



News for Immediate Release

Electrovaya Announces Breakthrough Performance for Proprietary Solid State Hybrid Battery Technology

On track to meet automotive targets for lithium metal & solid state batteries. Achieved ~94% capacity retention after 300 cycles, scaled to multilayer pouch cell, demonstrating larger cell formats

Toronto, Ontario – April 13, 2022 – Electrovaya Inc. (“Electrovaya” or the “Company”) (TSX: EFL; OTCQB: EFLVF), a lithium-ion battery manufacturer with differentiated intellectual property that allows heightened safety and improved longevity, today announced that it has achieved breakthrough performance results for its proprietary solid state hybrid lithium metal battery technology at its Electrovaya Labs division. The results support opportunities to significantly expand Electrovaya’s product offerings and customer base over the long term.

Coin cell samples reached 300 cycles with minimal degradation under standard room temperature conditions (see Figure 1). These results highlight the ability of the technology to meet passenger automotive applications, which target 800 cycles with 80% capacity retention.

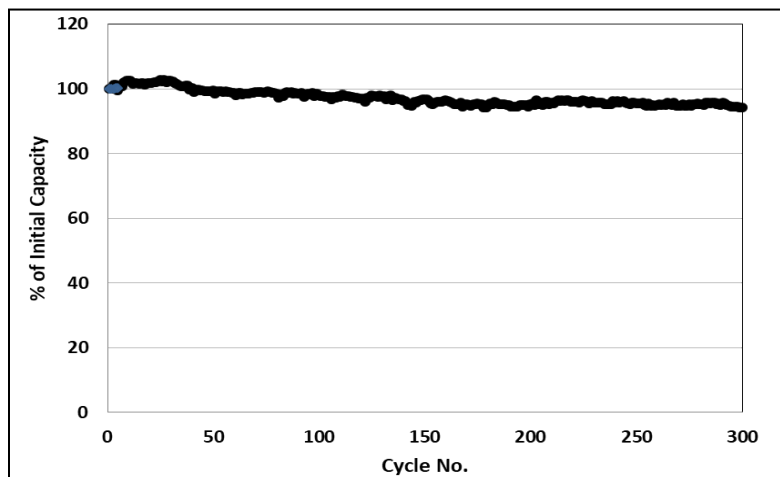


Figure 1: Capacity retention of multiple samples using Electrovaya’s proprietary solid state hybrid battery technology. Coin cell samples were cycled at C/5 rates at room temperature at 100% DO, 300 cycles with ~94% capacity retention.

Electrovaya has also achieved scaling to single, two-layer and four-layer pouch cells. These cells have been cycling at room temperature with no external pressure and are following the same trends as the coin cells. The first 40 cycles of a pouch cell sample are shown in Figure 2.

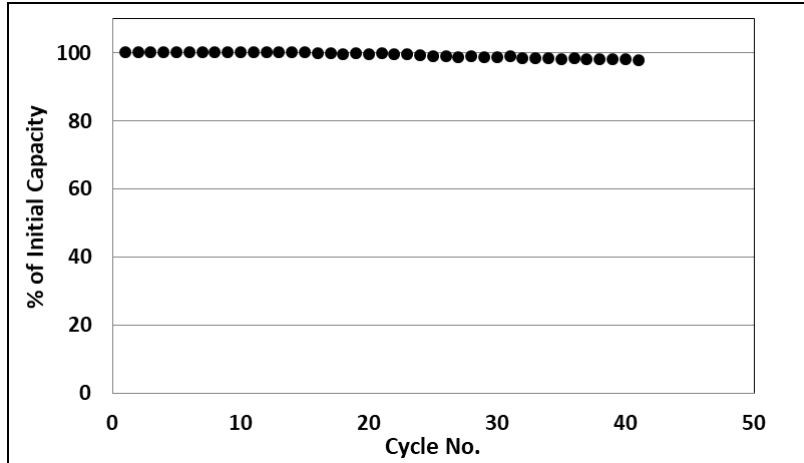


Figure 2: Capacity retention of pouch cell using Electroveya’s proprietary solid state hybrid battery technology. The samples were cycled at C/5 rates at room temperature at 100% DOD, no external pressure on cells.

“The fact that Electroveya has achieved these results without the use of external pressure on the cells and at room temperature showcases the strength of the technology relative to other solid state and lithium metal cell technologies, and will also allow easier adoption in automotive battery pack designs,” said Dr. Raj Das Gupta, COO of Electroveya.

Electroveya has extensive experience in manufacturing cells, and the aim is to scale up and manufacture these cells using available methods. The Company is scaling its process to enable development of larger pouch cells, and is accelerating efforts to reach commercial scale for its solid state hybrid technology.



Figure 2: Prototype pouch cell featuring Electrovaya’s solid state hybrid battery technology

“While our current Infinity Battery product line is proving successful for heavy duty applications including material handling electric vehicles, we are also very excited about this solid state breakthrough technology, which will enable much higher levels of energy density and potentially open up new applications for automotive and aerospace electrification,” said Dr. Sankar Das Gupta, Chairman and CEO of Electrovaya.

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About Electrovaya Inc.

Electrovaya Inc. (TSX:EFL) (OTCQB:EFLVF) is a pioneering leader in the global energy transformation, focused on contributing to the prevention of climate change by supplying the safest and longest-lasting lithium-ion batteries. Electrovaya, a technology-focused company with extensive IP, designs, develops, and manufactures proprietary lithium-ion batteries, battery systems, and battery-related products for energy storage, clean electric transportation, and other

specialized applications. To learn more about how Electrovaya is powering mobility and energy storage, please explore www.electrovaya.com.

Forward-Looking Statements

This press release contains forward-looking statements relating to the performance of the Company's proprietary solid state hybrid lithium metal battery, anticipated future performance based on past performance and upgrade of our current battery line, opportunity to expand product offerings and customer base, ability of the technology to meet passenger automotive and aerospace applications, deployment of the Company's products by the Company's customers, and the use and performance of batteries and can generally be identified by the use of words such as "may", "will", "could", "should", "would", "likely", "possible", "expect", "intend", "estimate", "anticipate", "believe", "plan", "objective" and "continue" (or the negative thereof) and words and expressions of similar import. Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, such statements involve risks and uncertainties, and undue reliance should not be placed on such statements. Certain material factors and assumptions are applied in making forward looking statements, and actual results may differ materially from those expressed or implied in such statements. Statements with respect to the performance and life of the Company's products by the Company's customers are based on an assumption that the Company's customers will deploy its products in accordance with communicated intentions and in accordance with recommended usage practices. Past performance of the batteries may not be indicative of future performance. Important factors that could cause actual results to differ materially from expectations include but are not limited to usage patterns by customers, environmental factors affecting usage, and normal product quality variation which effects are not predictable. Additional information about material factors that could cause actual results to differ materially from expectations and about material factors or assumptions applied in making forward-looking statements may be found in the Company's Annual Information Form for the year ended September 30, 2021 under "Risk Factors", and in the Company's most recent annual Management's Discussion and Analysis under "Qualitative And Quantitative Disclosures about Risk and Uncertainties" as well as in other public disclosure documents filed with Canadian securities regulatory authorities. The Company does not undertake any obligation to update publicly or to revise any of the forward looking statements contained in this document, whether as a result of new information, future events or otherwise, except as required by law.