICIPANT**

/s/ Robert E. Rasmus  
Robert E. Rasmus

**EXHIBIT A**

**ADVANCED EMISSIONS SOLUTIONS, INC. INDUCEMENT AWARD  
STANDARD TERMS AND CONDITIONS FOR RESTRICTED STOCK UNITS**

These Standard Terms and Conditions apply to the Award of Restricted Stock Units granted pursuant to the Grant Notice to which these Standard Terms and Conditions are attached (the “Grant Notice”). Although the Award is granted outside of the Plan, the Award shall be subject to the terms of the Plan as if granted thereunder, which are incorporated into these Standard Terms and Conditions by this reference. Capitalized terms not otherwise defined herein shall have the meaning set forth in the Plan or the Grant Notice, as applicable.

**1. TERMS OF RESTRICTED STOCK UNITS**

The Company has granted to the Participant the RSUs specified in the Grant Notice, with each RSU representing the right to receive one share of Common Stock. The Award is subject to the conditions set forth in the Grant Notice, these Standard Terms and Conditions and the Plan. For purposes of these Standard Terms and Conditions and the Grant Notice, any reference to the Company shall include a reference to any Subsidiary.

**2. VESTING AND SETTLEMENT OF RESTRICTED STOCK UNITS**

(a) The Award shall not be vested as of the Grant Date set forth in the Grant Notice and shall be forfeitable unless and until otherwise vested pursuant to the terms of the Grant Notice and these Standard Terms and Conditions. After the Grant Date, subject to termination as provided in these Standard Terms and Conditions and the Plan, the Award shall become vested as described in the Grant Notice with respect to that number of Restricted Stock Units as set forth in the Grant Notice. Restricted Stock Units that have vested and are no longer subject to forfeiture are referred to herein as “*Vested RSUs*.” Restricted Stock Units awarded hereunder that are not vested and remain subject to forfeiture are referred to herein as “*Unvested RSUs*.”

(b) As soon as administratively practicable following the vesting of the RSUs pursuant to the Grant Notice, but in no event later than 30 days after each vesting date, the Company shall deliver to the Participant a number of shares of Common Stock equal to the number of RSUs that vested on such date.

(c) If the Participant’s termination of employment is as a result of (i) the Company’s termination of the Participant’s employment without Cause (as defined in the Employment Agreement) or (ii) the Participant’s resignation for Good Reason (as defined in the Employment Agreement), in each case, following the date that is 18 months after the Start Date but prior to the third anniversary of the Start Date, then all Unvested RSUs shall become Vested RSUs as of the date of such termination of employment.

(d) Upon Participant’s termination of employment for any other reason not set forth in Section 2(c), any then Unvested RSUs held by the Participant shall be forfeited and canceled as of the date of such termination of employment.

**3. RIGHTS AS STOCKHOLDER**

Participant shall not be, nor have any of the rights or privileges of, a stockholder of the Company in respect of any RSUs unless and until shares of Common Stock settled for such RSUs shall have been issued by the Company to Participant (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company).

**4. RESTRICTIONS ON SHARE TRANSFERABILITY**

The Committee may impose such restrictions on any shares of Common Stock acquired on settlement of Vested RSUs as may be required under Applicable Laws, under the requirements of any stock exchange or market upon which the Common Stock is then listed and/or traded, under any Company policy applicable to Company executives and directors, and under any blue sky or state securities laws applicable to the shares of Common Stock.

**5. INCOME TAXES**

The Company shall satisfy the Participant’s tax withholding obligations, calculated at the applicable minimum statutory rate, arising in connection with the vesting and/or settlement of the RSUs by withholding shares of Common Stock 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. The Committee, in consideration of applicable accounting standards, may allow the Participant to elect, or otherwise direct as a general rule, to have the Company withhold Common Stock for taxes at an amount greater than the applicable minimum statutory amount.

#### **6. NON-TRANSFERABILITY OF AWARD**

Except as permitted by the Committee or as permitted under Section 14 of the Plan, the Participant may not sell, transfer, pledge, assign or otherwise alienate or hypothecate the Award, other than by will or the laws of descent and distribution. The Company may cancel the RSUs if the Participant attempts to assign or transfer it in a manner inconsistent with this Section 6.

#### **7. OTHER AGREEMENTS SUPERSEDED**

The Grant Notice, these Standard Terms and Conditions and the Plan constitute the entire understanding between the Participant and the Company regarding the Award. Any prior agreements, commitments or negotiations concerning the Award are superseded.

#### **8. LIMITATION OF INTEREST IN SHARES SUBJECT TO RESTRICTED STOCK UNITS**

Neither the Participant (individually or as a member of a group) nor any beneficiary or other person claiming under or through the Participant shall have any right, title, interest, or privilege in or to any shares of Common Stock except as to such shares of Common Stock, if any, as shall have been issued to such person in connection with the Award. Nothing in the Grant Notice or these Standard Terms and Conditions shall confer upon the Participant any right to continue in the Company's employ or service nor limit in any way the Company's right to terminate the Participant's employment at any time for any reason.

#### **9. GENERAL**

(a) In the event that any provision of these Standard Terms and Conditions is declared to be illegal, invalid or otherwise unenforceable by a court of competent jurisdiction, such provision shall be reformed, if possible, to the extent necessary to render it legal, valid and enforceable, or otherwise deleted, and the remainder of these Standard Terms and Conditions shall not be affected except to the extent necessary to reform or delete such illegal, invalid or unenforceable provision.

(b) The headings preceding the text of the sections hereof are inserted solely for convenience of reference, and shall not constitute a part of these Standard Terms and Conditions, nor shall they affect its meaning, construction or effect. Words in the masculine gender shall include the feminine gender, and where appropriate, the plural shall include the singular and the singular shall include the plural. The use herein of the word "including" following any general statement, term or matter shall not be construed to limit such statement, term or matter to the specific items or matters set forth immediately following such word or to similar items or matters, whether or not non-limiting language (such as "without limitation", "but not limited to", or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably fall within the broadest possible scope of such general statement, term or matter. References herein to any agreement, instrument or other document means such agreement, instrument or other document as amended, supplemented and modified from time to time to the extent permitted by the provisions thereof and not prohibited by the Plan or these Standard Terms and Conditions.

(c) These Standard Terms and Conditions shall inure to the benefit of and be binding upon the parties hereto and their respective permitted heirs, beneficiaries, successors and assigns.

(d) To the extent not preempted by federal law, these Standard Terms and Conditions 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 these Standard Terms and Conditions to the substantive law of another jurisdiction. Notwithstanding anything in the Plan or herein, the Award, the Grant Notice and these Standard Terms and Conditions shall be subject to the arbitration provisions set forth in the Employment Agreement.

(e) In the event of any conflict between the Grant Notice, these Standard Terms and Conditions and the Plan, the Grant Notice and these Standard Terms and Conditions shall control. In the event of any conflict between the Grant Notice and these Standard Terms and Conditions, the Grant Notice shall control.

(f) All questions arising under these Standard Terms and Conditions shall be decided by the Committee in its total and absolute discretion.

(g) Notwithstanding Section 24 of the Plan, the Option shall be subject to the clawback provisions set forth in the Employment Agreement.

**10. ELECTRONIC DELIVERY**

By executing the Grant Notice, the Participant hereby consents to the delivery of information (including, without limitation, information required to be delivered to the Participant pursuant to applicable securities laws) regarding the Company and the Subsidiaries, the RSUs and the Common Stock via Company web site or other electronic delivery.