

NEO Battery Materials Announces Silicon Anode Prototype Sample Order from Major Solid-State Electrolyte Developer

September 2, 2021 (Source) – NEO Battery Materials Ltd. (**TSXV: NBM**) (**OTC: NBMFF**) (“**NEO**” or the “**Company**”) is pleased to announce that it has received a silicon anode prototype sample order from a major U.S.-based solid-state electrolyte (SSE) developer to evaluate the compatibility of the two parties’ respective materials. The Company has additionally signed two additional NDAs, which include a U.S.-based electrode material manufacturer and an Eastern European battery cell manufacturer.

Mr. Spencer Huh, President and CEO of NEO, commented, “Following our interest from the first solid-state developer, NEO has garnered the attention of another major solid-state electrolyte developer for the Company’s proprietary silicon anode materials. For the industry to bolster the safety and increase the magnitude of energy density of current lithium-ion batteries through solid-state technology, the implementation of high loading of silicon in the anode component must arise as an essential preliminary step before the full runway of solid-state battery commercialization. At NEO, our team is refining the technology for batteries with conventional liquid electrolytes that are mass-used in electric vehicles, but we concurrently recognize the importance of the solid-state direction the industry is moving towards.”

Solid-State Battery Technology

Current lithium-ion batteries in the industry for electronics and electric vehicles utilize liquid electrolytes for the transportation of lithium-ions between the cathode and anode active materials. However, liquid electrolytes have raised safety concerns due to its susceptibility to combustion, and this has led to the industry to research into solid-state electrolytes – a material which precludes the flammability issue and enhances the run-time of the battery along with excellent thermal stability.

Established battery manufacturers such as Samsung SDI and Panasonic and large OEMs, which include Volkswagen, Toyota, and BMW, have invested a substantial amount of funds into internal research, R&D institutes, and solid-state electrolyte developers to accelerate the commercialization timeline of all-solid-state batteries for electric vehicles. According to a report by IDTechEx, the solid-state battery market is expected to grow to \$8 billion USD by 2031 when predicted through capacity production and market size, and the market will be driven through the growth of EVs as OEMs are planning to mass produce the technology by 2025.

About NEO Battery Materials Ltd.

NEO Battery Materials Ltd. is a Vancouver-based resource company focused on battery metals and materials. The Company has staked new mining claims in Golden, BC, along a strike with a quartzite bed, targeting silica in the quartzites for a total of 467 hectares. NEO is also focusing on developing silicon anodes, which provide improvements in capacity and efficiency over lithium-ion batteries using graphite in their anode materials. The Company intends to become an integrated silicon producer and anode materials supplier to the electric vehicle industry. For more information, please visit the Company's website at: <https://www.neobatterymaterials.com/>.

On behalf of the Board of Directors

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