



We deliver fuel cell power  
for a sustainable planet

BALLARD POWER SYSTEMS INC.  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
THIRD QUARTER 2023

*Here for life*<sup>™</sup>

[ballard.com](http://ballard.com)



## CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements about expected events and the financial and operating performance of Ballard Power Systems Inc. ("Ballard", "the Company", "we", "us" or "our"). Forward-looking statements include any statements that do not refer to historical facts. Forward-looking statements are based on the beliefs of management and reflect our current expectations as contemplated under the safe harbor provisions of Section 21E of the United States Securities Exchange Act of 1934, as amended. Words such as "estimate", "project", "believe", "anticipate", "intend", "expect", "plan", "predict", "may", "should", "will", the negatives of these words or other variations thereof and comparable terminology are intended to identify forward-looking statements. Such statements include, but are not limited to, statements with respect to our objectives, goals, liquidity, sources and uses of capital, including statements that describe any anticipated offering of securities under our Shelf Prospectus and Registration Statement or the filing of a Prospectus supplement, outlook including our estimated revenue and gross margins, cash flow from operations, Cash Operating Costs, EBITDA and Adjusted EBITDA (see Non-GAAP measures), strategy, order backlog, order book of expected deliveries, future product roadmap costs and selling prices, future product sales, future production capacities and volumes, the markets for our products, expenses / costs, contributions and cash requirements to and from joint venture operations and research and development activities, as well as statements with respect to our beliefs, plans, objectives, expectations, anticipations, estimates and intentions. These statements are not guarantees of future performance and involve assumptions, risks and uncertainties that are difficult to predict. In particular, these forward-looking statements are based on certain factors and assumptions relating to our expectations with respect to new and existing customer and partner relationships, the generation of new sales, producing, delivering, and selling the expected product and service volumes at the expected prices and controlling our costs. They are also based on a variety of general factors and assumptions including, but not limited to, our expectations regarding technology and product development efforts, manufacturing capacity and cost, product and service pricing, market demand, and the availability and prices of raw materials, labour, and supplies. These assumptions have been derived from information available to the Company including information obtained by the Company from third parties. These assumptions may prove to be incorrect in whole or in part. In addition, actual results may differ materially from those expressed, implied, or forecasted in such forward-looking statements. Factors that could cause our actual results or outcomes to differ materially from the results expressed, implied or forecasted in such forward-looking statements include, but are not limited to: challenges or delays in our technology and product development activities; our ability to extract value from joint venture operations; changes in the availability or price of raw materials, labour, supplies and shipping; costs of integration, and the integration failing to achieve the expected benefits of the transaction; our ability to attract and retain business partners, suppliers, employees and customers; global economic trends and geopolitical risks (such as the conflict between Russia and Ukraine), including changes in the rates of investment, inflation or economic growth in our key markets, or an escalation of trade tensions such as those between the U.S. and China; the relative strength of the value proposition that we offer our customers with our products or services; changes in competitive technologies, including battery and fuel cell technologies; product safety, liability or warranty issues; changes in our customers' requirements, the competitive environment and/or related market conditions; potential merger and acquisition activities, including risks related to integration, loss of key personnel, disruptions to operations; warranty claims, product performance guarantees, or indemnification claims; changes in product or service pricing or cost; market developments or customer actions (including developments and actions arising from epidemics and pandemic) that may affect levels of demand and/or the financial performance of the major industries and customers we serve, such as secular, cyclical and competitive pressures in the bus, truck, rail and marine sectors; the rate of mass adoption of our products or related ecosystem, including the availability of cost-effective hydrogen; cybersecurity threats; climate risk; our ability to protect our intellectual property; changing government or environmental regulations, including subsidies or incentives associated with the adoption of clean energy products, including hydrogen and fuel cells; currency fluctuations, including the magnitude of the rate of change of the Canadian dollar versus the U.S. dollar; our access to funding and our ability to provide the capital required for product development, operations and marketing efforts, working capital requirements, and joint venture capital contributions; the general assumption that none of the risks identified in the Risks and Uncertainties section of this document or in our most recent Annual Information Form will materialize. Readers should not place undue reliance on Ballard's forward-looking statements. The forward-looking statements contained in this document speak only as of the date of this Management Discussion and Analysis ("MD&A"). Except as required by applicable legislation, Ballard does not undertake any obligation to release publicly any updates or revisions to these forward-looking statements to reflect events or circumstances after the date of this MD&A including the occurrence of unanticipated events.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

November 6, 2023

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## **1. INTRODUCTION**

### **1.1 Preparation of the MD&A**

This discussion and analysis of financial condition and results of operations of Ballard Power Systems Inc. (“Ballard”, “the Company”, “we”, “us” or “our”) is prepared as of November 6, 2023 and should be read in conjunction with our unaudited condensed consolidated interim financial statements and accompanying notes for the three and nine months ended September 30, 2023 and with our audited consolidated financial statements for the year ended December 31, 2022. The results reported herein are presented in U.S. dollars unless otherwise stated and have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board. Additional information relating to the Company, including our Annual Information Form, is filed with Canadian ([www.sedarplus.ca](http://www.sedarplus.ca)) and U.S. securities regulatory authorities ([www.sec.gov](http://www.sec.gov)) and is also available on our website at [www.ballard.com](http://www.ballard.com).

### **1.2 Disclosure Controls and Procedures and Internal Controls over Financial Reporting**

Our disclosure controls and procedures are designed to provide reasonable assurance that relevant information is gathered and reported to senior management, including the Chief Executive Officer (“CEO”) and the Chief Financial Officer (“CFO”), on a timely basis so that appropriate decisions can be made regarding public disclosures. We have also designed internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. During the three and nine months ended September 30, 2023, there were no changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting. Our design of disclosure controls and procedures and internal controls over financial reporting includes controls, policies and procedures covering our subsidiaries including Ballard Power Systems Europe A/S, Ballard Fuel Cell Systems Inc., and Guangzhou Ballard Power Systems Co., Ltd.

### **1.3 Risks and Uncertainties**

An investment in our common shares involves risk. Investors should carefully consider the risks and uncertainties described below and in our Annual Information Form. The risks and uncertainties described in our Annual Information Form are not the only ones that we face. Additional risks and uncertainties, including those that we do not know about now or that we currently deem immaterial, may also adversely affect our business. For a more complete discussion of the risks and uncertainties which apply to our business and our operating results, please see our Annual Information Form and other filings with Canadian ([www.sedarplus.ca](http://www.sedarplus.ca)) and U.S. ([www.sec.gov](http://www.sec.gov)) securities regulatory authorities. In addition to the risks and uncertainties identified in our Annual Information Form, the following risk for the Company should be considered:

- Based on current business plans and financial expectations, the Company expects that it will be a “passive foreign investment company” within the meaning of Section 1297 of the U.S. Internal Revenue Code of 1986, as amended (“PFIC”) for its current tax year, and may be a PFIC in one or more future tax years, which may have adverse U.S. federal income tax consequences for U.S. securityholders.

If the Company is a PFIC for any year during a U.S. taxpayer's holding period of the Company's common shares, then such U.S. taxpayer generally will be required to treat any gain realized upon a disposition of the Company's common shares or any so-called "excess distribution" received on such common shares as ordinary income, and to pay an interest charge on a portion of such gain or distribution. In certain circumstances, the sum of the tax and the interest charge may exceed the total amount of proceeds realized on the disposition, or the amount of excess distribution received, by the U.S. taxpayer. Subject to certain limitations, these tax consequences may be mitigated if a U.S. taxpayer makes a timely and effective "qualified electing fund" ("QEF") election within the meaning of Section 1295 of the Code (a "QEF Election") or a "mark-to-market election" within the meaning of Section 1296 of the Code (a "Mark-to-Market Election"). Subject to certain limitations, such elections may be made with respect to the Company's common shares. A U.S. taxpayer who makes a timely and effective QEF Election generally must report on a current basis its share of the Company's net capital gain and ordinary earnings for any year in which the Company is a PFIC, whether or not the Company distributes any amounts with respect to the common shares. However, U.S. taxpayers should be aware that there can be no assurance that the Company will satisfy the record keeping requirements that apply to a QEF, or that the Company will supply U.S. taxpayers with information that such U.S. taxpayers require to report under the QEF Election rules, in the event that the Company is a PFIC and a U.S. taxpayer wishes to make a QEF Election. Thus, U.S. taxpayers may not be able to make a QEF Election with respect to their common shares. A U.S. taxpayer who makes the Mark-to-Market Election generally must include as ordinary income each year the excess of the fair market value of the Common Shares over the taxpayer's basis therein. Each potential investor who is a U.S. taxpayer should consult its own tax advisor regarding the tax consequences of the PFIC rules and the ownership and disposition of common shares, including the availability of and procedure for making a QEF Election or a Mark-to-Market Election.

## **2. CORE BUSINESS AND STRATEGY**

### **2.1 Core Business**

At Ballard, our vision is to deliver fuel cell power for a sustainable planet. We are recognized as a world leader in proton exchange membrane ("PEM") fuel cell power system development and commercialization.

Our principal business is the design, development, manufacture, sale and service of PEM fuel cell products for a variety of applications, focusing on power products for bus, truck, rail, marine, stationary and emerging market (material handling, off-road and other) applications, as well as the delivery of services, including technology solutions, after sales services and training.

A fuel cell is an environmentally clean electrochemical device that combines hydrogen fuel with oxygen (from the air) to produce electricity. The hydrogen fuel can be obtained from natural gas, kerosene, methanol, or other hydrocarbon fuels, or from water through electrolysis. Ballard's PEM fuel cell products typically feature high fuel efficiency, relatively low operating temperature, high durability, low noise and vibration, compact size, quick response to changes in electrical demand, and modular design. Embedded in each Ballard fuel cell product lies a stack of unit cells designed with our proprietary PEM fuel cell technology,

which include membrane electrode assemblies, catalysts, plates, and other key components, and draw on intellectual property from our patent portfolio, together with our extensive experience and know-how, in key areas of PEM fuel cell stack design, operation, production processes and systems integration.

We are based in Canada, with head office, research, technology and product development, engineering services, testing, manufacturing and after-sale service facilities in Burnaby, British Columbia. We also have sales, assembly, research and development, certain engineering services and after-sale service facilities in Hobro, Denmark and London, U.K., and have a sales, quality, supply chain, and after-sales service office in Guangzhou, Guangdong Province, China.

We also have a non-controlling, 49% interest in Weichai Ballard Hy-Energy Technologies Co., Ltd. ("Weichai Ballard JV"), located in Weifang, Shandong Province, China. Weichai Ballard JV's business is to manufacture certain fuel cell products utilizing Ballard's LCS fuel cell stack and LCS-based power modules for bus, commercial truck, and forklift applications with certain exclusive rights in China.

Furthermore, we have several non-controlling and non-equity accounted investments including (i) a 3% equity interest in Quantron AG ("Quantron"), a global electric vehicle integrator and an emerging specialty OEM, to accelerate fuel cell truck adoption; (ii) a 6.7% equity interest in Wisdom Group Holdings Ltd. ("Wisdom"), a Cayman Island holding company with operating subsidiaries whose business includes the design and manufacture of vehicles, including zero emission fuel cell electric buses, trucks, and battery-electric vehicles; and (iii) a 9.77% equity interest in Forsee Power SA ("Forsee Power"), a French company specializing in the design, development, manufacture, commercialization, and financing of smart battery systems for sustainable electric transport. We have also invested in two hydrogen infrastructure and growth equity funds: (i) a 11% interest in the HyCap Fund I SCSP ("HyCap"), a special limited partnership registered in Luxembourg; and (ii) a 1.5% interest in Clean H2 Infra Fund ("Clean H2"), a special limited partnership registered in France.

## **2.2 Strategic Imperatives**

We strive to build value for our shareholders by developing, manufacturing, selling, and servicing zero-emission, industry-leading PEM fuel cell technology products and services to meet the needs of our customers in target markets. More specifically, our business plan is to leverage our core competencies of PEM fuel cell stack technology and engine development and manufacturing, our investments in advanced manufacturing and production capacity, and our product portfolio by marketing our products and services across select large and attractive addressable market applications and select geographic regions.

We typically select our target market applications based on use cases where the comparative user value proposition for PEM fuel cells powered by hydrogen are strongest – such as where operators value low emission vehicles that require high utilization, long driving range, heavy payload, fast refueling, and similar user experiences to legacy diesel vehicles – and where the barriers to entry for hydrogen refueling infrastructure are lowest – such as use cases where fuel cell vehicles typically return to a depot or hydrogen hub for centralized refueling and don't require a distributed hydrogen refueling network. Our current target markets include certain medium- and heavy-duty mobility applications of bus, truck, rail, and marine, along with certain off-road mobility and stationary power applications.

We select our target geographic markets based on a variety of factors, including addressable market sizes of the target market applications in the geographic markets, historic deployments and expected market adoption rates for hydrogen and fuel cells, supportive government policies, existing and potential partner, customer, and end user relationships, and competitive dynamics. Our current target markets are the geographic regions of China, Europe, and North America.

While we recognize addressing multiple market applications and geographic markets in parallel increases our near-term cost structure and investments, we believe offering the same core PEM fuel cell technologies and substantially similar derivative PEM fuel cell products across multiple mobility and power market applications and select geographic regions will significantly expand and strengthen our long-term business prospects by increasing volume scaling in our operations, enabling lower product and production costs for the benefit of all markets, improving our competitive positioning and market share, enabling richly diversified revenue streams and profit pools, and improving our return on investment in our technology and product development programs and our investments in manufacturing.

Our strategy is built on 5 key themes:

- Double down in the fuel cell stack & module: invest in leading PEM fuel cell technology and products to provide leading value to our customers and end users based on a total cost of ownership basis;
- Selectively expand across value chain: extend across the value chain to capture control points, reduce technology adoption barriers, simplify, and optimize our customer offering, and accelerate fuel cell deployments;
- Develop new routes to market: creatively explore partnerships and demonstration programs to accelerate hydrogen and fuel cell market adoption and grow volumes for product sales;
- Win in key regions: invest in a competitive platform in each of North America, Europe, and China; and
- Here for Life: deliver a compelling environmental, social and governance (“ESG”) proposition for our stakeholders.

In 2020 and 2021, we materially strengthened our financial position through equity financings, thereby providing additional flexibility to fund our growth strategy. Following these financings, given strong indicators of long-term market adoption of hydrogen and zero-emission mobility, given growing customer interest in our fuel cell products, given a growing opportunity set, and given an increasingly competitive environment, we strategically decided to significantly increase and accelerate our investments ahead of the adoption curve, including investments in our 5 key themes. As a result, we have increased and accelerated our investments in technology and product innovation, production capacity expansion and localization, strategic pricing for select customer demonstration programs, customer experience, and corporate development investments. Our increased investments include significant investment in next generation products and technology, including our proprietary membrane electrode assemblies (“MEAs”), bipolar plates, stacks, modules, and powertrain systems integration; advanced manufacturing processes, technologies, equipment, and production localization activities in China, Europe, and the United States; and technology and

product cost reduction.

### **3. 2023 BUSINESS OUTLOOK**

#### **3.1 2023 Business Outlook**

Consistent with the Company's past practice, and in view of the early stage of hydrogen fuel cell market development and adoption, we are not providing specific revenue or net income (loss) guidance for 2023. In 2023, we continue our plan to increase investments in the business ahead of the hydrogen growth curve, including expanding product offering and capabilities across the value chain, and investments in manufacturing. Our 2023 outlook continues to include:

- Total Operating Expenses: \$135 million to \$155 million – We continue to expect total Operating Expenses for fiscal 2023 to be between \$135 million and \$155 million (including \$111.3 million incurred in the first three quarters of 2023; compared to \$145.8 million in fiscal 2022) as we continue to invest in research and product development ahead of the hydrogen growth curve by advancing new technology, product cost reduction, product innovation, and development across bus, truck, rail, marine, and stationary power markets, including next-generation MEAs, plates, stacks, and modules.
- Capital Expenditures: \$40 million to \$60 million – We continue to expect total Capital Expenditures (being additions to property, plant and equipment and investment in other intangible assets) for fiscal 2023 to be between \$40 million and \$60 million but now at the lower end of that range (including \$34.0 million incurred in the first three quarters of 2023; compared to \$34.5 million in fiscal 2022) as we continue to invest in testing, advanced manufacturing, and production. Capital allocation in 2023 includes increasing testing and prototyping capabilities, including new advanced test station equipment and refurbishments of existing testing equipment in Canada, advanced manufacturing equipment in Canada for next-generation bipolar plates, and investing ahead of the hydrogen growth curve and positioning our manufacturing capabilities to support anticipated scale in key markets. We also continue to look at opportunities to expand our presence in growing markets.

Our outlook expectations for 2023 are in part supported by our 12-month Order Book of approximately \$72.7 million which is derived from our Order Backlog of approximately \$134.6 million as of September 30, 2023. Our Order Backlog represents the estimated aggregate value of orders at a given time for which customers have made contractual commitments and our 12-month Order Book represents the aggregate expected value of that portion of the Order Backlog that the Company expects to deliver in the subsequent 12-month period.

Our outlook expectations are based on our internal forecast which reflects an assessment of overall business conditions and takes into account actual sales, operating expenses, capital expenditures, and financial results in the first ten months of 2023; sales orders received for units and services expected to be delivered in the remainder of 2023; purchase and cost commitments currently in existence for fiscal 2023; an estimate with respect to the generation of new sales and the timing of deliveries in each of our markets for the balance of 2023; an estimate of purchase and cost commitments to be generated in each of our locations for the balance of 2023; and assumes an average U.S. dollar exchange rate in the mid \$0.70's in relation to the Canadian dollar for the remainder of 2023.

The primary risk factors to our business outlook expectations for 2023 are customer, production, or program delays or cancellations in delivering against existing power products and technology solutions orders and delays from forecast in terms of closing and delivering expected sales; adverse macro-economic and political conditions including trade, public health, and other geopolitical risks; changes in government subsidy and incentive programs; inadequate investment in hydrogen infrastructure and / or excessive hydrogen fuel costs, all of which could negatively impact our customers' access to capital and the success of their program plans which could adversely impact our business including potential changes, delays or accelerations in our expected operating and capital equipment requirements; disruptions due to delays of supply of key materials and components from third party suppliers; disruptions as a result of our reliance on a limited number of technology service customers including Weichai Ballard JV, which are reliant on their internal commercialization plans and budget requirements; disruptions as a result of delays in achieving technology solutions program milestones; disruptions as a result of our reliance on a limited number of customers and certain of those customer's internal stack development and commercialization plans; and fluctuations in the Canadian dollar relative to the U.S. dollar, as a significant portion of our operating expense commitments and capital expenditure commitments are priced in Canadian dollars.

Our Order Backlog and our 12-month Order Book are currently comprised of a relatively limited number of contracts and a relatively limited number of customers. Given the relative immaturity of our industry and customer deployment programs, our Order Backlog and 12-month Order Book are potentially vulnerable to risk of cancellation, deferral or non-performance by our customers for a variety of reasons, including: risks related to continued customer commitment to a fuel cell program; risks related to customer liquidity; credit risks; risks related to changes, reductions or eliminations in government policies, subsidies and incentives; risks related to macro-economic and political conditions including trade, public health, and other geopolitical risks; risks related to slower market adoption; risks related to vehicle integration challenges; risks related to the development of effective hydrogen refueling infrastructure; risks related to the ability of our products to meet evolving market requirements; and supplier-related risks. Certain of our customer supply agreements are also subject to certain conditions or risks, including achievement of certain product performance milestones, completion of product development programs, or customer cancellation provisions, and it is likely that some future supply agreements will also be subject to similar conditions and risks. There can be no assurance that we will achieve or satisfy such conditions or that customers will not cancel their orders. In addition, our supply agreements may include various pricing structures or reduced pricing tiers based on various factors, including volumes and the timing of deliveries. In setting these reduced pricing tiers, we may assume certain future product cost reductions which are subject to execution risk, including future commodity costs, supply chain costs, and production costs, and we may not be successful in achieving the planned cost reductions. In such circumstances, these agreements may become future onerous contracts if our gross margins become negative and the value of carried inventory to support product delivery under such contracts may also be adversely impacted.

Furthermore, potential fluctuations in our financial results make financial forecasting difficult. In addition, due to the early stage of development of the market for hydrogen fuel cell products, it is difficult to accurately predict future revenues, operating expenses, cash flows,

or results of operations on a quarterly basis. The Company's revenues, operating expenses, cash flows, and other operating results can vary significantly from quarter to quarter. As a result, quarter-to-quarter comparisons of revenues, operating expenses, cash flows, and other operating results may not be meaningful; instead, we believe our operating performance should be assessed over a number of quarters and years. It is likely that in one or more future quarters, financial results will fall below the expectations of securities analysts and investors and the trading price of the Company's shares may be materially and adversely affected as a result.

#### **4. RECENT DEVELOPMENTS (Including Contractual Updates)**

##### **4.1 Corporate**

###### Update on global manufacturing strategy

On September 30, 2022, we announced our strategy 'local for local' where we summarized our plan to deepen our global manufacturing footprint in Europe, the United States, and China to support expected global market demand growth through 2030. As part of this strategy, we entered into an investment agreement with the Government of Anting in Shanghai's Jiading District to establish our new China headquarters, MEA manufacturing facility, and an R&D center, at a site strategically located at the Jiading Hydrogen Port, located in one of China's leading automotive industry clusters, with the plan to invest approximately \$130 million over the next three years (\$6.1 million invested to September 30, 2023).

However, as a result of the increasingly constructive hydrogen policy landscape and increased market activity in the U.S. and Europe and given the continued hydrogen and fuel cell policy uncertainties and market delays in China, we are now accelerating our work on our "local for local" global manufacturing plan and related future capital allocation plans. Specifically, we continue to reevaluate our previously announced MEA localization plan in China pending completion of an ongoing comparative analysis on manufacturing capacity expansion options and possible sequencing prioritization in the U.S. and/or European markets. We expect to conclude this review in the first half of 2024.

###### Environmental, Social, and Governance Report for 2022

On July 19, 2023, we announced the publication of our fourth annual ESG Report. Built around Ballard's purpose of Here for Life™, the report highlights the Company's 2022 performance across the dimensions of environmental, social, and governance and demonstrates an ongoing commitment to transparency and environmental leadership in the fuel cell industry.

The report captures the first year of focused action resulting from our ESG strategy and the pursuit of Ballard's sustainability commitments and supporting initiatives. Related information regarding Ballard's ESG governance, risk management, and performance are also outlined within this report. Highlights from the 2022 ESG Report include:

- Continued improvement in overall ESG research ratings;
- In 2022, Ballard fuel cell technology prevented the consumption of ~53 million gallons of diesel, avoiding ~540,000 tCO<sub>2</sub>e;
- 20% emissions intensity decline since 2019 across reported scope 1, scope 2, and scope 3 emissions;
- Outline of the Company's carbon neutral by 2030 plan, including key goals for driving

decarbonization of corporate emissions;

- 88% annual employee retention rate;
- Increased women representation at the senior leadership level by 14% since 2019;
- Taught more than 125,000 students hydrogen fuel cell technology through Ballard's Hydrogen Challenge Education Program;
- 63% decrease in lost-time injury rate year over year;
- 93% of total operating waste was recycled; and
- Established a board delegated Sustainability and Governance Committee for strengthened oversight of ESG performance.

Ballard is committed to ESG reporting best practices. For our 2022 ESG Report, we aligned our disclosures to the internationally recognized ESG reporting standards of the Global Reporting Initiative (GRI) and the Sustainability Accounting Standards Board (SASB) under the sector standard for 'Fuel Cell and Industrial Batteries'. To view Ballard's 2022 ESG Report, and for more information regarding the Company's sustainability commitments, please visit [www.ballard.com/about-ballard/our-sustainability](http://www.ballard.com/about-ballard/our-sustainability).

## **4.2 Europe**

### Orders from Solaris for over 170 hydrogen fuel cell engines to power buses in Europe

On October 10, 2023, we announced multiple purchase orders totaling 177 hydrogen fuel cell engines from long-standing customer Solaris Bus & Coach sp. z o.o. ("Solaris"), a leading European bus manufacturer deploying hydrogen-powered city buses across the continent. Ballard expects limited initial deliveries of the 177 fuel cell engines in 2023, with the remainder to ship from 2024 through 2026.

The orders include the supply of fuel cell engines to support the largest announced deployment of a fleet of fuel cell city buses in Europe, with 127 Solaris fuel cell buses to be deployed in Bologna, Italy. Ballard also received orders for a further 50 modules to power Solaris fuel cell buses in Germany and Italy. The number of engines ordered by Solaris year-to-date now exceeds 270, representing substantial growth over the more than 140 fuel cell city buses that Solaris has deployed with customers in Europe to date.

### Orders from Solaris for almost 100 hydrogen fuel cell engines to power buses in Europe

On August 8, 2023, we announced multiple purchase orders for a total of 96 hydrogen fuel cell engines from Solaris. Ballard expects limited initial deliveries of the 96 fuel cell engines to start in late 2023, with most being delivered through 2024.

The purchases orders include an order for 52 fuel cell engines that will power Solaris Urbino hydrogen buses for deployment by public transport operator Rebus Regionalbus Rostock, based in Güstrow, Germany. Rebus is building two hydrogen refueling stations at depots in Güstrow and Bad Doberan to support the planned and future growth of hydrogen powered local public transportation. In addition to the order for Güstrow-bound buses, Ballard has received orders from Solaris for an additional 44 fuel cell engines that will power Solaris buses in European cities.

### Partnership with Ford Trucks for fuel cell powered heavy-duty trucks & initial order

On August 3, 2023, we announced the signing of a letter of intent (“LOI”) with Ford Trucks to supply a fuel cell system as part of the development of a hydrogen fuel cell powered vehicle prototype. The partnership includes an initial purchase order for 2 FCmove™-XD 120 kW fuel cell engines that are planned to be delivered by Ballard to Ford Trucks in 2023.

Ford Trucks, the global brand of Ford Otosan, plans to develop a FCEV F-MAX as part of the project. The 120 kW FCmove-XD™ fuel cell engines are planned to be integrated into Ford Trucks’ F-MAX 44-ton long-haul tractor truck. Ford Trucks plans to build and assemble the fuel cell-powered F-MAX in Turkey and aims to commence European Ten-T corridor demonstrations in 2025 as part of the European Union’s Horizon Europe ZEFES (Zero Emission Freight EcoSystem) project goals. As per the LOI, upon the successful completion of the development program and subject to certain other conditions, Ballard may be named as the preferred supplier for the serial production of the fuel cell-powered F-MAX.

In the ZEFES project, four truck OEMs, two trailer OEMs, suppliers, logistic operators, and research partners will work together towards the overall goal of accelerating the integration of ZEVs for long distance heavy transport. This work plans to focus on efficiency improvements, mass production capabilities, and demonstrating the use of the technologies in daily operations. In 2025, nine different vehicle concepts (five BEV and four FCEV) are expected to run over 1 million kilometers across EU corridors in real daily operations, guided and validated by a digital platform (to developed within the project). This project is expected to be a significant step forward for ZEV adoption in the freight transport ecosystem. Vehicles are expected to carry over 40 tons for distances up to 750 km, averaging 500 km in daily operation.

### **4.3 North America and Rest of World**

#### Canadian Pacific Kansas City order for 3.6MW of Ballard fuel cells for expansion of Hydrogen Locomotive Program

On July 27, 2023, we announced an order for additional fuel cell engines from Canadian Pacific Kansas City (“CPKC”). These eighteen, 200 kW fuel cell engines are planned for delivery in 2023 and will support the expansion of CPKC’s Hydrogen Locomotive Program.

Over the past two years, Ballard has supplied CPKC with 20 fuel cell engines for use in three different types of locomotives, with combined fuel cell power of 4MW. These locomotives have been undergoing field testing in 2022 and early 2023 with successful tests, proving the capabilities of Ballard’s hydrogen fuel cell technology in locomotive applications. Further development on range across temperature variations, heavy hauling, fine tuning auxiliary load to avoid waste, increased number of hours on current and additional units will support continued technological evolution. The success of these trials, combined with the need to achieve CPKC’s emissions goals, has resulted in the significant expansion of the original hydrogen locomotive program.

### **4.4 China**

#### Weichai Power Co., Ltd. and Weichai Ballard Hy-Energy Technologies Co., Ltd.

On November 13, 2018, we announced the closing of a strategic collaboration transaction with Weichai. Ballard’s strategic collaboration with Weichai included:

- Equity Investment – an equity investment in Ballard made by Weichai representing a 19.9% interest in the Company at that time. Weichai currently holds an approximate 15.4% interest in Ballard.

Ballard entered into an investor rights agreement with Weichai under which: (a) so long as Weichai directly or indirectly holds at least 10% of Ballard’s outstanding shares, it has an anti-dilution right entitling it to maintain its percentage ownership in Ballard by subscribing for Common Shares from treasury at the same price as Ballard distributes Common Shares to other investors (to date, Weichai’s anti-dilution rights with respect to all previous offerings of the Company have expired unexercised); (b) for so long as Weichai directly or indirectly holds at least 15% of Ballard’s outstanding Common Shares, it has the right to nominate two directors to Ballard’s board of directors; and (c) if there is a third-party offer to buy Ballard, Weichai has the right to make a superior proposal or otherwise it must vote its Common Shares in accordance with the recommendation of Ballard’s board of directors.

- China Joint Venture and Technology Transfer Agreement – Weichai and Ballard have established a joint venture company in Shandong Province to support China’s Fuel Cell Electric Vehicle market, with Weichai holding a controlling ownership interest of 51% and Ballard holding a 49% ownership position. Weichai Ballard JV was established in the fourth quarter of 2018. During fiscal 2018 through fiscal 2022, Weichai made its committed capital contributions totaling RMB 561.0 million and Ballard made its committed capital contributions totaling RMB 539.0 million (equivalent to \$79.4 million). Weichai holds three of five Weichai Ballard JV board seats and Ballard holds two, with Ballard having certain shareholder protection provisions.

The Weichai Ballard JV develops and manufactures fuel cell modules and components including Ballard’s LCS bi-polar plates, fuel cell stacks and FCgen®-LCS-based power modules for bus, commercial truck, and forklift applications with exclusive rights (subject to certain conditions) in China and is to pay Ballard a total of \$90 million under a program to develop and transfer technology to Weichai Ballard JV in order to enable these manufacturing activities. Revenue earned from the \$90 million Weichai Ballard JV technology transfer agreement (\$1.1 million in the third quarter of 2023; \$2.5 million in the first three quarters of 2023; \$0.7 million in the third quarter of 2022; \$5.1 million in the first three quarters of 2022; \$6.0 million in fiscal 2022; \$18.2 million in fiscal 2021; \$21.2 million in fiscal 2020; \$22.5 million in fiscal 2019; \$1.2 million in fiscal 2018) is recorded primarily as technology solutions revenues in our Heavy-Duty Mobility Truck market. During the fourth quarter of 2018, we received an initial 10% or \$9.0 million prepayment from Weichai Ballard JV for this program with additional amounts paid to us as program milestones are successfully completed. We retain an exclusive right to the developed technologies outside China, subject to certain restrictions on sublicensing outside China. The Weichai Ballard JV will also purchase MEAs for FCgen®-LCS fuel cell stacks exclusively from Ballard under a long-term supply agreement.

- Fuel Cell Sales – On December 16, 2019, we announced the receipt of a purchase order from Weichai Ballard JV for the delivery of MEAs valued at approximately \$19 million under a long-term MEA supply agreement. Revenue earned from this agreement (\$0.2 million in the third quarter of 2023; \$0.6 million in the first three quarters of 2023; \$0.2 million in the third quarter of 2022; \$0.8 million in the first three quarters of 2022; \$1.0 million in fiscal 2022; \$2.1 million in fiscal 2021; \$8.8 million in fiscal 2020) is recorded primarily

as product revenue in our Heavy-Duty Mobility Truck market. As of September 30, 2023, an additional \$6.6 million of revenue associated with shipments on this order to Weichai Ballard JV remain unrecognized until these products are ultimately sold by Weichai Ballard JV.

The Weichai Ballard JV operation, located in Weifang, Shandong Province, China, has commenced production activities of LCS bi-polar plates, LCS fuel cell stacks and LCS-based modules to power bus and truck FCEVs for the China market. The Weichai Ballard JV is expected to have annual production capacity of 40,000 fuel cell stacks which equates to approximately 20,000 engines.

#### Guangdong Synergy Ballard Hydrogen Power Co., Ltd.

During 2017, Synergy Ballard JVCo commenced operations utilizing Ballard's FCveloCity®-9SSL fuel cell stack technology in the city of Yunfu in China's Guangdong Province. Ballard has a non-controlling 10% interest in the joint venture, Synergy Ballard JVCo, together with Guangdong Nation Synergy Hydrogen Power Technology Co., Ltd. (a member of the "Synergy Group") who has a 90% interest. The fuel cell stacks manufactured by Synergy Ballard JVCo are expected to be used primarily in fuel cell engines assembled in China to provide propulsion power for zero-emission fuel cell electric buses and commercial vehicles in China.

Synergy Ballard JVCo has an exclusive license to manufacture and sell FCveloCity®-9SSL stacks in China until September 30, 2026. Exclusivity is subject to Synergy Ballard JVCo maintaining certain performance criteria and compliance with: a code of ethics; Ballard's quality policies and branding practices; payment terms; certain intellectual property covenants; achievement of certain minimum annual MEA volume commitments through 2026; and certain financing conditions.

Ballard contributed \$1.0 million for its 10% interest in Synergy Ballard JVCo in 2017, currently recognized at nil value. We have no obligation to provide future funding to Synergy Ballard JVCo.

During the third quarter of 2023, we effectively completed an equity transfer agreement to sell our 10% interest (fair valued at nil) in Synergy Ballard JVCo to the Synergy Group for nominal consideration. As we no longer have significant influence over the operating activities of Synergy Ballard JVCo, the equity method of accounting for this investment was discontinued as of September 30, 2023.

Revenue earned from MEA sales and other agreements with Synergy Ballard JVCo (\$0.9 million in the third quarter of 2023; \$1.7 million in the first three quarters of 2023; nil million in the first three quarters of 2022; \$0.1 million in fiscal 2022) is primarily recorded as product and service revenue in our Heavy-Duty Mobility Bus market.

## **5. RESULTS OF OPERATIONS**

### **5.1 Operating Segments**

We report our results in the single operating segment of Fuel Cell Products and Services. For 2023, we have made certain changes in the presentation of revenues by application comprising our Fuel Cell Products and Services operating segment. Our Fuel Cell Products and Services segment consists of the sale of PEM fuel cell products and services for a variety of applications including Heavy-Duty Mobility (consisting of bus, truck, rail, and marine applications), Stationary Power, and Emerging and Other Markets (consisting of material

handling, off-road, and other applications). Revenues from the delivery of Services, including technology solutions, after sales services and training, are included in each of the respective markets.

## 5.2 Summary of Key Financial Metrics – Three Months Ended September 30, 2023 Revenue and Gross Margin

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,			
	<b>2023</b>	2022	\$ Change	% Change	
<b>Heavy-Duty Mobility</b>	<b>\$ 21,060</b>	<b>\$ 12,592</b>	<b>\$ 8,468</b>	<b>67%</b>	
Bus	8,649	9,181	(532)	(6%)	
Truck	1,864	2,495	(631)	(25%)	
Rail	9,265	415	8,850	2,133%	
Marine	1,282	501	781	156%	
<b>Stationary</b>	<b>2,908</b>	<b>3,053</b>	<b>(145)</b>	<b>(5%)</b>	
<b>Emerging and Other</b>	<b>3,607</b>	<b>5,698</b>	<b>(2,091)</b>	<b>(37%)</b>	
<b>Revenues</b>	<b>27,575</b>	<b>21,343</b>	<b>6,232</b>	<b>29%</b>	
<b>China</b>	<b>3,122</b>	1,064	2,058	193%	
<b>Europe</b>	<b>9,375</b>	9,445	(70)	(1%)	
<b>North America</b>	<b>12,889</b>	10,224	2,665	26%	
<b>Rest of World</b>	<b>2,189</b>	610	1,579	259%	
<b>Revenues</b>	<b>27,575</b>	<b>21,343</b>	<b>6,232</b>	<b>29%</b>	
<b>Cost of goods sold</b>	<b>30,388</b>	<b>26,108</b>	<b>4,280</b>	<b>16%</b>	
<b>Gross Margin</b>	<b>\$ (2,813)</b>	<b>\$ (4,765)</b>	<b>\$ 1,952</b>	<b>41%</b>	
<b>Gross Margin %</b>	<b>(10%)</b>	<b>(22%)</b>	<b>n/a</b>	<b>12 pts</b>	

Fuel Cell Products and Services Revenues of \$27.6 million for the third quarter of 2023 increased 29%, or \$6.2 million, compared to the third quarter of 2022. The 29% increase was driven by higher Heavy-Duty Mobility market revenues, partially offset by lower Emerging and Other and Stationary market revenues. Regional revenue increases in North America, China, and Rest of World were partially offset by slightly lower revenues in Europe.

Heavy-Duty Mobility revenues of \$21.1 million increased \$8.5 million, or 67%, as higher sales of rail and marine fuel cell products were partially offset by lower sales of truck and bus fuel cell products. Heavy-Duty Mobility revenues on a quarter-to-quarter basis are impacted by product mix due to varying customer requirements and various fuel cell products, including numerous power configurations required by our customers (and the resulting impact on selling price) of our fuel cell modules, fuel cell stacks, MEAs, and related component and parts kits. Heavy-Duty Mobility revenues of \$21.1 million in the third quarter of 2023 includes service revenues of \$1.1 million earned on the Weichai Ballard JV technology transfer program; \$0.4 million from Weichai Ballard JV for the supply of a mix of certain fuel cell products and components that will be used in the assembly of modules to power zero-emission FCEVs in China; \$0.9 million of product and service revenues from Synergy Ballard JVCo; and \$18.7 million from a variety of customers in North America, Europe, China and the rest of the world including CP Rail, New Flyer, Solaris, Siemens, Van Hool, Wisdom, Quantron, and others, primarily for shipments of FCmove™-HD, FCmove™-HD+, FCmove™-XD, FCmove™-MD, FCwave™, and FCveloCity®-HD7 fuel cell modules and related components for their respective bus, truck, rail and marine programs.

Heavy-Duty Mobility revenues of \$12.6 million in the third quarter of 2022 includes service revenues of \$0.7 million earned on the Weichai Ballard JV technology transfer program; \$0.3 million to Weichai Ballard JV for the supply of a mix of certain fuel cell products and components that will be used in the assembly of modules to power zero-emission FCEVs in China; and \$11.6 million to a variety of customers in North America, Europe, and Other areas including New Flyer, Solaris, Van Hool, and others, primarily for shipments of FCveloCity®-HD7 and FCveloCity®-HDv8 fuel cell modules and related components for their respective bus and train programs.

Stationary revenues of \$2.9 million decreased (\$0.1) million, or (5%), due primarily to a minor decrease in sales of stationary power generation fuel cell modules, stacks, products and services in North America, partially offset by a minor increase in sales to Europe. Stationary revenues also include technology solutions program revenues from a variety of customer programs for stationary applications including HDF Energy, Siemens AG and others.

Emerging and Other market revenues of \$3.6 million decreased (\$2.1) million, or (37%), due primarily to lower service revenues to Audi and lower fuel cell stack shipments to Plug Power. Emerging and Other market revenues include technology solutions program revenues on the completed Audi program of nil in the third quarter of 2023, compared to \$1.4 million earned in the third quarter of 2022.

Fuel Cell Products and Services gross margins were (\$2.8) million, or (10%) of revenues, for the third quarter of 2023, compared to (\$4.8) million, or (22%) of revenues, for the third quarter of 2022. The negative gross margin in the third quarter of 2023 was driven primarily by a shift to lower overall product margin and service revenue mix including the impacts of pricing strategy, higher fixed overhead costs due primarily to the expansion of manufacturing capacity, increases in supply costs, and inventory impairment and onerous contract provisions.

Gross margin in the third quarter of 2023 was negatively impacted by net increases in inventory impairment and onerous contract provisions of (\$1.4) million due primarily to excess product and service inventory. Gross margin in the third quarter of 2022 was negatively impacted by net inventory and onerous contract provision adjustments of (\$2.4) million related primarily to excess and impaired inventory; and by net warranty adjustments of (\$0.5) million related primarily to increased service costs.

## Operating Expenses and Cash Operating Costs

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,		
	2023	2022	\$ Change	% Change
Research and Product Development	\$ 25,044	\$ 25,263	\$ (219)	(1%)
General and Administrative	7,392	8,727	(1,335)	(15%)
Sales and Marketing	3,628	3,486	142	4%
<b>Operating Expenses</b>	<b>\$ 36,064</b>	<b>\$ 37,476</b>	<b>\$ (1,412)</b>	<b>(4%)</b>
Research and Product Development (cash operating cost)	\$ 21,871	\$ 21,201	\$ 670	3%
General and Administrative (cash operating cost)	5,211	5,679	(468)	(8%)
Sales and Marketing (cash operating cost)	3,173	3,115	58	2%
<b>Cash Operating Costs</b>	<b>\$ 30,255</b>	<b>\$ 29,995</b>	<b>\$ 260</b>	<b>1%</b>

Cash Operating Costs and its components of Research and Product Development (cash operating cost), General and Administrative (cash operating cost), and Sales and Marketing (cash operating cost) are non-GAAP measures. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. See the reconciliation of Cash Operating Costs to GAAP in the Supplemental Non-GAAP Measures and Reconciliations section and the reconciliation of Research and Product Development (cash operating cost), General and Administrative (cash operating cost), and Sales and Marketing (cash operating cost) to GAAP in the Operating Expense section. Cash Operating Costs adjusts operating expenses for stock-based compensation expense, depreciation and amortization, impairment losses on trade receivables, restructuring charges, the impact of unrealized gains or losses on foreign exchange contracts, acquisition related costs, and financing charges.

Total Operating Expenses (excluding Other operating expenses) for the third quarter of 2023 were \$36.1 million, a decrease of (\$1.4) million, or (4%), compared to the third quarter of 2022. The decrease was driven by lower general and administrative expenses of (\$1.3) million and lower research and product development expenses of (\$0.2) million.

Cash Operating Costs (see Supplemental Non-GAAP Measures and Reconciliations) for the third quarter of 2023 were \$30.3 million, an increase of \$0.3 million, or 1%, compared to the third quarter of 2022. The increase was driven by higher research and product development cash operating costs of \$0.7 million, and higher sales and marketing cash operating costs of \$0.1 million, partially offset by lower general and administrative cash operating costs of (\$0.5) million.

The increase in cash operating costs in the third quarter of 2023 was driven primarily by increased expenditure on technology and product development activities including the design and development of next generation fuel cell stacks and engines for bus, truck, rail, marine and stationary applications, and continuation engineering investment in our existing fuel cell products, including activities related to product cost reduction. Program investment includes expenditures related to our FCmove™-HD+ and FCmove XD fuel cell modules designed for buses and medium and heavy-duty trucks, our FCgen®-HPS High-Power Density Fuel Cell Stack for light-medium-and heavy-duty vehicles, our FCwave™ Fuel Cell Module for marine applications, and on the ongoing improvement of all of our fuel cell products including our high performance fuel cell module, the FCmove™-HD, and our high performance liquid-cooled fuel cell stack, the FCgen®-LCS.

Operating expenses also include the impact of increases in functional staffing levels in Europe and North America and the impact of inflationary wage pressures. These operating expense increases were partially offset by lower costs in the U.K. after the restructuring of operations at Ballard Motive Solutions in the fourth quarter of 2022, and by relatively lower labour costs in Canada in 2023 on our Canadian operating cost base as the Canadian dollar, relative to the

U.S. dollar, was approximately (3%) lower in the third quarter of 2023, compared to the third quarter of 2022.

### **Adjusted EBITDA**

	Three months ended September 30,			
	2023	2022	\$ Change	% Change
<b>Adjusted EBITDA</b>	\$ (36,216)	\$ (35,102)	\$ (1,114)	(3%)

EBITDA and Adjusted EBITDA are non-GAAP measures. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. See reconciliation of Adjusted EBITDA to GAAP in the Supplemental Non-GAAP Measures and Reconciliations section. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, acquisition related costs, finance and other income, recovery on settlement of contingent consideration, asset impairment charges, and the impact of unrealized gains and losses on foreign exchange contracts.

Adjusted EBITDA (see Supplemental Non-GAAP Measures and Reconciliations) for the third quarter of 2023 was (\$36.2) million, compared to (\$35.1) million for the third quarter of 2022. The increase in Adjusted EBITDA loss of (\$1.1) million was driven primarily by higher equity in loss of investment in joint venture and associates of (\$3.0) million attributed to the operations of Weichai Ballard JV, the increase in Cash Operating Costs of (\$0.3) million, partially offset by the improvement in gross margin loss of \$2.0 million.

### **Net Loss**

	Three months ended September 30,			
	2023	2022	\$ Change	% Change
<b>Net loss</b>	\$ (62,454)	\$ (42,881)	\$ (19,573)	(46%)

Net loss for the third quarter of 2023 was (\$62.5) million, or (\$0.21) per share, compared to a net loss of (\$42.9) million, or (\$0.14) per share, in the third quarter of 2022. The (\$19.6) million increase in net loss in the third quarter of 2023 was driven primarily by the increase in Adjusted EBITDA loss of (\$1.1) million, impairment charges on goodwill of (\$24.0) million, and impairment charges on intangible assets of (\$2.3) million, partially offset by higher finance and other income of \$4.5 million. Impairment charges in 2023 on goodwill and intangible assets consist of a write-down of acquired goodwill and technology intangible assets to their estimated fair value as a result of further proposed restructuring of operations at Ballard Motive Solutions in the U.K.

In addition, operating margins, and costs in the third quarter of 2023 were also impacted by the positive impact of a weaker Canadian dollar, relative to the U.S. dollar, as compared to the third quarter of 2022. As a significant amount of our net operating costs (primarily labour) are denominated in Canadian dollars, gross margin, operating expenses, Adjusted EBITDA, and net loss are impacted by changes in the Canadian dollar relative to the U.S. dollar. As the Canadian dollar relative to the U.S. dollar was approximately (3%), or (200) basis points, lower in the third quarter of 2023 as compared to the third quarter of 2022, positive foreign exchange impacts on our Canadian operating margins and cost base were approximately \$0.6 million. A \$0.01 decrease in the Canadian dollar, relative to the U.S. dollar, positively impacts annual operating margins and costs by approximately \$1.2 million.

### 5.3 Summary of Key Financial Metrics – Nine Months Ended September 30, 2023

#### Revenue and Gross Margin

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,			
	<b>2023</b>	2022	\$ Change	% Change	
<b>Heavy-Duty Mobility</b>	<b>\$ 38,264</b>	<b>\$ 36,245</b>	<b>\$ 2,019</b>	<b>6%</b>	
Bus	17,559	22,199	(4,640)	(21%)	
Truck	5,242	9,104	(3,862)	(42%)	
Rail	12,128	3,899	8,229	211%	
Marine	3,335	1,043	2,292	220%	
<b>Stationary</b>	<b>8,902</b>	<b>12,638</b>	<b>(3,736)</b>	<b>(30%)</b>	
<b>Emerging and Other</b>	<b>9,062</b>	<b>14,439</b>	<b>(5,377)</b>	<b>(37%)</b>	
<b>Revenues</b>	<b>56,228</b>	<b>63,322</b>	<b>(7,094)</b>	<b>(11%)</b>	
<b>China</b>	<b>6,484</b>	7,118	(634)	(9%)	
<b>Europe</b>	<b>24,390</b>	31,009	(6,619)	(21%)	
<b>North America</b>	<b>22,630</b>	20,404	2,226	11%	
<b>Rest of World</b>	<b>2,724</b>	4,791	(2,067)	(43%)	
<b>Revenues</b>	<b>56,228</b>	<b>63,322</b>	<b>(7,094)</b>	<b>(11%)</b>	
<b>Cost of goods sold</b>	<b>67,780</b>	<b>70,498</b>	<b>(2,718)</b>	<b>(4%)</b>	
<b>Gross Margin</b>	<b>\$ (11,552)</b>	<b>\$ (7,176)</b>	<b>\$ (4,376)</b>	<b>(61%)</b>	
<b>Gross Margin %</b>	<b>(21%)</b>	<b>(11%)</b>	<b>n/a</b>	<b>(10 pts)</b>	

Fuel Cell Products and Services Revenues of \$56.2 million for the first three quarters of 2023 decreased (11%), or (\$7.1) million, compared to the first three quarters of 2022. The (11%) decrease was driven by lower Emerging and Other and lower Stationary market revenues, partially offset by higher Heavy-Duty Mobility market revenues. Regional revenue declines in Europe, Rest of World and China were partially offset by higher revenues in North America.

Heavy-Duty Mobility revenues of \$38.3 million increased \$2.0 million, or 6%, as higher sales of rail and marine fuel cell products were partially offset by lower sales of bus and truck fuel cell products. Excluding product and technology solutions service sales to Weichai Ballard JV in each of the respective periods, Heavy-Duty Mobility revenues earned from other customers increased by \$5.6 million in the first three quarters of 2023 compared to the first three quarters of 2022. Heavy-Duty Mobility revenues on a quarter-to-quarter basis are impacted by product mix due to varying customer requirements and various fuel cell products, including numerous power configurations required by our customers (and the resulting impact on selling price) of our fuel cell modules, fuel cell stacks, MEAs, and related component and parts kits. Heavy-Duty Mobility revenues of \$38.3 million in the first three quarters of 2023 includes service revenues of \$2.5 million earned on the Weichai Ballard JV technology transfer program; \$0.9 million from Weichai Ballard JV for the supply of a mix of certain fuel cell products and components that will be used in the assembly of modules to power zero-emission FCEVs in China; \$1.7 million of product and service revenues from Synergy Ballard JVCo; and \$33.2 million from a variety of customers in North America, Europe, China, and the rest of the world including CP Rail, Solaris, Siemens, Quantron, Wrightbus, Van Hool, Wisdom, and others, primarily for shipments of FCmove™-HD, FCmove™-HD+, FCmove™-XD, FCmove™-MD, FCwave™, and FCveloCity®-HD7 fuel cell modules and related components for their respective bus, truck, rail and marine programs.

Heavy-Duty Mobility revenues of \$36.2 million in the first three quarters of 2022 includes

service revenues of \$5.1 million earned on the Weichai Ballard JV technology transfer program; \$1.9 million to Weichai Ballard JV for the supply of a mix of certain fuel cell products and components that will be used in the assembly of modules to power zero-emission FCEVs in China; and \$29.2 million to a variety of customers in Europe, North America and Other areas including New Flyer, Van Hool, Solaris, Wrightbus, and others, primarily for shipments of FCveloCity®-HD7 and FCveloCity®-HDv8 fuel cell modules and related components for their respective bus and train programs.

Stationary revenues of \$8.9 million decreased (\$3.7) million, or (30%), due primarily to a decrease in sales of stationary power generation fuel cell modules, stacks, products and services in Australia. Stationary revenues also include technology solutions program revenues from a variety of customer programs for stationary applications including HDF Energy, Siemens AG and others.

Emerging and Other market revenues of \$9.1 million decreased (\$5.4) million, or (37%), due primarily to lower service revenues to Audi and lower fuel cell stack shipments to Plug Power. Emerging and Other market revenues include technology solutions program revenues on the complete Audi program of \$0.2 million in the first three quarters of 2023, compared to \$4.6 million earned in the first three quarters of 2022.

Fuel Cell Products and Services gross margins were (\$11.6) million, or (21%) of revenues, for the first three quarters of 2023, compared to (\$7.2) million, or (11%) of revenues, for the first three quarters of 2022. The negative gross margin in the first three quarters of 2023 was driven primarily by a shift to lower overall product margin and service revenue mix including the impacts of pricing strategy, higher fixed overhead costs due primarily to the expansion of manufacturing capacity, increases in supply costs, and inventory impairment, onerous contract, and warranty provisions.

Gross margin in the first three quarters of 2023 was negatively impacted by net increases in inventory impairment and onerous contract provisions of (\$4.2) million due primarily to excess Stationary and Heavy-Duty Mobility product and service inventory; and negatively impacted by net warranty adjustments of (\$0.6) million related primarily to increased service costs. Gross margin in the first three quarters of 2022 was negatively impacted by net inventory and onerous contract provision adjustments of (\$3.4) million related primarily to excess and impaired inventory; and by net warranty adjustments of (\$0.9) million related primarily to increased service costs.

## Operating Expenses and Cash Operating Costs

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,		
	2023	2022	\$ Change	% Change
Research and Product Development	\$ 77,975	\$ 73,008	\$ 4,967	7%
General and Administrative	20,108	23,193	(3,085)	(13%)
Sales and Marketing	11,529	9,470	2,059	22%
<b>Operating Expenses</b>	<b>\$ 109,612</b>	<b>\$ 105,671</b>	<b>\$ 3,941</b>	<b>4%</b>
Research and Product Development (cash operating cost)	\$ 68,452	\$ 62,522	\$ 5,930	9%
General and Administrative (cash operating cost)	16,456	17,216	(760)	(4%)
Sales and Marketing (cash operating cost)	10,296	8,419	1,877	22%
<b>Cash Operating Costs</b>	<b>\$ 95,204</b>	<b>\$ 88,157</b>	<b>\$ 7,047</b>	<b>8%</b>

Cash Operating Costs and its components of Research and Product Development (cash operating cost), General and Administrative (cash operating cost), and Sales and Marketing (cash operating cost) are non-GAAP measures. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. See the reconciliation of Cash Operating Costs to GAAP in the Supplemental Non-GAAP Measures and Reconciliations section and the reconciliation of Research and Product Development (cash operating cost), General and Administrative (cash operating cost), and Sales and Marketing (cash operating cost) to GAAP in the Operating Expense section. Cash Operating Costs adjusts operating expenses for stock-based compensation expense, depreciation and amortization, impairment losses on trade receivables, restructuring charges, the impact of unrealized gains or losses on foreign exchange contracts, acquisition related costs, and financing charges.

Total Operating Expenses (excluding Other operating expenses) for the first three quarters of 2023 were \$109.6 million, an increase of \$3.9 million, or 4%, compared to the first three quarters of 2022. The increase was driven by higher research and product development expenses of \$5.0 million and higher sales and marketing expenses of \$2.1 million, partially offset by lower general and administrative expenses of (\$3.1) million.

Cash Operating Costs (see Supplemental Non-GAAP Measures and Reconciliations) for the first three quarters of 2023 were \$95.2 million, an increase of \$7.0 million, or 8%, compared to the first three quarters of 2022. The increase was driven by higher research and product development cash operating costs of \$5.9 million and by higher sales and marketing cash operating costs of \$1.9 million, partially offset by lower general and administrative cash operating costs of (\$0.8) million.

The increase in operating expenses and cash operating costs in the first three quarters of 2023 was driven primarily by increased expenditure on technology and product development activities including the design and development of next generation fuel cell stacks and engines for bus, truck, rail, marine and stationary applications, investment in hydrogen powertrain systems (A-Drive) with battery-FC hybrid architecture, and continuation engineering investment in our existing fuel cell products, including activities related to product cost reduction. Program investment includes expenditures related to our FCmove™-HD+ and FCmove XD fuel cell modules designed for buses and medium and heavy-duty trucks, our FCgen®-HPS High-Power Density Fuel Cell Stack for light-medium-and heavy-duty vehicles, our FCwave™ Fuel Cell Module for marine applications, and on the ongoing improvement of all of our fuel cell products including our high performance fuel cell module, the FCmove™-HD, and our high performance liquid-cooled fuel cell stack, the FCgen®-LCS. In addition, sales and marketing costs increased due to increased commercial expenditures and staffing in Europe, China, and North America.

Operating expenses also include the impact of increases in functional staffing levels in Europe and North America and the impact of inflationary wage pressures. These operating expense

increases were partially offset by lower costs in the U.K. after the restructuring of operations at Ballard Motive Solutions in the fourth quarter of 2022, and by relatively lower labour costs in Canada in 2023 on our Canadian operating cost base as the Canadian dollar, relative to the U.S. dollar, was approximately (5%) lower in the first three quarters of 2023, compared to the first three quarters of 2022.

### Adjusted EBITDA

	(Expressed in thousands of U.S. dollars)			
	Nine months ended September 30,			
	2023	2022	\$ Change	% Change
<b>Adjusted EBITDA</b>	\$ (110,395)	\$ (97,651)	\$ (12,744)	(13%)

EBITDA and Adjusted EBITDA are non-GAAP measures. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. See reconciliation of Adjusted EBITDA to GAAP in the Supplemental Non-GAAP Measures and Reconciliations section. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, acquisition related costs, finance and other income, recovery on settlement of contingent consideration, asset impairment charges, and the impact of unrealized gains and losses on foreign exchange contracts.

Adjusted EBITDA (see Supplemental Non-GAAP Measures and Reconciliations) for the first three quarters of 2023 was (\$110.4) million, compared to (\$97.7) million for the first three quarters of 2022. The (\$12.7) million increase in Adjusted EBITDA loss was driven primarily by the decrease in gross margin of (\$4.4), the increase in Cash Operating Costs of (\$7.0) million, and higher equity in loss of investment in joint venture and associates of (\$0.9) million attributed to the operations of Weichai Ballard JV.

### Net Loss

	(Expressed in thousands of U.S. dollars)			
	Nine months ended September 30,			
	2023	2022	\$ Change	% Change
<b>Net loss</b>	\$ (126,468)	\$ (139,067)	\$ 12,599	9%

Net loss for the first three quarters of 2023 was (\$126.5) million, or (\$0.42) per share, compared to a net loss of (\$139.1) million, or (\$0.47) per share, in the first three quarters of 2022. The \$12.6 million decrease in net loss in the first half of 2023 was driven primarily by higher finance and other income of \$47.2 million due to primarily to increased investment income of \$22.8 million, improved mark to market and foreign exchange impacts of \$17.2 million on our long-term investments including Forsee Power, Wisdom, Quantron, and hydrogen infrastructure and growth equity funds, and by reduced foreign exchange losses on net monetary assets of \$7.1 million. These net loss improvements were partially offset by the increase in Adjusted EBITDA loss of (\$12.7) million, impairment charges on goodwill of (\$24.0) million, and impairment charges on intangible assets of (\$2.3) million. Impairment charges in 2023 on goodwill and intangible assets consist of a write-down of acquired goodwill and technology intangible assets to their estimated fair value as a result of further proposed restructuring of operations at Ballard Motive Solutions in the U.K.

In addition, operating margins, and costs in the first three quarters of 2023 were also impacted by the positive impact of a weaker Canadian dollar, relative to the U.S. dollar, as compared to the first three quarters of 2022. As a significant amount of our net operating costs (primarily labour) are denominated in Canadian dollars, gross margin, operating expenses, Adjusted EBITDA, and net loss are impacted by changes in the Canadian dollar relative to the U.S. dollar. As the Canadian dollar relative to the U.S. dollar was approximately (5%), or (400) basis points, lower in the first three quarters of 2023 as compared to the first three quarters of 2022, positive foreign exchange impacts on our Canadian operating margins

and cost base were approximately \$3.6 million. A \$0.01 decrease in the Canadian dollar, relative to the U.S. dollar, positively impacts annual operating margins and costs by approximately \$1.2 million.

## 5.4 Operating Expenses and Other Items – Three and Nine Months ended September 30, 2023

### Research and product development expenses

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,		
<b>Research and product development</b>	<b>2023</b>	2022	\$ Change	% Change
Research and product development expense	\$ <b>25,044</b>	\$ 25,263	\$ (219)	(1%)
Less: Depreciation and amortization expense	\$ <b>(1,547)</b>	\$ (2,555)	\$ 1,008	39%
Less: Stock-based compensation expense	\$ <b>(1,626)</b>	\$ (1,507)	\$ (119)	(8%)
Research and Product Development (cash operating cost)	\$ <b>21,871</b>	\$ 21,201	\$ 670	3%

  

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,		
<b>Research and product development</b>	<b>2023</b>	2022	\$ Change	% Change
Research and product development expense	\$ <b>77,975</b>	\$ 73,008	\$ 4,967	7%
Less: Depreciation and amortization expense	\$ <b>(5,048)</b>	\$ (6,190)	\$ 1,142	18%
Less: Stock-based compensation expense	\$ <b>(4,475)</b>	\$ (4,296)	\$ (179)	(4%)
Research and Product Development (cash operating cost)	\$ <b>68,452</b>	\$ 62,522	\$ 5,930	9%

Research and Product Development (cash operating cost) is a non-GAAP measure. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. Research and Product Development (cash operating cost) adjusts Research and product development expense for depreciation and amortization expense and stock-based compensation expense. See the reconciliation of the adjustments to Research and product development expense in the table above.

**Research and product development expenses for the three months ended September 30, 2023**, were \$25.0 million, a decrease of (\$0.2) million, or (1%), compared to the corresponding period of 2022. Excluding depreciation and amortization expense and stock-based compensation expense, research, and product development cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$21.9 million in the third quarter of 2023, an increase of \$0.7 million, or 3%, compared to the third quarter of 2022.

**Research and product development expenses for the nine months ended September 30, 2023**, were \$78.0 million, an increase of \$5.0 million, or 7%, compared to the corresponding period of 2022. Excluding depreciation and amortization expense and stock-based compensation expense, research and product development cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$68.5 million in the first three quarters of 2023, an increase of \$5.9 million, or 9%, compared to the first three quarters of 2022.

The respective \$0.7 million, or 3%, and \$5.9 million, or 9%, increases in research and development cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the third quarter and first three quarters of 2023, as compared to the third quarter and first three quarters of 2022, was driven primarily by increased expenditure on technology and product development activities including the design and development of next generation fuel cell stacks and engines for bus, truck, rail, marine and stationary applications, investment in hydrogen powertrain systems (A-Drive) with battery-FC hybrid architecture, and continuation engineering investment in our existing fuel cell products, including activities related to product cost reduction. Program investment includes expenditures related to our

FCmove™-HD+ and FCmove XD fuel cell modules designed for buses and medium and heavy-duty trucks, our FCgen®-HPS High-Power Density Fuel Cell Stack for light-medium-and heavy-duty vehicles, our FCwave™ Fuel Cell Module for marine applications, and on the ongoing improvement of all of our fuel cell products including our high performance fuel cell module, the FCmove™-HD, and our high performance liquid-cooled fuel cell stack, the FCgen®-LCS.

Research and product development expenses also include the impact of increases in functional staffing levels in Europe and North America and the impact of inflationary wage pressures. These operating expense increases were partially offset by lower costs in the U.K. after the restructuring of operations at Ballard Motive Solutions in the fourth quarter of 2022, and by relatively lower labour costs in Canada in 2023 on our Canadian operating cost base as the Canadian dollar, relative to the U.S. dollar, was approximately (5%) lower in the first three quarters of 2023, compared to the first three quarters of 2022.

Depreciation and amortization expense included in research and product development expense for the three and nine months ended September 30, 2023, was \$1.5 million and \$5.0 million, respectively, compared to \$2.6 million and \$6.2 million, respectively, for the corresponding periods of 2022. Depreciation and amortization expense relate primarily to amortization expense on our intangible assets and depreciation expense on our research and product development facilities and equipment. The decrease in 2023 is primarily as a result of lower amortization on acquired and subsequently impaired Ballard Motive Solutions intangible assets.

Stock-based compensation expense included in research and product development expense for the three and nine months ended September 30, 2023, was \$1.6 million and \$4.5 million, respectively, relatively consistent with the corresponding periods of 2022.

### **General and administrative expenses**

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,			
<b>General and administrative</b>	<b>2023</b>	2022	\$ Change	% Change	
General and administrative expense	\$ <b>7,392</b>	\$ 8,727	\$ (1,335)	(15%)	
Less: Depreciation and amortization expense	\$ <b>(500)</b>	\$ (509)	\$ 9	2%	
Less: Stock-based compensation expense	\$ <b>(1,026)</b>	\$ (951)	\$ (75)	(8%)	
Add: Impact of unrealized gains (losses) on foreign exchange contracts	\$ <b>(655)</b>	\$ (1,588)	\$ 933	59%	
General and Administrative (cash operating cost)	\$ <b>5,211</b>	\$ 5,679	\$ (468)	(8%)	

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,			
<b>General and administrative</b>	<b>2023</b>	2022	\$ Change	% Change	
General and administrative expense	\$ <b>20,108</b>	\$ 23,193	\$ (3,085)	(13%)	
Less: Depreciation and amortization expense	\$ <b>(1,441)</b>	\$ (1,466)	\$ 25	2%	
Less: Stock-based compensation expense	\$ <b>(2,811)</b>	\$ (2,592)	\$ (219)	(8%)	
Add: Impact of unrealized gains (losses) on foreign exchange contracts	\$ <b>600</b>	\$ (1,919)	\$ 2,519	131%	
General and Administrative (cash operating cost)	\$ <b>16,456</b>	\$ 17,216	\$ (760)	(4%)	

General and Administrative (cash operating cost) is a non-GAAP measure. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. General and Administrative (cash operating cost) adjusts General and administrative expense for depreciation

and amortization expense, stock-based compensation expense and the impact of unrealized gains or losses on foreign exchange contracts. See the reconciliation of the adjustments to General and administrative expense in the table above.

**General and administrative expenses for the three months ended September 30, 2023**, were \$7.4 million, a decrease of (\$1.3) million, or (15%), compared to the corresponding period of 2022. Excluding depreciation and amortization expense, stock-based compensation expense, and the impact of unrealized gains (losses) on foreign exchange contracts, general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$5.2 million in the third quarter of 2023, a decrease of (\$0.5) million, or (8%), compared to the third quarter of 2022.

**General and administrative expenses for the nine months ended September 30, 2023**, were \$20.1 million, a decrease of (\$3.1) million, or (13%), compared to the corresponding period of 2022. Excluding depreciation and amortization expense, stock-based compensation expense, and the impact of unrealized gains (losses) on foreign exchange contracts, general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$16.5 million in the first three quarters of 2023, a decrease of (\$0.8) million, or (4%), compared to the first three quarters of 2022.

The respective (\$0.5) million, or (8%), and (\$0.8) million, or (4%), decreases in general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the third quarter and first three quarters of 2023, as compared to the third quarter and first three quarters of 2022, was due primarily to lower costs in the U.K. after the restructuring of operations at Ballard Motive Solutions in the fourth quarter of 2022, and by lower contractor services and recruiting fees. The impact of increases in functional staffing levels in Europe and North America and inflationary wage pressures were offset by relatively lower labour costs in Canada in 2023 on our Canadian operating cost base as the Canadian dollar, relative to the U.S. dollar, was approximately (5%) lower in the first three quarters of 2023, compared to the first three quarters of 2022.

Depreciation and amortization expense included in general and administrative expense for the three and nine months ended September 30, 2023, was \$0.5 million and \$1.4 million, respectively, relatively consistent with the corresponding periods of 2022. Depreciation and amortization expense relate primarily to our office and information technology intangible assets including our ongoing investment in our ERP system.

Stock-based compensation expense included in general and administrative expense for the three and nine months ended September 30, 2023, was \$1.0 million and \$2.8 million, respectively, relatively consistent with the corresponding periods of 2022.

The impact of unrealized gains (losses) on foreign exchange contracts included in general and administrative expense for the three and nine months ended September 30, 2023, was (\$0.7) million and \$0.6 million, respectively, compared to (\$1.6) million and (\$1.9) million, respectively, for the corresponding periods of 2022. We use forward foreign exchange contracts to help manage our exposure to currency rate fluctuations. We record these contracts at their fair value as of the balance sheet date as either assets or liabilities with any changes in fair value in the period recorded in profit or loss (general and administrative expense) as these contracts are not designated or qualified under hedge accounting criteria.

## Sales and marketing expenses

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,		
<b>Sales and marketing</b>	<b>2023</b>	2022	\$ Change	% Change
Sales and marketing expense	\$ 3,628	\$ 3,486	\$ 142	4%
Less: Depreciation and amortization expense	\$ (1)	\$ (1)	\$ -	-%
Less: Stock-based compensation expense	\$ (454)	\$ (370)	\$ (84)	(23%)
Sales and Marketing (cash operating cost)	\$ 3,173	\$ 3,115	\$ 58	2%

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,		
<b>Sales and marketing</b>	<b>2023</b>	2022	\$ Change	% Change
Sales and marketing expense	\$ 11,529	\$ 9,470	\$ 2,059	22%
Less: Depreciation and amortization expense	\$ (4)	\$ (2)	\$ (2)	(100%)
Less: Stock-based compensation expense	\$ (1,229)	\$ (1,049)	\$ (180)	(17%)
Sales and Marketing (cash operating cost)	\$ 10,296	\$ 8,419	\$ 1,877	22%

Sales and Marketing (cash operating cost) is a non-GAAP measure. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. Sales and Marketing (cash operating cost) adjusts Sales and marketing expense for depreciation and amortization expense and stock-based compensation expense. See the reconciliation of the adjustments to Sales and marketing expense in the table above.

**Sales and marketing expenses for the three months ended September 30, 2023**, were \$3.6 million, an increase of \$0.1 million, or 4%, compared to the corresponding period of 2022. Excluding stock-based compensation expense, sales and marketing cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) was \$3.2 million in the third quarter of 2023, an increase of \$0.1 million, or 2%, compared to the second quarter of 2022.

**Sales and marketing expenses for the nine months ended September 30, 2023**, were \$11.5 million, an increase of \$2.1 million, or 22%, compared to the corresponding period of 2022. Excluding stock-based compensation expense, sales and marketing cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) was \$10.3 million in the first three quarters of 2023, an increase of \$1.9 million, or 22%, compared to the first three quarters of 2022.

The respective \$0.1 million, or 2%, and \$1.9 million, or 22%, increases in general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the third quarter and first three quarters of 2023, as compared to the third quarter and first three quarters of 2022, was due primarily to increased commercial expenditures and staffing in Europe, China, and North America.

Stock-based compensation expense included in sales and marketing expense for the three and nine months ended September 30, 2023, was \$0.5 million and \$1.2 million, respectively, relatively consistent with the corresponding periods of 2022.

**Other operating expenses for the three and nine months ended September 30, 2023**, was \$0.2 million and \$1.7 million, respectively, compared to \$2.5 million and \$3.1 million, respectively, for the corresponding periods of 2022. The following table provides a breakdown of other operating expense for the reported periods:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,			
	<b>2023</b>	2022	\$ Change	% Change	
Impairment loss on trade receivables	\$ 45	\$ -	\$ 45	100%	
Restructuring and related costs (recovery)	138	258	(120)	(47%)	
Acquisition related costs	33	2,261	(2,228)	(99%)	
<b>Other expenses (recovery)</b>	<b>\$ 216</b>	<b>\$ 2,519</b>	<b>\$ (2,303)</b>	<b>(91%)</b>	

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,			
	<b>2023</b>	2022	\$ Change	% Change	
Impairment loss on trade receivables	\$ 62	\$ -	\$ 62	100%	
Restructuring and related costs (recovery)	865	345	520	151%	
Acquisition related costs	776	2,751	(1,975)	72%	
<b>Other expenses (recovery)</b>	<b>\$ 1,703</b>	<b>\$ 3,096</b>	<b>\$ (1,393)</b>	<b>(45%)</b>	

Impairment loss (recovery) on trade receivables for the three and nine months ended September 30, 2023, and 2022 were nominal. If we recover on an impaired trade receivable through legal or other means, the recovered amount is recognized in the period of recovery as a reversal of the impairment loss.

Restructuring and related costs (recovery) for the three and nine months ended September 30, 2023 were \$0.1 million and \$0.9 million, respectively, compared to \$0.3 million for each of the corresponding periods of 2022, and consist primarily of certain cost cutting measures and related personnel change costs.

Acquisition related costs for the three and nine months September 30, 2023 were nominal and \$0.8 million, respectively, compared to \$2.3 million and \$2.8 million, respectively, for the corresponding periods of 2022, and consist primarily of legal, advisory, and transaction related costs incurred due to corporate development activities.

**Finance income (loss) and other for the three and nine months ended September 30, 2023** was \$7.2 million and \$29.4 million, respectively, compared to \$2.8 million and (\$17.8) million for the corresponding periods of 2022. The following table provides a breakdown of finance and other income (loss) for the reported periods:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,			
	<b>2023</b>	2022	\$ Change	% Change	
Employee future benefit plan expense	\$ (12)	\$ (28)	\$ 16	57%	
Investment and other income (loss)	11,085	6,010	5,075	84%	
Mark to Market gain (loss) on financial assets	(2,464)	1,705	(4,169)	(245%)	
Foreign exchange gain (loss)	(1,370)	(4,906)	3,536	72%	
Government levies	-	-	-	-%	
<b>Finance income (loss) and other</b>	<b>\$ 7,239</b>	<b>\$ 2,781</b>	<b>\$ 4,458</b>	<b>160%</b>	

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,		
	<b>2023</b>	2022	\$ Change	% Change
Employee future benefit plan expense	<b>\$ (94)</b>	\$ (167)	\$ 73	44%
Investment and other income (loss)	<b>32,639</b>	9,817	22,822	232%
Mark to Market gain (loss) on financial assets	<b>(2,568)</b>	(19,777)	17,209	87%
Foreign exchange gain (loss)	<b>(479)</b>	(7,606)	7,127	94%
Government levies	<b>(100)</b>	(100)	-	-%
<b>Finance income (loss) and other</b>	<b>\$ 29,398</b>	\$ (17,833)	\$ 47,231	265%

Employee future benefit plan expense for the three and nine months ended September 30, 2023 was nominal, relatively consistent with the corresponding periods, and consists primarily of interest cost on plan obligations over the expected return on plan assets on a curtailed defined benefit pension plan for certain former United States employees.

Investment and other income for the three and nine months ended September 30, 2023 was \$11.1 million and \$32.6 million, respectively, compared to \$6.0 million and \$9.8 million, respectively, for the corresponding periods of 2022. Amounts were earned on our cash, cash equivalents and short-term investments and have changed proportionately with the overall increase in market interest rates during 2023 and the relative change in our overall average monthly cash balances.

Mark to market gain (loss) on financial assets for the three and nine months ended September 30, 2023, was (\$2.5) million and (\$2.6) million, respectively, compared to \$1.7 million and (\$19.8) million, respectively, for the corresponding periods of 2022. Mark to market gain (loss) consist primarily of changes in the fair value of our long-term financial investments including Forsee Power, Wisdom, Quantron, and hydrogen infrastructure and growth equity funds. Mark to market gains and losses are also impacted by the conversion of these long-term financial assets from their respective European Euro or Great British pound denominated investment to the U.S. dollar.

Foreign exchange gains (losses) for the three and nine months ended September 30, 2023 were (\$1.4) million and (\$0.5) million, respectively, compared to (\$4.9) million and (\$7.6) million, respectively, for the corresponding periods of 2022. Foreign exchange gains and losses are attributable primarily to the effect of changes in the value of the Canadian dollar, relative to the U.S. dollar, on our Canadian dollar-denominated net monetary position. Foreign exchange gains and losses are also impacted by the conversion of Ballard Power Systems Europe A/S' assets and liabilities from the Danish Kroner to the U.S. dollar at exchange rates in effect at each reporting date which are recorded in other comprehensive income (loss).

Government levies for the nine months ended September 30, 2023 was (\$0.1) million, relatively consistent with the corresponding period of 2022. Government levies relate primarily to withholding taxes deducted from proceeds earned on certain commercial contracts.

**Finance expense for the three and nine months ended September 30, 2023** was (\$0.3) million and (\$0.8) million, respectively, compared to (\$0.3) million and (\$1.0) million, respectively, for the corresponding periods of 2022. Finance expense represents the interest expense incurred on our right-of-use assets with a lease term of greater than 12-months, including our head office building, manufacturing facility, and related storage facilities in

Burnaby, British Columbia, as well as similar right-of-use assets in all of our subsidiaries.

**Equity in income (loss) of investment in joint venture and associates for the three and nine months ended September 30, 2023**, was (\$4.0) million and (\$5.8) million, respectively, compared to (\$1.0) million and (\$4.8) million, respectively, for the corresponding periods of 2022. Equity in loss of investment in joint venture and associates relates primarily to the pickup of 49% of the net income (loss) of Weichai Ballard JV in China due to our 49% ownership position which is accounted for using the equity method of accounting.

The loss of investment in joint venture and associates in the operations of Weichai Ballard JV includes research and product development expenses in the periods consisting primarily of amounts expended on the ongoing \$90 million technology transfer agreement with Ballard as Weichai Ballard JV continues to establish operations. Weichai Ballard JV manufactures Ballard's next-generation LCS bi-polar plates, fuel cell stacks and LCS-based power modules for bus, commercial truck, and forklift applications with certain exclusive rights in China.

**Impairment charges on goodwill and intangible assets for the three and nine months ended September 30, 2023** was (\$24.0) million and (\$2.3) million, respectively, and consists of a write-down of acquired goodwill and technology intangible assets to their estimated fair value as a result of further proposed restructuring of operations at Ballard Motive Solutions in the U.K.

**Income tax recovery (expense) for the nine months ended September 30, 2023** was (\$0.1) million, compared to \$0.5 million for the corresponding period of 2022. Income tax recovery in 2022 relates primarily to a recovery of estimated future income taxes owing from the acquisition of Arcola as a result to a post-acquisition restructuring of operations at Ballard Motive Solutions in the U.K. in the fourth quarter of 2022.

## 5.5 Summary of Quarterly Results

The following table provides summary financial data for our last eight quarters:

	Quarter ended,			
	Sep 30, 2023	Jun 30, 2023	Mar 31, 2023	Dec 31, 2022
<i>(Expressed in thousands of U.S. dollars, except per share amounts and weighted average shares outstanding which are expressed in thousands)</i>				
Revenues	\$ 27,575	\$ 15,308	\$ 13,345	\$ 20,464
Net loss from continuing operations	\$ (62,454)	\$ (30,096)	\$ (33,918)	\$ (34,427)
Net loss from continuing operations per share, basic and diluted	\$ (0.21)	\$ (0.10)	\$ (0.11)	\$ (0.12)
Weighted average common shares outstanding	298,705	298,679	298,429	298,324
	Sep 30, 2022	Jun 30, 2022	Mar 31, 2022	Dec 31, 2021
Revenues	\$ 21,343	\$ 20,932	\$ 21,047	\$ 36,705
Net loss from continuing operations	\$ (42,881)	\$ (55,791)	\$ (40,395)	\$ (43,836)
Net loss from continuing operations per share, basic and diluted	\$ (0.14)	\$ (0.19)	\$ (0.14)	\$ (0.15)
Weighted average common shares outstanding	298,181	298,155	297,825	297,655

**Summary of Quarterly Results:** There were no significant seasonal variations in our quarterly results. Variations in our net loss for the above periods were affected primarily by

the following factors:

- **Revenues:** Variations in fuel cell product and service revenues reflect the demand and timing of our customers' fuel cell vehicle, bus, and fuel cell product deployments as well as the demand and timing of their engineering services projects. Variations in fuel cell product and service revenues also reflect the timing of work performed and the achievements of milestones under long-term fixed price contracts.
- **Operating expenses:** Operating expenses were negatively impacted in the fourth quarter of 2022 by restructuring related costs of (\$5.0) million due primarily to the post-acquisition restructuring of operations at Ballard Motive Solutions in the U.K, and negatively impacted as of the fourth quarter of 2021 by the acquisition and integration of Ballard Motive Solutions (formerly Arcola). Operating expenses also include the impact of changes in the value of the Canadian dollar, versus the U.S. dollar, on our Canadian dollar denominated expenditures.
- **Net loss:** Net loss is impacted by the above noted impacts on Revenues and Operating expenditures. Net loss in the third quarter of 2023 was negatively impacted by impairment charges on goodwill of (\$24.0) million and impairment charges on intangible assets of (\$2.3) million, and consist of the write-down of acquired goodwill and technology intangible assets to their estimated fair value as a result of further proposed restructuring of operations at Ballard Motive Solutions in the U.K. Net loss in the fourth quarter of 2022 was negatively impacted by intangible asset impairment charges of (\$13.0) million and positively impacted by the recovery on settlement of contingent consideration of \$9.9 million, both items arising from the post-acquisition restructuring of operations at Ballard Motive Solutions in the U.K. Net loss in the third quarter of 2023, second quarter of 2023, first quarter of 2023, the fourth quarter of 2022, the third quarter of 2022, the second quarter of 2022, the first quarter of 2022, and the fourth quarter of 2021, was also impacted by mark to market gains (losses) on financial assets of (\$2.5) million, \$0.3 million, (\$0.5) million, \$2.9 million, \$1.7 million, (\$12.9) million, (\$8.6) million, and (\$10.3) million, respectively, related primarily to our investments in Forsee Power, Wisdom, Quantron, and hydrogen infrastructure and growth equity funds.

## **6. CASH FLOWS, LIQUIDITY AND CAPITAL RESOURCES**

### **6.1 Summary of Cash Flows**

Cash and cash equivalents were \$781.0 million as of September 30, 2023, compared to \$913.7 million as of December 31, 2022. The (\$132.7) million decrease in cash and cash equivalents in 2023 was driven primarily by net cash operating losses (excluding non-cash items) of (\$74.2) million, net working capital outflows of (\$12.0) million, purchases of property, plant and equipment and intangible assets of (\$34.0) million, subsequent milestone cash acquisition investment payments for Ballard Motive Solutions of (\$2.0) million, long-term financial investments of (\$8.4) million consisting of new investments in Quantron and hydrogen infrastructure and growth equity funds, and by finance lease repayments of (\$2.9) million.

## 6.2 Cash Provided by (Used by) Operating Activities

<i>(Expressed in thousands of U.S. dollars)</i>	Three months ended September 30,		
	2023	2022	\$ Change
Cash Operating Loss	\$ (22,781)	\$ (35,693)	\$ 12,912
Change in Working Capital:			
Trade and other receivables	(6,584)	(391)	(6,193)
Inventory	2,974	335	2,639
Prepaid expenses and other current assets	(400)	2,103	(2,503)
Trade and other payables	3,133	2,565	568
Deferred revenue	1,062	(954)	2,016
Warranty provision	610	1,717	(1,107)
	<b>795</b>	5,375	(4,580)
<b>Cash Used by Operating Activities</b>	<b>\$ (21,984)</b>	<b>\$ (30,318)</b>	<b>\$ 8,332</b>

For the three months ended September 30, 2023, cash used by operating activities was (\$22.0) million, compared to (\$30.3) million for the three months ended September 30, 2022. The \$8.3 million decrease in cash used by operating activities in the third quarter of 2023, as compared to the third quarter of 2022, was driven by the relative decrease in cash operating losses of \$12.9 million, partially offset by the relative increase in working capital requirements of (\$4.6) million.

The relative \$12.9 million decrease in cash operating losses in the third quarter of 2023 was driven primarily by the increase in Adjusted EBITDA loss of (\$1.1) million which was more than offset by several items included in cash operating losses but excluded from Adjusted EBITDA loss or vice-versa including: higher finance and other income (excluding mark to market fair value changes on investments) of \$8.6 million, higher equity investment losses in joint venture and associates of \$3.0 million, and lower acquisition related costs of \$2.2 million.

The total change in working capital of \$0.8 million in the third quarter of 2023 was driven by higher accounts payable and accrued liabilities of \$3.1 million due primarily to the timing of supplier payments and annual compensation awards, lower inventory of \$3.0 million due primarily to higher shipments in the period, and higher deferred revenue of \$1.1 million due primarily to the timing of customer prepayments in advance of work performed. These third quarter of 2023 inflows were partially offset by higher accounts and contract receivables of (\$6.6) million primarily due to the timing of revenues and the related customer collections.

The total change in working capital of \$5.4 million in the third quarter of 2022 was driven by higher accounts payable and accrued liabilities of \$2.6 million primarily due to the timing of supplier payments and annual compensation awards, by lower prepaid expenses of \$2.1 million primarily due to the timing of annual insurance renewals, and by higher warranty provisions of \$1.7 million. These third quarter of 2022 inflows were partially offset by lower deferred revenue of (\$1.0) million as pre-payments on certain contracts were recognized, and by higher accounts and contract receivables of (\$0.4) million primarily due to the timing of revenues and the related customer collections.

	Nine months ended September 30,		
	2023	2022	\$ Change
Cash Operating Loss	\$ (74,239)	\$ (94,658)	\$ 20,419
Change in Working Capital:			
Trade and other receivables	3,358	(3,599)	6,957
Inventory	(12,344)	(7,117)	(5,227)
Prepaid expenses and other current assets	(3,446)	(1,526)	(1,920)
Trade and other payables	(1,924)	(5,599)	3,675
Deferred revenue	588	(1,402)	1,990
Warranty provision	1,778	2,914	(1,136)
	(11,990)	(16,329)	4,339
<b>Cash Used by Operating Activities</b>	<b>\$ (86,229)</b>	<b>\$ (110,987)</b>	<b>\$ 24,758</b>

For the nine months ended September 30, 2023, cash used by operating activities was (\$86.2) million compared to (\$111.0) million for the nine months ended September 30, 2022. The \$24.8 million decrease in cash used by operating activities in the first three quarters of 2023, as compared to the first three quarters of 2022, was driven by the relative decrease in cash operating losses of \$20.4 million, and by the relative decrease in working capital requirements of \$4.3 million.

The relative \$20.4 million decrease in cash operating losses in the first three quarters of 2023 was driven primarily by the increase in Adjusted EBITDA loss of (\$12.7) million which was more than offset by several items included in cash operating losses but excluded from Adjusted EBITDA loss or vice-versa including: higher finance and other income (excluding mark to market fair value changes on investments) of \$29.9 million, higher equity investment losses in joint venture and associates of \$0.9 million, and lower acquisition related costs of \$2.0 million.

The total change in working capital of (\$12.0) million in the first three quarters of 2023 was driven by higher inventory of (\$12.3) million primarily to support expected future product shipments and to help mitigate ongoing supply chain disruptions, higher prepaid expenses of (\$3.4) million primarily due to the timing of insurance renewals and program requirements, and lower accounts payable and accrued liabilities of (\$1.9) million primarily as a result of the timing of supplier payments and annual compensation awards. These first half of 2023 outflows were partially offset by lower accounts and contract receivables of \$3.4 million primarily due to the timing of revenues and the related customer collections, and by higher warranty provisions of \$1.8 million.

The total change in working capital of (\$16.3) million in the first three quarters of 2022 was driven by higher inventory of (\$7.1) million primarily to support expected future product shipments and to help mitigate ongoing supply chain disruptions, lower accounts payable and accrued liabilities of (\$5.6) million primarily as a result of the timing of supplier payments and annual compensation awards, higher accounts and contract receivables of (\$3.6) million primarily as a result of the timing of revenues and the related customer collections, and by higher prepaid expenses of (\$1.5) million primarily due to the timing of annual insurance renewals. These first three quarters of 2022 outflows were partially offset by higher warranty provisions of \$2.9 million.

### **6.3 Cash Provided by (Used by) Investing Activities**

Investing activities resulted in net cash outflows of (\$11.2) million and (\$43.4) million, respectively, for the three and nine months ended September 30, 2023, compared to net cash outflows of (\$15.5) million and (\$55.5) million, respectively, for the corresponding periods of 2022.

Investing activities in the third quarter of 2023 of (\$11.2) million consist of capital expenditures of (\$7.0) million incurred primarily for production and test equipment and certain intangible assets, additional long-term investments in the HyCap and Clean H2 hydrogen infrastructure and growth equity funds of (\$3.3) million, and subsequent milestone attainment cash acquisition investment in Ballard Motive Solutions of (\$0.9) million.

Investing activities in the third quarter of 2022 of (\$15.5) million consist of additional long-term investments in certain hydrogen infrastructure and growth equity funds of (\$0.3) million, subsequent milestone cash acquisition investment payments for Ballard Motive Solutions of (\$5.6) million, investments in associated companies of (\$2.9) million for the fourteenth and final contracted equity contribution in our 49% investment in Weichai Ballard JV, and by capital expenditures of (\$6.7) million incurred primarily for production and test equipment and certain intangible assets.

Investing activities in the first three quarters of 2023 of (\$43.4) million consist of capital expenditures of (\$34.0) million incurred primarily for production and test equipment and certain intangible assets, additional long-term investments in Quantron of (\$3.3) million, additional investment in the HyCap and Clean H2 hydrogen infrastructure and growth equity funds of (\$5.1) million, and subsequent Milestone attainment cash acquisition investment in Ballard Motive Solutions of (\$2.0) million. These first three quarters of 2023 cash outflows were partially offset by a recovery of contributions in our long-term investment in Wisdom of \$1.0 million.

Investing activities in the first three quarters of 2022 of (\$55.5) million consist of additional long-term investments in Wisdom and in certain hydrogen infrastructure and growth equity funds of (\$12.6) million, subsequent Milestone cash acquisition investment payments for Ballard Motive Solutions of (\$14.9) million, investments in associated companies of (\$9.3) million for the twelfth, thirteenth and fourteenth and final contracted equity contributions in our 49% investment in Weichai Ballard JV, and by capital expenditures of (\$19.7) million incurred primarily for production and test equipment and certain intangible assets, partially offset by proceeds received on the sale of short-term investments of \$1.0 million.

### **6.4 Cash Provided by (Used by) Financing Activities**

Financing activities resulted in net cash outflows of (\$0.9) million and (\$2.6) million, respectively, for the three and nine months ended September 30, 2023, compared to net cash outflows of (\$0.7) million and (\$1.6) million, respectively, for the corresponding periods of 2022.

Financing activities in the third quarter of 2023 of (\$0.9) million consist of finance lease payments of (\$0.9) million, partially offset by nominal proceeds from the exercise of share purchase options. Financing activities in the third quarter of 2022 of (\$0.7) million consist of finance lease payments of (\$0.8) million, partially offset by proceeds from the exercise of

share purchase options of \$0.1 million.

Financing activities in the first three quarters of 2023 of (\$2.6) million consist of finance lease payments of (\$2.9) million, partially offset by proceeds from the exercise of share purchase options of \$0.3 million. Financing activities in the first three quarters of 2022 of (\$1.6) million consist of finance lease payments of (\$2.4) million, partially offset by proceeds from the exercise of share purchase options of \$0.8 million.

## **6.5 Liquidity and Capital Resources**

As of September 30, 2023, we had total liquidity of \$783.0 million. We measure liquidity as our net cash and short-term investment position, consisting of the sum of our cash, cash equivalents and short-term investments of \$783.0 million, as we have no bank debt.

We have a Letter of Guarantee Facility (the "LG Facility") enabling our bank to issue letters of guarantees, standby letters of credit, performance bonds, counter guarantees, counter standby letter of credit or similar credits on our behalf to from time to time up to a maximum of \$2.0 million. As of September 30, 2023, there was nil outstanding on the LG Facility. We also have a \$25 million Foreign Exchange Facility (the "FX Facility") enabling us to enter into foreign exchange currency contracts (at face value amounts in excess of the FX Facility) secured by a guarantee from Export Development Canada. As of September 30, 2023, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$39.0 million under the FX Facility.

Our liquidity objective is to maintain cash balances sufficient to fund at least six quarters of forecasted cash used by operating activities and contractual commitments. Our strategy to attain this objective is to continue our drive to attain profitable operations that are sustainable by executing a business plan that continues to focus on Fuel Cell Products and Services revenue growth, improving overall gross margins, maintaining discipline over Cash Operating Costs, managing working capital and capital expenditure requirements, and securing additional financing to fund our operations as needed until we do achieve profitable operations that are sustainable. We believe that we have adequate liquidity in cash and working capital to achieve our liquidity objective.

Failure to achieve or maintain this liquidity objective could have a material adverse effect on our financial condition and results of operations including our ability to continue as a going concern. There are also various risks and uncertainties affecting our ability to achieve this liquidity objective including, but not limited to, the market acceptance and rate of commercialization of our products, the ability to successfully execute our business plan, and general global economic conditions, certain of which are beyond our control. While we continue to make significant investments in product development and market development activities necessary to commercialize our products, make increased investments in working capital and capital expenditures as we grow our business, and make ongoing capital contributions in support of our investment in certain hydrogen infrastructure and growth equity funds, our actual liquidity requirements will also vary and will be impacted by future acquisitions and strategic partnerships and investments, our relationships with our lead customers and strategic partners including their ability to successfully finance and fund their operations and programs and agreements with us, our success in developing new channels to market and relationships with customers, our success in generating revenue growth from

near-term product, service and licensing opportunities, our success in managing our operating expense and working capital requirements, foreign exchange fluctuations, and the progress and results of our research, development and demonstration programs.

We may also choose to pursue additional liquidity through the issuance of debt or equity in private or public market financings. To enable the timely issuance of equity securities in the public market, we renewed our Base Shelf Prospectus on file with the securities regulators in Canada on May 9, 2023. The Base Shelf Prospectus, which is effective for 25-months ending in June 2025, was filed in each of the provinces and territories of Canada, and a corresponding shelf registration statement on Form F-10 was also filed with the United States Securities and Exchange Commission. These filings will enable offerings of securities at any time during the 25-month period that the Base Shelf Prospectus remains effective. No offerings of securities under this Base Shelf Prospectus have been issued to date.

No assurance can be given that any such additional liquidity will be available or that, if available, it can be obtained on terms favorable to the Company. If any securities are offered under the Base Shelf Prospectus, the terms of any such securities and the intended use of the net proceeds resulting from such offering would be established at the time of any offering and would be described in a supplement to the Base Shelf Prospectus filed with applicable Canadian securities regulators and/or the SEC, respectively, at the time of such an offering.

## **7. OTHER FINANCIAL MATTERS**

### **7.1 Off-Balance Sheet Arrangements and Contractual Obligations**

Periodically, we use forward foreign exchange contracts to manage our exposure to currency rate fluctuations. We record these contracts at their fair value as either assets or liabilities on our statement of financial position. Any changes in fair value are either (i) recorded in other comprehensive income if formally designated and qualified under hedge accounting criteria; or (ii) recorded in profit or loss (general and administrative expense) if either not designated, or not qualified, under hedge accounting criteria. As of September 30, 2023, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$39.0 million at an average rate of 1.3399 Canadian per U.S. dollar, resulting in an unrealized loss of Canadian (\$0.4) million as of September 30, 2023. The outstanding foreign exchange currency contracts have not been designated under hedge accounting.

As of September 30, 2023, we did not have any other material obligations under guarantee contracts, retained or contingent interests in transferred assets, outstanding derivative instruments, or non-consolidated variable interests.

As of September 30, 2023, we had the following contractual obligations and commercial commitments calculated on a non-discounted basis (with the exception of Finance leases):

<i>(Expressed in thousands of U.S. dollars)</i>		Payments due by period,			
<b>Contractual Obligations</b>	<b>Total</b>	Less than one year	1-3 years	4-5 years	After 5 years
Finance leases	<b>\$ 22,943</b>	\$ 5,455	\$ 7,768	\$ 4,723	\$ 4,997
Asset retirement obligations	<b>1,916</b>	-	1,916	-	-
Long-term investment (HyCap)	<b>19,159</b>	19,159	-	-	-
Long-term investment (Clean H2)	<b>28,311</b>	2,885	25,426	-	-
Total contractual obligations	<b>\$ 72,329</b>	\$ 27,499	\$ 35,110	\$ 4,723	\$ 4,997

Long-term investments include an investment committing us to be a limited partner in HyCap, a hydrogen infrastructure and growth equity fund. HyCap is to invest in a combination of hydrogen infrastructure projects and investments in companies along the hydrogen value chain. We have committed to investing £25.0 million (including £9.4 million invested as of September 30, 2023) into HyCap.

Long-term investments also include an investment committing us to be a limited partner in Clean H2, another hydrogen infrastructure and growth equity fund. Clean H2 is to invest in a combination of hydrogen infrastructure projects and investments in companies along the hydrogen value chain. We have committed to investing €30.0 million (including €3.3 million invested as of September 30, 2023) into Clean H2.

In addition, we have outstanding commitments of \$52.0 million as of September 30, 2023, related primarily to purchases of property, plant, and equipment. Capital expenditures and expenditures on other intangible assets pertain to our regular operations and are expected to be funded through cash on hand.

In connection with the acquisition of intellectual property from UTC in 2014, we have a royalty obligation in certain circumstances to pay UTC a portion of any future intellectual property sale and licensing income generated from certain of our intellectual property portfolio for a period of 15-years expiring in April 2029. No royalties were paid to UTC for the nine months ended September 30, 2023 and for the year ended December 31, 2022.

As of September 30, 2023, we retain a previous funding obligation to pay royalties of 2% of revenues (to a maximum of Canadian \$5.4 million) on sales of certain fuel cell products for commercial distributed utility applications. No royalties have been incurred to date due to this agreement.

We also retain a previous funding obligation to pay royalties of 2% of revenues (to a maximum of Canadian \$2.2 million) on sales of certain fuel cell products for commercial transit applications. No royalties have been incurred to date due to this agreement.

In the ordinary course of business or as required by certain acquisition or disposition agreements, we are periodically required to provide certain indemnities to other parties. As of September 30, 2023, we have not accrued any significant amount owing, or receivable, due to any indemnity agreements undertaken in the ordinary course of business.

## **7.2 Related Party Transactions**

Related parties now only include our 49% owned equity accounted investee, Weichai Ballard JV, as we effectively disposed of our 10% owned equity accounted investee, Synergy Ballard

JVCo, in the third quarter of 2023. Transactions between us and our subsidiaries are eliminated on consolidation. For the three and nine months ended September 30, 2023, and 2022, related party transactions and balances with Weichai Ballard JV are as follows:

<i>(Expressed in thousands of U.S. dollars)</i>	Three Months Ended September 30,	
<b>Transactions with related parties</b>	<b>2023</b>	2022
Revenues	\$ 1,535	\$ 1,064
Cost of goods sold and operating expense	\$ 256	\$ 873

<i>(Expressed in thousands of U.S. dollars)</i>	Nine Months Ended September 30,	
<b>Transactions with related parties</b>	<b>2023</b>	2022
Revenues	\$ 3,444	\$ 6,991
Cost of goods sold and operating expense	\$ 1,413	\$ 1,972

<i>(Expressed in thousands of U.S. dollars)</i>	As at Sep 30,	As at Dec 31,
<b>Balances with related parties</b>	<b>2023</b>	2022
Accounts receivable	\$ 15,042	\$ 13,320
Investments	\$ 16,952	\$ 24,026
Deferred revenue	\$ (1,895)	\$ (2,095)

We also provide key management personnel, being board directors and executive officers, certain benefits, in addition to their salaries. Key management personnel also participate in the Company's share-based compensation plans. Key management personnel compensation is summarized in note 28 to our annual consolidated financial statements for the year ended December 31, 2022.

### 7.3 Outstanding Share and Equity Information

<b>As of November 6, 2023</b>	
Common share outstanding	298,719,677
Options outstanding	4,461,675
DSUs outstanding	711,399
RSUs / PSUs outstanding (subject to vesting and performance criteria)	3,395,116

## 8. USE OF PROCEEDS

### 8.1 Reconciliation of Use of Proceeds from Previous Financings

During 2021 and 2020, we completed the following offerings of our common shares ("Common Shares"):

- On February 23, 2021, we closed a bought deal offering of 14.87 million Common Shares at a price of \$37.00 per Common Share for gross proceeds of \$550.2 million and net proceeds of \$527.3 million (the "2021 Offering").
- On November 27, 2020, we closed a bought deal offering of 20.9 million Common Shares at a price of \$19.25 per Common Share for gross proceeds of \$402.5 million and net proceeds of \$385.8 million (the "2020 Offering").
- On September 1, 2020, we announced an at-the-market equity program to issue a total

of 16.45 million Common Shares from treasury (the "\$250 million ATM Program"). The 16.45 million Common Shares issued under the \$250 million ATM Program were sold in the third and fourth quarters of 2020 at prevailing market prices at the time of sale for total gross proceeds of \$250 million and total net proceeds of \$244.1 million.

- On March 10, 2020, we announced an at-the-market equity program to allow the issuance of up to \$75 million of Common Shares from treasury (the "\$75 million ATM Program" and together with the \$250 million ATM Program, the "2020 ATM Programs"). The 8.2 million Common Shares issued under the \$75 million ATM Program were sold in the first half of 2020 at prevailing market prices at the time of sale for total gross proceeds of \$66.7 million and total net proceeds of \$64.7 million.

The net proceeds from the 2021 Offering and the 2020 Offering of \$527.3 million and \$385.8 million, respectively, were intended to be used to further strengthen the Company's financial position, thereby providing additional flexibility to fund growth strategies, including through activities such as product innovation, investments in production capacity expansion and localization, future acquisitions and strategic partnerships and investments. The net proceeds from the 2020 ATM Programs of \$308.8 million were intended to be used for general corporate purposes. Pending their use, we disclosed our intention to invest the net proceeds from the 2021 Offering and the 2020 Offering in short-term, investment grade, interest bearing instruments or to hold them as cash and cash equivalents.

The following tables sets out a comparison of the Company's disclosed expected use of net proceeds from the 2020 Offering and the 2020 ATM Programs to the actual use of such net proceeds to September 30, 2023. As of September 30, 2023, the net proceeds of \$527.3 million from the 2021 Offering and residual unused amounts from the 2020 Offering and the 2020 ATM Programs were held in interest bearing cash accounts.

<b>2020 Offering Net Proceeds \$385.8M</b>			
<b>Intended Use of Net Proceeds:</b> Further strengthen the Company's balance sheet, thereby providing additional flexibility to fund growth strategies, including through activities such as product innovation, investments in production capacity expansion and localization, future acquisitions and strategic partnerships and investments.			
<b>Actual Use of Net Proceeds</b> (expressed in thousands of U.S. dollars)		<b>Variance – (Over)/Under Expenditures</b>	<b>Explanation of Variance</b>
Research and Product Development (cash Operating cost) expenditures including product development of next generation fuel cell stacks and modules	<b>\$169,653</b>	N/A	N/A
Investments in property, plant and equipment and other intangible assets including production capacity expansion and localization	<b>\$83,174</b>	N/A	N/A
Ballard Motive Solutions acquisition (initial and subsequent cash costs) and acquisition related expenses	<b>\$26,768</b>	N/A	N/A
Strategic partnerships and investments including Quantron, Wisdom, Forsee Power, HyCap, Clean H2, Weichai Ballard JVCo, and acquisition related expenses	<b>\$93,631</b>	N/A	N/A
	<b>\$373,226</b>		

<b>2020 ATM Programs Net Proceeds \$308.8M</b>			
<b>Intended Use of Net Proceeds:</b> General Corporate Purposes			
<b>Actual Use of Net Proceeds</b> (expressed in thousands of U.S. dollars)		<b>Variance – (Over)/Under Expenditures</b>	<b>Explanation of Variance</b>
General and Administration (cash Operating cost) expenditures	<b>\$46,001</b>	N/A	N/A
Sales and Marketing (cash Operating cost) expenditures	<b>\$24,921</b>	N/A	N/A
Restructuring related expenditures	<b>\$6,435</b>	N/A	N/A
Working capital requirements	<b>\$29,560</b>	N/A	N/A
Lease liability principal repayments	<b>\$6,915</b>	N/A	N/A
	<b>\$113,832</b>		

## 9. ACCOUNTING MATTERS

### 9.1 Overview

Our consolidated financial statements are prepared in accordance with IFRS, which require us to make estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income, and expenses. Actual results may differ from those estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

### 9.2 Critical Judgments in Applying Accounting Policies

Critical judgments that we have made in the process of applying our accounting policies and that have the most significant effect on the amounts recognized in the consolidated financial statements is limited to our assessment of our ability to continue as a going concern (See Note 2 (e) to our annual consolidated financial statements).

Our significant accounting policies are detailed in note 4 to our annual consolidated financial statements for the year ended December 31, 2022 and our condensed consolidated interim financial statements for the three and nine months ended September 30, 2023. Effective January 1, 2023, we adopted a number of new standards and interpretations, but they did not have a material impact on our financial statements.

### 9.3 Key Sources of Estimation Uncertainty

The following are key assumptions concerning the future and other key sources of estimation uncertainty that have a significant risk of resulting in a material adjustment to the reported amount of assets, liabilities, income, and expenses within the next financial year.

#### REVENUE RECOGNITION

Revenues are generated primarily from product sales, the license and sale of intellectual property and fundamental knowledge, and the provision of engineering services and technology transfer services. Product revenues are derived primarily from standard product sales contracts and from long-term fixed price contracts. Intellectual property and fundamental knowledge license revenues are derived primarily from standard licensing and technology transfer agreements. Engineering service and technology transfer service revenues are derived primarily from cost-plus reimbursable contracts and from long-term fixed price contracts.

Revenue is recognized when a customer obtains control of the goods or services. Determining

the timing of the transfer of control, at a point in time or over time, requires judgment.

On standard product sales contracts, revenues are recognized when customers obtain control of the product, which is when transfer of title and risks and rewards of ownership of goods have passed, and when obligation to pay is considered certain. Invoices are generated and revenue is recognized at that point in time. Provisions for warranties are made at the time of sale. Revenue recognition for standard product sales contracts does not usually involve significant estimates.

On standard licensing and technology transfer agreements, revenues are recognized on the transfer of rights to a licensee, when it is determined to be distinct from other performance obligations, and if the customer can direct the use of, and obtain substantially all of the remaining benefits from the license as it exists at the time of transfer. In other cases, the proceeds are considered to relate to the right to use the asset over the license period and the revenue is recognized over that period. If it is determined that the license is not distinct from other performance obligations, revenue is recognized over time as the customer simultaneously receives and consumes the benefit. Revenue recognition for standard license and sale agreements does not usually involve significant estimates.

On cost-plus reimbursable contracts, revenues are recognized as costs are incurred, and include applicable fees earned as services are provided. Revenue recognition for cost-plus reimbursable contracts does not usually involve significant estimates.

On long-term fixed price contracts, the customer controls all of the work in progress as the services are being provided. This is because under these contracts, the deliverables are made to a customer's specification, and if a contract is terminated by the customer, then the Company is entitled to reimbursement of the costs incurred to date plus the applicable gross margin. Therefore, revenue from these contracts and the associated costs are recognized as the costs are incurred over time. On long-term fixed price contracts, revenues are recognized over time using cumulative costs incurred to date relative to total estimated costs at completion to measure progress towards satisfying performance obligations. Generally, revenue is recognized by multiplying the expected consideration by the ratio of cumulative costs incurred to date to the sum of incurred and estimated costs for completing the performance obligation. The cumulative effect of changes to estimated revenues and estimated costs for completing a contract are recognized in the period in which the revisions are identified. If the estimated costs for completing the contract exceed the expected revenues on a contract, such loss is recognized in its entirety in the period it becomes known. Deferred revenue (i.e., contract liabilities) represents cash received from customers in excess of revenue recognized on uncompleted contracts.

- The determination of expected costs for completing a contract is based on estimates that can be affected by a variety of factors such as variances in the timeline to completion, the cost of materials, the availability and cost of labour, as well as productivity.
- The determination of potential revenues includes the contractually agreed amount and may be adjusted based on the estimate of our attainment on achieving certain defined contractual milestones. Management's estimation is required in determining the amount of consideration for which the Company expects to be entitled and in determining when a performance obligation has been met.

Estimates used to determine revenues and costs of long-term fixed price contracts involve uncertainties that ultimately depend on the outcome of future events and are periodically revised as projects progress. There is a risk that a customer may ultimately disagree with management's assessment of the progress achieved against milestones, or that our estimates of the work required to complete a contract may change.

During the three and nine months ended September 30, 2023, and 2022, there were no significant adjustments to revenues relating to revenue recognized in a prior period.

#### ASSET IMPAIRMENT

The carrying amounts of our non-financial assets other than inventories are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. For goodwill and intangible assets that have indefinite useful lives, the recoverable amount is estimated at least annually.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In assessing fair value less costs to sell, the price that would be received on the sale of an asset in an orderly transaction between market participants at the measurement date is estimated. For the purposes of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other groups of assets. The allocation of goodwill to cash-generating units reflects the lowest level at which goodwill is monitored for internal reporting purposes. Many of the factors used in assessing fair value are outside the control of management and it is reasonably likely that assumptions and estimates will change from period to period. These changes may result in future impairments. For example, our revenue growth rate could be lower than projected due to economic, industry or competitive factors, or the discount rate used in our value in use model could increase due to a change in market interest rates. In addition, future goodwill impairment charges may be necessary if our market capitalization declines due to a decrease in the trading price of our common stock, which could negatively impact the fair value of our business.

An impairment loss is recognized if the carrying amount of an asset or its cash-generating unit exceeds its estimated recoverable amount. Impairment losses are recognized in net loss. Impairment losses recognized in respect of the cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the units, and then to reduce the carrying amounts of the other assets in the unit on a pro-rata basis.

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognized in prior periods are assessed at each reporting date for any indications that the cumulative loss has decreased or no longer exists. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

We perform the annual review of goodwill as at December 31 of each year, more often if events or changes in circumstances indicate that it might be impaired. Based on the impairment test performed as at December 31, 2022 and our assessment of current events and circumstances, we have concluded that no goodwill impairment test was required for the nine months ended September 30, 2023.

In addition to the above goodwill impairment test, we perform a quarterly assessment of the carrying amounts of our non-financial assets (other than inventories) to determine whether there is any indication of impairment. During the three and nine months ended September 30, 2023, impairment charges on goodwill of (\$24.0) million and impairment charges on intangible assets of (\$2.3) million were recognized on our non-financial assets (other than inventories) and consist of the write-down of acquired goodwill and technology intangible assets to their estimated fair value as a result of further proposed restructuring of operations at Ballard Motive Solutions in the U.K.

#### WARRANTY PROVISION

A provision for warranty costs is recorded on product sales at the time of shipment. In establishing the accrued warranty liabilities, we estimate the likelihood that products sold will experience warranty claims and the cost to resolve claims received.

In making such determinations, we use estimates based on the nature of the contract and past and projected experience with the products. Should these estimates prove to be incorrect, we may incur costs different from those provided for in our warranty provisions. During the three and nine months ended September 30, 2023, we recorded provisions to accrued warranty liabilities of \$1.5 million and \$3.4 million, respectively, for new product sales, compared to \$1.6 million and \$3.7 million, respectively, for the three and nine months ended September 30, 2022.

We review our warranty assumptions and make adjustments to accrued warranty liabilities quarterly based on the latest information available and to reflect the expiry of contractual obligations. Adjustments to accrued warranty liabilities are recorded in cost of product and service revenues. As a result of these reviews and the resulting adjustments, our warranty provision and cost of revenues for the three and nine months ended September 30, 2023, were adjusted upwards by nil and (\$0.6) million, respectively, compared to adjustments upwards by (\$0.5) million and (\$0.9) million, respectively, for the three and nine months ended September 30, 2022.

#### INVENTORY AND ONEROUS CONTRACT PROVISIONS

In determining the lower of cost and net realizable value of our inventory and establishing the appropriate provision for inventory obsolescence, we estimate the likelihood that inventory carrying values will be affected by changes in market pricing or demand for our products and by changes in technology or design which could make inventory on hand obsolete or recoverable at less than cost. We perform regular reviews to assess the impact of changes in technology and design, sales trends, and other changes on the carrying value of inventory. Where we determine that such changes have occurred and will have a negative impact on the value of inventory on hand, appropriate provisions are made. If there is a subsequent increase in the value of inventory on hand, reversals of previous write-downs to net realizable value are made. Unforeseen changes in these factors could result in additional

inventory provisions, or reversals of previous provisions, being required.

A provision for onerous contracts is also assessed and measured at the present value of the lower of the expected cost of terminating the contract and the expected net cost of continuing with the contract, which is determined based on the incremental costs of fulfilling the obligation under the contract and an allocation of other costs directly related to fulfilling the contract. Before an onerous contract provision is established, we recognize any impairment loss on the assets (including through an inventory provision) associated with that contract.

During the three and nine months ended September 30, 2023, negative inventory impairment and onerous contract provision adjustments of (\$1.4) million and (\$4.2) million, respectively, were recorded as a charge to cost of product and service revenues, compared to negative inventory impairment and onerous contract provision adjustments of (\$2.4) million and (\$3.4) million, respectively, in the three and nine months ended September 30, 2022.

#### FAIR VALUE MEASUREMENT (INCLUDING INVESTMENTS)

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which the Company has access at that date. The fair value of a liability reflects its non-performance risk. A number of the Company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

When one is available, the Company measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as "active" if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. If there is no quoted price in an active market, then the Company uses valuation techniques that maximize the use of relevant observable inputs and minimize the use of unobservable inputs. This involves developing estimates and assumptions consistent with how market participants would price the instrument. Management bases its assumptions on observable data as far as possible, but this is not always available. In that case, management uses the best information available. Where they are available, the fair value of investments is based on observable market transactions. Estimated fair values may vary from the actual prices that would be achieved in an arm's length transaction at the reporting date.

The best evidence of the fair value of a financial instrument (including investments) on initial recognition is usually the transaction price – i.e., the fair value of the consideration given or received. If the Company determines that the fair value on initial recognition differs from the transaction price and the fair value is evidenced neither by a quoted price in an active market for an identical asset or liability nor based on a valuation technique for which any unobservable inputs are judged to be insignificant in relation to the measurement, then the financial instrument is initially measured at fair value, adjusted to defer the difference between the fair value on initial recognition and the transaction price. Subsequently, that difference is recognized in profit or loss on an appropriate basis over the life of the instrument but no later than when the valuation is wholly supported by observable data, or the transaction is closed out. During the three and nine months ended September 30, 2023, we recognized mark to market gain (loss) on financial assets of (\$2.5) million and (\$2.6) million,

respectively, compared to \$1.7 million and (\$19.8) million, respectively, for the three and nine months ended September 30, 2022. Mark to market gain (loss) in 2023 and 2022 consist primarily of changes in the fair value of our long-term financial investments including Forsee Power, Wisdom, Quantron, and in our HyCap and Clean H2 hydrogen infrastructure and growth equity funds.

#### EMPLOYEE FUTURE BENEFITS

The present value of our defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that have terms to maturity approximating the terms of the related pension liability. Determination of benefit expense requires assumptions such as the discount rate to measure obligations, expected plan investment performance, expected healthcare cost trend rate, and retirement ages of employees. Actual results will differ from the recorded amounts based on these estimates and assumptions.

#### **9.4 Recently Adopted Accounting Policy Changes**

Effective January 1, 2023, we adopted a number of new standards and interpretations, but they did not have a material impact on our financial statements.

#### **9.5 Future Accounting Policy Changes**

The following is an overview of accounting standard changes that we will be required to adopt in future years. We do not expect to adopt any of these standards before their effective dates and we continue to evaluate the impact of these standards on our consolidated financial statements.

##### Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)

On January 23, 2020, the IASB issued amendments to *IAS 1 Presentation of Financial Statements* (the "2020 Amendments"), to clarify the classification of liabilities as current or non-current. On October 31, 2022, the IASB issued *Non-current Liabilities with Covenants (Amendments to IAS 1)* (the "2022 Amendments"), to improve the information a company provides about long-term debt with covenants.

For the purposes of non-current classification, the 2020 Amendments and the 2022 Amendments (collectively "the Amendments") removed the requirement for a right to defer settlement or roll over of a liability for at least twelve months to be unconditional. Instead, such a right must exist at the end of the reporting period and have substance.

The Amendments reconfirmed that only covenants with which a company must comply on or before the reporting date affect the classification of a liability as current or non-current. Covenants with which a company must comply after the reporting date do not affect a liability's classification at that date. The Amendments also clarify how a company classifies a liability that includes a counterparty conversion option. The Amendments state that:

- settlement of a liability includes transferring a company's own equity instruments to the counterparty, and
- when classifying liabilities as current or non-current a company can ignore only those conversion options that are recognized as equity.

The Amendments are effective for annual periods beginning on or after January 1, 2024. Early adoption is permitted. A company that applies the 2020 amendments early is required to also

apply the 2022 amendments. The extent of the impact of adoption of the amendments to *IAS 1* has not yet been determined.

## 10. SUPPLEMENTAL NON-GAAP MEASURES AND RECONCILIATIONS

### 10.1 Overview

In addition to providing measures prepared in accordance with GAAP, we present certain supplemental non-GAAP measures. These measures are Cash Operating Costs (including its components of research and product development (operating cost), general and administrative (operating cost) and sales and marketing (operating cost)), EBITDA and Adjusted EBITDA. These non-GAAP measures do not have any standardized meaning prescribed by GAAP and therefore are unlikely to be comparable to similar measures presented by other companies. We believe these measures are useful in evaluating the operating performance of the Company's ongoing business. These measures should be considered in addition to, and not as a substitute for, operating expenses, net income, cash flows and other measures of financial performance and liquidity reported in accordance with GAAP. The calculation of these non-GAAP measures has been made on a consistent basis for all periods presented.

### 10.2 Cash Operating Costs

This supplemental non-GAAP measure is provided to assist readers in determining our operating costs on an ongoing cash basis. We believe this measure is useful in assessing performance and highlighting trends on an overall basis.

We also believe Cash Operating Costs is frequently used by securities analysts and investors when comparing our results with those of other companies. Cash Operating Costs differs from the most comparable GAAP measure, total operating expenses, primarily because it does not include stock-based compensation expense, depreciation and amortization, impairment losses or recoveries on trade receivables, restructuring and related costs, acquisition related costs, the impact of unrealized gains and losses on foreign exchange contracts, and financing charges. The following tables show a reconciliation of total operating expenses to Cash Operating Costs for the three and nine months ended September 30, 2023, and 2022:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,		
<b>Cash Operating Costs</b>	<b>2023</b>	2022	<b>\$ Change</b>	
Total Operating Expenses	\$ <b>36,280</b>	\$ 39,995	\$ (3,715)	
Stock-based compensation expense	<b>(3,106)</b>	(2,828)	(278)	
Impairment recovery (losses) on trade receivables	<b>(45)</b>	-	(45)	
Acquisition related costs	<b>(33)</b>	(2,261)	2,228	
Restructuring and related (costs) recovery	<b>(138)</b>	(258)	120	
Impact of unrealized gains (losses) on foreign exchange contracts	<b>(655)</b>	(1,588)	933	
Depreciation and amortization	<b>(2,048)</b>	(3,065)	1,017	
<b>Cash Operating Costs</b>	<b>\$ 30,255</b>	\$ 29,995	\$ 260	

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,	
<b>Cash Operating Costs</b>	<b>2023</b>	2022	\$ Change
Total Operating Expenses	\$ 111,315	\$ 108,767	\$ 2,548
Stock-based compensation expense	(8,515)	(7,937)	(578)
Impairment recovery (losses) on trade receivables	(62)	-	(62)
Acquisition related costs	(776)	(2,751)	1,975
Restructuring and related (costs) recovery	(865)	(345)	(520)
Impact of unrealized gains (losses) on foreign exchange contracts	600	(1,919)	2,519
Depreciation and amortization	(6,493)	(7,658)	1,165
<b>Cash Operating Costs</b>	<b>\$ 95,204</b>	<b>\$ 88,157</b>	<b>\$ 7,047</b>

The components of Cash Operating Costs of research and product development (cash operating cost), general and administrative (cash operating cost), and sales and marketing (cash operating cost) differ from their respective most comparable GAAP measure of research and product development expense, general and administrative expense, and sales and marketing expense, primarily because they do not include stock-based compensation expense, depreciation and amortization expense, and acquisition related costs. A reconciliation of these respective operating expenses to the respective components of Cash Operating Costs for the three and nine months ended September 30, 2023, and 2022 is included in Section 5.4 Operating Expenses and Other Items.

A breakdown of total stock-based compensation expense for the three and nine months ended September 30, 2023, and 2022 are as follows:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,	
<b>Stock-based compensation expense</b>	<b>2023</b>	2022	\$ Change
Total stock-based compensation expense recorded as follows:			
Cost of goods sold	\$ -	\$ -	\$ -
Research and product development expense	1,626	1,507	119
General and administrative expense	1,026	951	75
Sales and marketing expense (recovery)	454	370	84
<b>Stock-based compensation expense</b>	<b>\$ 3,106</b>	<b>\$ 2,828</b>	<b>\$ 278</b>

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,	
<b>Stock-based compensation expense</b>	<b>2023</b>	2022	\$ Change
Total stock-based compensation expense recorded as follows:			
Cost of goods sold	\$ -	\$ -	\$ -
Research and product development expense	4,475	4,296	179
General and administrative expense	2,811	2,592	219
Sales and marketing expense (recovery)	1,229	1,049	180
<b>Stock-based compensation expense</b>	<b>\$ 8,515</b>	<b>\$ 7,937</b>	<b>\$ 578</b>

A breakdown of total depreciation and amortization expense for the three and nine months ended September 30, 2023, and 2022 are as follows:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,	
<b>Depreciation and amortization expense</b>	<b>2023</b>	2022	\$ Change
Total depreciation and amortization expense recorded as follows:			
Cost of goods sold	\$ 1,067	\$ 914	\$ 153
Research and product development expense	1,547	2,555	(1,008)
General and administrative expense	500	509	(9)
Sales and marketing expense	1	1	-
<b>Depreciation and amortization expense</b>	<b>\$ 3,115</b>	<b>\$ 3,979</b>	<b>\$ (864)</b>

<i>(Expressed in thousands of U.S. dollars)</i>		Nine months ended September 30,	
<b>Depreciation and amortization expense</b>	<b>2023</b>	2022	\$ Change
Total depreciation and amortization expense recorded as follows:			
Cost of goods sold	\$ 3,075	\$ 2,871	\$ 204
Research and product development expense	5,048	6,190	(1,142)
General and administrative expense	1,441	1,466	(25)
Sales and marketing expense	4	2	2
<b>Depreciation and amortization expense</b>	<b>\$ 9,568</b>	<b>\$ 10,529</b>	<b>\$ (961)</b>

### 10.3 EBITDA and Adjusted EBITDA

These supplemental non-GAAP measures are provided to assist readers in determining our operating performance. We believe this measure is useful in assessing performance and highlighting trends on an overall basis. We also believe EBITDA and Adjusted EBITDA are frequently used by securities analysts and investors when comparing our results with those of other companies. EBITDA differs from the most comparable GAAP measure, net loss, primarily because it does not include finance expense, income taxes, depreciation of property, plant and equipment, and amortization of intangible assets. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, acquisition related costs, finance and other income, recovery on settlement of contingent consideration, asset impairment charges, and the impact of unrealized gains and losses on foreign exchange contracts. The following tables show a reconciliation of net loss to EBITDA and Adjusted EBITDA for the three and nine months ended September 30, 2023, and 2022:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended September 30,	
<b>EBITDA and Adjusted EBITDA</b>	<b>2023</b>	2022	\$ Change
Net loss	\$ (62,454)	\$ (42,881)	\$ (19,573)
Depreciation and amortization	3,115	3,979	(864)
Finance expense	291	324	(33)
Income taxes (recovery)	20	(420)	440
<b>EBITDA</b>	<b>\$ (59,028)</b>	<b>\$ (38,998)</b>	<b>\$ (20,030)</b>
Stock-based compensation expense	3,106	2,828	278
Acquisition related costs	33	2,261	(2,228)
Finance and other (income) loss	(7,239)	(2,781)	(4,458)
Impairment charge on intangible assets	2,266	-	2,266
Impairment charge on goodwill	23,991	-	23,991
Impact of unrealized (gains) losses on foreign exchange contracts	655	1,588	(933)
<b>Adjusted EBITDA</b>	<b>\$ (36,216)</b>	<b>\$ (35,102)</b>	<b>\$ (1,114)</b>

(Expressed in thousands of U.S. dollars)

<b>EBITDA and Adjusted EBITDA</b>	Nine months ended September 30,		
	<b>2023</b>	2022	\$ Change
Net loss	\$ (126,468)	\$ (139,067)	\$ 12,599
Depreciation and amortization	9,568	10,529	(961)
Finance expense	837	979	(142)
Income taxes (recovery)	118	(532)	650
<b>EBITDA</b>	<b>\$ (115,945)</b>	<b>\$ (128,091)</b>	<b>\$ 12,146</b>
Stock-based compensation expense	8,515	7,937	578
Acquisition related costs	776	2,751	(1,975)
Finance and other (income) loss	(29,398)	17,833	(47,231)
Impairment charge on intangible assets	2,266	-	2,266
Impairment charge on goodwill	23,991	-	23,991
Impact of unrealized (gains) losses on foreign exchange contracts	(600)	1,919	(2,519)
<b>Adjusted EBITDA</b>	<b>\$ (110,395)</b>	<b>\$ (97,651)</b>	<b>\$ (12,744)</b>