FORM 51-102F3

MATERIAL CHANGE REPORT

Item 1 Name and Address of Company

NEO Battery Materials Ltd. ("**NEO**" or the "**Company**")
10th Floor, 4711 Yonge Street, Toronto, ON M2N 6K8.

Item 2 Date of Material Change

The material change occurred on September 29, 2025.

Item 3 News Release

A press release in connection with the material change was issued by the Company on September 29, 2025 and filed on https://www.sedarplus.ca/ and as attached hereto as Schedule "A".

Item 4 Summary of Material Change

September 29, 2025: NEO Battery Closes Upsized Non-Brokered Private Placement Offering of $5.5 Million

Item 5 Full Description of Material Change

5.1 Full Description of Material Change

See the attached news release of the Company for a full description of the material change.

5.2 Disclosure for Restructuring Transactions

Not applicable.

Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

Not applicable.

Item 7 Omitted Information

Not applicable.

Item 8 Executive Officer

For further information with respect to this report, please contact Spencer Huh, Director, President and CEO of the Company, at (437)-451-7678.

Item 9 Date of Report

October 1, 2024.

Schedule "A"

NEO Battery Closes Upsized Non-Brokered Private Placement Offering of $5.5 Million

Toronto, Ontario – September 29, 2025

NEO Battery Materials Ltd. ("NEO" or the "Company") (**TSXV: NBM**) (**OTC: NBMFF**), a low-cost, silicon-enhanced battery developer that enables longer-running, rapid-charging batteries for drones, robotics, and electronics, is pleased to close its upsized non-brokered private placement (the "**Offering**") through the issuance of 10,785,836 units (each, a "**Unit**") at a price of $0.51 CAD per Unit for aggregate gross proceeds of approximately $5,500,000.

Each Unit consists of one common share of the Company (each, a "**Common Share**") and one non-transferable Common Share purchase warrant (each, a "**Warrant**"). Each whole Warrant will be exercisable to acquire one Common Share of the Company at an exercise price of $0.80 CAD for a period of 36 months from the closing date or until September 29, 2028.

The net proceeds of the Offering are expected to be allocated towards (i) securing the South Korean battery components and cell equipment and facilities to manufacture drone, unmanned aerial vehicle (UAV), and robotics batteries, (ii) purchases of scale-up equipment for silicon battery material development, and (iii) working capital and general corporate overhead. In connection with the Offering, the Company paid an aggregate cash commission of $203,806.77 to the eligible finders. The Offering is subject to final acceptance of the TSXV.

The Units under the Offering have been offered to purchasers outside of Canada pursuant to an exemption from the prospectus requirement available under Section 2.3 of Ontario Securities Commission Rule 72-503 – *Distributions Outside Canada* ("**OSC 72-503**"), and accordingly, the securities issued pursuant to OSC 72-503 will not be subject to resale restrictions. The Offering is not a Related Party Transaction as defined by Multilateral Instrument 61-101 – *Protection of Minority Security Holders in Special Transactions* ("**MI 61-101**") and therefore is not subject to TSXV Policy 5.9.

This news release does not constitute an offer to sell or a solicitation of an offer to buy any of the securities described herein in the United States. The securities have not been and will not be registered under the United States Securities Act of 1933, as amended (the "**1933 Act**") or any state securities laws and may not be offered or sold within the United States or to, or for account or benefit of, U.S. Persons (as defined in Regulation S under the 1933 Act) unless registered under the 1933 Act and applicable state securities law, or an exemption from such registration requirements is available.

About NEO Battery Materials Ltd.

NEO Battery Materials is a Canadian battery technology company focused on developing and producing silicon-enhanced lithium-ion batteries in drones, unmanned aerial vehicles (UAV), robotics, unmanned systems, electronics, electric vehicles, and energy storage systems for AI data centers. With a patent-protected, low-cost manufacturing process, NEO Battery enables longer-running and ultra-fast charging batteries and provides end-to-end battery solutions from materials selection, cell architecture, and process optimization. The Company aims to be a globally-leading producer of high-performance lithium-ion battery components and materials, building a secure, robust battery supply chain in North America. 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 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" or "be achieved". 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: volatile stock prices; the general global markets and economic conditions; the possibility of write-downs and impairments; the risk associated with the research and development of battery-related technologies; the risk associated with the effectiveness and feasibility of technologies that have not yet been tested or proven on commercial scale; manufacturing process scale-up risks, including maintaining consistent material quality, production yields, and process reproducibility at a pilot or commercial scale; the risks associated with compatibility of existing battery chemistries; unforeseen risks associated with entering into and maintaining collaborations, joint ventures, or partnerships with battery cell manufacturers, original equipment manufacturers, and various companies in the global battery and downstream supply chain; the risks associated with the failure to develop and produce commercially viable products or that technical goals may not be achieved within expected timelines or budgets under a joint development or collaboration; the risk associated that purchase orders may not be fulfilled in full or on time, as actual revenue realization depends on delivery schedules, achievement of technical milestones, and customer acceptance testing; counterparty risk upon delivery of commercial products; the risks associated with the construction, completion, and financing of commercial facilities including the Windsor and South Korean facilities; the risks associated with supply chain disruptions or cost fluctuations in raw materials, processing chemicals, and additive prices, impacting production costs and commercial viability; the risks associated with uninsurable risks arising during the course of research, development and production; competition faced by the Company in securing experienced personnel and financing; access to adequate infrastructure and resources to support battery materials research and development activities; the risks associated with changes in the technology regulatory regime governing the Company; the risks associated with the timely execution of the Company's strategies and business plans; the risks associated with the lithium-ion battery industry's demand and adoption of the Company's silicon anode and battery technology; market adoption and integration challenges, including the difficulty of incorporating silicon anodes and silicon battery products within battery manufacturers and OEMs systems; the risks associated with the various environmental and political regulations the Company is subject to; risks related to regulatory and permitting delays; the reliance on key personnel; liquidity risks; the risk of litigation; risk management; and other risk factors as identified in the Company's recent Financial Statements and MD&A and in recent securities filings for the Company which are available on www.sedarplus.ca. 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 R&D and commercialization activities, no material adverse change in precursor prices, development and commercialization 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. Forward-looking information is made as of the date of this presentation, and the Company does not undertake to update such forward-looking information except in accordance with applicable securities laws.