

# NEO Battery Materials Initiates Detailed Design of Silicon Anode Commercial Plant & Files PCT Patent for Key Silicon Anode Technology

written by Igor Makarov | August 5, 2022

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- Initiated Detailed Design of the Silicon Anode Commercial Plant and Completed Basic Manufacturing Design in July 2022
- Under Process of Selecting Verified Equipment Manufacturers for Long-Lead Item Procurement & Detailed Design
- Cooperating with Gyeonggi Provincial Government to Receive Construction-Related Permits to Commence Groundwork
- Filed Key Silicon Anode Material Technology PCT Patent for International Protection through World Intellectual Property Organization
  - Patent Regarding Nanocoating Layers to Enhance Structural Durability and Electrical Conductivity of Silicon Anode

NEO Battery Materials Ltd. (“**NEO**” or the “**Company**”) is pleased to announce that the Company has initiated the detailed design of the commercial manufacturing process, and equipment with long lead times are being concurrently procured through the selection of verified manufacturers. NEO has also filed a Patent Cooperation Treaty (“PCT”) patent regarding a key silicon anode material technology to build a robust international patent

portfolio.

### **Commercial Plant: Detailed Design Initiation, Equipment Procurement & Construction-Related Permits**

NEO Battery Materials has completed the basic manufacturing design in July 2022 and has subsequently initiated the detailed design of the Silicon Anode Commercial Plant. The detailed design expands on and determines the details in each area of the process, devices, piping, electrical systems, and controls based on the completed basic design. The specifications of the unit facilities will be determined according to the production capacity and characteristics of NBMSiDE™, NEO's silicon anode materials.

Concurrently, for the procurement of long lead items, the Company is in the process of selecting equipment manufacturers whose technology has been verified, and the Request for Quote (RFQ) has been forwarded to the potential manufacturers. The detailed design is expected to be completed in October 2022.

Through the cooperation with the Provincial Government of Gyeonggi, NEO Battery Materials is actively in the process of receiving construction-related permits regarding the Commercial Plant, and after selecting a construction contractor, the initial construction work will commence on the Oseong International Investment Zone in Pyeongtaek City, Gyeonggi-do.

### **PCT Patent Application**

Following the patent application filed to the Korean Intellectual Property Office ("KIPO") in October 2021, the Company has additionally filed this key silicon anode technology patent to the World Intellectual Property Organization ("WIPO") to bolster NEO's international patent portfolio.

The patent entitled *Composite nanoparticle comprising non-carbon nanoparticle and carbonaceous layer thereon, and process of*

*preparing the same* is the first patent filed in the Company's name. This core patent is with regards to the nanocoating layers on the silicon particles to prevent the volumetric expansion problem and enhance the electrical conductivity of the silicon anode during the charging and discharging mechanism (lithiation/delithiation). NEO possesses 3 issued patents and 2 which are pending issuance, and the Company will continue to file material and manufacturing patents accordingly.

***About NEO Battery Materials Ltd.***

NEO Battery Materials Ltd. is a Vancouver-based company focused on electric vehicle lithium-ion battery materials. NEO has a focus on producing silicon anode materials through its proprietary single-step nanocoating process, which provides improvements in capacity and efficiency over lithium-ion batteries using graphite in their anode materials. The Company intends to become a silicon anode active materials supplier to the electric vehicle industry. For more information, please visit the Company's website at: <https://www.neobatterymaterials.com/>.

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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.sedar.com](http://www.sedar.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.

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