

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

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

5E Advanced Materials, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

87-3426517
(I.R.S. Employer
Identification No.)

**9329 Mariposa Road, Suite 210
Hesperia, CA 92344
(442) 221-0225**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Paul Weibel
Chief Executive Officer
5E Advanced Materials, Inc.
9329 Mariposa Road, Suite 210
Hesperia, CA 92344
(442) 221-0225**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications to:

**Drew Capurro
Latham & Watkins LLP
650 Town Center Drive, 20th Floor
Costa Mesa, CA 92626
(714) 540-1235**

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.
If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

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 the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Non-accelerated filer ☒

Accelerated filer ☐

Smaller reporting company ☒

Emerging growth company ☒

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. ☒

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

SUBJECT TO COMPLETION, DATED MAY 23, 2025

PRELIMINARY PROSPECTUS



Up to 2,021,751 Shares of Common Stock

This prospectus relates to the offer and resale from time to time by the Selling Stockholders named in this prospectus of up to 2,021,751 shares (the “Shares”) of common stock, par value \$0.01 per share, of 5E Advanced Materials, Inc. (the “Company”). The Shares were initially sold by the Company to the Selling Stockholders pursuant to Subscription Agreements dated May 12, 2025 and May 13, 2025, respectively (the “Subscription Agreements”) or issued to the Selling Stockholders for advisory services.

We will not receive any proceeds from any sale of the Shares by the Selling Stockholders. We will pay the expenses associated with the sale of securities pursuant to this prospectus.

We are registering the resale of the Shares pursuant to registration rights granted to the Selling Stockholders under the Subscription Agreements. Our registration of the Shares does not mean that the Selling Stockholders will sell or transfer any of the securities offered hereby. The Selling Stockholders may offer and sell the Shares in a number of different ways and at varying prices. We provide more information about how the Shares may be sold in the section entitled “Plan of Distribution” beginning on page 18.

Our common stock is listed on the Nasdaq Global Select Market under the symbol “FEAM.” Our CHES Depositary Interests (“CDIs”) are listed on the Australian Securities Exchange under the symbol “SEA” with ten CDIs representing an interest in one share of our common stock. On May 22, 2025, the last reported sale price of our common stock was \$4.27 per share.

We are an “emerging growth company” and “smaller reporting company” under federal securities laws and, as such, are subject to reduced public company reporting requirements.

Investing in our common stock involves a high degree of risk. See the section titled “Risk Factors” beginning on page 9 of this prospectus and any similar section contained in any applicable prospectus supplement concerning factors you should consider before investing in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2025.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, the Selling Stockholders may sell the Shares from time to time and in one or more offerings.

This prospectus provides you with a general description of the shares of our common stock, par value \$0.01 per share, which may be offered. Each time the Selling Stockholders sell the Shares, we or the Selling Stockholders may provide a prospectus supplement or free writing prospectus that contains specific information about the terms of the offered shares and the offering, including a detailed description of the specific amount or amounts of common stock to be offered, the prices of the shares of common stock, the name of any agent, underwriter or dealer to or through which the shares of common stock may be sold and a description of any arrangement with such agent, underwriter or dealer, and information about any securities exchange or automated quotation system on which the shares will be listed.

A prospectus supplement or free writing prospectus may also add, update or change information included in this prospectus. Any statement contained in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in such prospectus supplement or free writing prospectus modifies or supersedes such statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus.

We and the Selling Stockholders have not authorized anyone to provide any information or to make any representations other than those contained in this prospectus, any accompanying prospectus supplement or any free writing prospectus we have prepared. Neither we nor the Selling Stockholders take any responsibility for, nor provide any assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the common stock offered hereby and only under circumstances and in jurisdictions where it is lawful to do so. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus. This prospectus is not an offer to sell common stock, and it is not soliciting an offer to buy common stock, in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or any prospectus supplement or free writing prospectus is accurate only as of the date of those documents and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference (or, in each case, any earlier date specified for such information, unless we indicate otherwise), regardless of the time of delivery of such document or the time of any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus contains or incorporates by reference, and any applicable prospectus supplement or free writing prospectus may contain and incorporate by reference, summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the full text of such documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under “Where You Can Find More Information” and “Incorporation by Reference.”

Notice to investors outside the United States: Neither we nor the Selling Stockholders are offering to sell or seeking offers to purchase these securities in any jurisdiction where the offer or sale is not permitted. We and the Selling Stockholders have not taken any actions that would permit the possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering and distribution of this prospectus outside the United States.

This prospectus does not contain all of the information included in the registration statement of which it forms a part. For further information, we refer you to the entire registration statement, including its exhibits. Statements contained in this prospectus about the provisions or contents of any contract, agreement or other document are not necessarily complete. For each of these contracts, agreements or documents filed as an exhibit to the registration statement, we refer you to the actual exhibit for a more complete description of the matters involved.

When used in this prospectus and any prospectus supplement, unless otherwise specified or the context otherwise requires, the terms the “Company,” “we,” “our,” and “us” refer to 5E Advanced Materials Inc. together with its consolidated subsidiaries unless the context suggests otherwise.

TRADEMARKS AND TRADE NAMES

This document contains references to trademarks and service marks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that the applicable licensor will not assert, to the fullest extent under applicable law, its rights to these trademarks and trade names. We do not intend our use or display of other companies’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein and therein may include statements that express our and our subsidiaries' opinions, expectations, beliefs, plans, objectives, assumptions or projections regarding future events or future results and therefore are, or may be deemed to be, "forward-looking statements." These forward-looking statements can generally be identified by the use of forward-looking terminology, including the terms "believes," "estimates," "anticipates," "expects," "seeks," "projects," "forecasts," "intends," "plans," "may," "will" or "should" or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. They may appear in a number of places throughout this prospectus, any accompanying prospectus supplement and the documents incorporated by reference herein and therein and these forward-looking statements reflect management's expectations regarding, among other things, our future growth, results of operations, operational and financial performance and business prospects and opportunities. Such forward-looking statements are based on available current information and management's expectations, beliefs and forecasts concerning future events impacting our business.

These statements involve known and unknown risks, uncertainties, and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements expressed or implied by the forward-looking statements, including but not limited to the risks described under the heading "Risk Factors" and elsewhere in this prospectus. The risks described under the heading "Risk Factors" are not exhaustive. Other sections of this prospectus and any accompanying prospectus supplement describe additional factors that could adversely affect our business, financial condition or results of operations. New risk factors emerge from time to time and it is not possible to predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor or combination of factors may cause actual results to differ materially from those contained in any forward-looking statements. All forward-looking statements are expressly qualified in their entirety by the foregoing cautionary statements. We do not undertake any obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

CAUTIONARY NOTE REGARDING RESERVES

Unless otherwise indicated, all mineral resource and reserve estimates included (or incorporated by reference) in this prospectus have been prepared in accordance with, and are based on the relevant definitions set forth in, the SEC's Mining Disclosure Rules and Regulation S-K 1300 (each as defined below). Mining disclosure in the United States was previously required to comply with SEC Industry Guide 7 (the "SEC Industry Guide 7") under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In accordance with the SEC's Final Rule 13-10570, Modernization of Property Disclosure for Mining Registrant, the SEC has adopted final rules, effective February 25, 2019, to replace SEC Industry Guide 7 with new mining disclosure rules (the "Mining Disclosure Rules") under sub-part 1300 (Title 17, Part 229, Items 601 and 1300 until 1305) of Regulation S-K ("Regulation S-K 1300") of the Securities Act of 1933, as amended (the "Securities Act"). Regulation S-K 1300 replaces the historical property disclosure requirements included in SEC Industry Guide 7. Regulation S-K 1300 uses the Committee for Mineral Reserves International Reporting Standards ("CRIRSCO")-based classification system for mineral resources and mineral reserves and accordingly, under Regulation S-K 1300, the SEC now recognizes estimates of "Measured Mineral Resources," "Indicated Mineral Resources" and "Inferred Mineral Resources," and require SEC-registered mining companies to disclose in their SEC filings specified information concerning their mineral resources, in addition to mineral reserves. In addition, the SEC has amended its definitions of "Proven Mineral Reserves" and "Probable Mineral Reserves" to be substantially similar to international standards. The SEC Mining Disclosure Rules more closely align SEC disclosure requirements and policies for mining properties with current industry and global regulatory practices and standards, including the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, referred to as the "JORC Code." While the SEC now recognizes "Measured Mineral Resources," "Indicated Mineral Resources" and "Inferred Mineral Resources" under the SEC Mining Disclosure Rules, investors should not assume that any part or all of the mineral deposits in these categories will be converted into a higher category of mineral resources or into mineral reserves. Investors are also cautioned not to assume that any measured mineral resources, indicated mineral resources, or inferred mineral resources are guarantees of actual resource amounts or that such amounts will be economically or legally mineable.

The following terms, as defined in Regulation S-K 1300, apply within this prospectus:

Measured Mineral Resource

("Measured" or "Measured Mineral Resource")

is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of conclusive geological evidence and sampling. The level of geological certainty associated with a measured mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support detailed mine planning and final evaluation of the economic viability of the deposit. Because a measured mineral resource has a higher level of confidence than the level of confidence of either an indicated mineral resource or an inferred mineral resource, a measured mineral resource may be converted to a proven mineral reserve or to a probable mineral reserve.

Indicated Mineral Resource

("Indicated" or "Indicated Mineral Resource")

is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of adequate geological evidence and sampling. The level of geological certainty associated with an indicated mineral resource is sufficient to allow a qualified person to apply modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Because an indicated mineral resource has a lower level of confidence than the level of confidence of a measured mineral resource, an indicated mineral resource may only be converted to a probable mineral reserve.

Inferred Mineral Resource

(“Inferred” or “Inferred Mineral Resource”)

is that part of a mineral resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability. Because an inferred mineral resource has the lowest level of geological confidence of all mineral resources, which prevents the application of the modifying factors in a manner useful for evaluation of economic viability, an inferred mineral resource may not be considered when assessing the economic viability of a mining project, and may not be converted to a mineral reserve.

Probable Mineral Reserve

(“Probable” or “Probable Mineral Reserve”)

is the economically mineable part of an indicated and, in some cases, a measured mineral resource.

Proven Mineral Reserve

(“Proven” or “Proven Mineral Reserve”)

is the economically mineable part of a measured mineral resource and can only result from conversion of a measured mineral resource.

The Company released an amended and restated technical report as an exhibit to Amendment No. 2 to its Annual Report on Form 10-K/A filed with the SEC on February 2, 2024, which has a revised report date of February 2, 2024, a report date of May 11, 2023, and a report effective date of April 1, 2023 (the “Amended Initial Assessment Report”). The purpose of the Amended Initial Assessment Report is to support the disclosure of mineral resource estimates for the Fort Cady Project. The Amended Initial Assessment Report was prepared in accordance with the SEC’s Mining Disclosure Rules and Regulation S-K Subpart 1300 and Item 601(b)(96) (technical report summary). The Amended Initial Assessment Report is discussed in Business and Properties and incorporated by reference as Exhibit 96.1 to this registration statement.

UNLESS OTHERWISE EXPRESSLY STATED, NOTHING CONTAINED IN THIS PROSPECTUS IS, NOR DOES IT PURPORT TO BE, A TECHNICAL REPORT SUMMARY PREPARED BY A QUALIFIED PERSON PURSUANT TO AND IN ACCORDANCE WITH THE REQUIREMENTS OF SUBPART 1300 OF SECURITIES EXCHANGE COMMISSION REGULATION S-K.

CAUTIONARY NOTE REGARDING EXPLORATION STAGE COMPANIES

We are an exploration stage company and do not currently have any known mineral reserves and cannot expect to have known mineral reserves unless and until an appropriate technical and economic study is completed for Fort Cady or any of our other properties that shows Proven or Probable Mineral Reserves as defined by Regulation S-K 1300. We currently do not have any Proven or Probable Mineral Reserves. There can be no assurance that Fort Cady or any of our other properties contains or will contain any such SEC-compliant Proven or Probable Mineral Reserves or that, even if such reserves are found, the quantities of any such reserves warrant continued operations or that we will be successful in economically recovering them.

CAUTIONARY NOTE REGARDING INDUSTRY AND MARKET DATA

This prospectus includes or incorporates by reference, and any applicable prospectus supplement or free writing prospectus may contain and incorporate by reference, information concerning our industry and the markets in which we will operate that is based on information from various sources including public filings, internal company sources, various third-party sources and management estimates. Our management estimates regarding our position, share and industry size are derived from publicly available information and its internal research, and are based on a number of key assumptions made upon reviewing such data and our knowledge of such industry and markets, which we believe to be reasonable. While we believe the industry, market and competitive position data included or incorporated by reference in this prospectus is reliable and is based on reasonable assumptions, such data is necessarily subject to a high degree of uncertainty and risk and is subject to change due to a variety of factors, including those described in “Cautionary Note Regarding Forward-Looking Statements,” “Risk Factors” and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates included in this prospectus. We have not independently verified any data obtained from third-party sources and cannot assure you of the accuracy or completeness of such data.

PROSPECTUS SUMMARY

This summary highlights selected information from this prospectus and does not contain all of the information that is important to you in making an investment decision. You should read the entire prospectus carefully, including the information under the headings “Risk Factors,” “Cautionary Note Regarding Forward-Looking Statements,” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the financial statements and the notes to those financial statements contained herein or otherwise incorporated by reference in this prospectus.

Company Overview

We are an exploration stage company focused on becoming a vertically integrated global leader and supplier of specialty boron and advanced boron derivative materials whose mission is to enable decarbonization, increase food security, and ensure domestic supply of critical materials. We hold 100% of the rights through ownership in the 5E Boron Americas (Fort Cady) Complex (the “Project”) located in southern California, through our wholly owned subsidiary 5E Boron Americas, LLC. Our Project is underpinned by a mineral resource that includes boron and lithium, with the boron being contained in a conventional boron mineral known as colemanite. In 2022, our facility was designated as Critical Infrastructure by the U.S. Department of Homeland Security’s Cybersecurity and Infrastructure Security Agency. Our vision is to safely process boric acid and lithium carbonate through sustainable best practices to enable decarbonization, food security and domestic supply surety.

Corporate Information

American Pacific Borates Limited, our former parent company (“ABR”), was incorporated in October 2016 under the laws of Western Australia for the purpose of acquiring the rights in the Project from Atlas Precious Metals, Inc. The acquisition of Fort Cady (California) Corporation was completed in May 2017 and ABR’s ordinary shares were subsequently admitted for official quotation on the Australian Securities Exchange (the “ASX”) in July 2017. We were incorporated in the State of Delaware on September 23, 2021 as a wholly owned subsidiary of ABR.

Pursuant to a statutory Scheme of Arrangement under Part 5.1 of the Australian Corporations Act, 2001 (Cth), we listed our common stock on The Nasdaq Global Select Market (“Nasdaq”) and de-listed ABR from the ASX in March 2022. In connection with a series of out-of-court restructuring transactions consummated in January 2024, we issued shares of our common stock and CHES Depositary Interests, each representing an interest in one-tenth of a share of our common stock (“CDIs”), to ABR’s shareholders, and ABR became our wholly owned subsidiary.

Our principal executive offices are located at 9329 Mariposa Road, Ste 210, Hesperia, CA 92344 and our telephone number is (442) 221-0225. Our website address is <http://www.5eadvancedmaterials.com>. The information contained on, or that can be accessed through, our website is not incorporated by referenced into this prospectus and does not constitute a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

THE OFFERING

Issuer 5E Advanced Materials, Inc.

Shares of common stock that may be
offered and sold from time to time by
the Selling Stockholders named
herein 2,021,751 shares (the “Shares”) of common stock, par value of \$0.01
per share.

Use of proceeds We will not receive any of the proceeds from the sale of the Shares by
the Selling Stockholders.

Market for our common stock Our common stock is listed on Nasdaq under the symbol “FEAM.”

Risk Factors Any investment in the securities offered hereby is speculative and
involves a high degree of risk. You should carefully read and consider
the information set forth under “Risk Factors” on page 9 of this
prospectus.

RISK FACTORS

Investing in our securities involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K, and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act (including amendments to the foregoing), and the risk factors and other information contained in any applicable prospectus supplement or free writing prospectus before acquiring any of such securities. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. The discussion of risks includes or refers to forward-looking statements. You should read the explanation of the qualifications and limitations on such forward-looking statements contained or incorporated by reference into this prospectus and in any applicable prospectus supplement.

SELECTED FINANCIAL DATA

On February 14, 2025, we effected a 1-for-23 reverse stock split of our common stock. The par value per share of common stock remained unchanged at \$0.01 per share, and the total number of authorized shares of our common stock was unchanged. Our historical financial statements incorporated by reference into this prospectus that preceded the reverse stock split are presented without giving effect to the reverse stock split. Except where the context otherwise requires, share numbers in this prospectus reflect the 1-for-23 reverse stock split of our common stock.

The following selected financial data has been derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended June 30, 2024, as adjusted to reflect the reverse stock split. Our unaudited financial statements included in our Quarterly Report on Form 10-Q for the nine months ended March 31, 2025 and filed on May 15, 2025 gave effect to the reverse stock split. Our historical results are not indicative of the results that may be expected in the future.

In addition, the historical financial information presented below for the years ended June 30, 2024 and 2023 does not present any pro forma impact of the transactions contemplated by our Restructuring Support Agreement, dated January 14, 2025, which were consummated in March 2025.

As Reported (in thousands, except per share amounts):

	Years Ended June 30,	
	2024	2023
Net loss	\$(62,013)	\$(30,624)
Net loss per common share – basic and diluted	\$ (1.18)	\$ (0.70)
Weighted average common shares outstanding – basic and diluted	52,523	43,842
Shares of common stock outstanding at period end	63,318	44,187

As Adjusted for 1-for-23 Reverse Stock Split (in thousands, except per share amounts):

	Years Ended June 30,	
	2024	2023
Net loss	\$(62,013)	\$(30,624)
Net loss per common share – basic and diluted	\$ (27.15)	\$ (16.07)
Weighted average common shares outstanding – basic and diluted	2,284	1,906
Shares of common stock outstanding at period end	2,753	1,921

USE OF PROCEEDS

All of the Shares offered by the Selling Stockholders pursuant to this prospectus will be sold by the Selling Stockholders for their respective accounts. We will not receive any of the proceeds from the sale of the Shares.

With respect to the registration of the Shares offered by the Selling Stockholders pursuant to this prospectus, the Selling Stockholders will pay any underwriting discounts and commissions and expenses incurred by the Selling Stockholders for brokerage, accounting, tax, or legal services or any other expenses incurred by the Selling Stockholders in disposing of the Shares. We will bear the costs, fees, and expenses incurred in effecting the registration of the Shares covered by this prospectus, including all registration and filing fees, Nasdaq listing fees, and expenses of our counsel and our independent registered public accounting firm.

DESCRIPTION OF CAPITAL STOCK

Description of Capital Stock

The following description of our capital stock is a summary. The following description of our securities is not complete and may not contain all the information you should consider before investing in our securities. This description is summarized from, and qualified in its entirety by reference to, the complete text of our Amended and Restated Certificate of Incorporation and Bylaws are each included as exhibits to the registration statement of which this prospectus forms a part and are incorporated by reference herein. Our authorized capital stock is 380,000,000 shares divided into 360,000,000 shares of common stock, par value of \$0.01 per share, and 20,000,000 shares of preferred stock, par value of \$0.01 per share.

Common Stock

Except as otherwise required by law, as provided in our Amended and Restated Certificate of Incorporation or as provided in the resolution or resolutions, if any, adopted by our Board of Directors (our “Board”) with respect to any series of the preferred stock, the holders of our common stock will exclusively possess all voting power. Each holder of shares of common stock will be entitled to one vote for each share held by such holder. Our Amended and Restated Certificate of Incorporation and Bylaws provide that holders of one-third (1/3) in voting power of the shares entitled to vote, present in person or represented by proxy, will constitute a quorum at all meetings of stockholders for the transaction of business. When a quorum is present, the affirmative vote of a majority of the votes cast is required to take action, unless otherwise specified by law, our Bylaws or our Amended and Restated Certificate of Incorporation, and except for any action to amend, alter or repeal our Bylaws, which shall require the affirmative vote of at least 66 2/3% of the voting power of the shares of then-outstanding voting stock entitled to vote generally in the election of directors, voting together as a single class. Subject to the rights of holders of any series of outstanding preferred stock, holders of shares of our common stock will have equal rights of participation in the dividends and other distributions in cash, stock or property of the Company when, as and if declared thereon by our Board from time to time out of assets or funds legally available therefor and will have equal rights to receive the assets and funds of the Company available for distribution to stockholders in the event of any liquidation, dissolution or winding up of the affairs of the Company, whether voluntary or involuntary.

CDIs

CDIs confer the beneficial ownership of our common stock on each CDI holder, with the legal title to such securities held by an Australian depositary entity, CHESS Depositary Nominees Pty Ltd. (the “Depositary Nominee”). The Depositary Nominee will be the registered holder of those shares of our common stock held for the benefit of holders of CDIs. The Depositary Nominee does not charge a fee for providing this service. Ten CDIs will represent an interest in one share of our common stock. Holders of CDIs will not hold the legal title to the underlying shares of our common stock to which the CDIs relate, as the legal title will be held by the Depositary Nominee. Each holder of CDIs will, however, have a beneficial interest in the underlying shares in our common stock. Each holder of CDIs that elects to vote at a stockholders meeting will be entitled to one vote for every 10 CDIs held by such holder. In order to vote at a stockholder meeting, a CDI holder may:

- instruct the Depositary Nominee, as legal owner of the shares of common stock, to vote the common stock represented by their CDIs to vote the shares of our common stock represented by their CDIs in a particular manner. A voting instruction form will be sent to holders of CDIs and must be completed and returned to the share registry for the CDIs prior to a record date fixed for the relevant meeting, or the Voting Instruction Receipt Time, which is notified to CDI holders in the voting instructions included in a notice of meeting;
- inform us that they wish to appoint themselves or a third party as the Depositary Nominee’s proxy with respect to our shares of common stock underlying the holder’s CDIs for the purposes of attending and voting at the meeting. The instruction form must be completed and returned to the share registry for the CDI prior to the CDI Voting Instruction Receipt Time; or

- convert their CDIs into shares of our common stock and vote those shares at the meeting. The conversion must be undertaken prior to a record date fixed by the Board for determining the entitlement of members to attend and vote at the meeting. If the holder later wishes to sell their investment on the ASX, it would first be necessary to convert those shares of common stock back to CDIs. Further details on the conversion process are set out below.

Voting instruction forms and details of these alternatives are included in each notice of meeting sent to CDI holders by the Company.

Conversion of CDIs to shares of Common Stock

CDI holders may at any time convert their CDIs to a holding of shares of common stock by instructing the share registry for the CDIs, either:

- Directly in the case of CDIs held on the issuer sponsored sub-register operated by the Company (holders of CDIs will be provided with a CDI issuance request form to return to the share registry for the CDIs); or
- Through their “sponsoring participant” (usually their broker) in the case of CDIs which are held on the CHES sub-register (in this case, the sponsoring broker will arrange for completion of the relevant form and its return to the share registry for the CDIs).

In both cases, once the share registry for the CDIs has been notified, it will arrange the transfer of the relevant number of shares of common stock from the Depositary Nominee into the name of the CDI holder in book entry form or, if requested, deliver the relevant shares of common stock to their DTC participant in the United States Central Securities Depository. The share registry for the CDIs will not charge a fee for the conversion (although a fee may be payable by market participants). Holding shares of common stock will, however, prevent a person from selling their shares of common stock on the ASX, as only CDIs can be traded on that market.

Conversion of shares of Common Stock to CDIs

Shares of common stock may be converted into CDIs and traded on the ASX. Holders of shares of common stock may at any time convert those shares to CDIs by contacting the Company’s transfer agent. The underlying shares of common stock will be transferred to the Depositary Nominee, and CDIs (and a holding statement for the corresponding CDIs) will be issued to the relevant security holder. No trading in the CDIs may take place on the ASX until this conversion.

The Company’s transfer agent will not charge a fee to a holder of shares of common stock seeking to convert their shares of common stock to CDIs, although a fee may be payable by market participants.

In either case, it is expected that each of the above processes will be completed within 24 hours, provided that the Company’s transfer agent is in receipt of a duly completed and valid request form. No guarantee can, however, be given about the time required for this conversion to take place.

Dividends and Other Shareholder Entitlements

Holders of CDIs are entitled to receive all the direct economic benefits and other entitlements in relation to the underlying shares of common stock that are held by the Depositary Nominee, including dividends and other entitlements that attach to the underlying shares of common stock.

It is possible that marginal differences may exist between the resulting entitlement of a holder of CDIs and the entitlements that would have accrued if a holder of CDIs held their holding directly as shares of common

stock. As the ratio of CDIs to common stock is not one-to-one, and any entitlement will be determined on the basis of shares of common stock rather than CDIs, a holder of CDIs may not always benefit to the same extent (e.g. from the rounding up of fractional entitlements). We will, however, be required by the ASX Settlement Rules to minimize any such differences where legally permissible. If a cash dividend or any other cash distribution is declared in a currency other than Australian dollars, we currently intend to convert that dividend or other cash distribution to which a holder of CDIs is entitled to Australian dollars and distribute it to the relevant holder of CDIs in accordance with their entitlement.

Due to the need to convert dividends from United States dollars to Australian dollars in the above mentioned circumstances, holders of CDIs may potentially be advantaged or disadvantaged by exchange rate fluctuations, depending on whether the Australian dollar weakens or strengthens against the United States dollar during the period between the resolution to pay a dividend and conversion into Australian dollars.

Takeovers

If a takeover bid is made in respect of any of our common stock of which the Depositary Nominee is the registered holder, the Depositary Nominee is prohibited from accepting the offer made under the takeover bid except to the extent that acceptance is authorized by the CDI holders in respect of the shares of common stock represented by their holding of CDIs.

The Depositary Nominee must accept a takeover offer in respect of shares of common stock represented by a holding of CDIs if the relevant holder of CDIs instructs it to do so and must notify the entity making the takeover bid of the acceptance.

Preferred Stock

Our Board is authorized to provide, out of the unissued shares of preferred stock, for one or more series of preferred stock and, with respect to each such series, to fix the number of shares constituting such series and the designation of such series, the voting powers, if any, of the shares of such series, and the preferences and relative, participating, optional or other special rights, if any, and any qualifications, limitations or restrictions thereof, of the shares of such series, as are stated in the resolution or resolutions providing for the issuance of such series adopted by the Board. The authority of the Board with respect to each series of preferred stock includes determination of the following:

- the designation of the series;
- the number of shares of the series;
- the dividend rate or rates on the shares of that series, whether dividends will be cumulative and, if so, from which date or dates, and the relative rights of priority, if any, of payment of dividends on shares of that series;
- whether the series will have voting rights in addition to the voting rights provided by law and, if so, the terms of such voting rights;
- whether the series will have conversion privileges and, if so, the terms and conditions of such conversion, including provision for adjustment of the conversion rate in such events as the Board determines;
- whether or not the shares of that series will be redeemable, in whole or in part, at the option of the Company or the holder thereof and, if made subject to such redemption, the terms and conditions of such redemption, including the date or dates upon or after which they will be redeemable, and the amount per share payable in case of redemptions, which amount may vary under different conditions and at different redemption rates;

- the terms and amount of any sinking fund provided for the purchase or redemption of the shares of such series;
- the rights of the shares of that series in the event of voluntary or involuntary liquidation, dissolution or winding up of the Company, and the relative rights of priority, if any, of payment of shares of that series;
- the restrictions, if any, on the issue or reissue of any additional preferred stock; and
- any other relative rights, preferences and limitations of that series.

Investor Designation Rights

Pursuant to the terms of an investor and registration rights agreement to which we are a party, each of BEP Special Situations IV LLC and Ascend Global Investment Fund SPC for and on behalf of Strategic SP has the right to designate two individuals to our Board, and we are required to appoint or nominate such persons to our Board. Such party's respective designation right will continue for so long as each such party beneficially owns 25% of our common stock, and one director to serve on the Company's Board for so long as each such party beneficially owns 10% of our common stock, in each case including any shares of common stock previously issued or issuable to such party in connection with its exercise of the warrants issued to such party on March 13, 2025, and otherwise without regard to any of the limitations on exercise of such warrants. The size of our Board was also reduced to four directors pursuant to the terms of this agreement.

SELLING STOCKHOLDERS

This prospectus relates to the offer and resale from time to time by the Selling Stockholders of up to 1,984,709 shares of common stock issued and sold to the Selling Stockholders pursuant to the Subscription Agreements for cash proceeds to the Company of \$3.55 per share, and up to 37,042 shares of common stock issued to one of the Selling Stockholders as partial consideration for advisory services.

The Selling Stockholders may from time to time offer and sell any or all of the Shares set forth below pursuant to this prospectus and any applicable prospectus supplement. When we refer to the “Selling Stockholders” in this prospectus, we mean the persons and entities listed in the table below, and the pledgee(s), donee(s), transferee(s), assignee(s), successor(s) and others who later come to hold any of the Selling Stockholders’ interest in our securities after the date of this prospectus.

The following table sets forth, as of May 14, 2025, the names of the Selling Stockholders, the aggregate number of shares of common stock beneficially owned by the Selling Stockholders, the number of shares of common stock that may be sold by the Selling Stockholders under this prospectus and the number of shares of common stock that the Selling Stockholders will beneficially own after this offering. For purposes of the table below, we have assumed that after this offering, none of the shares of common stock covered by this prospectus will be beneficially owned by the Selling Stockholders. In addition, we assume that the Selling Stockholders have not sold, transferred or otherwise disposed of, our securities in transactions exempt from the registration requirements of the Securities Act.

We cannot advise you as to whether the Selling Stockholders will sell any or all of such shares of common stock. In addition, the Selling Stockholders may sell, transfer or otherwise dispose of, at any time and from time to time, the Shares in transactions exempt from the registration requirements of the Securities Act after the date of this prospectus, subject to applicable law.

Information for each additional Selling Stockholder, if any, will be included in a prospectus supplement to the extent required prior to the time of any offer or sale of such Selling Stockholders’ securities pursuant to this prospectus. Any prospectus supplement may add, update, substitute, or change the information contained in this prospectus, including the identity of each Selling Stockholder and the number of shares of common stock registered on its behalf. The Selling Stockholders are not making any representation that any securities covered by this prospectus will be offered for sale. The Selling Stockholders reserve the right to accept or reject, in whole or in part, any proposed sale of the securities. See “Plan of Distribution.” For purposes of the table below, we assume that all of the securities covered by this prospectus will be sold.

We have determined beneficial ownership in accordance with the rules of the SEC and the information is not necessarily indicative of beneficial ownership for any other purpose. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all securities that they beneficially own, subject to community property laws where applicable. Except as described in the footnotes to the following table, none of the persons and entities named in the table has held any position or office or had any other material relationship with us or our affiliates during the three years prior to the date of this prospectus. The inclusion of any shares of common stock in these table does not constitute an admission of beneficial ownership for the person named below.

Selling Stockholders	Shares of Common Stock Beneficially Owned ⁽¹⁾		Shares of Common Stock Registered Hereby	Shares of Common Stock Beneficially Owned After Sale of All Shares of Common Stock Offered	
	Shares	Percentage		Shares	Percentage
5E Capital II, LLC ⁽²⁾	1,826,821	9.1%	1,826,821	—	—
Lazarus Securities Pty Ltd ⁽³⁾	194,930	*	194,930	—	—

- * Indicates beneficial ownership of less than 1% of the total outstanding common stock.
- (1) The percentage of beneficial ownership before this offering is calculated based on 20,017,746 shares of our common stock outstanding as of May 14, 2025.
 - (2) The business address of 5E Capital II, LLC is c/o Empire Capital Management, LLC, 6724 Perimeter Loop Road, S 145, Dublin, Ohio 43017. Empire Capital Management, LLC is the manager of 5E Capital II, LLC. David J. Richards, as the manager of Empire Capital Management, LLC, may be deemed to have beneficial ownership of the securities directly held by 5E Capital II, LLC.
 - (3) The business address of Lazarus Securities Pty Ltd is 264 George Street, Level 18, Australia Square Tower, Sydney, Australia 2000.

PLAN OF DISTRIBUTION

We are registering the resale by the Selling Stockholders or their respective permitted transferees of the Shares. We will not receive any of the proceeds from the sale of the securities by the Selling Stockholders.

The Selling Stockholders may offer and sell, from time to time, the Shares. The Selling Stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then current market price or in negotiated transactions. The Selling Stockholders may sell their securities by one or more of, or a combination of, the following methods:

- on Nasdaq, in the over-the-counter market or on any other national securities exchange on which our securities are listed or traded;
- purchases by a broker-dealer as principal and resale by such broker-dealer for their own account pursuant to this prospectus;
- through one or more underwritten transactions on a firm commitment or best efforts basis;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may purchase and resell a portion of the block as principal to facilitate the transaction;
- an over-the-counter distribution in accordance with the rules of Nasdaq;
- through trading plans entered into by the Selling Stockholders pursuant to Rule 10b5-1 under the Exchange Act that are in place at the time of an offering pursuant to this prospectus and any applicable prospectus supplement hereto that provide for periodic sales of their securities on the basis of parameters described in such trading plans;
- short sales;
- agreements with broker-dealers to sell a specified number of the shares at a stipulated price per share;
- distribution to employees, members, limited partners or stockholders of the Selling Stockholders;
- through the writing or settlement of options (including put or call options) or other hedging transaction, whether through an options exchange or otherwise;
- by pledge to secured debts and other obligations;
- delayed delivery arrangements;
- in “at the market” offerings, as defined in Rule 415 under the Securities Act, at negotiated prices, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on a national securities exchange or sales made through a market maker other than on an exchange or other similar offerings through sales agents;
- directly to purchasers, including through a specific bidding, auction or other process or in privately negotiated transactions; and
- through a combination of any of the above methods of sale or any other method permitted pursuant to applicable law.

Instead of selling the securities pursuant to this prospectus, the Selling Stockholders may sell the securities in compliance with the provisions of Rule 144 under the Securities Act, if available, or pursuant to other available exemptions from the registration requirements of the Securities Act. A Selling Stockholder has the sole and absolute discretion not to accept any purchase offer or make any sale of securities if it deems the purchase price to be unsatisfactory at any particular time.

The Selling Stockholders also may transfer the securities in other circumstances, in which case the transferees, pledgees or other successors-in-interest will be the selling beneficial owners for purposes of this prospectus.

Upon being notified by a Selling Stockholder that a donee, pledgee, transferee, or other successor-in-interest intends to sell our securities, we will, to the extent required, promptly file a supplement to this prospectus to name specifically such person as a selling stockholder.

With respect to a particular offering of the securities held by a Selling Stockholder, to the extent required, an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part, will be prepared and will set forth the following information:

- the specific securities to be offered and sold;
- the name of the Selling Stockholder;
- the respective purchase prices and public offering prices, the proceeds to be received from the sale, if any, and other material terms of the offering;
- settlement of short sales entered into after the date of this prospectus;
- the names of any participating agents, broker-dealers or underwriters; and
- any applicable commissions, discounts, concessions and other items constituting compensation from the Selling Stockholder.

In connection with distributions of the securities or otherwise, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of the securities in the course of hedging the positions they assume with the Selling Stockholders.

The Selling Stockholders may also sell the securities short and redeliver the securities to close out such short positions. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by any Selling Stockholder or borrowed from any Selling Stockholder or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from any Selling Stockholder in settlement of those derivatives to close out any related open borrowings of stock.

The Selling Stockholders may also pledge securities to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution, may affect sales of the pledged securities pursuant to this prospectus (as supplemented or amended to reflect such transaction).

In order to facilitate the offering of the securities, any underwriters or agents, as the case may be, involved in the offering of such securities may engage in transactions that stabilize, maintain or otherwise affect the price of our securities. Specifically, the underwriters or agents, as the case may be, may over allot in connection with the offering, creating a short position in our securities for their own account. In addition, to cover overallotments or to stabilize the price of our securities, the underwriter or agents, as the case may be, may bid for, and purchase, such securities in the open market. Finally, in any offering of securities through a syndicate of underwriters, the

underwriting syndicate may reclaim selling concessions allotted to an underwriter or a broker-dealer for distributing such securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. The underwriters or agents, as the case may be, are not required to engage in these activities, and may end any of these activities at any time.

A Selling Stockholder may solicit offers to purchase shares directly from, and it may sell such shares directly to, institutional investors or others. In this case, no underwriters or agents would be involved. The terms of any of those sales, including the terms of any bidding or auction process, if utilized, will be described in the applicable prospectus supplement, if any.

It is possible that one or more underwriters may make a market in our securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for our securities.

Our common stock is listed on Nasdaq under the symbol “FEAM.”

The Selling Stockholders may authorize underwriters, broker-dealers or agents to solicit offers by certain purchasers to purchase the securities at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we or a Selling Stockholder pay for solicitation of these contracts.

In effecting sales, broker-dealers or agents engaged by a Selling Stockholder may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts, or concessions from the Selling Stockholders in amounts to be negotiated immediately prior to the sale, subject to applicable rules and guidelines of the Financial Industry Regulatory Authority (“FINRA”), including those related to the aggregate maximum discount, commission, fees or other items constituting underwriting compensation that may be received by any FINRA member or independent broker-dealer in any offering pursuant to this prospectus and any applicable prospectus supplement.

If at the time of any offering made under this prospectus a member of FINRA participating in the offering has a “conflict of interest” as defined in FINRA Rule 5121 (“Rule 5121”), that offering will be conducted in accordance with the relevant provisions of Rule 5121.

To our knowledge, there are currently no plans, arrangements, or understandings between the Selling Stockholders and any broker-dealer or agent regarding the sale of the shares by the Selling Stockholders. Upon our notification by a Selling Stockholder that any material arrangement has been entered into with an underwriter or broker-dealer for the sale of securities through a block trade, special offering, exchange distribution, secondary distribution or a purchase by an underwriter or broker-dealer, we will file, if required by applicable law or regulation, a supplement to this prospectus pursuant to Rule 424(b) under the Securities Act disclosing certain material information relating to such underwriter or broker-dealer and such offering.

Underwriters, broker-dealers or agents may facilitate the marketing of an offering online directly or through one of their affiliates. In those cases, prospective investors may view offering terms and a prospectus online and, depending upon the particular underwriter, broker-dealer or agent, place orders online or through their financial advisors.

In offering the securities covered by this prospectus, the Selling Stockholders and any underwriters, broker-dealers or agents who execute sales for the Selling Stockholders may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. Any discounts, commissions, concessions or profit they earn on any resale of such shares may be underwriting discounts or commissions under the Securities Act.

The underwriters, broker-dealers and agents may engage in transactions with us or a Selling Stockholder, or perform services for us or a Selling Stockholder, in the ordinary course of business.

In order to comply with the securities laws of certain states, if applicable, the securities must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the securities may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the Selling Stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of securities in the market and to the activities of the Selling Stockholders and their respective affiliates. In addition, we will make copies of this prospectus available to the Selling Stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The Selling Stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the securities against certain liabilities, including liabilities arising under the Securities Act.

LEGAL MATTERS

The validity of the common stock offered under this prospectus has been passed upon for us by Latham & Watkins LLP. Additional legal matters may be passed upon for the Selling Stockholders or any underwriters, dealers or agents by counsel named in the applicable prospectus supplement.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended June 30, 2024 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. For further information with respect to us and our common stock, reference is made to the registration statement of which this prospectus forms a part, including the exhibits and any schedules filed therewith. Statements contained in this prospectus as to the contents of any contract or other document referred to are not necessarily complete and in each instance, if such contract or document is filed as an exhibit, reference is made to the copy of such contract or other document filed as an exhibit to the registration statement of which this prospectus forms a part, each statement being qualified in all respects by such reference. The SEC maintains a website at www.sec.gov, from which interested persons can electronically access such registration statement, including the exhibits and any schedules thereto and which contains the periodic reports, proxy and information statements and other information that we file electronically with the SEC.

We also maintain an Internet website at www.5eadvancedmaterials.com. Through our website, we make available, free of charge, the following documents of 5E Advanced Materials, Inc. as soon as reasonably practicable after they are electronically filed with the SEC: Annual Reports on Form 10-K; proxy statements for our annual and special stockholder meetings; Quarterly Reports on Form 10-Q; Current Reports on Form 8-K; Forms 3, 4 and 5; Schedules 13G and Schedules 13D; and amendments to those documents. The information contained on, or that may be accessed through, our website is not part of, and is not incorporated into, this prospectus or the registration statement of which it forms a part.

INCORPORATION BY REFERENCE

The rules of the SEC allow us to incorporate information into this prospectus by reference. This means that we are disclosing important information to you by referring to other documents. The information incorporated by reference is considered to be part of this prospectus, except for any information superseded by information contained directly in this prospectus. We incorporate by reference the documents listed below:

- our Annual Report on Form 10-K for the year ended June 30, 2024, filed with the SEC on September 9, 2024;
- our Quarterly Reports on Form 10-Q for the quarters ended September 30, 2024, December 31, 2024 and March 31, 2025, filed with the SEC on November 13, 2024, February 13, 2025 and May 15, 2025, respectively;
- our Current Reports on Form 8-K (and any amendments thereto on Form 8-K/A) filed with the SEC on August 26, 2024, August 28, 2024, September 16, 2024, September 16, 2024, November 1, 2024, November 21, 2024 (but only with respect to information provided pursuant to Item 3.01 in such Current Report), December 4, 2024, December 10, 2024, January 14, 2025 (excluding any information furnished pursuant to Item 7.01 in such Current Report), January 21, 2025 (as amended on January 24, 2025), February 12, 2025, February 18, 2025, March 4, 2025, March 5, 2025 and March 13, 2025; and
- the description of our common stock contained in the registration statement on Form 10-12B, initially filed with the SEC on February 10, 2022, and any amendment or report filed with the SEC for the purpose of updating the description.

All reports and other documents we subsequently file pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of this offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information furnished to, rather than filed with, the SEC, will also be incorporated by reference into this prospectus and deemed to be part of this prospectus from the date of the filing of such reports and documents.

The information incorporated by reference into this prospectus is an important part of this prospectus. Neither we, the Selling Stockholders nor any underwriters have authorized anyone to provide you with information other than that contained in or incorporated by reference into this prospectus. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus.

You should not rely on or assume the accuracy of any representation or warranty in any agreement that we have filed as an exhibit to any document that we have publicly filed or that we may otherwise publicly file in the future because such representation or warranty may be subject to exceptions and qualifications contained in separate disclosure schedules, may have been included in such agreement for the purpose of allocating risk between the parties to the particular transaction, and may no longer continue to be true as of any given date.

If we have incorporated by reference any statement or information in this prospectus and we subsequently modify that statement or information with information contained in this prospectus, the statement or information previously incorporated in this prospectus is also modified or superseded in the same manner.

You may request a free copy of any of the documents incorporated by reference in this prospectus by writing or telephoning us at the following address:

5E Advanced Materials, Inc.
9329 Mariposa Road, Suite 210
Hesperia, CA 92344
(442) 221-0225

Exhibits to the filings will not be sent, however, unless those exhibits have specifically been incorporated by reference in this prospectus or any accompanying prospectus supplement.



Up to 2,021,751 Shares of Common Stock

PROSPECTUS

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the estimated fees and expenses payable by the registrant in connection with the offering and sale of the securities being registered:

SEC registration fee	\$1,356.03
Printing and engraving expenses	7,500
Legal fees and expenses	50,000
Accounting fees and expenses	15,000
Miscellaneous	<u>1,143.97</u>
Total	<u>\$ 75,000</u>

Item 15. Indemnification of Directors and Officers.

Section 145 of the General Corporation Law of the State of Delaware (the “DGCL”) provides, generally, 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, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, 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, partnership, joint venture, trust or other enterprise, against all expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. A corporation may similarly indemnify such person for expenses actually and reasonably incurred by such person in connection with the defense or settlement of any action or suit by or in the right of the corporation, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in the case of claims, issues and matters as to which such person shall have been adjudged liable to the corporation, provided that a court shall have determined, upon application, that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper.

In accordance with Section 102(b)(7) of the DGCL, our Certificate of Incorporation provides that a director will not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director’s duty of loyalty to us or our stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit. No such provision shall eliminate or limit the liability of a director for any act or omission occurring prior to the date when such provision became effective. Accordingly, these provisions will have no effect on the availability of equitable remedies such as an injunction or rescission based on a director’s breach of his or her duty of care.

The Certificate of Incorporation provides that we will indemnify its present and former directors and officers to the maximum extent permitted by the DGCL and that such indemnification will not be exclusive of any other rights to which those seeking indemnification may be entitled under any bylaw provision, agreement, vote of stockholders or disinterested directors or otherwise.

We have also entered into and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. Under the terms of such

indemnification agreements, we are required to indemnify each of our directors and officers, to the fullest extent permitted by the laws of the state of Delaware, if the basis of the indemnitee's involvement was by reason of the fact that the indemnitee is or was our director, officer, employee or agent or was serving at our request in an official capacity for another entity. We must indemnify our officers and directors against all direct and indirect costs, fees and expenses of any type or nature whatsoever, including all other disbursements, obligations or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be witness in, settlement or appeal of, or otherwise participating in any threatened, pending or completed action, suit, claim, counterclaim, cross claim, arbitration, mediation, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding. The indemnification agreements also require us to advance, to the extent not prohibited by law, all direct and indirect costs, fees and expenses that such director or officer incurred, provided that such person will return any such advance if it is ultimately determined that such person is not entitled to indemnification by us. Any claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

The foregoing is only a general summary of certain aspects of Delaware law, our Certificate of Incorporation and Bylaws, and the indemnification agreement and does not purport to be complete. It is qualified in its entirety by reference to the detailed provisions of the DGCL, our Certificate of Incorporation and Bylaws, and such indemnification agreements.

Any underwriting agreement or distribution agreement that we or the Selling Stockholders enter into with any underwriters or agents involved in the offering or sale of any securities registered hereby may require such underwriters or dealers to indemnify us, some or all of our directors and officers and controlling persons, if any, for specified liabilities, which may include liabilities under the Securities Act of 1933, as amended.

Item 16. Exhibits.

Exhibit No.	Description
2.1	Scheme Implementation Agreement, dated October 11, 2021 between American Pacific Borates Limited and 5E Advanced Materials, Inc. (incorporated by reference to Exhibit 2.1 to the Company's Registration Statement on Form 10-12B filed with the SEC on February 10, 2022)
3.1	Amended and Restated Certificate of Incorporation of 5E Advanced Materials, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on January 19, 2024)
3.1(a)	Certificate of Amendment to Amended and Restated Certificate of Incorporation of 5E Advanced Materials, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on February 18, 2025)
3.2	Second Amended and Restated Bylaws of 5E Advanced Materials, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the SEC on November 1, 2024)
5.1	Opinion of Latham & Watkins LLP
10.1†	Subscription Agreement, dated May 12, 2025, by and between 5E Advanced Materials, Inc. and 5E Capital II, LLC (incorporated by reference to Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q filed with the SEC on May 15, 2025)
10.2	Subscription Agreement, dated May 13, 2025, by and between 5E Advanced Materials, Inc. and Lazarus Securities Pty Ltd (incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q filed with the SEC on May 15, 2025)
23.1	Consent of PricewaterhouseCoopers LLP

23.2	Consent of Latham & Watkins LLP (included in Exhibit 5.1)
23.3	Consent of Barr Engineering Co.
23.4	Consent of Mike Rockandel Consulting LLC
23.5	Consent of Terra Modeling Services
23.6	Consent of Confluence Water Resources LLC
23.7	Consent of Escalante Geological Services LLC
23.8	Consent of Paul Weibel, CPA, 5E Advanced Materials, Inc.
24.1	Power of Attorney (see signature page)
96.1	Amended Initial Assessment Report (February 2024) (incorporated by reference to Exhibit 96.1 to the Company's Annual Report on Form 10-K/A filed with the SEC on February 2, 2024)
107	Filing Fee Table

† Certain portions of this exhibit (indicated by “[***]”) have been redacted pursuant to Regulation S-K Item 601(b)(10)(iv) because such information is (i) not material and (ii) is the type that the registrant treats as private or confidential.

Item 17. 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 SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 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), (ii) and (iii) 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 SEC by the registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act, 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.

- (5) That, for the purpose of determining liability under the Securities Act to any purchaser:
- (ii) Each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.
- (6) That, for the purpose of determining liability under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (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 SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such 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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Hesperia, State of California, on May 23, 2025.

5E ADVANCED MATERIALS, INC.

By: /s/ Paul Weibel

Paul Weibel
Chief Executive Officer

POWER OF ATTORNEY

Each of the undersigned officers and directors of the registrant hereby severally constitutes and appoints each of Paul Weibel and Joshua Malm, and each of them singly (with full power to each of them to act alone), as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them, for him and in his name, place and stead, and in any and all capacities, to file and sign any and all amendments, including post-effective amendments, to this registration statement and any other registration statement for the same offering that is to be effective under Rule 462(b) of the Securities Act of 1933, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith and about the premises as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof. This power of attorney shall be governed by and construed with the laws of the State of Delaware and applicable federal securities laws.

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

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Paul Weibel</u> Paul Weibel	Chief Executive Officer (Principal Executive Officer)	May 23, 2025
<u>/s/ Joshua Malm</u> Joshua Malm	Chief Financial Officer, Treasurer and Corporate Secretary (Principal Financial and Accounting Officer)	May 23, 2025
<u>/s/ Graham van't Hoff</u> Graham van't Hoff	Chair of the Board of Directors	May 23, 2025
<u>/s/ Curt Hébert</u> Curt Hébert	Director	May 23, 2025
<u>/s/ Barry Dick</u> Barry Dick	Director	May 23, 2025
<u>/s/ Bryn Jones</u> Bryn Jones	Director	May 23, 2025

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Costa Mesa, California 92626-1925
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www.lw.com

LATHAM & WATKINS LLP

FIRM / AFFILIATE OFFICES

Austin	Milan
Beijing	Munich
Boston	New York
Brussels	Orange County
Century City	Paris
Chicago	Riyadh
Dubai	San Diego
Düsseldorf	San Francisco
Frankfurt	Seoul
Hamburg	Silicon Valley
Hong Kong	Singapore
Houston	Tel Aviv
London	Tokyo
Los Angeles	Washington, D.C.
Madrid	

May 23, 2025

5E Advanced Materials, Inc.
9329 Mariposa Road, Suite 210
Hesperia, California 92344

Re: Registration Statement on Form S-3

To the addressee set forth above:

We have acted as special counsel to 5E Advanced Materials, Inc., a Delaware corporation (the “**Company**”), in connection with the offer and resale from time to time by the selling stockholders (the “**Selling Stockholders**”) named in the Prospectus (as defined below) of up to 2,021,751 shares of common stock, \$0.01 par value per share (the “**Shares**”). The Shares are included in a registration statement on Form S-3 under the Securities Act of 1933, as amended (the “**Act**”), filed with the Securities and Exchange Commission (the “**Commission**”) on May 23, 2025 (the “**Registration Statement**”). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related prospectus (the “**Prospectus**”), other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the “**DGCL**”), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, the Shares have been duly authorized by all necessary corporate action of the Company and are validly issued, fully paid and nonassessable.

May 23, 2025

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LATHAM & WATKINS LLP

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm in the Prospectus under the heading “Legal Matters.” In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Sincerely,

/s/ Latham & Watkins LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-3 of 5E Advanced Materials, Inc. of our report dated September 9, 2024 relating to the financial statements which appear in 5E Advanced Materials, Inc.'s Annual Report on Form 10-K for the year ended June 30, 2024. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP

Denver, Colorado
May 23, 2025

CONSENT OF BARR ENGINEERING CO.

To: U.S. Securities and Exchange Commission (“SEC”)
Board of Directors of 5E Advanced Materials, Inc.

Re: Registration Statement on Form S-3 of 5E Advanced Materials, Inc. (the “Company”) dated May 23, 2025 (the “Form S-3”)

Barr Engineering Co. (“Barr”), in connection with the Form S-3 consents to:

- (i) The filing and/or incorporation by reference by the Company and use of the Amended Technical Report Summary titled “Amended Initial Assessment Report (February 2024) on 5E Advanced Materials Fort Cady Project” with a revised report date of February 2, 2024, report date of May 11, 2023, and report effective date of April 1, 2023 (the “Amended Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, filed (or incorporated by reference) as Exhibit 96.1 to the Company’s 2023 Annual Report on Form 10-K/A, dated February 20, 2024;
- (ii) The use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form S-3 and any such Amended Technical Report Summary; and
- (iii) The use of any quotation from, or summarization of, the particular section or sections of the Amended Technical Report Summary in the Form S-3, to the extent it was prepared by us, that we supervised its preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference to the Form S-3.

Barr is responsible for, and this consent pertains to Sections 13, 15 and 18 of the Amended Technical Report Summary.

Neither the whole nor any part of the Amended Initial Assessment Report (February 2024) nor any reference thereto may be included in any other filings with the SEC without the prior written consent of Barr as to the form and context in which it appears.

Dated: May 23, 2025

By: /s/ Daniel R. Palo
Name: Daniel R. Palo, PhD, P. Eng., P.E.
Title: Senior Process Engineer, Barr Engineering Co.

CONSENT OF MIKE ROCKANDEL CONSULTING LLC

To: U.S. Securities and Exchange Commission (“SEC”)
Board of Directors of 5E Advanced Materials, Inc.

Re: Registration Statement on Form S-3 of 5E Advanced Materials, Inc. (the “Company”) dated May 23, 2025 (the “Form S-3”)

Mike Rockandel Consulting LLC (“MRC”), in connection with the Form S-3 consents to:

- (i) The filing and/or incorporation by reference by the Company and use of the Amended Technical Report Summary titled “Amended Initial Assessment Report (February 2024) on 5E Advanced Materials Fort Cady Project” with a revised report date of February 2, 2024, report date of May 11, 2023, and report effective date of April 1, 2023 (the “Amended Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, filed (or incorporated by reference) as Exhibit 96.1 to the Company’s 2023 Annual Report on Form 10-K/A, dated February 20, 2024;
- (ii) The use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form S-3 and any such Amended Technical Report Summary; and
- (iii) The use of any quotation from, or summarization of, the particular section or sections of the Amended Technical Report Summary in the Form S-3, to the extent it was prepared by us, that we supervised its preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference to the Form S-3.

MRC is responsible for, and this consent pertains to Sections 10.3 and 14 of the Amended Technical Report Summary.

Neither the whole nor any part of the Amended Initial Assessment Report (February 2024) nor any reference thereto may be included in any other filings with the SEC without the prior written consent of MRC as to the form and context in which it appears.

Dated: May 23, 2025

By: /s/ Mike Rockandel
Name: Mike Rockandel
Society for Mining, Metallurgy and
Exploration (Member No. 4122579)
Title: President, Mike Rockandel Consulting LLC

CONSENT OF TERRA MODELING SERVICES

To: U.S. Securities and Exchange Commission (“SEC”)
Board of Directors of 5E Advanced Materials, Inc.

Re: Registration Statement on Form S-3 of 5E Advanced Materials, Inc. (the “Company”) dated May 23, 2025 (the “Form S-3”)

Terra Modeling Services (“TMS”), in connection with the Form S-3 consents to:

- (i) The filing and/or incorporation by reference by the Company and use of the Amended Technical Report Summary titled “Amended Initial Assessment Report (February 2024) on 5E Advanced Materials Fort Cady Project” with a revised report date of February 2, 2024, report date of May 11, 2023, and report effective date of April 1, 2023 (the “Amended Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, filed (or incorporated by reference) as Exhibit 96.1 to the Company’s 2023 Annual Report on Form 10-K/A, dated February 20, 2024;
- (ii) The use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form S-3 and any such Amended Technical Report Summary; and
- (iii) The use of any quotation from, or summarization of, the particular section or sections of the Amended Technical Report Summary in the Form S-3, to the extent it was prepared by us, that we supervised its preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference to the Form S-3.

TMS is responsible for, and this consent pertains to Sections 8, 9, 10, 11 and 12 of the Amended Technical Report Summary.

Neither the whole nor any part of the Amended Initial Assessment Report (February 2024) nor any reference thereto may be included in any other filings with the SEC without the prior written consent of TMS as to the form and context in which it appears.

Dated: May 23, 2025

By: /s/ Louis Fourie
Name: Louis Fourie, P.Geo.
Title: Principal, Terra Modeling Services

CONSENT OF CONFLUENCE WATER RESOURCES LLC

To: U.S. Securities and Exchange Commission (“SEC”)
Board of Directors of 5E Advanced Materials, Inc.

Re: Registration Statement on Form S-3 of 5E Advanced Materials, Inc. (the “Company”) dated May 23, 2025 (the “Form S-3”)

Confluence Water Resources, LLC (“CWR”), in connection with the Form S-3 consents to:

- (i) The filing and/or incorporation by reference by the Company and use of the Amended Technical Report Summary titled “Amended Initial Assessment Report (February 2024) on 5E Advanced Materials Fort Cady Project” with a revised report date of February 2, 2024, report date of May 11, 2023, and report effective date of April 1, 2023 (the “Amended Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, filed (or incorporated by reference) as Exhibit 96.1 to the Company’s 2023 Annual Report on Form 10-K/A, dated February 20, 2024;
- (ii) The use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form S-3 and any such Amended Technical Report Summary; and
- (iii) The use of any quotation from, or summarization of, the particular section or sections of the Amended Technical Report Summary in the Form S-3, to the extent it was prepared by us, that we supervised its preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference to the Form S-3.

CWR is responsible for, and this consent pertains to Section 7.3 of the Amended Technical Report Summary.

Neither the whole nor any part of the Amended Initial Assessment Report (February 2024) nor any reference thereto may be included in any other filings with the SEC without the prior written consent of CWR as to the form and context in which it appears.

Dated: May 23, 2025

By: /s/ Mathew Banta
Name: Mathew Banta, PH
AIH Cert. No. 15-HGW-7004
Title: Principal,
Confluence Water Resources LLC

CONSENT OF ESCALANTE GEOLOGICAL SERVICES LLC

To: U.S. Securities and Exchange Commission (“SEC”)
Board of Directors of 5E Advanced Materials, Inc.

Re: Registration Statement on Form S-3 of 5E Advanced Materials, Inc. (the “Company”) dated May 23, 2025 (the “Form S-3”)

Escalante Geological Services LLC (“Escalante”), in connection with the Form S-3 consents to:

- (i) The filing and/or incorporation by reference by the Company and use of the Amended Technical Report Summary titled “Amended Initial Assessment Report (February 2024) on 5E Advanced Materials Fort Cady Project” with a revised report date of February 2, 2024, report date of May 11, 2023, and report effective date of April 1, 2023 (the “Amended Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, filed (or incorporated by reference) as Exhibit 96.1 to the Company’s 2023 Annual Report on Form 10-K/A, dated February 20, 2024;
- (ii) The use of and references to our name, including our status as an expert or “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form S-3 and any such Amended Technical Report Summary; and
- (iii) The use of any quotation from, or summarization of, the particular section or sections of the Amended Technical Report Summary in the Form S-3, to the extent it was prepared by us, that we supervised its preparation of and/or that was reviewed and approved by us, that is included or incorporated by reference to the Form S-3.

Escalante is responsible for, and this consent pertains to Sections 3, 4, 5, 6, 7, 17 and 20 of the Amended Technical Report Summary.

Neither the whole nor any part of the Amended Initial Assessment Report (February 2024) nor any reference thereto may be included in any other filings with the SEC without the prior written consent of Escalante as to the form and context in which it appears.

Dated: May 23, 2025

By: /s/ Steven Kerr
Name: Steven Kerr, P.G., C.P.G.
Title: Principal, Escalante Geological Services LLC

In connection with the Registration Statement on Form S-3 (the “Form S-3”) to be filed by 5E Advanced Materials, Inc. (the “Company”) with the U.S. Securities and Exchange Commission (“SEC”), the undersigned hereby consents to:

- (i) The filing and/or incorporation by reference by the Company and use of the Amended Technical Report Summary titled “Amended Initial Assessment Report (February 2024) on 5E Advanced Materials Fort Cady Project” with a revised report date of February 2, 2024, report date of May 11, 2023, and report effective date of April 1, 2023 (the “Amended Technical Report Summary”) that was prepared in accordance with Subpart 1300 of Regulation S-K promulgated by the SEC, filed (or incorporated by reference) as Exhibit 96.1 to the Company’s 2023 Annual Report on Form 10-K/A, dated February 20, 2024;
- (ii) The use of and references to the undersigned’s name as a “qualified person” (as defined in Subpart 1300 of Regulation S-K promulgated by the SEC), in connection with the Form S-3 and any such Amended Technical Report Summary; and
- (iii) The use of any quotation from, or summarization of, the particular section or sections of the Amended Technical Report Summary in the Form S-3, to the extent it was prepared by the undersigned, that the undersigned supervised its preparation of and/or that was reviewed and approved by the undersigned, that is included or incorporated by reference to the Form S-3.

The undersigned is responsible for, and this consent pertains to Sections 1, 2, 16, 19, 21, 22, 23, 24 and 25 of the Amended Technical Report Summary.

Neither the whole nor any part of the Amended Initial Assessment Report (February 2024) nor any reference thereto may be included in any other filings with the SEC without the prior written consent of the undersigned as to the form and context in which it appears.

By: /s/ Paul Weibel
Name: Paul Weibel, CPA
(License No. CA 056912)
Title: Chief Executive Officer,
5E Advanced Materials, Inc.

Date: May 23, 2025

Calculation of Filing Fee Tables

Form S-3
(Form Type)

5E Advanced Materials, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Share	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Newly Registered Securities							
Equity	Common stock, par value \$0.01 per share	Rule 457(c)	2,021,751 ⁽²⁾	\$4.41 ⁽³⁾	\$8,915,921.91	\$153.10 per \$1,000,000	\$1,356.03
Total Offering Amounts					\$8,915,921.91		\$1,356.03
Total Fees Previously Paid							—
Total Fee Offsets							—
Net Fee Due							\$1,356.03

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall also cover any additional shares of common stock, par value \$0.01 per share (the “Common Stock”), of 5E Advanced Materials, Inc. that become issuable by reason of any stock dividend, stock split, recapitalization, or other similar transaction without receipt of consideration.
- (2) The 2,021,751 shares of Common Stock consist of (i) 1,826,821 shares of Common Stock issued to 5E Capital II, LLC and (ii) 194,930 shares of Common Stock issued to Lazarus Securities Pty Ltd.
- (3) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) under the Securities Act based upon the average of the high and low prices for the Common Stock as reported on the Nasdaq Global Select Market on May 20, 2025.