



News for Immediate Release

Electrovaya’s Infinity Battery Technology Demonstrates Industry-Leading Cycle Life at Third Party Test Lab

Batteries completed more than 9,000 charge/discharge cycles in testing at a DNV lab, with ~87% capacity retention

Results highlight significant performance advantages of Electrovaya batteries

Toronto, Ontario – April 18th, 2023 – Electrovaya Inc. (“Electrovaya” or the “Company”) (TSX: EFL; OTCQB: EFLVF) a leading lithium-ion battery technology and manufacturing company, is pleased to announce that its batteries demonstrated industry-leading cycle life in third-party testing.

The batteries completed more than 9,000 charge/discharge cycles using aggressive vehicle duty cycles in cell testing at DNV’s BEST Test Center battery labs in Rochester, NY, while retaining approximately 87% of their initial capacity. This extrapolates to about 14,000 projected cycles until cells reach 80% of their initial capacity. The testing has been ongoing on multiple large format 44Ah cells at a variety of charge/discharge rates and temperatures for more than three years.

“This long-term testing at DNV clearly demonstrates the significant advantages of Electrovaya’s Infinity Battery Technology with respect to cycle life and longevity, even under heavy-duty conditions. In fact, the projection to more than 14,000 cycles demonstrates a performance advantage of three to five times the cycle life of a typical lithium-ion battery,” said Dr. Elmira Memarzadeh, Director of Engineering Programs at Electrovaya. “This performance, when viewed through a typical passenger car duty cycle, can be approximated to more than 3 million miles before reaching end of life, if we assume an electric vehicle has a range of 250 miles per charge.”

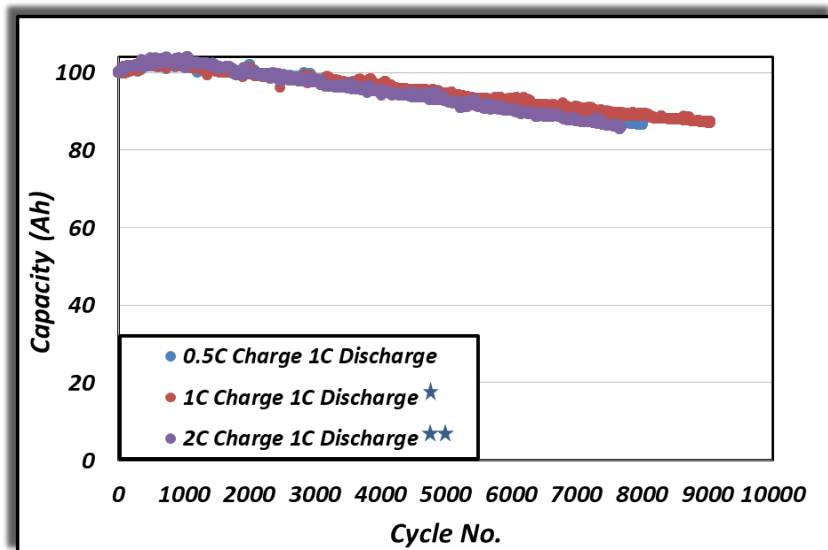
Key highlights from the test results include:

- **Capacity Retention:** Following more than three years of continuous testing, cells have completed more than 9,000 cycles with approximately 87% capacity retention. Testing has been completed at a variety of temperatures and charge/discharge rates.
- **Projected Cycle Life: Extrapolates to about 14,000** projected cycles using an aggressive vehicle duty cycle to 80% of the initial battery capacity.
- **High-Rate Charge and Discharge Rates:** Testing demonstrates no unfavourable sensitivity to charge rates within the range tested (0.5-2C Rate) at room temperature. A 2C rate would be equivalent to a battery completely charged or discharged in 30 minutes. This demonstrates that the Infinity Battery Technology can handle very high charge rates with no loss in performance, a key requirement for heavy duty applications.

- **High Energy Density:** ElectroVaya commercial cells use NMC chemistry while achieving this extraordinary longevity.
- **Decades of Operation:** Considering typical usage of one deep charge discharge cycle per day, the ElectroVaya batteries may last decades before reaching end of life.

“For typical material handling, electric bus and energy storage applications, demands on batteries often exceed one cycle per day, thereby making cycle life a key selection criteria. ElectroVaya’s technology provides a significantly better life cycle cost for these intensive-use, mission-critical applications. Accordingly, our batteries also provide a significantly lower cost of ownership, even with higher list prices,” said Dr. Raj DasGupta, CEO of ElectroVaya.

Data provided by DNV on EV-44 Cell Capacity Retention vs. Cycle Number at RT



★ Charge rate changed from 0.5C to 1C after 3,025 cycles

★★ Charge rate changed from 1C to 2C after 1,762 cycles

For more information, please contact:

Jason Roy
 Director, Corporate Development and Investor Relations
 ElectroVaya Inc.
 905-855-4618
jroy@electrovaya.com

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 safe and long-lasting lithium-ion batteries without compromising energy and power. ElectroVaya is 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. The Company has acquired a 52-acre site with a 135,000 sq.foot manufacturing building in NY State for its planned Gigafactory, in addition to its two operating locations in Canada. 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 announcements regarding cell performance, cycle life, longevity, projected performance, extrapolated cycle life, relative performance compared to competitors, use in commercial vehicle applications, cost of ownership, life cycle cost, 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”, “seed”, “growing” 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 solid state batteries, battery technologies and production roadmaps, are based on an assumption that the Company’s customers and users will deploy its products in accordance with communicated intentions, and the Company has investment capital to deploy. Important factors that could cause actual results to differ materially from expectations include but are not limited to macroeconomic effects on the Company and its business and on the Company’s customers, including inflation and tightening credit availability due to systemic bank risk, economic conditions generally and their effect on consumer demand and capital availability, labour shortages, supply chain constraints, the potential effect of health based restrictions in Canada, the US and internationally on the Company’s ability to produce and deliver products, and on its customers’ and end users’ demand for and use of products, which effects are not predictable and may be affected by additional regional outbreaks and variants, and other factors which may cause disruptions in the Company’s supply chain and Company’s capability to deliver and develop its products. 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, 2022 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.