NEO Battery Materials to Develop High-Specification Silicon Anodes with OCSiAl Single Wall Carbon Nanotubes

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TORONTO, Nov. 28, 2024 - NEO Battery Materials Ltd. (TSXV: NBM) (OTC: NBMFF), a low-cost silicon anode materials developer that enables longer-running, rapid-charging lithium-ion batteries, is pleased to announce the signing of a Memorandum of Understanding ("MOU") with OCSiAl LLC ("OCSiAl"), the world's largest industrial producer of single wall carbon nanotubes (SWCNTs), on October 23, 2024. OCSiAl will supply NEO with SWCNT products to manufacture a high-specification model of NEO's polymer-coated silicon anodes. There are no material terms or considerations regarding this MOU.

Via the usage of single wall carbon nanotubes, NEO targets advancements in three key metrics: battery cycling stability, initial specific capacity, and coulombic efficiency. The primary application areas include electric vehicles and electronics, where enhanced longevity and energy efficiency face escalating demand.

OCSiAl's single wall carbon nanotubes, branded TUBALL™, are recognized as one of the most advanced carbonaceous materials. Even at ultra low concentrations, TUBALL™ exhibits effective performance with high conductivity, flexibility, and mechanical robustness, demonstrating the ability to increase battery cycle life by up to 4 times when added to silicon anodes. Under the MOU, OCSiAl's TUBALL™ will serve as both a conductive additive and coating materials for reinforcing the structural and electrochemical properties of NEO's silicon anodes.

Andrej Seniut, Head of OCSiAl Energy Projects, said, "The battery industry is increasingly recognizing single-wall carbon nanotubes as an indispensable component in various battery technologies, particularly in silicon anodes, where we are seeing a growing number of clients worldwide. NEO's approach to silicon anode manufacturing promises to reduce the cost of silicon anode materials, which is important for achieving increased adoption of this technology in Li-ion EV batteries. OCSiAl, being also a former start-up, supports innovative companies and wishes NEO success in their research."

Mr. Spencer Huh, Director, President, & CEO of NEO, commented, "Our partnership with OCSiAl underscores NEO's mission to pioneer silicon innovations that enhance the capabilities of lithium-ion batteries. OCSiAl's expertise in SWCNT technology directly complements our silicon anode research and our continued efforts to utilize CNTs as an enhancing material. We are confident that this collaboration will bring us closer to realizing anodes that deliver higher capacity and stability for our downstream partners."

About OCSiAl LLC
OCSiAl is the world's sole industrial producer of single wall carbon nanotubes, named TUBALL™. Headquartered in Luxembourg, OCSiAl employs around 400 employees worldwide with representation in 20 countries. Recently, OCSiAl opened its first European production facility in Serbia, which is capable of initially producing 60 tonnes of SWCNTs per year, sufficient to enhance up to 65 GWh of lithium-ion batteries or 1 million EVs.

About NEO Battery Materials Ltd.
NEO Battery Materials is a Canadian battery materials technology company focused on developing silicon anode materials for lithium-ion batteries in electric vehicles, electronics, and energy storage systems. With a patent-protected, low-cost manufacturing process, NEO Battery enables longer-running and ultra-fast charging batteries compared to existing state-of-the-art technologies. The Company aims to be a globally-leading producer of silicon anode materials for the electric vehicle and energy storage industries. For more information, please visit the Company's website at: https://www.neobatterymaterials.com/.

On Behalf of the Board of Directors
Spencer Huh

Director, President, and CEO

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This news release includes certain forward-looking statements as well as management's objectives, strategies, beliefs and intentions. All information contained herein that is not clearly historical in nature may constitute forward-looking information. Generally, such forward-looking information can be identified notably, but not limited to, by the use of forward-looking terminology such as "plans", "expects," or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved", and similar words referring to future events and results. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: (i) volatile stock prices; (ii) the general global markets and economic conditions; (iii) the possibility of write-downs and impairments; (iv) the risk associated with the research and development of advanced technologies; (v) the risk associated with the effectiveness and feasibility of technologies that have not yet been tested or proven on commercial scale; (vi) the risks associated with entering into joint ventures, collaboration agreements, joint development agreements, and similar commercial agreements; (vii) fluctuations in input precursor prices; (viii) the risks associated with uninsurable risks arising during the course of research, development and production; (ix) competition faced by the resulting issuer in securing experienced personnel and financing; (x) access to adequate infrastructure to support battery materials research and development activities; (xi) the risks associated with changes in the technology regulatory regime governing the Company; (xii) the risks associated with the various environmental regulations the Company is subject to; (xiii) risks related to regulatory and permitting delays; (xiv) the reliance on key personnel; (xv) liquidity risks; (xvi) the risk of litigation; and (xvii) risk management, as described in more detail in our recent securities filings available at?www.sedarplus.com. Forward-looking information is based on assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued research and development activities, no material adverse change in precursor prices and development plans to proceed in accordance with plans and such plans to achieve their stated expected outcomes, receipt of required regulatory approvals, and such other assumptions and factors as set out herein. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such forward-looking information. Such forward-looking information has been provided for the purpose of assisting investors in understanding the Company's business, operations, research and development, and commercialization plans and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information. We assume no obligation to revise or update these forward-looking statements except as required by applicable law.

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