We deliver fuel cell power for a sustainable planet **3ALLARD™** BALLARD **BALLARD** BALLARD POWER SYSTEMS INC. MANAGEMENT'S DISCUSSION AND ANALYSIS FOURTH QUARTER AND FISCAL YEAR 2023 Here for life[™] 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 forwardlooking 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; 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; our ability to extract value from joint venture operations; global economic trends and geopolitical risks (such as conflicts in Ukraine and the Middle East), 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; investment in hydrogen fueling infrastructure and competitive pricing of hydrogen fuel; the relative strength of the value proposition that we offer our customers with our products or services; changes in competitive technologies. including internal combustion engine, battery and fuel cell technologies; challenges or delays in our technology and product development activities; changes in our customers' requirements, the competitive environment and/or related market conditions; product safety, liability or warranty issues; warranty claims, product performance quarantees, or indemnification claims; changes in product or service pricing or cost; market developments or customer actions that may affect levels of demand and/or the financial performance of the major industries, regions and customers we serve, such as secular, cyclical and competitive pressures in the bus, truck, rail, marine and stationary sectors; the rate of mass adoption of our products or related ecosystem, including the availability of cost-effective hydrogen; cybersecurity threats; our ability to protect our intellectual property; climate risk; 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; changes in U.S. tax laws and tax status related to "passive foreign investment company" designation; the severity, magnitude and duration of the on-going COVID-19 pandemic, including impacts of the pandemic and of businesses' and governments' responses to the pandemic on our operations, personnel and joint venture operations, and on commercial activity and demand across our and our customers', partners' and joint venture businesses, and on global supply chains; potential merger and acquisition activities, including risks related to integration, loss of key personnel and disruptions to operations; and 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 forwardlooking 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

March 8, 2024

Sec	tion	Description
1.	Introduction	1.1 Preparation of the MD&A
		1.2 Management's Report on Disclosure Controls and
		Procedures and Internal Controls over Financial
		Reporting
		1.3 Risks and Uncertainties
2.	Core Strategy and Business	2.1 Core Business
		2.2 Strategic Imperatives
3.	Select Annual Financial Information	3.1 Select Annual Financial Information
	and 2024 Business Outlook	3.2 2023 Performance Compared to 2023
		Business Outlook
		3.3 2024 Business Outlook
4.	Recent Developments	4.1 Corporate
	(Including Contractual Updates)	4.2 Europe
		4.3 North America and Rest of World
		4.4 China
5.	Results of Operations	5.1 Operating Segments
		5.2 Summary of Key Financial Metrics –
		Three months ended December 31, 2023
		5.3 Summary of Key Financial Metrics –
		Year ended December 31, 2023
		5.4 Operating Expenses and Other Items –
		Three months and year ended December 31, 2023
		5.5 Summary of Quarterly Results
6.	Cash Flow, Liquidity and Capital Resources	6.1 Summary of Cash Flows
		6.2 Cash Provided by (Used by) Operating Activities
		6.3 Cash Provided by (Used by) Investing Activities
		6.4 Cash Provided by (Used by) Financing Activities
		6.5 Liquidity and Capital Resources
7.	Other Financial Matters	7.1 Off Balance Sheet Arrangements and Contractual
		Obligations
		7.2 Related Party Transactions
		7.3 Outstanding Share and Equity Information
8.	Use of Proceeds	8.1 Reconciliation of Use of Proceeds from Previous
		Financings
9.	Accounting Matters	9.1 Overview
		9.2 Critical Judgments in Applying Accounting Policies
		9.3 Key Sources of Estimation Uncertainty
		9.4 Recently Adopted Accounting Policy Changes
		9.5 Future Accounting Policy Changes
10.	Supplemental Non-GAAP Measures and	10.1 Overview
	Reconciliations	10.2 Cash Operating Costs
		10.3 EBITDA and Adjusted EBITDA



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 March 8, 2024 and should be read in conjunction with our audited consolidated financial statements and accompanying notes for the year ended December 31, 2023. 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.secdarplus.ca) and U.S. securities regulatory authorities (www.sec.gov) and is also available on our website at www.ballard.com.

1.2 Management's Report on Disclosure Controls and Procedures and Internal Controls over Financial Reporting

Disclosure controls and procedures

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.

As of the end of the period covered by this report, we evaluated, under the supervision and with the participation of management, including the CEO and the CFO, the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a–15(e) and 15d-15(e) of the Securities Exchange Act of 1934 ("Exchange Act"). The CEO and CFO have concluded that as of December 31, 2023, our disclosure controls and procedures were effective to ensure that information required to be disclosed in reports we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified therein, and accumulated and reported to management to allow timely discussions regarding required disclosure.

Internal control over financial reporting

The CEO and CFO, together with other members of management, are responsible for establishing and maintaining adequate internal control over the Company's financial reporting. Internal control over financial reporting is designed under our supervision, and overseen by the Company's board of directors, management, and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS.

There are inherent limitations in the effectiveness of internal control over financial reporting, including the possibility that misstatements may not be prevented or detected. Accordingly, even effective internal controls over financial reporting can provide only reasonable assurance with respect to financial statement preparation. Furthermore, the effectiveness of internal controls can change with circumstances.

Management, including the CEO and CFO, have evaluated the effectiveness of internal control over financial reporting, as defined in Rules 13a–15(f) of the Exchange Act, in relation to criteria described in *Internal Control–Integrated Framework (2013)* issued by the Committee



of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, management has determined that internal control over financial reporting was effective as of December 31, 2023.

KPMG LLP, our independent registered public accounting firm, has audited our consolidated financial statements and expressed an unqualified opinion thereon. KPMG LLP has also expressed an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2023.

Changes in internal control over financial reporting

During the year ended December 31, 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) and U.S. (www.sec.gov) securities regulatory authorities.

A summary of our identified risks and uncertainties are as follows:

- We may not be able to successfully execute our business plan.
- We depend on a limited number of customers for the majority of our revenues and are subject to risks associated with early-stage market activities related to fuel cell bus, truck, rail, marine and stationary applications.
- We are dependent on third party suppliers for the supply of key materials and components for our products and services and may be subject to supply chain disruption.
- We are dependent upon Original Equipment Manufacturers and Systems Integrators to purchase certain of our products.
- In China, a significant amount of operations are conducted by a joint venture that we do not control. In addition, we provide most of our technology solutions services to that joint venture
- We have limited experience manufacturing fuel cell products on a commercial basis and our experience has been limited to relatively low production volumes.
- We are subject to risks inherent in international operations, including restrictions on the conversion of currencies and restrictions on repatriation of funds, including out of China.
- Certain of our customer supply agreements are subject to certain conditions or risks, including achievement of certain product performance milestones, completion of product development programs, or customer cancellation provisions.



- Public policy and regulatory changes, including regulations relating to perfluoroalkyl and polyfluoroalkyl substances ("PFAS") used in our products, could hurt the market for our products and services.
- Global macro-economic conditions are beyond our control and may have an adverse impact on our business, our joint venture, our key suppliers, and/or customers, and our ability to raise capital.
- Adequate investment in hydrogen fueling infrastructure and competitive pricing of hydrogen fuel is beyond our control.
- Geopolitical conditions are beyond our control and may have an adverse impact on our business, our joint venture, our key suppliers, and/or customers.
- We currently face inflationary pressures.
- We currently face and will continue to face significant competition, and many current and future competitors may have significantly more resources.
- We could be adversely affected by risks associated with capital investments and new business processes.
- Our technology and products may not meet the market requirements, including requirements relating to performance, integration and / or cost.
- We may not be able to sell our products on a commercially viable basis on the timetable we anticipate, or at all.
- We could lose or fail to attract the personnel necessary to operate our business.
- Warranty claims, product performance guarantees, or indemnification claims could negatively impact our gross margins and financial performance.
- We expect our cash reserves will be reduced due to future operating losses, working capital requirements, capital expenditures, and potential acquisitions and other investments by our business, including in certain hydrogen infrastructure and growth equity funds, and we cannot provide certainty as to how long our cash reserves will last or that we will be able to access additional capital when necessary.
- Potential fluctuations in our financial and business results make forecasting difficult and may restrict our access to funding for our commercialization plan.
- A mass market for our products may never develop or may take longer to develop than we anticipate.
- We may experience cybersecurity threats to our information technology infrastructure and systems, and unauthorized attempts to gain access to our proprietary or confidential information, as may our customers, suppliers and/or partners.
- We depend on our intellectual property, and our failure to protect that intellectual property could adversely affect our expected future growth and success.
- Climate change risks may adversely affect our operations, or the operations of our suppliers, customers and/or partners.
- Regulatory agencies could require us to modify or terminate existing investments, acquisitions or joint ventures and could delay or prevent future opportunities.
- Additional issuance of securities by Ballard may dilute existing securityholders, reduce some or all of Ballard's financial measures on a per share basis, reduce the trading price of the Common Shares or other Ballard securities or impede Ballard's ability to raise future



capital.

- Proposed legislation in the U.S. Congress, including changes in U.S. tax law, and the Inflation Reduction Act of 2022 may adversely impact Ballard and the value of common shares.
- Exchange rate fluctuations are beyond our control and may have a material adverse effect on our business, operating results, financial condition and profitability.
- Commodity price fluctuations are beyond our control and may have a material adverse effect on our business, operating results, financial condition and profitability.
- Our products use flammable fuels and some generate high voltages, which could subject our business to product safety, product liability or other claims.
- We could be liable for environmental damages resulting from our research, development or manufacturing operations.
- Ballard believes that it was a "passive foreign investment company" ("PFIC") for our most recently completed tax year, which may have adverse U.S. federal income tax consequences for U.S. Holders.
- Emerging diseases, like COVID-19, may adversely affect our operations (including our joint venture in China), our suppliers, our customers and/or partners.
- We could be adversely affected by risks associated with mergers and acquisitions.

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, ammonia, or other hydrocarbon fuels, or from water through electrolysis. Ballard's PEM fuel cell products are typically designed to 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. This technology includes 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, a module assembly facility in Bend, Oregon, and 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 certain non-controlling and non-equity accounted investments: (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 7.3% 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 10.4% 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. During the first quarter of 2024, we invested in a decarbonization and climate technology and growth equity fund by acquiring a 2% interest in Templewater Decarbonization I, L.P., a limited partnership registered in Cayman Islands, for an initial investment of \$0.5 million on a total commitment of \$1.0 million.

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 for 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 Europe, North America, and China.

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 four key themes:

- <u>Double down in the fuel cell stack & module</u>: invest in leading PEM fuel cell technology and products to provide leading value to our customers and end users on a total cost of ownership basis;
- Accelerate market development: deepen and create new partnerships to accelerate hydrogen and fuel cell market adoption and grow volumes for product sales;
- <u>Win in key regions</u>: prioritize investments in North America and Europe, and monitor China before materially deepening our investment in China; and
- <u>Here for Life</u>: 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. As a result, over the past three years, we increased and accelerated our investments in technology and product innovation, product cost reduction, production capacity expansion and localization, strategic pricing for select customer demonstration programs, and customer experience. Our increased investments include: next generation products and technology, including our proprietary membrane electrode assemblies ("MEAs"), bipolar plates, stacks, and modules; advanced manufacturing processes, technologies, equipment, and production capacity expansion activities primarily in Canada, Europe and the United States; and technology and product cost reduction.

Given challenging and dynamic macroeconomic and geopolitical conditions, given continued delays in hydrogen and fuel cell market adoption, and given changes in investor sentiment towards pre-profitability clean energy companies with long-duration investment horizons, we sharpened our focus in 2023 to protect our balance sheet. While we continue to invest against our long-term strategy, we rationalized our product portfolio, reduced the number of active product development programs, dropped new corporate development investments, and discontinued certain legacy products and non-core activities, including Ballard Motive



Solutions in the U.K. We also suspended our proposed \$130 million investment for the localization of a new MEA production facility in China.

3. SELECT ANNUAL FINANCIAL INFORMATION AND 2024 BUSINESS OUTLOOK

3.1 Select Annual Financial Information

Results of Operations		Yea	ır ended,		
(Expressed in thousands of U.S. dollars, except per share amounts and gross margin %)	2023		2022		2021
Revenues	\$ 102,368	\$	81,860	\$	104,367
Gross margin	\$ (21,831)	\$	(13,308)	\$	14,066
Gross margin %	(21%)		(16%)		13%
Total Operating Expenses	\$ 141,073	\$	132,020	\$	100,731
Cash Operating Costs (1)	\$ 119,327	\$	111,992	\$	82,630
Adjusted EBITDA (1)	\$ (150,088)	\$	(132,635)	\$	(80,981)
Net loss from continuing operations	\$ (144,210)	\$	(160,371)	\$	(113,282)
Net loss from continuing operations per share	\$ (0.48)	\$	(0.54)	\$	(0.38)
Financial Position (expressed in thousands of U.S. dollars)	A 2023	t Dece	ember 31, 2022		2021
Total assets	\$ 1,077,542	\$	1,247,077	\$	1,440,943
Total non-current liabilities	\$ 15,740	\$	14,998	\$	29,567
Cash, cash equivalents and short-term investments	\$ 753,243	\$	915,741	\$	1,126,899

Cash Operating Costs 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 to GAAP in the Supplemental Non-GAAP Measures section.

3.2 2023 Performance compared to 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 did not provide specific revenue or net income (loss) guidance for 2023. We did however provide certain quantitative and qualitative outlook expectations for 2023 as we continued our plan to increase investments in the business, including extensive research and product development, expanding our product offerings, and investments in manufacturing capabilities. In particular:

- Total Operating Expenses: 2023 outlook range of \$135 million to \$155 million Total Operating Expenses in fiscal 2023 of \$149.0 million (including \$7.9 million of operating expenses from discontinued operations) were at the higher end of our outlook range of between \$135 million and \$155 million (compared to \$145.8 million in fiscal 2022 including \$13.8 million of operating expenses from discontinued operations) as we continued to invest in research and product development 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: 2023 outlook range of \$40 million to \$60 million Total Capital Expenditures (being additions to property, plant and equipment and investment in other intangible assets) in fiscal 2023 of \$41.4 million were at the lower end of our outlook range of between \$40 million and \$60 million (compared to \$34.5 million in fiscal 2022) as we continued to invest in testing, advanced manufacturing, and production. Capital allocation in 2023 included increasing testing and prototyping capabilities, including new advanced test station equipment and refurbishments of existing testing equipment,



advanced manufacturing equipment in Canada for next-generation bipolar plates, and positioning our manufacturing capabilities in Canada, Denmark, and the United States to support anticipated scale in key markets. We also continued to look at opportunities to expand our presence in growing markets.

3.3 2024 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 2024. In 2024, we plan to continue investments in next generation products, advanced manufacturing, and production capacity expansion. We also expect revenue in 2024 will be back-half weighted, with roughly 30% in the first half and 70% in the second half, similar to 2023. Our 2024 outlook includes:

- Total Operating Expenses: 2024 outlook range of \$145 million to \$165 million We expect total Operating Expenses (excluding discontinued operations) for fiscal 2024 to be between \$145 million and \$165 million (compared to \$141.1 million in fiscal 2023) as we continue to invest in research and product development across our markets, including rationalization of our product portfolio, accelerating product cost reduction initiatives, and increased investment to accelerate development of our next-generation core products including MEAs, plates, stacks, and modules.
- Capital Expenditures: 2024 outlook range of \$50 million to \$70 million We expect total Capital Expenditures (being additions to property, plant and equipment and investment in other intangible assets) for fiscal 2024 to be between \$50 million and \$70 million (compared to \$41.4 million in fiscal 2023) as we continue to expand our production manufacturing capacity in support of our 'local for local' strategy, including planned investments in testing, advanced manufacturing and production.

Our expectations for 2024 are in part supported by our 12-month Order Book of approximately \$66.6 million which is derived from our Order Backlog of approximately \$130.5 million as of December 31, 2023 (during the fourth quarter of 2024, we removed approximately \$22 million from the Order Backlog for a specific customer experiencing liquidity issues and resulting program delays). 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 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 two months of 2024; sales orders received for units and services expected to be delivered in the remainder of 2024; purchase and cost commitments currently in existence for fiscal 2024; an estimate with respect to the generation of new sales and the timing of deliveries in each of our markets for the balance of 2024; an estimate of purchase and cost commitments to be generated in each of our locations for the balance of 2024; and assumes an average U.S. dollar exchange rate in the mid \$0.70's in relation to the Canadian dollar for 2024.

The primary risk factors to our business expectations for 2024 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 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 12month Order Book are potentially vulnerable to risk of cancellation, deferral or nonperformance 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.

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.

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, as well as geopolitical risks, we decided to suspend our MEA localization plan in China while we continue with a 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 2024.

4.2 Europe

15 MW order for stationary power products in Europe

On March 5, 2024, we announced an order for 15 megawatts (MW) of fuel cell systems from a UK-based company specializing in renewable off-grid power generation. We expect to deliver 150 FCmove®-HD+ 100 kW systems beginning in late 2024 and continuing through 2025.

The current order of 15 MW of fuel cell systems follows prior cumulative orders for roughly 5 MW of fuel cell systems from this customer. The purchase order is the first order under a new multi-year supply agreement. The agreement also provides the customer an option to purchase up to an additional 296 systems by March 2026, which, if fully exercised, would bring the total number of systems ordered to 446.

Orders from Solaris for over 62 hydrogen fuel cell engines to power buses in Europe

On November 6, 2023, we announced multiple purchase orders totaling 62 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 delivery of the majority of the fuel cell engines to occur in 2024.

The hydrogen fuel cell engines will power buses in Germany and Poland. The number of engines ordered by Solaris in 2024 approximate 350, 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 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. Ballard commenced deliveries of these orders in late 2023 and expect the remainder to ship in 2024 and 2025.

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.

4.3 North America and Rest of World

<u>Long-Term Supply Agreement with NFI Group and purchase order for 100 fuel cell engines</u> <u>for bus deployments in North America</u>

On January 3, 2024, we announced the signing of a new Long-Term Supply Agreement ("LTSA") with NFI Group Inc. ("NFI"), a leading independent bus and coach manufacturer and a leader in electric mass mobility solutions in North America and Europe. The agreement marks a new phase in the established partnership between Ballard and NFI, focused on deployment-level volumes of fuel cell powered buses across all of NFI's major brands including New Flyer, Alexander Dennis, and MCI.

As part of the LTSA, NFI has placed its first purchase order under the agreement for a minimum of 100 FCmove®-HD+ modules for planned delivery in 2024. The modules will primarily be produced in Ballard's Bend, Oregon facility with Buy America compliance, and will power New Flyer's next generation Xcelsior CHARGE FC™ hydrogen fuel cell buses for deployment across the US and Canada, including California, Manitoba, Nevada, New York, Ohio, and Pennsylvania.

<u>Canadian Pacific Kansas City places follow-on order for 2.4 MW of Ballard fuel cell engines for active service locomotives</u>

On November 6, 2023, we announced an order for 2.4 MW of additional fuel cell engines from Canadian Pacific Kansas City ("CPKC"). These twelve, 200 kW fuel cell engines were delivered in 2023 as expected and will support the development of CPKC's additional hydrogen-powered locomotives planned for regular switching and local freight service applications in Alberta.

The additional locomotives will be partially funded through the Emissions Reduction Alberta ("ERA") program that helps the province deliver on its environmental and economic goals and will in turn support the decarbonization of rail transport by funding hydrogen production and refueling infrastructure along with hydrogen-powered locomotives.

Over the past two years, Ballard has supplied CPKC with 38 fuel cell engines for use in its hydrogen locomotives, with combined fuel cell power of 7.6 MW. The additional locomotives are expected to enter service in late 2024.

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:



- <u>Equity Investment</u> 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 (\$2.3 million in the fourth quarter of 2023; \$0.9 million in the fourth quarter of 2022; \$4.9 million in fiscal 2023; \$6.0 million in fiscal 2022; \$18.2 million in fiscal 2021; \$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.

<u>Fuel Cell Sales</u> – 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 (\$1.5 million in the fourth quarter of 2023; \$0.2 million in the fourth quarter of 2022; \$2.1 million in fiscal 2023; \$1.0 million in fiscal 2022) is recorded primarily as product revenue in our Heavy-Duty Mobility Truck market. As of December 31, 2023, an additional \$5.1 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 and 20,000 engines.

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.

During the fourth quarter of 2023, we completed a restructuring of operations at Ballard Motive Solutions in the U.K. and effectively closed the operation. As such, the historic operating results (including revenue and operating expenses) of the Ballard Motive Solutions business for both 2023 and 2022 have been removed from continuing operating results and are instead presented separately in the statement of comprehensive income (loss) as loss from discontinued operations.

5.2 Summary of Key Financial Metrics – Three Months Ended December 31, 2023 Revenue and Gross Margin

(Expressed in thousands of U.S. of	dollars)		Thre	e months end	ded Dece	ember 31,	
		2023		2022		\$ Change	% Change
Heavy-Duty Mobility	\$	29,004	\$	9,079	\$	19,925	219%
Bus		11,978		2,718		9,260	341%
Truck		5,991		2,544		3,447	135%
Rail		7,039		2,676		4,363	163%
Marine		3,996		1,141		2,855	250%
Stationary		12,805		6,234		6,571	105%
Emerging and Other		4,942		4,870		72	1%
Revenues	\$	46,751	\$	20,183	\$	26,568	132%
China	\$	5,496	\$	2,009	\$	3,487	174%
Europe		24,907		9,080		15,827	174%
North America		15,106		8,168		6,938	85%
Rest of World		1,242		926		316	34%
Revenues		46,751		20,183		26,568	132%
Cost of goods sold		56,918		26,276		30,642	117%
Gross Margin	\$	(10,167)	\$	(6,093)	\$	(4,074)	67%
Gross Margin %		(22%)		(30%)		n/a	8 pts



Fuel Cell Products and Services Revenues of \$46.8 million for the fourth quarter of 2023 increased 132%, or \$26.6 million, compared to the fourth quarter of 2022. The 132% increase was driven by higher Heavy-Duty Mobility and Stationary market revenues as Emerging and Other and Stationary market revenues were effectively flat. Revenue increased in each region with the largest increases in Europe and North America followed by China and Rest of World.

Heavy-Duty Mobility revenues of \$29.0 million in the fourth quarter of 2023 increased \$20.0 million, or 219%, due to higher sales of fuel cell products in each of our sub-markets of bus, rail, truck and marine. 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 \$29.0 million in the fourth quarter of 2023 includes service revenues of \$2.3 million earned on the Weichai Ballard JV technology transfer program; \$2.3 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; and \$24.4 million from a variety of customers in Europe, North America, China, and the rest of the world, primarily for shipments of FCwave[™], FCmove[™]-HD+, FCmove[™]-HD FCmove[™]-XD, and FCveloCity®-HD7 fuel cell modules and related components for their respective bus, truck, rail and marine programs.

Heavy-Duty Mobility revenues of \$9.0 million in the fourth quarter of 2022 includes service revenues of \$0.9 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 \$7.8 million to a variety of customers in North America, Europe, and Other areas, 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 \$12.8 million increased \$6.6 million, or 105%, due to higher sales of stationary power generation fuel cell modules, stacks, products and services primarily in Europe and North America. Stationary revenues also include technology solutions program revenues from a variety of customer programs for stationary applications.

Emerging and Other market revenues of \$4.9 million increased \$0.1 million, or 1%, due primarily to higher sales of fuel cell modules primarily for mining applications, partially offset by lower fuel cell stack shipments and lower service revenues. Emerging and Other market revenues include technology solutions program revenues on the completed Audi program of nil in the fourth quarter of 2023, compared to \$1.0 million in the fourth quarter of 2022.

Fuel Cell Products and Services gross margins were (\$10.2) million, or (22%) of revenues, for the fourth quarter of 2023, compared to (\$6.1) million, or (30%) of revenues, for the fourth quarter of 2022. The negative gross margin in the fourth quarter of 2023 was driven primarily by significantly higher inventory impairment and onerous contract provisions, and 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, and increases in supply costs.

Gross margin in the fourth quarter of 2023 was negatively impacted by net increases in



inventory impairment and onerous contract provision adjustments of (\$10.7) million, and positively impacted by net warranty adjustments of \$0.3 million. Negative inventory and related impairment adjustments of (\$10.7) million in the fourth quarter of 2023 were primarily due to (i) customer specific heavy-duty mobility inventory no longer expected to be utilized due to a certain customer's liquidity issues and resulting program delays; (ii) excess and slow moving small stationary inventory located primarily in Europe due to product rationalization and potential divestiture activities; and (iii) excess and slow moving legacy and customer service inventory no longer expected to be utilized. Gross margin in the fourth quarter of 2022 was negatively impacted by net inventory and onerous contract provision adjustments of (\$4.1) million due primarily to excess and impaired service inventory; and positively impacted by net warranty adjustments of \$0.5 million.

Operating Expenses and Cash Operating Costs

(Expressed in thousands of U.S. dollars)		Three month	s ended December 3	1,
	2023	2022	\$ Change	% Change
Research and Product Development	\$ 24,459	\$ 21,506	\$ 2,953	14%
General and Administrative	5,042	4,982	60	1%
Sales and Marketing	3,716	3,295	421	13%
Operating Expenses	\$ 33,217	\$ 29,783	\$ 3,434	12%
Research and Product Development (cash operating cost)	\$ 21,337	\$ 20,586	\$ 751	4%
General and Administrative (cash operating cost) Sales and Marketing (cash operating	4,233	5,361	(1,128)	(21%)
cost)	3,380	3,091	289	9%
Cash Operating Costs	\$ 28,950	\$ 29,038	\$ (88)	(0%)

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 fourth quarter of 2023 were \$33.2 million, an increase of \$3.4 million, or 12%, compared to the fourth quarter of 2022. The increase was driven by higher research and product development expenses of \$3.0 million and higher sales and marketing expenses of \$0.4 million.

Cash Operating Costs (see Supplemental Non-GAAP Measures and Reconciliations) for the fourth quarter of 2023 were \$29.0 million, a decrease of (\$0.1) million, or (0%), compared to the fourth quarter of 2022. The minor decrease was driven by lower general and administrative cash operating costs of (\$1.1) million, partially offset by higher research and product development cash operating costs of \$0.8 million, and higher sales and marketing cash operating costs of \$0.3 million.

The minor decrease in cash operating costs in the fourth quarter of 2023 was driven primarily by lower general and administrative costs due to lower contractor services, recruiting, and insurance costs. These cost reductions were partially offset 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 heavyduty 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.

Adjusted EBITDA

(Expressed in thousands of U.S. dollars)		Three months ended December 31,				
	2023		2022		\$ Change	% Change
Adjusted EBITDA	\$ (44,083)	\$	(40,148)	\$	(3,935)	(10%)

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 fourth quarter of 2023 was (\$44.1) million, compared to (\$40.1) million for the fourth quarter of 2022. The increase in Adjusted EBITDA loss of (\$3.9) million was driven primarily by the increase in gross margin loss of (\$4.1) million, higher impairment loss on trade receivables of (\$1.4) million, and higher restructuring expenses of (\$0.2) million, partially offset by the decrease in Cash Operating Costs of \$0.1 million, and lower equity in loss of investment in joint venture and associates of \$2.4 million attributed to the operations of Weichai Ballard JV.

Net Loss from Continuing Operations

(Expressed in thousands of U.S. dollars)	Three months ended December 31,						
		2023		2022		\$ Change	% Change
Net loss from Continuing Operations	\$	(48,889)	\$	(27,572)	\$	(21,317)	(77%)

Net loss from continuing operations for the fourth quarter of 2023 was (\$48.9) million, or (\$0.16) per share, compared to a net loss from continuing operations of (\$27.6) million, or (\$0.09) per share, in the fourth quarter of 2022. The (\$21.3) million increase in net loss in the fourth quarter of 2023 was driven primarily by the increase in Adjusted EBITDA loss of (\$3.9) million and by lower finance and other income of (\$13.9) million.

Net Loss from Discontinued Operations

(Expressed in thousands of U.S. dollar	s)		Three months ended December 31,									
		2023		2022	:	\$ Change	% Change					
Revenues	\$	323	\$	281	\$	42	15%					
Cost of goods sold		108		107		1	1%					
Gross margin		215		174		41	24%					
Operating expenses		(2,699)		(6,938)		4,239	61%					
Finance and other (income) loss		125		(3)		128	4267%					
Impairment charges on intangible assets		-		(13,017)		13,017	100%					
Recovery on settlement of contingent consideration		-		9,891		(9,891)	(100%)					
Income tax recovery (expense)		-		3,038		(3,038)	(100%)					
Net loss from discontinued operations	\$	(2,359)	\$	(6,855)	\$	4,496	66%					



Net loss from discontinued operations for the fourth quarter of 2023 was (\$2.4) million, or (\$0.01) per share, compared to (\$6.9) million, or (\$0.02) per share, in the fourth quarter of 2022.

During the fourth quarter of 2023, we completed a restructuring of operations at Ballard Motive Solutions in the U.K. and effectively closed the operation. As such, the historic operating results of the Ballard Motive Solutions business for both 2023 and 2022 have been removed from continuing operating results and are instead presented separately in the statement of comprehensive income (loss) as loss from discontinued operations.

5.3 Summary of Key Financial Metrics – Year Ended December 31, 2023 Revenue and Gross Margin

(Expressed in thousands of U.S. of	dollars)		Year ended December 31,							
		2023		2022		\$ Change	% Change			
Heavy-Duty Mobility	\$	66,657	\$	43,679	\$	22,978	53%			
Bus		29,265		24,917		4,348	17%			
Truck		10,961		11,472		(511)	(4%)			
Rail		19,100		5,106		13,994	274%			
Marine		7,331		2,184		5,147	236%			
Stationary		21,707		18,872		2,835	15%			
Emerging and Other		14,004		19,309		(5,305)	(27%)			
Revenues	\$	102,368	\$	81,860	\$	20,508	25%			
China	\$	11,980	\$	9,127	\$	2,853	31%			
Europe		48,958		38,444		10,514	27%			
North America		37,736		28,572		9,164	32%			
Rest of World		3,694		5,717		(2,023)	(35%)			
Revenues		102,368		81,860		20,508	25%			
Cost of goods sold		124,199		95,168		29,031	31%			
Gross Margin	\$	(21,831)	\$	(13,308)	\$	(8,523)	(64%)			
Gross Margin %		(21%)		(16%)		n/a	(5 pts)			

Fuel Cell Products and Services Revenues of \$102.4 million for 2023 increased 25%, or \$20.5 million, compared to 2022. The 25% increase was driven by higher Heavy-Duty Mobility and Stationary market revenues, partially offset by lower Emerging and Other market revenues. Revenue increases in Europe, North America and China, were partially offset by lower revenues in Rest of World.

Heavy-Duty Mobility revenues of \$66.7 million in 2023 increased \$23.0 million, or 53%, due primarily to higher sales of rail, marine, 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 \$66.7 million in 2023 includes service revenue of \$4.9 million earned on the Weichai Ballard JV technology transfer program; \$3.2 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 \$56.9 million from a variety of customers in Europe, North



America, China, and the rest of the world, primarily for shipments of FCmove $^{\text{\tiny M}}$ -HD, FCmove $^{\text{\tiny M}}$ -HD+, FCmove $^{\text{\tiny M}}$ -XD, FCwave $^{\text{\tiny M}}$, and FCveloCity $^{\text{\tiny B}}$ -HD7, and FCmove $^{\text{\tiny M}}$ -MD fuel cell modules and related components for their respective bus, truck, rail and marine programs.

Heavy-Duty Mobility revenues of \$43.7 million in 2022 includes service revenues of \$6.0 million earned on the Weichai Ballard JV technology transfer program; \$2.1 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 \$35.6 million to a variety of customers in North America, Europe, and Other areas, 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 \$21.7 million increased \$2.8 million, or 15%, due to higher sales of stationary power generation fuel cell modules, stacks, products and services primarily in Europe and North America. Stationary revenues also include technology solutions program revenues from a variety of customer programs for stationary applications.

Emerging and Other market revenues of \$14.0 million decreased (\$5.3) million, or (27%), due primarily to lower service revenues and lower fuel cell stack shipments, partially offset by higher sales of fuel cell modules for mining applications. Emerging and Other market revenues include technology solutions program revenues on the complete Audi program of \$0.3 million in 2023, compared to \$5.6 million earned in 2022.

Fuel Cell Products and Services gross margins were (\$21.8) million, or (21%) of revenues, for 2023, compared to (\$13.3) million, or (16%) of revenues, for 2022. The negative gross margin in 2023 was driven primarily by significantly higher inventory impairment and onerous contract provisions, and 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, and increases in supply costs.

Gross margin in 2023 was negatively impacted by net increases in inventory impairment and onerous contract provision adjustments of (\$15.0) million, and negatively impacted by net warranty adjustments of (\$0.3 million). Negative inventory and related impairment adjustments of (\$15.0) million in 2023 were primarily due to (i) customer specific heavy-duty mobility inventory no longer expected to be utilized due to a certain customer's liquidity issues and resulting program delays; (ii) excess and slow moving small stationary inventory located primarily in Europe due to product rationalization and potential divestiture activities; (iii) excess stationary and heavy-duty mobility product inventory; and (iv) excess and slow moving legacy and customer service inventory no longer expected to be utilized. Gross margin in 2022 was negatively impacted by net inventory and onerous contract provision adjustments of (\$7.5) million due primarily to excess and impaired heavy-duty mobility product and service inventory; and negatively impacted by net warranty adjustments of (\$0.4) million related primarily to increased service costs.



Operating Expenses and Cash Operating Costs

(Expressed in thousands of U.S. dollars)	Year ended December 31,							
	2023		2022	\$ Change	% Change			
Research and Product Development	\$ 98,306	\$	89,715	\$ 8,591	10%			
General and Administrative	23,874		26,355	(2,481)	(9%)			
Sales and Marketing	15,110		12,538	2,572	21%			
Operating Expenses	\$ 137,290	\$	128,608	\$ 8,682	7%			
Research and Product Development (cash operating cost) General and Administrative	\$ 86,248	\$	79,806	\$ 6,442	8%			
(cash operating cost) Sales and Marketing (cash operating	19,513		20,842	(1,329)	(6%)			
cost)	13,566		11,344	2,222	20%			
Cash Operating Costs	\$ 119,327	\$	111,992	\$ 7,335	7%			

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 2023 was \$137.3 million, an increase of \$8.7 million, or 7%, compared to 2022. The increase was driven by higher research and product development expenses of \$8.6 million and higher sales and marketing expenses of \$2.6 million, partially offset by lower general and administrative expenses of (\$2.5) million.

Cash Operating Costs (see Supplemental Non-GAAP Measures and Reconciliations) for 2023 were \$119.3 million, an increase of \$7.3 million, or 7%, compared to 2022. The increase was driven by higher research and product development cash operating costs of \$6.4 million and by higher sales and marketing cash operating costs of \$2.2 million, partially offset by lower general and administrative cash operating costs of (\$1.3) million.

The increase in operating expenses and cash operating costs in 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. In addition, sales and marketing costs increased due to increased commercial expenditures and staffing primarily in Europe and North America.

Operating expenses also include the impact of inflationary wage pressures. These operating expense increases were partially 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 (4%) lower in 2023, compared to 2022.



Adjusted EBITDA

(Expressed in thousands of U.S. dollars)	Year ended December 31,						_
		2023		2022		\$ Change	% Change
Adjusted EBITDA	9	(150,088)	\$	(132,635)	\$	(17,453)	(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 2023 was (\$151.1) million, compared to (\$132.6) million for 2022. The (\$17.5) million increase in Adjusted EBITDA loss was driven primarily by the decrease in gross margin of (\$8.5), the increase in Cash Operating Costs of (\$7.3) million, higher impairment loss on trade receivables of (\$1.4) million, and higher restructuring expenses of (\$1.0) million, partially offset and lower equity in loss of investment in joint venture and associates of \$1.5 million attributed to the operations of Weichai Ballard JV.

Net Loss from Continuing Operations

(Expressed in thousands of U.S. dollars)	rs)					Year ended December 31,			
		2023		2022		\$ Change	% Change		
Net loss from Continuing Operations	\$	(144,210)	\$	(160,371)	\$	16,161	10%		

Net loss from continuing operations for 2023 was (\$144.2) million, or (\$0.48) per share, compared to a net loss from continuing operations of (\$160.4) million, or (\$0.54) per share, in 2022. The \$16.2 million decrease in net loss in 2023 was driven primarily by higher finance and other income of \$33.2 million due to primarily to increased investment income of \$23.7 million, improved mark to market and foreign exchange impacts of \$4.0 million on our long-term investments including Forsee Power, Wisdom, Quantron, and hydrogen infrastructure and growth equity funds, and by higher foreign exchange gains on net monetary assets of \$5.4 million. These net loss improvements were partially offset by the increase in Adjusted EBITDA loss of (\$17.5) million.

In addition, operating margins, and costs in 2023 were also impacted by the positive impact of a weaker Canadian dollar, relative to the U.S. dollar, as compared to 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 (4%), or (300) basis points, lower in 2023 as compared to 2022, positive foreign exchange impacts on our Canadian operating margins and cost base were approximately \$3.9 million. A \$0.01 decrease in the Canadian dollar, relative to the U.S. dollar, positively impacts annual operating margins and costs by approximately \$1.3 million.



Net Loss from Discontinued Operations

(Expressed in thousands of U.S. dollars	(Expressed in thousands of U.S. dollars)				ed December	31,		
		2023	2022				\$ Change	% Change
Revenues	\$	934		\$	1,926	\$	(992)	(52%)
Cost of goods sold		607			1,713		(1,106)	(65%)
Gross margin		327			213		114	54%
Operating expenses		(7,913)			(13,784)		5,871	43%
Finance and other (income) loss		337			(4)		341	8525%
Impairment charges on intangible assets		(2,266)			(13,017)		10,751	83%
Impairment charges on goodwill		(23,991)			-		(23,991)	(100%)
Recovery on settlement of contingent consideration		-			9,891		(9,891)	(100%)
Income tax recovery (expense)		-			3,578		(3,578)	(100%)
Net loss from discontinued operations	\$	(33,506)		\$	(13,123)	\$	(20,383)	(155%)

Net loss from discontinued operations for 2023 was (\$33.5) million, or (\$0.11) per share, compared to (\$13.1) million, or (\$0.04) per share, in 2022.

During the fourth quarter of 2023, we completed a restructuring of operations at Ballard Motive Solutions in the U.K. and effectively closed the operation. As such, the historic operating results of the Ballard Motive Solutions business for both 2023 and 2022 have been removed from continuing operating results and are instead presented separately in the statement of comprehensive income (loss) as loss from discontinued operations.

5.4 Operating Expenses and Other Items – Three Months and Year ended December 31, 2023

Research and product development expenses

(Expressed in thousands of U.S. dollars)		Т	hree months er	nded Dec	ember 31,	
Research and product development	2023		2022		\$ Change	% Change
Research and product development expense	\$ 24,459	\$	21,506	\$	2,953	14%
Less: Depreciation and amortization expense	\$ (1,832)	\$	18	\$	(1,850)	(1,278%)
Less: Stock-based compensation expense	\$ (1,290)	\$	(938)	\$	(352)	(38%)
Research and Product Development (cash operating cost)	\$ 21,337	\$	20,586	\$	751	4%
(Expressed in thousands of U.S. dollars)			Year ended	Decembe	er 31,	
Research and product development	2023		2022		\$ Change	% Change
Research and product development expense	\$ 98,306	\$	89,715	\$	8,591	10%
Less: Depreciation and amortization expense	\$ (6,538)	\$	(4,894)	\$	1,644	34%
Less: Stock-based compensation expense	\$ (5,520)	\$	(5,015)	\$	(505)	(10%)
Research and Product Development (cash	\$ 86,248	\$	79,806	\$	6,442	8%

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 December 31, 2023, were \$24.5 million, an increase of \$3.0 million, or 14%, compared to the corresponding period of 2022. Excluding depreciation and amortization expense and stockbased compensation expense, research, and product development cash operating costs (see



Supplemental Non-GAAP Measures and Reconciliations) were \$21.3 million in the fourth quarter of 2023, an increase of \$0.8 million, or 4%, compared to the fourth quarter of 2022.

Research and product development expenses for the year ended December 31, 2023, were \$98.3 million, an increase of \$8.6 million, or 10%, 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 \$86.2 million in 2023, an increase of \$6.4 million, or 8%, compared to 2022.

The respective \$0.8 million, or 4%, and \$6.4 million, or 8%, increases in research and development cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the fourth quarter and fiscal year of 2023, as compared to the fourth quarter and fiscal year 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, 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 heavyduty 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 inflationary wage pressures. These operating expense increases were partially 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 (4%) lower in 2023, compared to 2022.

Depreciation and amortization expense included in research and product development expense for the three months and year ended December 31, 2023, was \$1.8 million and \$6.5 million, respectively, compared to nominal amounts and \$4.9 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.

Stock-based compensation expense included in research and product development expense for the three months and year ended December 31, 2023, was \$1.3 million and \$5.5 million, respectively, compared to \$0.9 million and \$5.0 million, respectively, for the corresponding periods of 2022. The increase in 2023 was due primarily to new equity awards granted to a wider employee base and to help retain key personnel.



General and administrative expenses

(Expressed in thousands of U.S. dollars)		Three months ended December 31,									
General and administrative		2023		2022		\$ Change	% Change				
General and administrative expense	\$	5,042	\$	4,982	\$	60	1%				
Less: Depreciation and amortization expense	\$	(556)	\$	(449)	\$	(107)	(24%)				
Less: Stock-based compensation expense	\$	(949)	\$	(229)	\$	(720)	(314%)				
Add: Impact of unrealized gains (losses) on	\$	696	\$	1,057	\$	(361)	(34%)				
foreign exchange contracts											
General and Administrative (cash operating	\$	4,233	\$	5,361	\$	(1,128)	(21%)				
cost)											

(Expressed in thousands of U.S. dollars)	Year ended December 31,								
General and administrative		2023		2022		\$ Change	% Change		
General and administrative expense	\$	23,874	\$	26,355	\$	(2,481)	(9%)		
Less: Depreciation and amortization expense	\$	(1,997)	\$	(1,915)	\$	(82)	(4%)		
Less: Stock-based compensation expense	\$	(3,660)	\$	(2,736)	\$	(924)	(34%)		
Add: Impact of unrealized gains (losses) on	\$	1,296	\$	(862)	\$	2,158	250%		
foreign exchange contracts									
General and Administrative (cash operating	\$	19,513	\$	20,842	\$	(1,329)	(6%)		
cost)									

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 reconcilitation of the adjustments to General and administrative expense in the table above.

General and administrative expenses for the three months ended December 31, 2023, were \$5.0 million, an increase of \$0.1 million, or 1%, 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 \$4.2 million in the fourth quarter of 2023, a decrease of (\$1.1) million, or (21%), compared to the fourth quarter of 2022.

General and administrative expenses for the year ended December 31, 2023, were \$23.9 million, a decrease of (\$2.5) million, or (9%), 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 \$19.5 million in 2023, a decrease of (\$1.3) million, or (6%), compared to 2022.

The respective (\$1.1) million, or (21%), and (\$1.3) million, or (6%), decreases in general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the fourth quarter and fiscal year of 2023, as compared to the fourth quarter and fiscal year of 2022, was due primarily to lower contractor services, recruiting, and insurance costs. The impact of 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 (4%) lower in 2023, compared to 2022.

Depreciation and amortization expense included in general and administrative expense for the three months and year ended December 31, 2023, was \$0.6 million and \$2.0 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 months and year ended December 31, 2023, was \$0.9 million and \$3.7 million, respectively, compared to \$0.2 million and \$2.7 million, respectively, for the corresponding periods of 2022. The increase in 2023 was due primarily to new equity awards granted to a wider employee base and to help retain key personnel.

The impact of unrealized gains (losses) on foreign exchange contracts included in general and administrative expense for the three months and year ended December 31, 2023, was \$0.7 million and \$1.3 million, respectively, compared to \$1.1 million and (\$0.9) 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

(Expressed in thousands of U.S. dollars)		Three months ended December 31,								
Sales and marketing	2023 2022 \$ Change			% Change						
Sales and marketing expense	\$	3,716	\$	3,295	\$	421	13%			
Less: Depreciation and amortization expense	\$	-	\$	(4)	\$	4	100%			
Less: Stock-based compensation expense	\$	(336)	\$	(200)	\$	(136)	(68%)			
Sales and Marketing (cash operating cost)	\$	3,380	\$	3,091	\$	289	9%			

(Expressed in thousands of U.S. dollars)		Year ended December 31,								
Sales and marketing		2023		2022		\$ Change	% Change			
Sales and marketing expense	\$	15,110	\$	12,538	\$	2,572	21%			
Less: Depreciation and amortization expense	\$	(4)	\$	(6)	\$	2	33%			
Less: Stock-based compensation expense	\$	(1,540)	\$	(1,188)	\$	(352)	(30%)			
Sales and Marketing (cash operating cost)	\$	13,566	\$	11,344	\$	2,222	20%			

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 December 31, 2023, were \$3.7 million, an increase of \$0.4 million, or 13%, 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 \$3.4 million in the fourth quarter of 2023, an increase of \$0.3 million, or 9%, compared to the fourth quarter of 2022.

Sales and marketing expenses for the year ended December 31, 2023, were \$15.1 million, an increase of \$2.6 million, or 21%, 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 \$13.6 million in 2023, an increase of \$2.2 million, or 20%, compared to 2022.



The respective \$0.3 million, or 9%, and \$2.2 million, or 20%, increases in general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the fourth quarter and fiscal year of 2023, as compared to the fourth quarter and fiscal year 2022, was due primarily to increased commercial expenditures and staffing primarily in Europe and North America.

Stock-based compensation expense included in sales and marketing expense for the three months and year ended December 31, 2023, was \$0.3 million and \$1.5 million, respectively, compared to \$0.2 million and \$1.2 million, respectively, for the corresponding periods of 2022. The increase in 2023 was due primarily to new equity awards granted to a wider employee base and to help retain key personnel.

Other operating expenses for the three months and year ended December 31, 2023, was \$1.8 million and \$3.8 million, respectively, compared to \$0.3 million and \$3.4 million, respectively, for the corresponding periods of 2022. The following table provides a breakdown of other operating expense for the reported periods:

(Expressed in thousands of U.S. dollars)	Three months ended December 31,										
	2023		2022			\$ Change	% Change				
Impairment loss on trade receivables	\$	1,436	\$	73	\$	1,363	1,867%				
Restructuring and related costs (recovery)		322		137		185	135%				
Acquisition related costs		(3)		106		(109)	(103%)				
Other expenses (recovery)	\$	1,755	\$	316	\$	1,439	455%				

(Expressed in thousands of U.S. dollars)	Year ended December 31,										
		2023		2022		\$ Change	% Change				
Impairment loss on trade receivables	\$	1,498	\$	73	\$	1,425	1,952%				
Restructuring and related costs (recovery)		1,512		482		1,030	214%				
Acquisition related costs		773		2,857		(2,084)	73%				
Other expenses (recovery)	\$	3,783	\$	3,412	\$	371	11%				

Impairment loss (recovery) on trade receivables for the three months and year ended December 31, 2023 were \$1.4 million and \$1.5 million, respectively, compared to nominal amounts in 2022. 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 months and year ended December 31, 2023 were \$0.3 million and \$1.5 million, respectively, compared to \$0.1 million and \$0.5 million for each of the corresponding periods of 2022, and consist of certain cost cutting measures and related personnel change costs.

Acquisition related costs for the three months and year ended December 31, 2023 were nominal and \$0.8 million, respectively, compared to \$0.1 million and \$2.9 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 months and year ended December 31, 2023 was \$1.9 million and \$31.1 million, respectively, compared to \$15.7 million and (\$2.1)



million for the corresponding periods of 2022. The following table provides a breakdown of finance and other income (loss) for the reported periods:

(Expressed in thousands of U.S. dollars)		Th	ree months	endec	d December 31,	
	2023		2022		\$ Change	% Change
Employee future benefit plan expense	\$ (15)	\$	(22)	\$	7	32%
Investment and other income (loss)	10,906		9,791		1,115	11%
Mark to Market gain (loss) on financial assets	(10,329)		2,900		(13,229)	(456%)
Foreign exchange gain (loss)	1,309		3,059		(1,750)	(57%)
Government levies	-		-		-	-%
Finance income (loss) and other	\$ 1,871	\$	15,728	\$	(13,857)	(88%)

(Expressed in thousands of U.S. dollars)	Year ended December 31,									
	2023		2022		\$ Change	% Change				
Employee future benefit plan expense	\$ (109)	\$	(189)	\$	80	42%				
Investment and other income (loss)	43,340		19,606		23,734	121%				
Mark to Market gain (loss) on financial assets	(12,897)		(16,877)		3,980	24%				
Foreign exchange gain (loss)	821		(4,552)		5,373	118%				
Government levies	(100)		(100)		-	-%				
Finance income (loss) and other	\$ 31,055	\$	(2,112)	\$	33,167	1,570%				

Employee future benefit plan expense for the three months and year ended December 31, 2023 and 2022 were nominal and consist 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 months and year ended December 31, 2023 was \$10.9 million and \$43.3 million, respectively, compared to \$9.8 million and \$19.6 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 months and year ended December 31, 2023, was (\$10.3) million and (\$12.9) million, respectively, compared to \$2.9 million and (\$16.9) 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 months and year ended December 31, 2023 were \$1.3 million and \$0.8 million, respectively, compared to \$3.1 million and (\$4.6) 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 year ended December 31, 2023 was (\$0.1) million, 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 months and year ended December 31, 2023 was (\$0.3) million and (\$1.1) million, respectively, compared to (\$0.3) million and (\$1.3) 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 months and year ended December 31, 2023, was (\$4.3) million and (\$10.1) million, respectively, compared to (\$6.8) million and (\$11.6) million, respectively, for the corresponding periods of 2022. Equity in loss of investment in joint venture and associates relates 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 property, plant and equipment for the three months and year ended December 31, 2023 was (\$1.0) million in each of the periods and consists primarily of a write-down of assets in China as we have decided to suspend investment in our previously announced MEA localization facility in China while we continue with a comparative analysis on manufacturing capacity expansion options and possible sequencing prioritization in the U.S. and/or European markets.



5.5 Summary of Quarterly Results

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

(Expressed in thousands of U.S. dollars, except per share and weighted average shares outstanding which are expre			Qu	arter	ended,	
thousands)	.ssca m		C 20		Jan. 20	M 21
		Dec 31, 2023	Sep 30, 2023		Jun 30, 2023	Mar 31, 2023
Revenues	\$	46,751	\$ 27,060	\$	15,314	\$ 13,243
Net loss from continuing operations	\$	(48,889)	\$ (34,720)	\$	(28,213)	\$ (32,388)
Net loss from continuing operations per share, basic and diluted	\$	(0.16)	\$ (0.12)	\$	(0.09)	\$ (0.11)
Weighted average common shares outstanding		298,826	298,705		298,679	298,429
		Dec 31, 2022	Sep 30, 2022		Jun 30, 2022	Mar 31, 2022
Revenues	\$	20,183	\$ 21,155	\$	20,666	\$ 19,856
Net loss from continuing operations	\$	(27,572)	\$ (41,295)	\$	(51,795)	\$ (39,709)
Net loss from continuing operations per share, basic and diluted	\$	(0.09)	\$ (0.14)	\$	(0.17)	\$ (0.13)
Weighted average common shares outstanding		298,324	298,181		298,155	297,825

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 include the impact of changes in the value of the Canadian dollar, versus the U.S. dollar, on our Canadian dollar denominated operating expenses.
- **Net loss from continuing operations:** Net loss from continuing operations is impacted by the above noted impacts on Revenues and Operating expenses. Net loss in the fourth quarter of 2023, 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, and the first quarter of 2022, was also impacted by mark to market gains (losses) on financial assets of (\$10.3) million, (\$2.5) million, \$0.3 million, (\$0.5) million, \$2.9 million, \$1.7 million, (\$12.9) million, and (\$8.6) 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 \$751.1 million as of December 31, 2023, compared to \$913.7 million as of December 31, 2022. The (\$162.6) million decrease in cash and cash equivalents in 2023 was driven primarily by net cash operating losses (excluding non-cash items) of (\$87.5) million, net working capital outflows of (\$17.1) million, purchases of property, plant



and equipment and intangible assets of (\$41.4) million, subsequent milestone cash acquisition investment payments for Ballard Motive Solutions of (\$2.0) million, long-term net financial investments of (\$10.9) million consisting of new investments in Quantron and hydrogen infrastructure and growth equity funds, and by finance lease repayments of (\$4.0) million.

6.2 Cash Provided by (Used by) Operating Activities

(Expressed in thousands of U.S. dollars)		Three months	ended Decembe	er 31,		
	2023		2022	\$	\$ Change	
Cash Operating Loss	\$ (17,485)	\$	(22,956)	\$	5,472	
Change in Working Capital:						
Trade and other receivables	(16,271)		654		(16,925)	
Inventory	14,986		(744)		15,730	
Prepaid expenses and other current assets	3,522		(142)		3,664	
Trade and other payables	(954)		4,982		(5,936)	
Deferred revenue	(4,030)		(2,677)		(1,353)	
Warranty provision	1,893		(300)		2,193	
	(854)		1,773		(2,627)	
Cash Used by Operating Activities	\$ (18,339)	\$	(21,183)	\$	2,844	

For the three months ended December 31, 2023, cash used by operating activities was (\$18.3) million, compared to (\$21.2) million for the three months ended December 31, 2022. The \$2.8 million decrease in cash used by operating activities in the fourth quarter of 2023, as compared to the fourth quarter of 2022, was driven by the relative decrease in cash operating losses of \$5.5 million, partially offset by the increase in working capital requirements of (\$2.6) million.

The relative \$5.5 million decrease in cash operating losses in the fourth quarter of 2023 was driven primarily by the increase in Adjusted EBITDA loss of (\$3.9) million and by several items included in cash operating losses but excluded from Adjusted EBITDA loss or vice-versa including: lower loss from discontinued operations (excluding the impact of impairment related charges) of \$3.5 million, higher impairment loss on trade receivables of \$1.4 million, higher inventory impairment and onerous contracts provisions adjustment of \$6.6 million, higher restructuring expenses of \$0.2 million, lower finance and other income (excluding mark to market fair value changes on investments) of (\$0.6) million, lower equity investment losses in joint venture and associates of (\$2.4) million.

The total change in working capital of (\$0.9) million in the fourth quarter of 2023 was driven by lower inventory of \$15.0 million due primarily to higher product shipments in the period, lower prepaid expenses of \$3.5 million primarily due to the timing of annual insurance renewals, and by higher warranty provisions of \$1.9 million. These fourth quarter of 2023 inflows were partially offset by higher accounts and contract receivables of (\$16.3) million primarily due to the timing of revenues and the related customer collections, and lower deferred revenue of (\$4.0) million as pre-payments on certain product and service contracts were recognized.

The total change in working capital of \$1.8 million in the fourth quarter of 2022 was driven by higher accounts payable and accrued liabilities of \$5.0 million primarily due to the timing



of supplier payments, by lower accounts and contract receivables of \$0.7 million primarily due to the timing of revenues and the related customer collections. These fourth quarter of 2022 inflows were partially offset by lower deferred revenue of (\$2.7) million as pre-payments on certain product and service contracts were recognized, and higher inventory of (\$0.7) million.

(Expressed in thousands of U.S. dollars)		Year ended D	ecember 31,		
	2023		2022	\$ Change	
Cash Operating Loss	\$ (87,484)	\$	(114,230)	\$ 26,747	
Change in Working Capital:					
Trade and other receivables	(12,913)		(2,945)	(9,968)	
Inventory	(898)		(11,145)	10,247	
Prepaid expenses and other current assets	76		(1,668)	1,744	
Trade and other payables	(3,580)		(718)	(2,862)	
Deferred revenue	(3,442)		(4,079)	637	
Warranty provision	3,671		2,614	1,057	
	(17,086)		(17,941)	855	
Cash Used by Operating Activities	\$ (104,570)	\$	(132,171)	\$ 27,602	

For the year ended December 31, 2023, cash used by operating activities was (\$104.6) million compared to (\$132.2) million for 2022. The \$27.6 million decrease in cash used by operating activities in 2023, as compared to 2022, was driven by the relative decrease in cash operating losses of \$26.7 million, and by the relative decrease in working capital requirements of \$0.9 million.

The relative \$26.7 million decrease in cash operating losses in 2023 was driven primarily by the increase in Adjusted EBITDA loss of (\$17.5) million which was more than offset by several items included in cash operating losses but excluded from Adjusted EBITDA loss or vice-versa including: lower loss from discontinued operations (excluding the impact of impairment related charges) of \$3.3 million higher finance and other income (excluding mark to market fair value changes on investments) of \$29.1 million, lower equity investment losses in joint venture and associates of (\$1.5) million, higher impairment of trade receivables of \$1.5 million, higher inventory impairment and onerous contracts provisions adjustment of \$7.5 million, higher restructuring expenses of \$1.0 million, and lower acquisition related costs of \$2.1 million.

The total change in working capital of (\$17.1) million in 2023 was driven by higher accounts and contract receivables of (\$12.9) million primarily due to the timing of revenues and the related customer collections, lower accounts payable and accrued liabilities of (\$3.6) million primarily as a result of the timing of supplier payments and annual compensation awards, lower deferred revenue of (\$3.4) million as pre-payments on certain product and service contracts were recognized, and higher inventory of (\$0.9) million. These 2023 outflows were partially offset by higher warranty provisions of \$3.7 million.

The total change in working capital of (\$17.9) million in 2022 was driven by higher inventory of (\$11.1) million primarily to support expected product shipments in 2023 and to help mitigate ongoing supply chain disruptions, by lower deferred revenue of (\$4.1) million as prepayments on certain product and service contracts were recognized, by higher accounts and



contract receivables of (\$2.9) million primarily as a result of the timing of revenues and the related customer collections, and by higher prepaid expenses of (\$1.7) million primarily due to the timing of annual insurance renewals. These 2022 outflows were partially offset by higher warranty provisions of \$2.6 million.

6.3 Cash Provided by (Used by) Investing Activities

Investing activities resulted in net cash outflows of (\$10.8) million and (\$54.3) million, respectively, for the three months and year ended December 31, 2023, compared to net cash outflows of (\$20.1) million and (\$75.6) million, respectively, for the corresponding periods of 2022.

Investing activities in the fourth quarter of 2023 of (\$10.8) million consist of capital expenditures of (\$7.4) million incurred primarily for production and test equipment and certain intangible assets, and additional long-term investments in the HyCap and Clean H2 hydrogen infrastructure and growth equity funds of (\$3.5) million.

Investing activities in the fourth quarter of 2022 of (\$20.1) million consist of additional long-term investments in Quantron of (\$5.2) million and in certain hydrogen infrastructure and growth equity funds of (\$0.1) million, and by capital expenditures of (\$14.8) million incurred primarily for production and test equipment and certain intangible assets.

Investing activities in 2023 of (\$54.3) million consist of capital expenditures of (\$41.4) 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 (\$8.6) million, and subsequent milestone attainment cash acquisition investment in Ballard Motive Solutions of (\$2.0) million. These 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 2022 of (\$75.6) million consist of additional long-term investments in Quantron, Wisdom, and in certain hydrogen infrastructure and growth equity funds of (\$17.9) 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 (\$34.5) 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 (\$1.1) million and (\$3.7) million, respectively, for the three months and year ended December 31, 2023, compared to net cash outflows of (\$0.8) million and (\$2.4) million, respectively, for the corresponding periods of 2022.

Financing activities in the fourth quarter of 2023 of (\$1.1) million consist of finance lease payments of (\$1.2) million, partially offset by proceeds from the exercise of share purchase options of \$0.1 million. Financing activities in the fourth quarter of 2022 of (\$0.8) million consist of finance lease payments of (\$1.0) million, partially offset by proceeds from the exercise of share purchase options of \$0.1 million.



Financing activities in 2023 of (\$3.7) million consist of finance lease payments of (\$4.0) million, partially offset by proceeds from the exercise of share purchase options of \$0.3 million. Financing activities in 2022 of (\$2.4) million consist of finance lease payments of (\$3.3) million, partially offset by proceeds from the exercise of share purchase options of \$0.9 million.

6.5 Liquidity and Capital Resources

As of December 31, 2023, we had total liquidity of \$753.2 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 \$753.2 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 December 31, 2023, issued letters of credit of euro 1.0 million were outstanding under 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 December 31, 2023, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$31.5 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 December 31, 2023, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$31.5 million at an average rate of 1.3457 Canadian per U.S. dollar, resulting in an unrealized gain of Canadian \$0.5 million as of December 31, 2023. The outstanding foreign exchange currency contracts have not been designated under hedge accounting.

As of December 31, 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 December 31, 2023, we had the following contractual obligations and commercial commitments calculated on a non-discounted basis (with the exception of Finance leases):

(Expressed in thousands of U.S. dollars)	Payments due by period,										
Contractual Obligations		Total		Less than		1-3 years		4-5 years		After 5	
		one year								years	
Finance leases	\$	22,261	\$	5,667	\$	7,551	\$	4,206	\$	4,837	
Asset retirement obligations		2,407		-		2,407		-		-	
Long-term investment (HyCap)		17,818		17,818		-		-		-	
Long-term investment (Clean H2)		27,955		6,630		21,325		-		-	
Total contractual obligations	\$	70,441	\$	30,115	\$	31,283	\$	4,206	\$	4,837	

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 £11.0 million invested as of December 31, 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 €4.7 million invested as of December 31, 2023) into Clean H2.

Long-term investments also include an investment committing us to be a limited partner in Templewater, a decarbonization climate technology and growth equity fund. We have committed to investing \$1.0 million (including nil invested as of December 31, 2023) in Templewater.

In addition, we have outstanding commitments of \$22.0 million as of December 31, 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 years ended December 31, 2023 and 2022.

As of December 31, 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 December 31, 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 disposed of our 10% owned equity accounted investee, Synergy Ballard JVCo, in 2023. Transactions between us and our subsidiaries are eliminated on consolidation. For the three months and year ended December 31, 2023, and 2022, related party transactions and balances with Weichai Ballard JV are as follows:



(Expressed in thousands of U.S. dollars)	Three Months Ended December 3						
Transactions with related parties		2023		2022			
Revenues	\$	4,655	\$	1,178			
Cost of goods sold and operating expense	\$	583	\$	1,253			
(Expressed in thousands of U.S. dollars)		Year Ended December 3					
Transactions with related parties		2023		2022			
Revenues	\$	8,099	\$	8,115			
Cost of goods sold and operating expense	\$	1,996	\$	3,225			
(Expressed in thousands of U.S. dollars)	As a	s at Dec 31, As at Dec					
Balances with related parties		2023		2022			
Accounts receivable	\$	13,697	\$	13,320			
Investments	\$	13,901	\$	24,026			
Deferred revenue	\$	(1,904)	\$	(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 29 to our annual consolidated financial statements for the year ended December 31, 2023.

7.3 Outstanding Share and Equity Information

As of March 8, 2024 Common share outstanding	299,036,564
Options outstanding	4,263,427
DSUs outstanding	737,369
RSUs / PSUs outstanding (subject to vesting and performance criteria)	3,134,099

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, the 2021 Offering, and the 2020 ATM Programs to the actual use of such net proceeds to December 31, 2023. As of December 31, 2023, the residual net proceeds from the 2021 Offering and the 2020 ATM Programs were held in interest bearing cash accounts. The net proceeds of \$385.8 million from the 2020 Offering have now been fully expended.

2020 Offering Net Proceeds \$385.8M (fully expended)

Intended Use of Net Proceeds: 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.

Actual Use of Net Proceeds (expressed in thou dollars)	Variance – (Over)/Under Expenditures	Explanation of Variance	
Research and Product Development (cash Operating cost) expenditures including product development of next generation fuel cell stacks and modules	\$182,227	N/A	N/A
Investments in property, plant and equipment and other intangible assets including production capacity expansion and localization	\$83,174	N/A	N/A
Ballard Motive Solutions acquisition (initial and subsequent cash costs) and acquisition related expenses	\$26,768	N/A	N/A
Strategic partnerships and investments including Quantron, Wisdom, Forsee Power, HyCap, Clean H2, Weichai Ballard JVCo, and acquisition related expenses	\$93,631	N/A	N/A
Total expended to December 31, 2023	\$385,800		

2021 Offering Net Proceeds \$527.3M

Intended Use of Net Proceeds: 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.



Actual Use of Net Proceeds (expressed in thou dollars)	Variance – (Over)/Under Expenditures	Explanation of Variance	
Research and Product Development (cash Operating cost) expenditures including product development of next generation fuel cell stacks and modules	\$9,477	N/A	N/A
Investments in property, plant and equipment and other intangible assets including production capacity expansion and localization	\$7,380	N/A	N/A
Strategic partnerships and investments including Quantron, Wisdom, Forsee Power, HyCap, Clean H2, Weichai Ballard JVCo, and acquisition related expenses	\$3,467	N/A	N/A
Total expended to December 31, 2023	\$20,324		

2020 ATM Programs Net Proceeds \$308.8M							
Intended Use of Net Proceeds: General Co	rporate Purpose	:S					
Actual Use of Net Proceeds (expressed in the dollars)	Variance – (Over)/Under Expenditures	Explanation of Variance					
Gross Margin loss expenditures (net of inventory impairment charges)	\$19,733	N/A	N/A				
General and Administration (cash Operating cost) expenditures	\$50,667	N/A	N/A				
Sales and Marketing (cash Operating cost) expenditures	\$28,370	N/A	N/A				
Restructuring related expenditures	\$8,399	N/A	N/A				
Working capital requirements	\$30,414	N/A	N/A				
Lease liability principal repayments	\$8,068	N/A	N/A				
Total expended to December 31, 2023	\$145,651						

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 material accounting policies are detailed in note 4 to our annual consolidated financial statements for the year ended December 31, 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 months and year ended December 31, 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 annually, or whenever events or circumstances indicate that the carrying amount may not be recoverable.

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.

As of December 31, 2023, our consolidated goodwill balance of \$40.3 million relates solely to our Fuel Cell Products and Services segment. 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. Under IFRS, the annual review of goodwill requires a comparison of the carrying value of the asset to the higher of (i) value in use; and (ii) fair value less costs to sell. Value in use is defined as the present value of future cash flows expected to be derived from the asset in its current state. Our fair value less costs to sell test is in effect a modified market capitalization assessment, whereby we calculate the fair value of the Fuel Cell Products and Services segment by first calculating the value of the Company at December 31, 2023 based on the average closing share price in the month of December, add a reasonable estimated control premium to determine the Company's enterprise value on a controlling basis after adjusting for excess cash balances, deducting the fair value of long-term financial investments, and then deducting the estimated costs to sell from this enterprise value to arrive at the fair value of the Fuel Cell Products and Services segment. As a result of this assessment, we have determined that the fair value of the Fuel Cell Products and Services segment exceeds its carrying value as of December 31, 2023, indicating that no goodwill impairment charge is required for 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 months and year ended December 31, 2023, impairment charges of (\$1.0) million were recognized on our non-financial assets (other than inventories) related to impaired property, plant and equipment in China as we have decided to suspend our previously announced MEA localization plan in China.

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 months and year ended December 31, 2023, we recorded provisions to accrued warranty liabilities of \$2.5 million and \$6.0 million, respectively, for new product



sales, compared to \$0.9 million and \$4.6 million, respectively, for the three months and year ended December 31, 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 months and year ended December 31, 2023, were adjusted downwards (upwards) by \$0.3 million and (\$0.4) million, respectively, compared to adjustments of \$0.5 million and (\$0.4) million, respectively, for the three months and year ended December 31, 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 months and year ended December 31, 2023, negative inventory impairment and onerous contract provision adjustments of (\$10.7) million and (\$15.0) 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 (\$4.1) million and (\$7.5) million, respectively, in the three months and year ended December 31, 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 months and year ended December 31, 2023, we recognized mark to market gain (loss) on financial assets of (\$10.3) million and (\$12.9) million, respectively, compared to \$2.9 million and (\$16.9) million, respectively, for the three months and year ended December 31, 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.

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. The adoption of the amendments to $IAS\ 1$ are not expected to have a material impact on the Company's financial statements.

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 months and year ended December 31, 2023, and 2022:



(Expressed in thousands of U.S. dollars)	Three months ended December 31,					
Cash Operating Costs		2023		2022		\$ Change
Total Operating Expenses	\$	34,972	\$	30,099	\$	4,873
Stock-based compensation expense		(2,575)		(1,367)		(1,208)
Impairment recovery (losses) on trade receivables		(1,436)		(73)		(1,363)
Acquisition related costs		3		(106)		109
Restructuring and related (costs) recovery		(322)		(137)		(185)
Impact of unrealized gains (losses) on foreign exchange contracts		696		1,057		(361)
Depreciation and amortization		(2,388)		(435)		(1,953)
Cash Operating Costs	\$	28,950	\$	29,038	\$	(88)

(Expressed in thousands of U.S. dollars)	Year ended December 31,					
Cash Operating Costs		2023		2022		\$ Change
Total Operating Expenses	\$	141,073	\$	132,022	\$	9,053
Stock-based compensation expense		(10,720)		(8,939)		(1,781)
Impairment recovery (losses) on trade receivables		(1,498)		(73)		(1,425)
Acquisition related costs		(773)		(2,857)		2,084
Restructuring and related (costs) recovery		(1,512)		(482)		(1,030)
Impact of unrealized gains (losses) on foreign exchange contracts		1,296		(862)		2,158
Depreciation and amortization		(8,539)		(6,815)		(1,724)
Cash Operating Costs	\$	119,327	\$	111,992	\$	7,335

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 months and year ended December 31, 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 months and year ended December 31, 2023, and 2022 are as follows:

(Expressed in thousands of U.S. dollars)	Three months ended December 31,					
Stock-based compensation expense		2023		2022		\$ Change
Total stock-based compensation expense						
recorded as follows:						
Cost of goods sold	\$	-	\$	-	\$	-
Research and product development expense		1,290		938		352
General and administrative expense		949		229		720
Sales and marketing expense (recovery)		336		200		136
Stock-based compensation expense	\$	2,575	\$	1,367	\$	1,208



(Expressed in thousands of U.S. dollars)		Year ended December 31,					
Stock-based compensation expense		2023		2022		\$ Change	
Total stock-based compensation expense							
recorded as follows:							
Cost of goods sold	\$	-	\$	-	\$	-	
Research and product development expense		5,520		5,015		505	
General and administrative expense		3,660		2,736		924	
Sales and marketing expense (recovery)		1,540		1,188		352	
Stock-based compensation expense	\$	10,720	\$	8,939	\$	1,781	

A breakdown of total depreciation and amortization expense for the three months and year ended December 31, 2023, and 2022 are as follows:

(Expressed in thousands of U.S. dollars)		Three months ended December 31,					
Depreciation and amortization expense		2023		2022		\$ Change	
Total depreciation and amortization expense							
recorded as follows:							
Cost of goods sold	\$	1,136	\$	1,966	\$	(830)	
Research and product development expense		1,832		(18)		1,850	
General and administrative expense		556		449		107	
Sales and marketing expense		-		4		(4)	
Depreciation and amortization expense	\$	3,524	\$	2,401	\$	1,123	

(Expressed in thousands of U.S. dollars) Depreciation and amortization expense		Year ended December 31,					
		2023	2022			\$ Change	
Total depreciation and amortization expense							
recorded as follows:							
Cost of goods sold	\$	4,211	\$	4,837	\$	(626)	
Research and product development expense		6,538		4,894		1,644	
General and administrative expense		1,997		1,915		82	
Sales and marketing expense		4		6		(2)	
Depreciation and amortization expense	\$	12,750	\$	11,652	\$	(1,098)	

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 from continuing operations, 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 months and year ended December 31, 2023, and 2022:



(Expressed in thousands of U.S. dollars)	 Т	hree month	s ended December	31,	
EBITDA and Adjusted EBITDA	2023		2022		\$ Change
Net loss from continuing operations	\$ (48,889)	\$	(27,572)	\$	(21,317)
Depreciation and amortization	3,524		2,401		1,123
Finance expense	270		294		(24)
Income taxes (recovery)	40		34		6
EBITDA	\$ (45,055)	\$	(24,843)	\$	(20,212)
Stock-based compensation expense	2,575		1,367		1,208
Acquisition related costs	(3)		106		(109)
Finance and other (income) loss	(1,871)		(15,728)		13,857
Impairment charge on property, plant and equipment	967		7		960
Impact of unrealized (gains) losses on foreign exchange contracts	(696)		(1,057)		361
Adjusted EBITDA	\$ (44,083)	\$	(40,148)	\$	(3,935)
(Expressed in thousands of U.S. dollars)		Year end	led December 31,		
EBITDA and Adjusted EBITDA	2023		2022		\$ Change
Net loss from continuing operations	\$ (144,210)	\$	(160,371)	\$	16,161
Depreciation and amortization	12,750		11,652		1,098
Finance expense	1,105		1,265		(160)
Income taxes (recovery)	158		42		116
EBITDA	\$ (130,197)	\$	(147,412)	\$	17,215
Stock-based compensation expense	10,720		8,939		1,781
Acquisition related costs	773		2,857		(2,084)
Finance and other (income) loss	(31,055)		2,112		(33,167)
Impairment charge on property, plant and equipment	967		7		960
Impact of unrealized (gains) losses on foreign exchange contracts	(1,296)		862		(2,158)
Adjusted EBITDA	\$ (150,088)	\$	(132,635)	\$	(17,453)

