NEO Battery Materials Provides Corporate Update on In-House Cell Testing, Product Evaluation and Optimization, and CNT-Based Silicon Anode Development

written by Raj Shah | September 6, 2022
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- Attaining In-House Coin Full Cell Producing Capability for NBMSiDE[™] Optimization at R&D Scale-Up Centre
 - Able to Independently Produce Coin Full Cells to Realize Time and Cost-Saving Efficiencies for Product Optimization
- On-Going NBMSiDE[™] Sample Evaluation and Optimization with Battery Cell Manufacturers
 - Increased Cell Format and Capacity Testing with Global Non-Asian Battery Manufacturer
- Developing New Carbon Nanotube (CNT)-Based NBMSiDE™ Silicon Anode Product to Improve Cycling Performance and Mechanical Durability
- Additional Collaborative Agreement Signed with Yonsei University-Industry Foundation for Fast-Track Commercialization

NEO Battery Materials Ltd. ("NEO" or the "Company") is pleased to provide the following updates on its recent corporate activities and initiatives that include 1) in-house coin full cell producing capability attainment in R&D Scale-Up Centre, 2) on-going sample evaluation and optimization with battery cell manufacturers, 3) new CNT-based silicon anode material product development, and 4) collaborative agreement with Yonsei University-Industry Foundation.

R&D Scale-Up Centre: In-House Coin Full Cell Producing Capability for Optimization

NEO Battery Materials will retain the capability to produce its own coin full cells within the NBM Korea R&D Scale-Up Centre. For the past two months, NBM Korea has been procuring equipment and materials to establish in-house production capability, and by late September, the Company will be able to independently produce coin full cells without the need for external manufacturing facilities. Through integrating cell production within the Scale-Up Centre, further time-saving and costeffective efficiencies can be realized for product optimization as NBMSiDE[™] samples, electrode plates, and coin full cells can all be fabricated in one location.

NBMSiDE[™] Sample Evaluation & Product Optimization with Battery Cell Manufacturers

NEO is continuously undertaking NBMSiDE[™] sample evaluation and product optimization with global battery cell manufacturers under NDAs. As different nanocoating materials, performance requirements, and silicon loadings are required, the silicon anode products are being finetuned with specifications requested from each cell manufacturer, creating lead times between delivery and performance testing. NEO is progressing through sending optimized products for evaluation.

Most recently, an initial coin cell test was completed with a non-Asia-based cell manufacturer that NEO has been engaged with for over 9 months since the NDA. Both companies have mutually agreed to advance to pouch cell testing, which is larger in capacity and format, and NEO will accordingly provide optimized silicon anode products to the manufacturer for further evaluation.

Silicon-CNT Anode Development with Applied Carbon Nanotechnology Ltd.

As previously announced, the Company is currently conducting trials to manufacture carbon nanotube-composite NBMSiDE™ silicon anodes based on its pending patent. On June 15, 2022, NEO signed a collaboration agreement with Applied Carbon Nanotechnology to advance carbon nanotube ("CNT") technologies on silicon particles to improve anode performance and durability. The two companies are working on a CNT-inserted NBMSiDE™ pilot product and are planning to conduct cell tests to evaluate electrochemical properties and performance.

NBM Korea Signs Collaborative Agreement with Yonsei University-Industry Foundation

NBM Korea has entered into a collaborative agreement with the Yonsei University-Industry Foundation. Based on the agreement, NBM Korea will have greater access to the University's facilities and equipment to analyze and optimize the patented NBMSiDE™ silicon anode materials. The Company and the University-Industry Foundation will mutually seek active communication between researchers to advance NEO's silicon anode commercialization project.

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
at: <u>https://www.neobatterymaterials.com/</u>.

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