

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*The following discussion and analysis of Electrovaya Inc.'s ("Electrovaya"; the "Company") financial condition and results of operations for the Quarters ended March 31, 2004 and 2003 includes comments that management believes are relevant to an assessment of and understanding of the Company's consolidated results of operations and financial condition. These financial statements are presented in thousands of US dollars in accordance with Canadian generally accepted accounting principles and should be read in conjunction with the Company's financial statements and related notes.*

*Certain statements may contain forward-looking statements that involve a number of risks and uncertainties, including statements regarding the outlook for the Company's business and results of operations. By nature, these risks and uncertainties could cause actual results to differ materially from those indicated. Such factors include, without limitation, the various factors set forth in the Risks and Uncertainties section of Management's Discussion and Analysis provided below, and are also discussed in public disclosure documents filed with Canadian regulatory authorities.*

*Electrovaya disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.*

### **Business of the Company**

Electrovaya's goal is to become the leading provider of tablet PC's, portable power for the notebook computer and wireless sectors, and to apply its technology to a broad spectrum of alternative energy applications including UPS, stand-by power and zero-emission vehicles. Its technology is aimed at high value products globally using award winning patented proprietary lithium ion SuperPolymer<sup>®</sup> rechargeable battery technology.

Our products and services include:

- Lithium ion SuperPolymer<sup>®</sup> batteries such as our Powerpad 80, 120 and 160 batteries for the notebook market;
- Scribbler tablet PCs, including our SC100 and SC2000 series;
- Aerospace and defense;
- Machine Building, whereby the Company builds machines for third parties; and
- Electric vehicles, whereby we continue to develop our prototype Zero Emission Vehicle, Maya 100.

The Company is located at 2645 Royal Windsor Drive, Mississauga, Ontario L5J 1K9 where it has a state-of-the-art 156,000 square foot manufacturing facility and office complex.

## Results of Operations

### *Three and Six Months ended March 31, 2004*

#### *Revenue*

Revenues are derived from the sale of PowerPad® and Scribbler tablet PC products as well as revenue from machines built for third parties and service revenue related to research and development activities. ElectroVaya recognizes revenue from i) its' PowerPad® and Scribbler products at the time the units are shipped to customers, net of a provision for returned units ii) machines on a completed contract basis and iii) services revenue from its Aerospace and Defence business as each milestone is achieved and accepted by the customer. The Company has not yet earned revenue from its electric vehicle business.

For the three months ending March 31, 2004, revenue increased by 16.8% to \$1.6 million from \$1.4 million for the quarter ended March 31, 2003. The year over year increase in revenue primarily resulted from increased Scribbler Tablet PC sales, as well as growth in machine building revenues.

For the six months ended March 31, 2004 revenue increased by 41.3% to \$3.2 million from \$2.2 million for the six month period ended March 31, 2003.

Quarterly revenue for the last ten quarters is as follows:

(\$ thousands)	<u>Q1</u>	<u>Q2</u>	<u>Q3</u>	<u>Q4</u>
2004	\$ 1,581	\$ 1,593	N/A	N/A
2003	883	1,364	\$ 778	\$ 1,298
2002	515	1,160	640	661

#### *Expenses*

*Cost of Goods Sold and Gross Profit.* Cost of goods sold is comprised of the material, labor and manufacturing overhead associated with the production of SuperPolymer® batteries, the Scribbler tablet PC and machine building for third parties, as well as direct labour costs related to research service revenues.

For the quarter ending March 31, 2004 cost of goods sold increased by 7.2% to \$1.5 million from \$1.4 million for the quarter ending March 31, 2003. The Company had a positive gross profit of \$0.14 million compared to \$0.07 million for the quarter ending March 31, 2003 due to increased sales of products and services with higher profit margins and more direct sales.

*Cost of Goods Sold and Gross Profit (continued):* For the six months ending March 31, 2004 cost of goods sold increased to \$2.9 million from \$2.3 million for the period ending March 31, 2003. Gross profit improved from negative (\$0.03 million) in the second quarter of fiscal 2003 to positive \$0.28 million for the six months ending March 31, 2004.

*Research and Development.* Research and development expenses consist primarily of compensation and premises costs for research and development personnel, including independent contractors and consultants, direct materials and allocated overhead. The research and development expenses reflect the Company's continuing efforts to improve production methodology, improve technology and enhance and develop new products.

For the quarter ended March 31, 2004, research and development expenses, net of investment tax credits, decreased by \$0.1 million or 15.8% to \$0.6 million from \$0.7 million in the quarter ending March 31, 2003. The change was primarily due to 1) a decrease in salaries and benefits expense as NASA related expenses were included in Cost of Goods Sold and 2) investment tax credits not received in the same quarter of the prior year.

For the six months ending March 31, 2004, research and development decreased by 21.1% or \$0.3 million to \$1.2 million, from \$1.5 million for the six month period ending March 31, 2003. \$0.1 million of the reduction is due to an increase in investment tax credits during this six month period of fiscal 2004 compared the same period in fiscal 2003, \$0.1 million is due to savings in labor and material costs and the remainder is due to savings in tooling and consulting expenses.

*Sales and Marketing.* Sales and marketing expenses are comprised of the salaries and benefits of sales and marketing personnel, marketing activities, warranty provisions, advertising and other costs associated with the sales of the PowerPad® product line and the Scribbler tablet PC products.

During the quarter, these expenses decreased to \$0.3 million for the second quarter of 2004 from \$0.4 million in the second quarter of 2003 primarily due to a reduction in Scribbler advertising expenses.

For the six months ending March 31, 2004, expenses decreased by \$0.6 million to \$0.8 million from \$1.4 million due primarily to lower spending on advertising related to the Scribbler and other savings in labor and travel expenses.

*General and Administrative.* General and administrative expenses include salaries and benefits for corporate personnel, insurance, professional fees, reserves for bad debts and facilities expenses. The Company's corporate administrative staff includes its executive officers and employees engaged in business development, financial planning and control, legal affairs, human resources and information technology.

*General and Administrative (continued).* For the quarter, general and administrative expenses increased by approximately \$0.2 million compared to the same quarter in 2003 primarily due to an increase in salaries and benefits, including an increase in customer service salaries, an increase in audit and legal fees and bad debt expense and a reduction in the amount of time spent on certain research and development activities by office staff.

For the six months ended March 31, 2004, expenses were \$1.4 million compared to \$1.0 million for the same quarter in fiscal 2003 primarily due to higher salaries and benefits and an increase in insurance and bad debt expense.

*Interest Income*

During the quarter, interest income increased by 26.8% to \$0.07 million from \$0.06 million for the quarter ended March 31, 2003. The Company derived interest in both periods from cash and short-term investments. The increase in interest income resulted from the strengthening US dollar.

*Foreign Exchange Gain*

The foreign exchange gain was \$0.04 million during the quarter ending March 31, 2004 compared to a loss of \$0.2 million in the quarter ending March 31, 2003.

*Loss from Operations*

Loss from operations improved by 10.1% from a loss of \$2.2 million in the second quarter of 2003 to a loss of \$2.0 million in the second quarter of 2004, due to improving sales and gross profit and lower operating expenses.

(\$ thousands)	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
2004	\$ 2,236	\$ 1,976	N/A	N/A
2003	3,043	2,239	\$ 2,782	\$ 1,573
2002	1,618	2,369	3,757	2,720

The six month loss from operations was \$4.2 million, compared to \$5.2 million for the six months ending March 31, 2003.

*Net Loss for the Period*

Quarterly net losses for the last ten quarters are as follows:

(\$ thousands)	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
2004	\$ 2,402	\$ 1,861	N/A	N/A
2003	2,901	2,379	\$ 3,121	\$ 1,475
2002	1,367	2,251	3,924	2,406

*Net Loss for the Period (continued):*

Quarterly losses per common share for the last ten quarters are as follows:

\$ per share	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
2004	\$ 0.03	\$ 0.03	N/A	N/A
2003	0.04	0.03	\$ 0.04	\$ 0.02
2002	0.02	0.03	0.06	0.04

The Company has not declared or paid dividends since inception.

### **Liquidity and Capital Resources**

Since inception, Electrovaya has financed its operations primarily through private and public placements of its securities. Since inception, the Company has raised aggregate net proceeds of \$63.3 million. As of March 31, 2004, it had approximately \$15.7 million in cash, cash equivalents and short-term investments.

Cash used in operating activities was \$0.9 million for the quarter ended March 31, 2004 versus \$2.6 million for the quarter ended March 31, 2003. Net cash used in operating activities for the current quarter reflects the operating loss of \$1.9 million offset by amortization of \$0.8 million and a decrease in non-cash operating working capital of \$0.2 million. Compared to September 30, 2003 and for the six months ending March 31, 2004, net cash used in operating activities of \$2.5 million reflects the operating loss of \$4.3 million offset by amortization of \$1.5 million and a decrease in non-cash operating working capital of \$0.3 million.

Cash provided by investing activities was \$8.3 million for the quarter ended March 31, 2004 and comprised of a reduction in short-term investments of \$8.4 million offset by capital expenditures of approximately \$0.1 million.

### **Transactions with Related Parties**

The Company is constantly exploring new materials for making its batteries and recognizes that some of these technologies may be developed by other companies. Electrovaya has invested \$0.1 million in a private company engaged in the business of producing and evaluating new battery materials; in return for its investment, it has received 6% of the Class A and 21% of the Class B shares of this private company. Additionally, Electrovaya has provided research and development services and received 30% of the outstanding non-voting, participating Class B shares in consideration of their services. The Class B shares are convertible into Class A voting, participating shares in the event the company becomes registered on a stock exchange. During the quarter, Electrovaya provided a \$38 loan to the company to assist with the operation of a pilot

plant. The original investment, additional shares and loan have been valued at Nil as at the end of March 31, 2004.

### **Financial Condition**

**Current Assets.** Cash and cash equivalents consist of investments with maturities of less than 90 days. Short-term investments include banker acceptances, commercial paper and term deposits with maturities of up to 90 days. Inventories include raw materials, semi-finished and finished goods.

Compared to September 30, 2003, cash and short-term investments decreased by \$1.9 million. Accounts receivable and prepaid expenses increased by \$0.2 million and \$0.1 million respectively while inventory increased by \$0.4 million, primarily due to an increase in inventories of the Scribbler.

**Capital assets.** Approximately \$0.1 million of patent and technology and computer capital assets were acquired during the quarter.

Total Assets for the last ten quarters are as follows:

(\$ thousands)	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
2004	\$ 33,551	\$ 31,411	N/A	N/A
2003	36,560	36,971	\$ 37,014	\$ 34,136
2002	47,350	45,044	43,616	39,897

**Current Liabilities.** Accounts payable and accrued liabilities increased by \$0.9 million from September 30, 2003 to March 31, 2004 due primarily to increases in account payable for inventory and accrued legal and audit fees.

**Long-term Debt.** The Company has no long-term debt. On March 31, 2003 the Company entered into an agreement with the Technology Partnerships Canada (“TPC”) initiative of Industry Canada, whereby TPC agreed to fund up to 29.7% of the eligible costs of related to the Company’s research and development efforts in fast batteries and electric vehicles, up to a maximum amount of \$6.7 million during the work period beginning in January, 2002 and ending by September, 2007. Under the terms of the agreement, an amount up to a maximum of \$31.1 million is to be repaid by royalties charged on new revenue created from products developed commencing in 2007 through to 2013, with payment to be deferred or reduced if certain revenue thresholds are not achieved.

During the quarter ending March 31, 2004 the Company received \$0.1 million related to eligible research and development expenses for the TPC project.

**Shareholders Equity.** Shareholders Equity for the last ten quarters are as follows:

(\$ thousands)	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
2004	\$ 30,921	\$ 28,768	N/A	N/A
2003	35,716	35,942	\$ 30,838	\$ 32,370
2002	46,738	44,484	42,748	38,635

### **Present Status**

Electrovaya has recorded a net loss in every year since its inception. Gross margin continued to improve during the recent quarter and we continue to review all areas of operations for cost savings. Electrovaya expects to continue to increase its sales and marketing expenses to support marketing programs related to the PowerPad® and Scribbler, and additional research and development expenses will be necessary to support our efforts in the aerospace and defence industries.

Future liquidity and financing requirements will depend principally on the rate of growth and the means by which the Company achieves its business plan. Although the Company believes that the cash on hand will be sufficient to meet its requirements, financing needs in future periods will depend principally on its ability to generate sales from its products and services and the extent and timing of future acquisitions and joint ventures.

### **Qualitative and Quantitative Disclosures about Risks and Uncertainties**

#### *Interest Rate Risk*

As of March 31, 2004, the Company had cash, cash equivalents and short-term investments totaling \$15.7 million. As a result of their short-term maturities, the Company does not believe these investments are subject to significant interest rate risk.

#### *Foreign Currency Exchange Rate Risk*

In the quarter ended March 31, 2004, approximately 85% of the Company's revenue was derived from U.S. customers in U.S. dollars. The Company expects that the majority of its sales will, in the future, be made in U.S. dollars and that in the short term, the majority of its expenses will be denominated in Canadian dollars. As of March 31, 2004, \$5.0 million of cash, cash equivalents and short-term investments were denominated in U.S. dollars. Fluctuations in the exchange rate between the Canadian dollar and the U.S. dollar may therefore have a material effect on results of operations. The Company does not currently engage in currency hedging activities.

### *Credit Risk*

The Company manages its credit risk with respect to accounts receivable by establishing and implementing credit limits and approval policies, as well as dealing primarily with large creditworthy customers. It has insured all of its accounts receivable to the extent of \$1.8 million of coverage.

### *Other Risks and Uncertainties*

Electrovaya is an early-stage commercial company facing corresponding risks, expenses and difficulties that may affect its outlook and eventual results of its business and commercialization plan.

*Electrovaya may not be able to establish anticipated levels of high-volume production on a timely, cost-effective basis or at all. It has never manufactured batteries in substantially large quantities and it may not be able to maintain future commercial production at planned levels. Additionally, if it is unable to maintain an adequate supply of raw materials or components, its costs could increase or its production could be limited.*

Electrovaya has taken a number of steps to offset these risks:

- Its manufacturing process is modular and flexible.
- Its high-volume facility utilizes machinery and equipment that is similar to the machinery and equipment that it has already designed, built and used in its pilot production plant. Since the introduction of its PowerPad® in 1999 it has successfully produced finished products in its pilot and commercial plants, resulting in increasing levels of sales.
- It has more than one supplier for critical raw materials and components.

*Until the establishment of multiple plants, Electrovaya will be dependent upon the operation of a single manufacturing facility and accidents or other operational problems at this facility could affect its ability to deliver product to its customers and therefore its ability to generate revenues. In addition, it may be subject to environmental liabilities at its facilities, which could result in material expense and adversely affect its ability to sell or finance its facilities.*

Electrovaya has addressed these risks by designing and building its high-volume facility with worker safety in mind. In addition, it has adopted an environmental policy that requires compliance with environmental legislation and an ongoing program of monitoring its environmental compliance.



*Electrovaya relies upon manufacturers in Taiwan to produce the Scribbler tablet PC and has no long-term supply contracts with them.*

There are numerous suppliers in Taiwan and throughout Asia capable of producing a tablet PC and it is possible to arrange alternative sources of manufacturing, if required.

*Other than the financial assistance provided by the TPC, Electrovaya does not have a collaborative partner to assist it in the development of its batteries, which may limit its ability to develop and commercialize its products on a timely basis. Furthermore, it will continue to incur significant costs and invest considerable resources designing and testing batteries for use with, or incorporation into, specific products. Significant revenue from these investments may not be achieved for a number of years, if at all. Moreover, these batteries may never be profitable and even if they are profitable, operating margins may be low.*

*The development by the Company of new applications for its rechargeable batteries is a complex and time-consuming process. New battery designs and enhancements to existing battery models can require long development and testing periods. Significant delays in new product releases or significant problems in creating new products could negatively impact the Company's revenues.*

Electrovaya believes that the formation of strategic partnerships will be critical for the Company to meet its business objectives. It will continue to seek arrangements with potential partners to mitigate development and commercialization risks going forward, balanced by its objective to maximize market share and penetration by not entering into exclusivity arrangements with a single partner. In addition, it is reviewing options to work with multiple partners on OEM programs for internally designed applications, sales and distribution arrangements, outsourcing parts of its manufacturing process, and for development of specialized applications in industry segments other than portable computers and mobile phones.

*Electrovaya may not be able to compete effectively with other manufacturers of compact rechargeable batteries. There is also the possibility its competitors may develop portable power technologies that match or outperform the SuperPolymer® technology, which may diminish the demand for the Company's products. In addition, innovations in the design of portable computers, mobile telephones and other wireless devices may reduce the need for its batteries.*

The market for rechargeable batteries is competitive and fragmented. Electrovaya believes it is well positioned to compete in the market for compact rechargeable batteries, which is already very large and growing rapidly. There are currently five to seven principal competitors, primarily well capitalized companies based in Japan and Korea, which have in aggregate a dominant market position in the lithium ion and lithium ion polymer battery sector. By continuing to leverage the Company's technological advantage, move quickly to penetrate the market, target the underserved aftermarket, and emphasize its higher energy density to create brand differentiation, Electrovaya expects

to increase revenue in the near term. Additionally, the Company believes that design innovations in the wireless sector will either not materially extend the run time of existing battery technologies or will be more than offset by the addition of new, enhanced, “power-hungry” features, which will increase the energy requirements of these wireless devices. Finally, miniature fuel cells present potential future competition to batteries in the portable and mobile power applications. However, they are expensive and still have technical hurdles to overcome, thus mitigating the threat to ElectroVaya’s products in the electronics markets that it targets.

While SuperPolymer® energy density is currently superior to that of the Company’s competitors in commercial production, ElectroVaya will continue to invest in research and development to utilize latest generation advanced materials and improve the process and design of its batteries to maintain or widen the technological gap between its technology and that of its closest competitors. However, the Company has limited knowledge of its competitors’ activities in this area.

*Electrovaya is exposed to certain risks as a result of being in an industry that manufactures devices or products containing energy. All lithium ion polymer batteries can become hazardous under some circumstances. In the event of a short circuit or other physical, electrical or thermal damage to these batteries, chemical reactions may occur that release excess heat or gases, which could create dangerous situations, including fire, explosions and releases of toxic fumes. The Company’s batteries may emit smoke, catch fire or emit gas, any of which may expose ElectroVaya to product liability litigation. In addition, these batteries incorporate potentially hazardous materials, which may require special handling, and safety problems may develop in the future. Product failure or improper use of lithium ion polymer battery products, such as the improper management of the charging/discharging system, may also result in dangerous situations. The raising of any health or safety issues could affect the Company’s reputation and sales. Moreover, changes in environmental or other regulations affecting the manufacture, transportation or sale of ElectroVaya’s products could adversely affect the Company’s ability to manufacture or sell its products or result in increased costs or liability. Finally, ElectroVaya may be required to devote significant financial and management resources to processing and remedying warranty claims. If product liability issues arise, the Company could incur significant expenses and suffer damage to its reputation and the market acceptance of its products.*

To mitigate these risks of product liability, ElectroVaya undertakes extensive internal and external product and safety testing. Unlike certain competing technologies, its products do not contain cadmium or lithium metal, which are considered hazardous materials for purposes of disposal or transportation. The Company believes that there are currently no regulations in North America that would prevent it from the manufacture or sale of its batteries, and ElectroVaya is fully committed to ensuring its products are environmentally friendly. In certain situations or applications, battery power may be a more attractive environmental solution than other energy sources utilizing fossil fuels or creating emissions.

*Electrovaya may not be able to successfully market its battery technology and products, and because its SuperPolymer® technology is new, these batteries may not perform as well as anticipated. The Company expects to continue to sell its products directly to corporate customers and through value-added resellers and distributors. But if these parties do not purchase these products or purchase them in lower quantities or over longer time periods than expected, Electrovaya's revenue profile and cash flows may be severely affected. The Company continues to rely upon a limited number of customers for a significant portion of its sales and the loss of any customer could have a material adverse effect on its sales and operating results and make it more difficult to attract and retain other customers.*

*If overall market demand for laptop computers, mobile telephones and other portable electronic devices declines significantly, and consumer and corporate spending for such products declines, Electrovaya's revenue growth will be adversely affected. Additionally, the Company's revenues would be unfavorably impacted if customers reduce their purchases of new products or upgrades to the Company's existing product lineup if such new offerings are not perceived to add significant new functionality or other value to prospective purchasers.*

The PowerPad® 80, 120 and 160 products have undergone extensive user testing and have now been sold commercially to well-established corporate users, distributors and value added resellers with positive early results. Electrovaya has an aggressive marketing program in place, including trade show participation and advertising campaigns. The Company has a dedicated sales team to aggressively market and sell its products in the United States and Canada. Electrovaya has adopted a multi-channel distribution strategy to reduce its reliance on a single customer or distributor. The Company is targeting different types of users, applications and industries to mitigate the risk if its products do not achieve acceptance in a single market and to ensure it minimizes reliance on one customer.

*If the Company fails to manage growth successfully, it could experience delays, cost overruns or other problems. Similarly, if it is unable to hire or retain qualified, key personnel, its business may be jeopardized.*

Electrovaya will continue to monitor its staffing requirements for its manufacturing facility and its needs at the senior management levels and for specialized personnel in various disciplines or areas of expertise, to help ensure that the Company continues to effectively manage its anticipated growth as it ultimately moves to a multi-plant operation. Additionally, its senior management team has significant breadth and depth of expertise in managing startup situations, which will assist the Company in continuing its transition from a small private company to a large public company.

*If Electrovaya fails to protect its proprietary technology, it may lose any competitive advantage it provides. Others may claim that the Company's products infringe on their intellectual property rights, which could result in significant expenses for litigation, developing new technology or licensing existing technologies from third parties. If*

*Electrovaya is unable to maintain registration of its trademarks, or if its trademarks or trade name are found to violate the rights of others, the Company may have to change its trademarks or name and lose the goodwill created in them.*

Electrovaya will continue to register patents resulting from ongoing research and development activity, acquire or license patents from third parties if appropriate and further develop the trade secrets related to its manufacturing process and the design and operation of the equipment used to manufacture its products.

## **Outlook**

During the quarter we focused on efforts to improve customer service, develop new technology and create additional opportunities for our existing products and services. Over the last quarter we have demonstrated improved profitability, and we will continue to leverage the growing demand for portable power, mobility and alternative energy using our award winning lithium ion SuperPolymer® rechargeable battery technology to achieve positive cash-flow as soon as possible.