

FORM 4

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

OMB APPROVAL
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or
Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person * McIntyre Julian Alexander <small>(Last) (First) (Middle)</small> C/O ADVANCED EMISSIONS SOLUTIONS, INC., 8051 E. MAPLEWOOD AVENUE, SUITE 210 <small>(Street)</small> GREENWOOD VILLAGE, CO 80111 <small>(City) (State) (Zip)</small>	2. Issuer Name and Ticker or Trading Symbol Advanced Emissions Solutions, Inc. [ADES] 3. Date of Earliest Transaction (MM/DD/YYYY) <p align="center">3/9/2023</p>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below)
4. If Amendment, Date Original Filed (MM/DD/YYYY)		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Trans. Date	2A. Deemed Execution Date, if any	3. Trans. Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	3/9/2023		J(1)		658,736	A	(1)	1,855,860	I	By Allard Services Limited (2)
Common Stock	3/9/2023		J(1)		6,425	A	(1)	12,951	I	By Stannard Limited (3)
Series A Convertible Preferred Stock	3/9/2023		J(1)		770,546	A	(1)	770,546 (4)	I	By Allard Services Limited. (2)
Series A Convertible Preferred Stock	3/9/2023		J(1)		7,515	A	(1)	7,515 (4)	I	By Stannard Limited. (3)

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivate Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Trans. Date	3A. Deemed Execution Date, if any	4. Trans. Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				

Explanation of Responses:

- (1) Pursuant to that certain Share Buy Back Agreement, by and among Arq Limited and certain of its shareholders (the "Share Buy Back Agreement"), Arq Limited distributed shares of Common Stock, par value \$0.001 per share (the "Common Stock") and shares of Series A Preferred Convertible Stock, par value \$0.001 per share (the "Series A Preferred Stock"), to such shareholders in exchange for ordinary shares of Arq Limited held by such shareholders, in connection with the acquisition of Arq Limited by the Issuer. Pursuant to the Share Buy Back Agreement, certain shareholders of Arq Limited sold in the aggregate 90% of their ordinary shares in Arq and received in the aggregate 9.78 shares of Common Stock and 11.44 shares of Preferred Stock as consideration for every 1,000 ordinary shares in Arq sold (rounded down to the nearest whole share). The shares of the Issuer distributed in exchange for Arq Limited ordinary shares were valued at \$4.00 per share.
- (2) The shares reported on this row are held by Allard Services Limited. Julian McIntyre, a Director of the Issuer, controls Allard Services Limited and therefore is an indirect beneficial owner of the securities reported herein.
- (3) The shares reported on this row are held by Stannard Limited. Mr. McIntyre's spouse controls Stannard Limited and therefore Mr. McIntyre may be deemed to be an indirect beneficial owner of the securities reported herein.
- (4) Each share of Series A Preferred Stock will be automatically converted into a share of Common Stock upon approval by the holders of the percentage of Common Stock required to approve such conversion under the applicable rules of The Nasdaq Stock Market, without the need for any action on the part of the holders of the Series A Preferred Stock (the "Conversion Approval"). Each share of Series A Preferred Stock is deemed to have an original issue price of

\$4.00 per share (the "Original Issue Amount"). The number of shares of Common Stock issued upon conversion of each share of Series A Preferred Stock shall be equal to the product of (i) the sum of (A) the Original Issue Amount plus (B) an amount equal to the cumulative amount of the accrued and unpaid dividends on such share at such time (regardless of whether or not declared or funds for their payment are lawfully available) divided by (ii) the Original Issue Amount, subject to adjustment as provided in the Certificate of Designations.

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
McIntyre Julian Alexander C/O ADVANCED EMISSIONS SOLUTIONS, INC. 8051 E. MAPLEWOOD AVENUE, SUITE 210 GREENWOOD VILLAGE, CO 80111	X			

Signatures

/s/ Julian Alexander McIntyre

3/13/2023

**Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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