



LEADING EDGE MATERIALS CORP.

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NEWS RELEASE

December 15, 2024

CEO UPDATE TO SHAREHOLDERS

Vancouver, December 15, 2024 – Leading Edge Materials Corp. (“Leading Edge Materials” or the “Company”) (TSXV: LEM) (Nasdaq First North: LEMSE) (OTCQB: LEMIF) provides an update from the CEO to shareholders.

Kurt Budge, Chief Executive Officer, writes:

“When I joined the Company in May, the Norra Kärr Heavy Rare Earth (“HREE”) Project was the priority. In August this year, the Company submitted an application for Strategic Project status under the European Union’s Critical Raw Materials Act (“CRMA”) and, last week, we submitted a new application for an Exploitation Concession (“Bearbetningskoncession”) 25-year mining lease to the Mining Inspectorate of Sweden (“Bergsstaten”).

The Norra Kärr journey started long ago, with its discovery by the Geological Survey of Sweden (“SGU”) in the early 1900s. In more recent times, July 2011, SGU designated Norra Kärr a mineral deposit of national interest linked to its potential for providing a supply of rare earth elements (“REE”) to Sweden and Europe. Norra Kärr is the only NI 43-101 compliant REE resource in mainland Europe.

Norra Kärr represents the EU’s first step towards primary production and establishment of a secure, sustainable, and resilient supply chain for HREEs. With EU demand for rare earth metals expected to increase six-fold by 2030, wars, uncertainty around geopolitics and global trade policies mean that security of supply of critical raw materials is of paramount importance.

The 2014 report by The European Rare Earths Competency Network (“ERECON”) titled Strengthening ‘The European Rare Earths Supply-Chain’, stated that ‘The development of new sources of heavy rare earths outside of China and greater recycling must [therefore] remain an urgent priority...’.

In 2023, the EU imported 18,300 tonnes of rare earth elements, with imports split between China 39%, Malaysia 33%, and Russia 22%. Clearly, supply disruption from anyone of these sources would be damaging for the EU. The geopolitical risk is self-evident. In the current design, Norra Kärr is estimated to produce 5,341 tonnes of rare earth oxides over a production life of 26 years, with only a third of the defined resource being exploited. The critical importance of the deposit to the EU cannot be underestimated.

The CRMA, adopted by the European Council on 18 March this year is at the forefront of the EU’s efforts to reduce dependency on China, and to build secure and sustainable regional supply chains for critical raw materials. The CRMA represents a potential game-changer for the Company’s portfolio.

Looking ahead, 2025 is shaping up to be a transformational year for Norra Kärr, with a decision expected on Strategic Project status in the first quarter, and thereafter the Bearbetningskoncession. The Company is also planning for the start of Pre-feasibility in the second quarter.

The Company believes that the decoupling of extraction and downstream processing, with a quarry at Norra Kärr producing two valuable products, a HREE magnetic concentrate and the industrial mineral nepheline syenite, and an industrial plant conceptually located at Luleå, could expedite permitting timelines.

The scope of the downstream is being considered, with one option being to create a rare earths processing hub that could import concentrates as well as process Norra Kärr material. This would not only capture the value chain in Sweden, but also increase the significance of the overall project, as the Company is in effect creating two strategically important businesses instead of one.

When the financials were modelled for the Preliminary Economic Assessment in 2021, the Project had a pre-tax NPV₁₀ of over US\$1B. While the numbers will be updated in PFS, we have a robust project, and the Company is already mapping the funding options that could be available as we progress.

The urgency to back development and attract investment is not lost on President-elect Donald Trump who posted last week that “Any person or company investing ONE BILLION DOLLARS, OR MORE, in the United States of America, will receive fully expedited approvals and permits, including, but in no way limited to, all Environmental approvals. GET READY TO ROCK!!!”.

While the substance may be lacking for now, the intent is clear, and new policies could see an acceleration of investments already being made by the U.S. International Development Finance Corporation (“DFC”) in critical raw materials projects.

The EU is mobilizing investment opportunities, with, on 3 December, the European Commission and the European Investment Bank (“EIB”) announcing a new partnership to support investments in the EU’s battery manufacturing sector, a further €1.8 billion committed to investments in the wider battery value chain, as part of €3 billion of public support in total for the development of a competitive and sustainable European battery industry.

As the only built and permitted natural flake graphite mine in Europe, Woxna Graphite is well-positioned to play a significant role in the production of a ‘headline news’ critical raw material, natural graphite, as feedstock to the European anode value chain or industrial graphite markets.

China’s influence on graphite is clear. In October 2023, China’s Ministry of Commerce and the General Administration of Customs announced that effective December 2023, export permits would be imposed on key lithium-ion battery anode raw materials. The affected products were high purity synthetic graphite and its products, and natural flake graphite and its products, including spherical and expanded graphite. The export controls were imposed by China on the grounds of safeguarding domestic interests.

When it comes to global trade, in June, the US announced 25% tariffs on imports of natural and synthetic graphite anodes from China, following the previous announcement of 25% tariffs on natural graphite imports beginning in 2026. Fastmarkets analyst Georgi Georgiev has said “graphite has emerged as Washington’s ‘Achilles Heel’ in its trade confrontation with Beijing”.

The case for regional primary raw material supply is further strengthened when a major natural graphite producer Syrah Resources declares ‘force majeure’ for its Balama operations in Mozambique, caused by post-general election civil unrest and violent protests across the country’s major cities. Syrah is one of the few established graphite producers outside of China but has been unable to produce at Balama throughout October-December. Syrah reports it is working on restoring operations “as quick as possible” but has acknowledged that will be a lengthy process.

While graphite may have been the forgotten part of the lithium-ion battery until now, it's becoming harder to ignore, and if we are to have a successful energy transition, then e-mobility and renewables generation are key, and for those end-uses you need lots of graphite for manufacturing anodes. Stable jurisdictions, such as the Nordics, can contribute to delivering the essential raw materials needed to support the European battery industry. The EU currently imports approximately 100,000 tonnes per year of natural graphite.

Woxna has had its challenges over the years, but the broader context is very different now, the adoption of the CRMA, uncertain geopolitics and trade flows, increasing the strategic importance of natural graphite to Sweden and the European Union, and by extension new opportunities to raise finance for exploration and development.

The Company continues to review options for Woxna, which include the possibility of contracting with a long-term partner willing to pay for secure natural graphite produced to the highest ESG and sustainability standards. The Company believes that the market must value and pay for these attributes, and that transparency initiatives will create a barrier to entry for non-compliant raw materials and be a driver for their improved performance.

The EU's support for critical raw materials exploration and development has also seen, in July, the European Bank for Reconstruction and Development ("EBRD") and the EU launched a joint facility aimed at providing equity investments of up to €100 million for the exploration of critical and strategic raw materials. The EBRD has committed €25 million to the facility, which will be matched by the EU's Horizon Europe Programme under the InvestEU umbrella, with the goal of mobilizing an additional €50 million in investments. This initiative could benefit the Company's work at Bihor Sud, as countries like Romania are very much in consideration as investment destinations.

Drilling at Bihor Sud was initially delayed over the summer, due to the late arrival of the rig and the need to implement robust health and safety protocols and finally started at the end of September. Since then, steady progress has been made as the team operating the Company's rig has been training 'on the job' and is currently drilling in gallery G7.

To accelerate the programme, the Company is hiring four new geologists and will be signing up a new drill contractor to start drilling gallery G2. The driller is expected to be on site at the end of January.

Bihor Sud remains a very exciting brownfield exploration project. It's a historic mining area with tens of kilometers of underground galleries, or tunnels, developed in the licence area. Between the 1960-90s the responsible division of the Romanian State only targeted what was then called 'strategic metals', principally uranium, and explored for nothing else.

The Company's objective at Bihor Sud, is to define a large-scale, mineable mineral resource. Initially, we are following-up on the work done in gallery G7 last year, and the extensive Cobalt-Nickel-Gold mineralized zone that was identified, and in the new year starting to drill in gallery G2 which has shown its potential for extensive Zinc-Lead-Copper-Silver mineralization. We are encouraged by the findings to date, which highlight the strong potential for discovering a significant polymetallic deposit.

To wrap-up, the Company has made good progress this year, but with a fundraising under our belt, 2025 is shaping up to be even better, with key milestones to be passed on Norra Kärr as that project grows in recognition, a new plan for Woxna, and we hope exploration success at Bihor Sud.

I and the Board of Directors of Leading Edge Materials send our thanks to the Company's shareholders, our employees and stakeholders for their support in 2024 and we wish everyone a very Merry Christmas and a Happy New Year.

Norra Kärr - Preliminary Economic Assessment 2021 (PEA)

PEA 2021 news release: <https://leadingedgematerials.com/leading-edge-materials-announces-positive-preliminary-economic-assessment-results-for-its-norra-karr-ree-project-with-us1026m-pre-tax-npv10-and-30-8-pre-tax-irr/>

**On behalf of the Board of Directors,
Leading Edge Materials Corp.**

Kurt Budge, CEO

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About Leading Edge Materials

Leading Edge Materials is a Canadian public company focused on developing a portfolio of critical raw material projects located in the European Union. Critical raw materials are determined as such by the European Union based on their economic importance and supply risk. They are directly linked to high growth technologies such as lithium-ion batteries and permanent magnets for electric motors and wind power that underpin the sustainability transition of society. The portfolio of projects includes the 100% owned Woxna Graphite mine (Sweden), Norra Kärr Heavy Rare Earth Element project (Sweden), and the 51% owned Bihor Sud Nickel Cobalt exploration alliance (Romania).

Additional Information

The information was submitted for publication through the agency of the contact person set out above, on December 15, 2024, at 11:30 PM Vancouver time.

Leading Edge Materials is listed on the TSXV under the symbol "LEM", OTCQB under the symbol "LEMIF" and Nasdaq First North Stockholm under the symbol "LEMSE". Mangold Fondkommission AB is the Company's Certified Adviser on Nasdaq First North and may be contacted via email CA@mangold.se or by phone +46 (0) 8 5030 1550.

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