Leading Edge Materials Provides an Update on the Natural Graphite Anode Research Project

28.06.2018 | CNW

VANCOUVER, June 27, 2018 /CNW/ - Leading Edge Materials Corp. ("Leading Edge Materials") or ("the "Company") (TSXV:LEM) (OTCQB: LEMIF) (Nasdaq First North: LEMSE) is pleased to provide a progress report on the Swedish government funded research project entitled "Natural Swedish Graphite for Future Lithium Ion Batteries" announced October 16th 2017.

Leading Edge Materials is a founding participant in the project, along with the Ångström Advanced Battery Centre ("ÅABC"), Uppsala University, Sweden. The project is focused on the application and optimization of high purity natural graphite as anode material for lithium ion batteries, using graphite sourced from Leading Edge Materials' Woxna project in Sweden. Major funding is provided by Vinnova, a Swedish government agency working under the Ministry of Enterprise and Innovation to promote research investment.

Work completed under this project to date has included electrochemical testing of unpurified Woxna flotation concentrate to establish baseline performance. A slurry of Woxna graphite together with binder and carbon black was applied to copper foil which were then vacuum dried and assembled as pouch cells with a Li metal electrode, a separator and electrolyte. Galvanostatic testing of the Woxna graphite anode demonstrated a broad capacity range with some cells exceeding the theoretical capacity (372 mAh g-1) of graphite, attributable to the presence of impurities.

This baseline data provides critical information for the next round of purification test work, which will include electrochemical testing of graphite thermally treated at up to 2300 °C. Results are anticipated late Q3 2018 and will be reported as they become available.

Led by Uppsala University's Professor Kristina Edström, the ÅABC is the largest battery research group in the Nordic countries with research focused on all aspects of the chemistry of rechargeable batteries and fuel cells. Professor Edström, recently awarded the Royal Institute of Technology ("KTH") Grand Prize, is a world-renowned expert in energy storage technology and battery innovation, and her contribution at the ÅABC has been a significant catalyst for the substantial lithium ion battery industry investments that are now flowing to Sweden. Of particular note is the investment of Northvolt AB, with the financial backing of the European Investment Bank, which in early June received a permit for construction and operation of a lithium ion battery manufacturing plant in Skellefteå. The proposed plant will produce 8 GWh cell capacity annually from 2020 expanding to 32 GWh in 2023.

The Ångström Advanced Battery Center and Professor Edström have been associated with Leading Edge Materials' Woxna graphite mine since its initial operation in the early 2000's. As lithium ion batteries contain up to 20% graphite, optimization of graphite anode materials has been a long-term research focus.

Blair Way, President and CEO, states, "Sweden presents many natural advantages for taking a leading role in lithium ion battery manufacture. While it is easy to point to access to raw materials and low cost green energy, it is also the knowledge developed by Professor Edström and the Ångström Advanced Battery Center that has allowed Swedish industry to react quickly to the emerging energy storage opportunity with an estimated value of €250 billion by 2025 in Europe alone. The combination of our fully built Woxna graphite mine, with the cutting-edge research of Kristina and her team, place Leading Edge Materials in a very strong position as a preferred anode supplier as European battery manufacture rolls out over coming years."

On behalf of the Board,

"Blair Way"
Blair Way, President & CEO

Qualified Person

The qualified person for the Company's project, Mr. Blair Way B.S. (Geology) M.B.A., a Fellow of the Australasian Institute of Mining and Metallurgy, the Company's President and CEO, has reviewed and verified the contents of this document.

About Leading Edge Materials

Leading Edge Materials is a Canadian public company focused on production of high value critical raw materials for the European market, with an operating base in the Nordic region, a region well recognised for its promotion and investment in innovation. LEM's flagship asset is the Woxna Graphite production facility located in central Sweden targeting the supply of specialty materials for lithium ion battery production. LEM's assets and research focus are towards the raw materials for Li-ion batteries (graphite, lithium, cobalt); materials for high thermal efficiency building products (graphite, silica, nepheline); and materials that improve the efficiency of energy generation (dysprosium, neodymium, hafnium). Investments are linked to the global shift to low-carbon energy generation and energy storage. Leading Edge Materials currently operate in four divisions, Graphite, Lithium, Rare Earth and Cobalt. Remium Nordic AB is the company's Certified Adviser ("CA") as part of the listing requirements for Nasdaq First North.

Additional Information

Leading Edge Materials is listed on the TSXV under the symbol "LEM" and Nasdaq First North Stockholm under the symbol " LEMSE". Remium Nordic AB is the Company's Certified Adviser on Nasdaq First North.

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accept responsibility for the adequacy or accuracy of this news release.

Forward-Looking Information. This news release may contain forward-looking statements and information based on current expectations. These statements should not be read as guarantees of future performance or results. Such statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from those implied by such statements. Such statements include but are not limited to, unexpected geological conditions; the Company's expectations regarding exploration activities to advance critical material projects for energy storage markets, delays in obtaining or failure to obtain necessary permits and approvals from government authorities. Although such statements are based on management's reasonable assumptions, there are risk factors which could cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information contained herein. All forward-looking information herein is qualified in its entirety by this cautionary statement, and the Company disclaims any obligation to revise or update any such forward-looking information or to publicly announce the result of any revisions to any of the forward-looking information contained herein to reflect future results, events or developments, except as required by law.

Contact
1 604 685 9316 info@leadingedgematerials.com www.leadingedgematerials.com

SOURCE Leading Edge Materials