Technology Advancement: NEO Battery Expands Production Yield and Capacity with Manufacturing Innovation

written by Raj Shah | March 14, 2024
March 14, 2024 (Source) – (**TSXV: NBM**) (**OTCQB: NBMFF**)

- Major Process Innovation Improves Silicon Anode Yield, Capacity, and Particle Uniformity
    - Achieved Pilot-Scale Capacity Expansion to 4,000 Kilograms Per Year Without Additional Equipment or Process Change

- Participated in Battery Japan and InterBattery 2024 to Establish Over 100 Relationships with EV and Battery Industry Players
- Widening Testing Pipeline Partners and Evaluation Scale Towards Larger Battery Capacities and Formats
- Appointed Mr. Daniel Lim as Chief Financial Officer

NEO Battery Materials Ltd. ("**NEO**" or the "**Company**"), a low-cost silicon anode materials developer that enables longer-running, rapid-charging lithium-ion batteries, is pleased to report technological advancements in NEO Battery's silicon anode production yield, capacity, and quality through its recent manufacturing innovation.

As announced on January 11, 2024, the Company filed its 9th patent to protect a significant process innovation in NEO's

silicon anode materials, NBMSiDE®. Direct implementation has resulted in the improvement of both NBMSiDE® yield and quality, increasing the pilot-scale capacity to approximately 4,000 kilograms per year from several hundred kilograms based on continuous processing.

During NBMSiDE® manufacturing, special additives effectively prevent silicon particle clustering or agglomeration by acting as an interparticle buffer layer. These layers (i) stabilize the interfacial energy between particles, (ii) reduce unnecessary particle damage during the milling process, thereby preventing excessive milling, and (iii) induce the uniform dispersion of particles in the solvents to improve manufacturing efficiency directly.

By developing similar innovations, NEO Battery Materials aims to become a leader in the silicon anode market by securing price competitiveness through increased production yield and improving particle size uniformity and product quality.

Mr. Spencer Huh, President and CEO of NEO, commented, “After the relocation and return to regular operations of the R&D Scale-Up Centre, the R&D engineering team industriously continued the analysis and formulation of the special additives. This innovation is significant as no additional equipment or process changes are required to improve NEO’s One-Step Production Process. We are optimizing to minimize bottlenecks and deviations during manufacturing, increasing the yield and uniformity of NBMSiDE® particle sizes.”

Battery Conference Participation & Corporate Updates

Over the past two weeks, the Company has participated in two global lithium-ion battery conferences: Battery Japan in Tokyo and InterBattery 2024 in Seoul. Key exhibiting companies include

CATL, BYD, Honda Motors, Hyundai-Kia, LG Energy Solution, SK On, Samsung SDI, and Posco Holdings.

NEO Battery's management and engineering team conversed and established relationships with over 100 battery materials, cell manufacturers, automotive OEMs, and investors. For the past week, the Company has been in process to establish non-disclosure agreements and collaborations with more than 10 companies met during the conferences.

For new testing pipelines, the Company is undertaking silicon anode material evaluations with an Indian-based battery cell manufacturer and automobile OEM, as well as European- and South Korean-based global battery cell manufacturers. With existing evaluators, NEO Battery Materials is preparing to conduct additional upscaled testing with silicon-graphite anodes and full-cell testing.

Appointment of Daniel Lim as Chief Financial Officer
The Company is further pleased to announce that Mr. Daniel Lim has been appointed as the Chief Financial Officer of NEO Battery Materials. Ms. Nancy Zhao has resigned from her role to pursue other interests, and the Company deeply thanks her contribution over the past six years.

Daniel Lim has extensive accounting experience in accordance with Canadian and U.S. GAAP, IFRS, and Canadian and U.S. Corporate Income Tax Act. Mr. Lim holds a Certified Public Accountant (CPA) license from Washington State. He has an excellent history of guiding corporate M&As, designing highly efficient financial systems, and optimizing business processes. Before joining the Company, Mr. Lim has accumulated experience in various industries, including the public sector, IT, manufacturing, and financial services, for over 15 years.

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 Sung Bum Huh
Director, President, and CEO

For Investor Relations, PR & More Information:
Danny Huh
SVP, Strategy & Operations
info@neobatterymaterials.com

This news release includes certain forward-looking statements as well as management's objectives, strategies, beliefs and intentions. Forward-looking statements are frequently identified by such words as "may", "will", "plan", "expect", "anticipate", "estimate", "intend" and similar words referring to future events and results. Forward-looking statements are based on the current opinions and expectations of management. All forward-looking information is inherently uncertain and subject to a variety of assumptions, risks and uncertainties, including the speculative nature of mineral exploration and development, fluctuating commodity prices, the effectiveness and feasibility of technologies which have not yet been tested or proven on a commercial scale, competitive risks and the availability of financing, as described in more detail in our recent securities filings available at www.sedarplus.com. Actual events or results

may differ materially from those projected in the forward-looking statements and we caution against placing undue reliance thereon. We assume no obligation to revise or update these forward-looking statements except as required by applicable law.

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