

5E ADVANCED MATERIALS EXECUTES RESEARCH AGREEMENT TO ENHANCE SOLAR ENERGY SYSTEMS

HIGHLIGHTS

- 5E to collaborate with Boston College, a leading university with world renowned boron chemistry expertise
- Research aims to develop a novel boron-based solar energy capture, conversion, and storage system
- Research aligns with 5E's strategy of IP creation in future facing boron-enabled applications

5E Advanced Materials, Inc. (Nasdaq: FEAM) (ASX: 5EA) ("5E," "We," "Our," or the "Company"), an exploration stage boron and lithium company with U.S. government Critical Infrastructure designation for its Fort Cady asset, today announced its research collaboration agreement with Boston College for the advancement of boron-based materials research in solar energy systems. Under the terms of the agreement, 5E will provide funds to and collaborate with Boston College in exploring and developing novel boron-based materials that have the potential to integrate solar energy capture, conversion, and storage into a single closed system. This research has the potential to create intellectual property and commercialization pathways for 5E as it pertains to the manufacturing of boron enhanced solar energy systems.

Solar energy is expected to play an important role in serving the increasing demand for a carbon-neutral global economy. The IEA expects solar energy to account for 60% of the increase in global renewable capacity in 2022 and the National Renewable Energy Laboratory (NREL) forecasts that solar energy could provide up to 45% of the electricity in the U.S. by 2050. Scalable, efficient technologies in solar energy capture, conversion, and storage will be important factors in economically supplying increasing demand.

This research agreement has the potential to create boron-based materials that serve the accelerating, future-facing solar marketplace. This agreement also aligns with 5E's strategy to become a global leader in boron specialty and advanced materials by collaborating with innovative leaders such as Boston College.

Commenting on the research agreement, Boston College Professor, Shih-Yuan Liu, said:

"Boron is an extremely versatile element with fascinating elemental and chemical properties. We have been developing boron-based compounds for applications across biomedical research and catalysis to optoelectronic materials and are excited to focus on solar energy applications given decarbonization implications. This research has the potential to create boron advanced materials that capture the energy of sunlight and directly convert it into a storable high-energy fuel."

"We are pleased to work with 5E on this endeavour since their thought leadership and vertically integrated business allow for a smooth transition from basic research to prototype development and large-scale production."

Commenting on the research agreement, 5E CCO and CTO, Dr. Dinakar (Dino) Gnanamgari, said:

"There is an ever-increasing global call for a decarbonized future, and solar energy will be a major part of the solution. To achieve success, however, will require enhanced, scalable technologies for solar energy capture, conversion, and storage. We believe our research agreement with world renowned university, Boston College, has the potential to create such an efficient solar energy platform using boron advanced materials."

About 5E Advanced Materials, Inc.

5E Advanced Materials, Inc. (Nasdaq: FEAM) (ASX: 5EA) is an exploration stage company focused on becoming a vertically integrated global leader and supplier of boron specialty and advanced materials, complemented by lithium production capabilities. Our mission is to become a supplier of these critical materials to industries addressing global decarbonization, food production, and domestic security. We anticipate boron and lithium products will target applications in the fields of electric transportation, clean energy infrastructure such as solar and wind power, fertilizers, and domestic security. Our business strategy and objectives are to develop capabilities ranging from upstream extraction and product sales of boric acid, lithium carbonate and potentially other co-products, to downstream boron advanced material processing and development. Our business is based on our large domestic boron and lithium resource, which is located in Southern California and designated as Critical Infrastructure by the Department of Homeland Security's



Cybersecurity and Infrastructure Security Agency, and we intend to leverage this asset once commercially operational to internally supply our proposed downstream advanced material development activities over time.

Forward Looking Statements and Disclosures

This press release contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995 regarding our future expectations and plans and prospects for the Company. Words such as “anticipates,” “estimates,” “expects,” “projects,” “forecasts,” “intends,” “plans,” “will,” “believes” and words and terms of similar substance used in connection with any discussion generally identify forward-looking statements. These forward-looking statements are based on management’s current expectations and beliefs about future events and are inherently susceptible to uncertainty and changes in circumstances. Various factors could adversely affect the Company’s operations, business or financial results in the future and cause the Company’s actual results to differ materially from those contained in the forward-looking statements. For additional information regarding these various factors, you should carefully review the risk factors and other disclosures in the Company’s amended Form 10 filed with the U.S. Securities and Exchange Commission on March 7, 2022, and its Form 10-Q filed with the SEC on May 12, 2022, as well as the latest risk factors described in the Form 8-K filed on August 11, 2022. Additional risks are also disclosed by 5E in its filings with the Securities and Exchange Commission throughout the year, including its Form 10-K, Form 10-Qs and Form 8-Ks, as well as in its filings under the Australian Securities Exchange. Any forward-looking statements are given only as of the date hereof. Except as required by law, 5E expressly disclaims any obligation to update or revise any such forward-looking statements. Additionally, 5E undertakes no obligation to comment on third party analyses or statements regarding 5E’s actual or expected financial or operating results or its securities.

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