

News Release - Volt Carbon Releases Battery Test Results

FOR IMMEDIATE RELEASE

Volt Carbon Technologies Releases Test Results for its High Energy Density Lithium (Li)-metal Iron Phosphate Battery and Provides Operational Update

May 8, 2024, Calgary, Alberta, Canada – Volt Carbon Technologies Inc. (“Volt Carbon” or the “Company”) (TSX-V: VCT) (OTCQB: TORVF) is pleased to announce the release of its initial test results for its exclusive Lithium Iron Phosphate battery (LFP) employing its internally developed electrolyte. These batteries were manufactured at Volt Carbon's subsidiary, Solid UltraBattery's (“SUB”) facility situated in Guelph, Ontario. These recent findings mark a significant step forward in Solid UltraBattery's advancement of high-energy LFP technology, as initially outlined in the Company's roadmap which was disclosed to the public on July 24, 2023.

Background

The increasing popularity of Lithium Iron Phosphate (LFP) arises from its cost-effectiveness compared to Lithium Nickel Cobalt Manganese Oxide (NCM), achieved by substituting the NCM cathode with an LFP cathode. Traditionally, a significant drawback has been LFP's limited energy density, impacting the driving range of electric vehicles (EVs). Numerous articles in literature confirm LFP's drawbacks, including a 2023 Forbes Magazine piece titled "Lithium Iron Phosphate Set To Be The Next Big Thing In EV Batteries," which notes a 30-40% lower energy density of LFP compared to NCM, along with the safety advantages of the LFP cathode over NCM in the event of a battery fire. A link to this article can be found at <https://www.forbes.com/sites/samabuelsamid/2023/08/16/lithium-iron-phosphate-set-to-be-the-next-big-thing-in-ev-batteries/?sh=340446717515>.

Highlights

In response to the energy density limitations of LFP, along with its acknowledged safety advantages over NCM, SUB has been working on a lithium (Li)-metal LFP battery to improve energy density. Management believes they have achieved an industry-leading 280Wh/kg for this cathode type. This technology has the potential to significantly impact battery competitiveness for electric vehicles and battery-powered devices by offering cost-effective alternatives through the removal of nickel and cobalt. Recent testing by SUB demonstrates that LFP/Li-metal battery coin cells have endured 800 cycles while maintaining 78.5% of their capacity (refer to Figure 1), marking a notable milestone in LFP/Li-metal battery technology advancement.

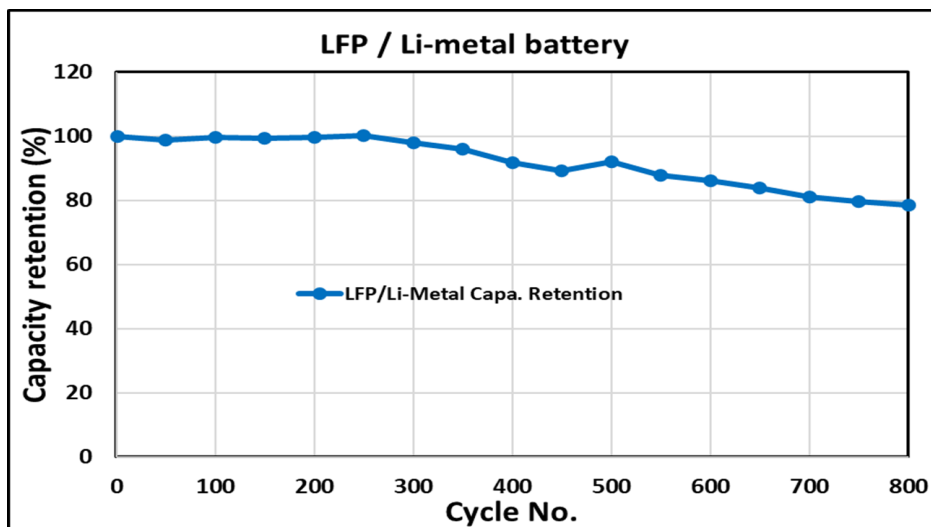


Fig. 1: Li-Metal LFP Coin Cell, Charge/Discharge data, 2.9-3.7V, C/3, 25 °C

Next Steps

These test outcomes reaffirm the Company's goal to surpass 800 cycles and achieve an 80% capacity threshold by the end of 2024 with Lithium (Li)-metal Iron Phosphate battery technologies. Additionally, the Company remains steadfast in following its technology roadmap, initially released on July 24, 2023 (refer to Figure 2 below), which outlines its strategic trajectory for lithium-ion battery product advancement until 2030.

Update on Graphite Development

Since the start of 2024, the Company has enhanced its Guelph prototype battery lab with more fabrication and cycle testing equipment, boosting its capacity to build and test pouch and coin cells. This new equipment will help in development of battery-grade anodes processed from Volt Carbon's Scarborough facility. More test results from the battery anode testing will be published in the coming months.

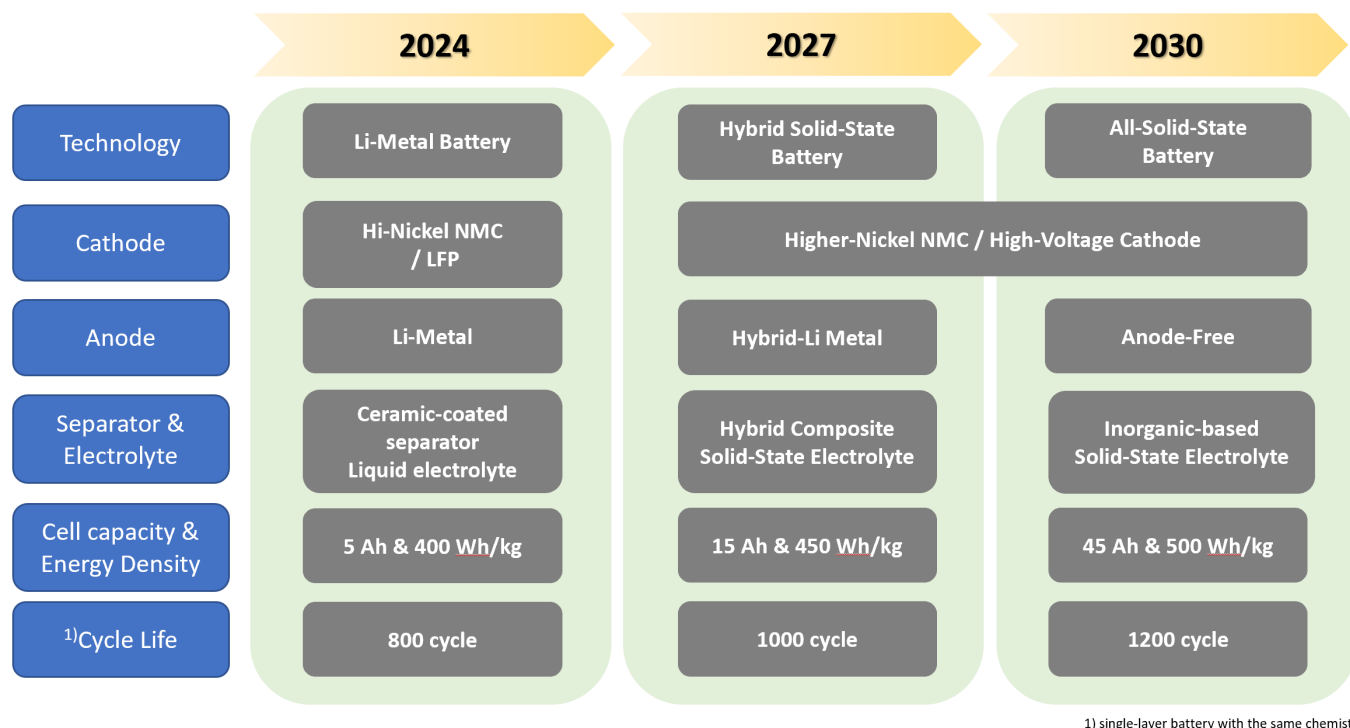


Fig. 2: Volt Carbon’s Product Roadmap

V-Bond Lee, the Company’s CEO and President, expressed his satisfaction, stating, "I'm thrilled with these great results; hitting 800 cycles is a new milestone for the Company. Our ongoing investment in talent and equipment is guiding Solid UltraBattery towards an exciting journey in energy storage development. We're fully committed to advancing and bringing our technology to market."

About Volt Carbon Technologies

Volt Carbon is a publicly traded carbon science company, with specific interests in energy storage and green energy creation, with holdings in mining claims in the provinces of Ontario, Quebec and British Columbia in Canada. For the latest information on Volt Carbon’s properties and news please refer to the website www.voltcarbontech.com.

On behalf of the Board of Directors

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These forward-looking statements are based on current expectations and are naturally subject to uncertainty and changes in circumstances that may cause actual results to differ materially. Although Volt believes that the expectations represented in such forward-looking statements are reasonable, there can be no assurance that these expectations will prove to be correct. Such statements include statements with respect to: (i) management's belief it can develop a lithium (Li)-metal LFP battery to enhance energy density resulting in an industry-leading 280Wh/kg for this type of cathode; (ii) the Company's intention to significantly influence the competitiveness of batteries for electric vehicles and battery-powered devices by providing lower-cost alternatives through the elimination of nickel and cobalt; (iii) the Company's goal to exceed 800 cycles and 80% capacity with its safe lithium metal battery technology by the end of 2024; (iv) the Company's intentions to: (A) further develop and test its proprietary MOF nanotechnology; and (B) develop and test its new proprietary composite electrolyte; (v) the ability of the upgraded the battery fabrication equipment at the Guelph facility to boost capacity to build and test pouch and coin cells; and (iv) the Company's goal to exceed the 800 cycle and 80% performance target required for potential use of its batteries in EVs. Forward-looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors, including those discussed above, could cause actual results to differ materially from the results discussed in the forward-looking statements. Any such forward-looking statements are expressly qualified in their entirety by this cautionary statement.

All of the forward-looking statements made in this press release are qualified by these cautionary statements. Readers are cautioned not to place undue reliance on such forward-looking statements. Forward-looking information is provided as of the date of this press release, and Volt assumes no obligation to update or revise them to reflect new events or circumstances, except as may be required under applicable securities legislation.