

MANAGEMENT'S DISCUSSION AND ANALYSIS

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 at March 1, 2017 and should be read in conjunction with our audited consolidated financial statements and accompanying notes for the year ended December 31, 2016. 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.sedar.com) and U.S. securities regulatory authorities (www.sec.gov) and is also available on our website at www.ballard.com.

BUSINESS OVERVIEW

At Ballard, we are building a clean energy growth company. 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 our power product markets of Heavy-Duty Motive (consisting of bus and tram applications), Portable Power, Material Handling and Backup Power, as well as the delivery of Technology Solutions, including engineering services, technology transfer and the license and sale of our extensive intellectual property portfolio and fundamental knowledge for a variety of fuel cell applications.

A fuel cell is an environmentally clean electrochemical device that combines hydrogen fuel with oxygen (from the air) to produce electricity. The hydrogen fuel can be obtained from natural gas, kerosene, methanol or other hydrocarbon fuels, or from water through electrolysis. Ballard's clean-energy fuel cell products feature high fuel efficiency, relatively low operating temperature, 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 technology which draws on intellectual property from our patent portfolio together with our extensive experience and know-how in key areas of fuel cell stack design, operation, production processes and systems integration.

We plan to build value for our shareholders by developing, manufacturing, selling and servicing industry-leading fuel cell products to meet the needs of our customers in select target markets.

We are pursuing a corporate strategy and business model that mitigates risk by diversifying our business across a portfolio of market opportunities that are enabled by substantially the same core competencies, technology, products and intellectual property. Our business model includes two growth platforms, multiple markets within each of these platforms, geographic diversification and customer diversification.

We are also pursuing a strategy that provides us with the opportunity for near-term commercialization, revenue and profitability, while also enabling significant future value based on longer-term market opportunities for our technology, products and intellectual property, such as the global automotive fuel cell market.

Our two-pronged approach is to build shareholder value through the sale and service of power products and the delivery of technology solutions. In power product sales, our focus is on meeting the power needs of our customers by delivering high value, high reliability, high quality and innovative clean energy power products that reduce customer costs and risks. Through technology solutions, our focus is on enabling our customers to solve their technical and business challenges and accelerate their fuel cell programs by delivering customized, high value, bundled technology solutions, including specialized engineering services, access to our deep intellectual property portfolio and know-how through licensing or sale, and providing technology component supply.

Starting in 2015, we increased our efforts on growing our business in China. China represents a potentially unique opportunity for clean energy solutions, given the convergence of macro trends that include:

- continued urbanization of China's population;
- continued infrastructure development and build-out of mass urban transportation;
- the large size and continued growth of the Chinese vehicle market;
- rapid adoption of electric vehicles in China;
- serious air quality challenges in a number of Chinese cities;
- a Chinese government mandate to address climate change; and
- strong national and local government commitment supporting the adoption and commercialization of fuel cells in transportation applications, including the implementation of supporting subsidy programs.

We have been pursuing a strategy that includes the development of a local fuel cell supply chain and related ecosystem to address the fast-growing clean energy bus and commercial vehicle markets in China. As part of our strategy, we are pursuing technology transfer and licensing opportunities with Chinese partners in order to localize the manufacture of Ballard-designed fuel cell modules and stacks for heavy-duty motive applications in China, including bus, commercial vehicles and light-rail train applications. Key elements of our strategy include adopting a risk-adjusted and capital-light business model where we mitigate market adoption risk and capital investment by engaging partnerships with strong local companies that market our products and invest in manufacturing operations and supply chain localization. We typically seek to structure our arrangements in a way that provide us with the payment from our partners of significant value for technology transfer early in the transfer process, requirements for ongoing purchases by our partners of component supply by us, and the requirement of our partners to comply with certain performance conditions and reporting requirements, including quality, branding, intellectual property and minimum payments. We believe these typical deal structures provide for near-, mid- and long-term revenue and cash flow streams by building in program phases, technology transfer payments, license payments, required supply purchases, and recurring royalty structures. We also typically structure our commercial deals in China to restrict sales within China and to position Ballard as the exclusive purchaser of modules or stacks manufactured by our partners in China for sale outside of China. We believe this structure provides us with additional flexibility in satisfying global market demand for our modules and stacks by supplementing or mitigating our mid- and long-term manufacturing strategy.

We also structure our business model in China to protect our core intellectual property. For example, we do not provide technology transfer and licensing relating to the manufacture of our proprietary membrane electrode assemblies (“MEAs”), key technology components in our fuel cell stacks. We currently plan to continue to manufacture our MEAs in our head office facilities in Burnaby, Canada. Also, we typically restrict technology transfer and licenses to current generation technology and products. We continue to make significant investment in next generation products and technology, including modules and systems integration, stacks, and MEAs. We reserve flexibility on how we introduce these next generation products to the markets, including to China.

We are based in Canada, with head office, research and development, testing, manufacturing and service facilities in Burnaby, British Columbia. In the United States, we have a sales, manufacturing, research and development facility in Southborough, Massachusetts, and have a sales, service and research and development facility in Hobro, Denmark. We’ve also recently announced the opening of our first corporate office headquartered in Guangzhou, the capital of Guangdong Province, China. This office will serve as the Company’s initial operations center in China, supporting management, sales and business development, technical, after-sales and administrative support personnel.

RECENT DEVELOPMENTS

On February 16, 2017, we announced that the signing of definitive agreements relating to technology transfer, licensing and supply arrangements with strategic partner Zhongshan Broad-Ocean Motor Co., Ltd. (“Broad-Ocean”) for the assembly and sale of FCveloCity® 30-kilowatt (kW) and 85kW fuel cell engines in China. Under the deal, Broad-Ocean will manufacture fuel cell modules in three strategic regions in China, including Shanghai. The deal has an estimated value of approximately \$25 million in revenue to Ballard over the initial 5-year term, including approximately \$12 million in Technology Solutions revenue. In each of the three assembly operation locations, Broad-Ocean plans to engage with local governments as well as with bus and commercial vehicle OEMs for deployment of fuel cell buses and commercial vehicles incorporating Ballard-designed modules manufactured by Broad-Ocean. Broad-Ocean will make payments to Ballard at closing and based on certain commissioning milestones, initial supply agreements, and recurring royalty payments. Ballard will also have the exclusive right to purchase fuel cell engines from any of the Broad-Ocean manufacturing operations for sale outside China. Each fuel cell engine assembled by Broad-Ocean will use FCvelocity®-9SSL fuel cell stacks, initially manufactured by Ballard at its Vancouver HQ facility. Stack supply will be transferred to Guangdong Synergy Ballard Hydrogen Power Co., Ltd. (“Synergy JVCo”), the joint venture owned by Guangdong Nation Synergy Hydrogen Power Technology Co. Ltd. (a member of the “Synergy Group”) and Ballard in the City of Yunfu in China’s Guangdong Province, once Synergy JVCo becomes fully operational, expected in late-2017. From that time forward, Ballard will supply MEAs on an exclusive basis for stacks manufactured by Synergy JVCo. This transaction is subject to customary closing conditions and is expected to close by Q2 2017. Founded in 1994, Broad-Ocean is headquartered in the City of Zhongshan in Guangdong Province and is listed on the Shenzhen Stock Exchange. Broad Ocean is a leading global manufacturer of motors that power small and specialized electric machinery for electric vehicles (EVs), including buses, commercial vehicles and passenger vehicles, and for heating, ventilation and air conditioning (HVAC). Broad-Ocean’s EV Operations Platform

operates a commercial vehicle leasing business in China through which it buys new energy vehicles, including EVs, and subsequently leases these buses and commercial vehicles. Broad-Ocean has now expanded this business to include fuel cell vehicles. On July 18, 2016 Broad-Ocean signed an agreement with partner companies relating to the purchase of up to 10,000 fuel cell vehicles, including buses and delivery trucks, all of which are expected to have Ballard's leading PEM fuel cell technology inside. On August 18, 2016 Broad-Ocean became Ballard's largest shareholder following an investment of \$28.3 million in Ballard common shares, representing approximately 9.9% of Ballard's outstanding common shares following the transaction.

The Broad-Ocean investment, initially announced on July 26, 2016, was made through a subscription and purchase of 17.25 million Ballard common shares issued from treasury at a price per share of \$1.64 (based on a 20-day volume weighted average price calculation). The investment represents approximately 9.9% of Ballard's outstanding common shares following the transaction. Ballard intends to use the proceeds from the financing for general corporate purposes, including funding of potential future acquisitions or investments in complementary businesses, products or technologies. Broad-Ocean and Ballard have also entered into an Investor Rights Agreement under which Broad-Ocean has agreed to a two-year hold period on the 17.25 million Ballard common shares that it has purchased in the financing; has provided Ballard with a right of first refusal to sell to Broad-Ocean additional treasury shares if Broad-Ocean wishes to increase its ownership position up to 20%; and has agreed to certain "standstill" provisions effective for a two-year period under which Broad-Ocean will not purchase more than 19.9% of Ballard's outstanding common shares without receiving Ballard board approval. Ballard granted Broad-Ocean certain anti-dilution rights to maintain its 9.9% ownership interest. Finally, Broad-Ocean has no special right to appoint nominees to Ballard's board of directors.

On February 14, 2017, we announced the opening of our first corporate office headquartered in Guangzhou, the capital of Guangdong Province, China. This office will serve as the Company's initial operations center in China, supporting management, sales and business development, technical, after-sales and administrative support personnel. The Company also recently completed the registration of a wholly foreign-owned enterprise (WFOE) with the name of 广州市巴拉德动力系统有限公司 (Guangzhou Ballard Power Systems Co., Ltd.).

On February 13, 2017, we announced the Company's membership in the "Fuel Cell Electric Bus Commercialization Consortium" (FCEBCC), a large-scale project for which funding has now been committed to support deployment of 20 zero-emission hydrogen fuel cell electric buses at two California transit agencies. Ten buses are to be deployed with Alameda Contra-Costa Transit District (AC Transit) and 10 buses are to be deployed with the Orange County Transportation Authority (OCTA). Ballard will be providing 20 of its FCveloCity®-HD 85-kilowatt fuel cell engines to New Flyer of America Inc., a subsidiary of New Flyer Industries Inc. ("New Flyer"), the largest transit bus and motor coach manufacturer and parts distributor in North America. Ballard's engines will power New Flyer 40-foot Xcelsior XHE40 fuel cell buses, which are planned to be delivered and in-service with AC Transit and OCTA by the end of 2018. The buses are to be supported by advanced hydrogen fueling infrastructure provided by The Linde Group.

On January 24, 2017, we announced the signing of an initial Equipment Sales Agreement with Zhuhai Yinlong Energy Group (“Yinlong”), a major Chinese manufacturer of battery electric buses, for 10 FCveloCity®-MD 30-kilowatt fuel cell engines. Ballard plans to deliver the engines in 2017 for integration into Yinlong buses that are expected to be deployed in Beijing.

On January 19, 2017, we announced that our subsidiary, Protonex Technology Corporation (“Protonex”), received certification from the U.S. Government enabling its SPM-622 (Squad Power Manager) and VPM-402 (Vest Power Manager) products to be exported under the Commerce Department’s Export Administration Regulations, classification EAR99. With this classification, these products can be sold to allied military partners as well as commercial customers without the need for an export license. On June 1, 2016, we announced that Protonex had received a \$5.8 million follow-on purchase order for the supply of Squad Power Manager (SPM-622) Special Operations Kits for end customer U.S. Special Operations Command. The purchase order represents follow-on business from a \$2.8 million SPM order from the same customer received in December 2015. The purchase order was issued by the Program Executive Office – Soldier, as part of the Nett Warrior program (“Nett Warrior”). Amounts earned from these agreements (\$1.4 million in the fourth quarter of 2016; \$6.4 million in fiscal 2016; \$1.7 million in the fourth quarter of 2015 and in fiscal 2015) are recorded as Portable Power revenues.

On January 10, 2017, we announced that we had purchased all of the shares in the Company’s European subsidiary held by Dansk Industri Invest A/S (previously Dantherm Air Handling A/S). As a result, Ballard now owns 100% of the Company’s subsidiary in Europe, Ballard Power Systems Europe A/S (formerly Dantherm Power A/S). Ballard held 57% of the shares in Ballard Power Systems Europe A/S before purchasing the remaining 43% of shares from Dansk Industri Invest A/S on January 5th, 2017. For a nominal payment, Ballard acquired the remaining shares and obtained the cancellation of debt owed by Ballard Power Systems Europe A/S to Dansk Industri Invest A/S of approximately \$0.5 million.

On November 29, 2016, we announced the signing of a Long-Term Sales Agreement (“LTSA”) with Solaris Bus & Coach (“Solaris”), a bus OEM headquartered in Poland, for the sale and supply of fuel cell modules to support deployment of Solaris fuel cell buses in Europe. An initial order was placed under the LTSA for 10 FCveloCity®-HD fuel cell modules, with deliveries planned to start in 2017.

On October 25, 2016, we announced the closing of a transaction with the Synergy Group for the establishment of an FCvelocity®-9SSL fuel cell stack production operation in the City of Yunfu, in Guangdong Province, China. The transaction was originally announced on July 18, 2016. The fuel cell stacks will be packaged into locally-assembled fuel cell engines and integrated into zero-emission buses and commercial vehicles in China. The transaction has a contemplated minimum value to Ballard of approximately \$170 million over 5-years. As of the closing of this transaction in October 2016, we had received payments totaling \$10.9 million and received further payments of \$8.1 million in December 2016 in relation to a contract milestone, for total receipts of \$19.0 million. The transaction includes these key elements:

- Ballard is expected to receive approximately \$20 million for technology transfer services, test equipment, production equipment specification and procurement services, training

and commissioning support in relation to the establishment of a production line in Yunfu for the manufacture and assembly of FCvelocity®-9SSL fuel cell stacks, with most of this revenue expected to be recognized in the fourth quarter of 2016 through 2017. Amounts earned from these agreements (\$4.4 million in the fourth quarter of 2016 and in fiscal 2016) are recorded as Technology Solutions revenues;

- A joint venture - named Guangdong Synergy Ballard Hydrogen Power Co., Ltd. ("Synergy JVCo") - has been registered in China to undertake the FCvelocity®-9SSL fuel cell stack manufacturing operations, with Synergy JVCo owned 90% by the Synergy Group and 10% by Ballard; and
- On commissioning of the stack production line, expected in late 2017, Ballard will be the exclusive supplier of membrane electrode assemblies ("MEA"s) for each fuel cell stack manufactured by Synergy JVCo, with minimum annual MEA volume commitments on a "take or pay" basis totaling in excess of \$150 million over the initial 5-year term from 2017 to 2021. Amounts earned from the MEA supply agreement (nil in fiscal 2016) will be recorded as Heavy-Duty Motive revenues.

During March 2017, Ballard plans to contribute approximately \$1.0 million for its 10% interest in Synergy JVCo. Under the terms of the agreement, Ballard has the right to appoint one of the three Synergy JVCo board directors, has veto rights over certain key Synergy JVCo decisions, and has no further obligation to provide future funding to Synergy JVCo. Ballard's CEO, Randall MacEwen, was appointed to the board of Synergy JVCo effective as of closing. After commissioning of the operation, Synergy JVCo will have an exclusive right to manufacture and sell FCvelocity®-9SSL stacks in China. Exclusivity will be subject to certain performance criteria of Synergy JVCo, including compliance with a code of ethics, compliance with Ballard's quality policies, compliance with Ballard's branding policies, achievement of the minimum annual "take or pay" MEA volumes, compliance with payment terms, and compliance with certain intellectual property covenants. Ballard will have the exclusive right to purchase FCvelocity®-9SSL fuel cell stacks and sub-components from Synergy JVCo for sale outside China.

On July 11, 2016, we announced the signing of definitive agreement with the Synergy Group for a Technology Solutions transaction to enable Synergy Group to exclusively manufacture and sell Ballard's direct hydrogen FCgen®-H2PM fuel cell backup power systems in China. Under the agreement, Ballard will license the designs of its 1.7 and 5 kilowatt FCgen®-H2PM systems to Synergy Group for manufacture in the City of Yunfu in Guangdong Province and for exclusive sales in China. Synergy Group prepaid Ballard an upfront Technology Solutions fee of \$2.5 million in the second quarter of 2016 for the license and related technology services. Synergy Group is required to make additional license royalty payments to Ballard for each FCgen®-H2PM system that it manufactures and sells, subject to annual minimums starting in 2018. Ballard will also be the exclusive supplier of air-cooled fuel cell stacks to Synergy Group for use in the FCgen®-H2PM systems that it produces and sells. Technology transfer work performed under this agreement is recorded as Technology Solutions revenues (\$0.8 million in the fourth quarter of 2016; \$1.3 million in fiscal 2016) whereas sales of fuel cell stacks will be recorded as Backup Power revenues.

During the second quarter of 2016, we completed the sale of certain of our methanol

Telecom Backup Power business assets to Chung-Hsin Electric & Machinery Manufacturing Corporation ("CHEM"), a Taiwanese power equipment company, for a purchase price of up to \$6.1 million of which \$3 million was paid on closing (the "CHEM Transaction"). The remaining potential purchase price of up to \$3.1 million consists of an earn-out arising from sales of methanol Telecom Backup Power systems by CHEM during the 18-month period to November 2017 derived from the sales pipeline transferred to CHEM on closing. During the second quarter of 2016, we recorded a loss on sale of assets of (\$0.4) million after estimating the fair value of the remaining potential purchase price of up to \$3.1 million to approximate \$1.8 million. The final gain (loss) on sale arising from the CHEM Transaction is subject to change depending upon the final earn-out amount actually received by Ballard through November 2017. On the closing of this transaction, CHEM received certain assets related to the methanol Telecom Backup Power line of our business including intellectual property rights, and physical assets such as inventory and related product brands. We also transferred to CHEM a number of our engineering, sales, and service employees involved in this business. Ballard continues to retain the Company's direct hydrogen fuel cell backup power system assets, primarily in our Ballard Power Systems Europe A/S subsidiary (formerly named Dantherm Power A/S) located in Denmark. The direct hydrogen fuel cell backup power system has since been rebranded FCgen®-H2PM. As noted above, certain designs of the FCgen®-H2PM system were exclusively licensed to Synergy Group for manufacture and sale in China.

In the CHEM Transaction, we also signed a fuel cell stack supply agreement with CHEM which includes minimum sales of \$2 million over an 18-month period. Amounts earned under the fuel cell stack supply agreement with CHEM (\$0.6 million in the fourth quarter of 2016; \$1.7 million in fiscal 2016) are recorded as Backup Power revenues.

In early 2016, in parallel to our review of strategic alternatives for our methanol Telecom Backup Power assets, we implemented a cost reduction initiative, primarily focused on reducing our operating cost base associated with our methanol Telecom Backup Power activities. As part of this cost reduction initiative, three executives departed from the Company effective March 31, 2016. Responsibilities of the departed executives have been assumed by other management personnel. During fiscal 2016, total restructuring charges of (\$2.3) million were expensed as a result of these cost reduction initiatives that included the elimination of approximately 50 positions, including the three executive-level positions, as well as costs associated with the closure of the contract manufacturing facility in Tijuana, Mexico. We also recorded impairment losses of (\$1.2) million in the first quarter of 2016 related to a write-down of certain methanol Telecom Backup Power intangible assets and property, plant and equipment.

On December 31, 2008, we completed a restructuring agreement ("Arrangement") with Superior Plus Income Fund ("Superior Plus"), whereby Ballard caused its entire business and operations, including all assets and liabilities, to be transferred to a new corporate entity, such that the new corporate entity held all of the same assets, liabilities, directors, management and employees as Ballard formerly had under its old corporate entity, except for its tax attributes. The Arrangement included an indemnification agreement (the "Indemnity Agreement") which set out each party's continuing obligations to the other including a provision for adjustments to be paid by us, or to us, depending on the final

determination of the amount of our Canadian non-capital losses, scientific research and development expenditures and investment tax credits generated to December 31, 2008, to the extent that such amounts are more or less than the amounts estimated at the time the Arrangement was executed. In 2015, we reached agreement and signed mutual releases with Superior Plus as to the full and final amount payable to us under the Indemnity Agreement and received final cash proceeds of \$3.3 million (Canadian \$4.6 million) in February 2016. The settlement proceeds were recorded as a credit to shareholders' equity in fiscal 2015 consistent with the accounting of the original transaction in 2008.

On January 21, 2016, we announced the signing of an equipment supply agreement, valued at \$12 million, with an existing partner in China, Guangdong Synergy Hydrogen Power Technology Co., Ltd. (a member of the "Synergy Group") to provide FCvelocityTM-9SSL fuel cell stacks for range extension applications in commercial vehicles in China. Ballard expects to deliver the stacks in 2016 and 2017. Synergy Group will collaborate with Dongfeng Xiangyangtouring Car Co., Ltd. ("DFAC"), which is part of Dongfeng Motor Corporation, a Chinese state-owned automobile manufacturer headquartered in Wuhan. Amounts earned from this agreement (\$2.5 million in the fourth quarter of 2016; \$7.9 million in fiscal 2016) are recorded as Heavy-Duty Motive revenues.

On November 10, 2015, we announced that we had closed a \$5 million strategic equity investment in Ballard by Nisshinbo Holdings Inc. ("Nisshinbo") in Japan, as previously announced on October 27, 2015. The investment was made through a private placement subscription of approximately 3.3 million Ballard common shares issued from treasury at \$1.5049 per share (based on a 10-day volume weighted average share price calculation). Nisshinbo provides low-carbon, optimized products across a range of business lines, including chemicals, precision instruments, electronics, automotive brakes, textiles and paper. Nisshinbo has been a long-time leading global supplier of carbon plates, used in the construction of membrane electrode assemblies ("MEA's"), to the fuel cell industry. On January 20, 2016, we announced that we had received a follow-on purchase order from Nisshinbo for a further phase of a Technology Solutions program related to the development of a breakthrough catalyst technology intended to reduce the cost of certain proton exchange membrane (PEM) fuel cells. The program has advanced through numerous phases during the past three years.

On November 1, 2015, we announced that the signing of a definitive agreement with Tangshan Railway Vehicle Company, Limited ("TRC") for the development of a new fuel cell module that will be designed to meet the requirements of tram or Modern Ground Rail Transit Equipment applications. This agreement, with a value of approximately \$3 million, contemplates that TRC trams will use next-generation Ballard fuel cell power modules designed specifically for the Modern Ground Rail Transit Equipment application. The purpose-designed product is expected to deliver at least 200 kilowatts of power. Amounts earned from this agreement (\$0.6 million in the fourth quarter of 2016; \$2.0 million in fiscal 2016; \$0.5 million in the fourth quarter of 2015 and in fiscal 2015) are recorded as Technology Solutions revenue.

On October 1, 2015, we completed the acquisition of Protonex, a leading designer and manufacturer of advanced power management products and portable fuel cell solutions. The signing of a definitive agreement to acquire Protonex was previously announced on June 29,

2015. As consideration for the transaction, we assumed and paid certain of Protonex' debt obligations and transaction costs on closing of approximately \$3.8 million, and issued 11.4 million of Ballard shares at fair value of \$1.20 per share, or approximately \$13.7 million, for total purchase consideration of \$17.5 million.

On September 28, 2015, we announced the signing of a joint development agreement and a supply agreement to develop and commercialize a fuel cell engine specifically designed for integration into low floor trams manufactured by CRRC Qingdao Sifang Company, Ltd. ("CRRC Sifang"), a Chinese rolling stock manufacturer. The agreements include delivery of ten customized FCvelocity® modules and have an initial expected value of approximately \$6 million. Ballard plans to develop a new prototype configuration of its FCvelocity® fuel cell module to deliver 200 kilowatts of net power for use in powering trams in urban deployments. An initial deployment of eight fuel cell-powered trams is planned by CRRC Sifang and the City of Foshan on the Gaoming Line is expected to start in 2018. Amounts earned from this agreement (\$0.1 million in the fourth quarter of 2016; \$0.9 million in fiscal 2016; nil in fiscal 2015) are recorded as either Heavy-Duty Motive or Technology Solutions revenues depending on the nature of work performed.

On September 25, 2015, we announced the signing of a long-term license and supply agreement with Synergy Group to provide fuel cell power products and technology solutions in support of the planned deployment of approximately 300 fuel cell-powered buses in the cities of Foshan and Yunfu, China. The agreement has an estimated initial value of approximately \$17 million with the opportunity for significant recurring royalties starting in 2017. The agreement includes the supply and sale of fully-assembled 30kW to 85kW fuel cell power modules, ready-to-assemble module kits, a technology license for localization of assembly, supply of proprietary fuel cell stacks and long-term recurring royalties leveraged to unit volumes of locally assembled modules. Amounts earned from this agreement (\$6.6 million in the fourth quarter of 2016; \$13.7 million in fiscal 2016; \$2.9 million in the fourth quarter of 2015 and in fiscal 2015) are recorded as either Heavy-Duty Motive or Technology Solutions revenues depending on the nature of work performed.

On September 24, 2015, we announced that we are developing, and plan to launch, two new configurations of our FCvelocity®-HD7 fuel cell module in 2016. The two new module configurations will expand Ballard's product portfolio and provide customers with increased flexibility to address a range of emerging power needs in heavy-duty transit applications, such as buses. Ballard's latest-generation FCvelocity®-HD7 was launched in a net 85kW power configuration in June 2015 at the UITP World Congress and Exhibition in Milan, Italy. This initial 85kW configuration will typically be used to power large urban transit buses. The two new product configurations deliver net power of 30kW and 60kW, respectively, with sales launched in 2016 to power smaller buses and to provide range extension solutions. During fiscal 2016 and 2015, FCvelocity®-HD7 development costs of \$1.1 million and \$1.4 million, respectively, were capitalized as fuel cell technology intangible assets.

On July 22, 2015, we announced the signing of an agreement to provide a 1 megawatt (1MW) ClearGen™ fuel cell distributed generation system for Hydrogène de France ("HDF") which will be deployed at an Akzo Nobel sodium chlorate chemical plant in Ambres near Bordeaux, France. The program agreement is structured in two phases. Under the first phase, completed in 2016, Ballard received an initial payment of €1.7 million to undertake

engineering services and core component development work. Under the second phase, targeted for completion in late 2017, Ballard received an additional €1.6 million in February 2017 for onsite assembly and commissioning. Amounts earned from this agreement (\$0.2 million in the fourth quarter of 2016; \$1.0 million in fiscal 2016; \$0.7 million in the fourth quarter of 2015; \$0.8 million in fiscal 2015) are recorded as Technology Solutions revenue.

On June 8, 2015, we announced the signing of definitive license and supply agreements with Nantong Zehe New Energy Technology Co., Ltd. ("Nantong Zehe") and Synergy Group to provide fuel cell power products and technology solutions to support the planned deployment of an initial 33 fuel cell-powered buses in two Chinese cities. The agreements have an estimated value of approximately \$10 million, the majority of which was recognized in 2015. The agreements include an initial order from Nantong Zehe (announced in April 2015) for the supply of FCvelocity®-HD7 bus power modules to power eight buses in addition to new orders for the supply of additional power products and technology solutions including a non-exclusive license for local assembly of FCvelocity®-HD7 bus power modules for use in clean energy buses in China. In addition, Ballard will be the exclusive supplier of its proprietary fuel cell stacks for use in power modules assembled in China under these agreements. Amounts earned from these agreements (nil in the fourth quarter of 2016; \$0.5 million in fiscal 2016; \$0.9 million in the fourth quarter of 2015; \$8.6 million in fiscal 2015) are recorded as either Heavy-Duty Motive or Technology Solutions revenues depending on the nature of work performed.

On February 11, 2015, we entered into a transaction with Volkswagen Group ("Volkswagen") to transfer certain automotive-related fuel cell intellectual property for an aggregate amount of approximately \$80 million including the benefits of a two-year extension of our existing technology development and engineering services agreement with Volkswagen previously announced on March 6, 2013 (see below for additional details). Under the transfer agreement (the "Volkswagen IP Agreement"), Ballard transferred to Volkswagen ownership of the automotive-related portion of the fuel cell intellectual property assets previously acquired by us from United Technologies Corporation ("UTC") on April 24, 2014 (the "UTC Portfolio"), through two separate transactions with Volkswagen for total gross proceeds of \$50 million:

- (i) On the closing of the initial transaction on February 23, 2015, Ballard transferred ownership of the automotive-related patents and patent applications of the UTC Portfolio in exchange for gross proceeds of \$40 million. This receipt triggered a 25%, or \$10.0 million, license fee payment to UTC. Although ownership of the UTC patents and patent applications was transferred to Volkswagen, Ballard received a royalty-free back-license to all of the transferred UTC patents and patent applications for use in all non-automotive applications, in bus applications and in certain limited pre-commercial automotive applications. On the closing of the sale of the automotive-related patents and patent applications of the UTC Portfolio in the first quarter of 2015, we recognized a gain on sale of intellectual property of \$14.2 million on net proceeds of \$29.5 million. We retain a royalty obligation to pay UTC a portion (typically 25%) of all future intellectual property sale and licensing income generated from our intellectual property portfolio until April 2029.
- (ii) On the closing of the second transaction on December 2, 2015, Ballard transferred a

copy of the automotive-related know-how of the UTC Portfolio in exchange for gross proceeds receivable of \$10 million. This receipt, collected in the first quarter of 2016, triggered a 9%, or \$0.9 million, payment to UTC in the first quarter of 2016. On the closing of the sale of a copy of the know-how, Ballard retained full ownership of the UTC know-how including the right to sell additional copies of the know-how to third parties as well as retaining the right to use the know-how in all our applications. On the closing of the sale of a copy of the automotive-related know-how in the fourth quarter of 2015, we recognized an additional gain on sale of intellectual property of \$5.4 million on net proceeds of \$9.1 million.

On March 6, 2013, we entered into a technology development and engineering services agreement with Volkswagen to advance development of fuel cells for use in powering demonstration cars in Volkswagen's fuel cell automotive research program. The initial contract term was 4-years commencing in March 2013, with an option by Volkswagen for a 2-year extension. On the closing of the Volkswagen IP Agreement in February 2015, this technology development and engineering services was extended 2-years to February 2019. Over the full 6-years, this technology development and engineering services contract has an estimated value of Canadian \$100-140 million and is focused on the design and manufacture of next-generation fuel cell stacks for use in Volkswagen's fuel cell demonstration car program. Volkswagen also retains an option to further extend this program by 2-years to February 2021. Amounts earned from this and related agreements (\$4.0 million in the fourth quarter of 2016; \$13.9 million in fiscal 2016; \$3.6 million in the fourth quarter of 2015; \$14.5 million in fiscal 2015) are recorded as Technology Solutions revenues.

OPERATING SEGMENTS

We report our results in the single operating segment of Fuel Cell Products and Services. Our Fuel Cell Products and Services segment consists of the sale and service of PEM fuel cell products for our power product markets of Heavy-Duty Motive (consisting of bus and tram applications), Portable Power, Material Handling and Backup Power, as well as the delivery of Technology Solutions, including engineering services, technology transfer and the license and sale of our extensive intellectual property portfolio and fundamental knowledge for a variety of fuel cell applications.

As a result of the sale of certain of our methanol Backup Power assets to CHEM in the second quarter of 2016, we have renamed the former Telecom Backup Power market as the Backup Power market. The Backup Power market includes revenues associated with our direct hydrogen fuel cell backup power systems, methanol fuel cell backup power systems prior to the CHEM transaction, and fuel cell stacks sold for all backup power applications including those sold to CHEM.

SELECTED ANNUAL FINANCIAL INFORMATION

Results of Operations		Year ended,		
	2016	2015	2014	
(Expressed in thousands of U.S. dollars, except per share amounts and gross margin %)				
From continuing operations				
Revenues	\$ 85,270	\$ 56,463	\$ 68,721	
Gross margin	\$ 24,184	\$ 9,974	\$ 10,246	
Gross margin %	28 %	18 %	15 %	
Total Operating Expenses	\$ 42,253	\$ 34,858	\$ 38,300	
Cash Operating Costs ⁽¹⁾	\$ 34,338	\$ 29,050	\$ 26,367	
Adjusted EBITDA ⁽¹⁾	\$ (9,883)	\$ (15,259)	\$ (18,635)	
Net loss from continuing operations attributable to Ballard	\$ (21,112)	\$ (5,815)	\$ (28,188)	
Net loss per share attributable to Ballard, basic and diluted	\$ (0.13)	\$ (0.04)	\$ (0.22)	
Adjusted Net Loss ⁽¹⁾	\$ (19,349)	\$ (24,791)	\$ (21,833)	
Adjusted Net Loss per share ⁽¹⁾	\$ (0.12)	\$ (0.18)	\$ (0.17)	
From discontinued operations				
Net earnings (loss) from discontinued operations	\$ -	\$ -	\$ 320	
Net earnings (loss) per share from discontinued operations	\$ -	\$ -	\$ -	
Financial Position (expressed in thousands of U.S. dollars)				
	2016	At December 31, 2015	2014	
Total assets	\$ 183,446	\$ 161,331	\$ 127,949	
Cash, cash equivalents and short-term investments	\$ 72,628	\$ 40,049	\$ 23,671	

¹ Cash Operating Costs, Adjusted EBITDA, Adjusted Net Loss and Adjusted Net Loss per share 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.

2016 Performance compared to 2016 Business Outlook

Although we did not provide specific financial performance guidance for 2016, we did indicate that we expected to end 2016 with year-over-year revenue growth and a strengthened balance sheet. On a year-to-year basis, we also indicated that we expected to improve gross margin and rationalize certain operating costs.

Actual revenues of \$85.3 million in 2016 increased 51%, or \$28.8 million, compared to 2015. As expected, revenue growth in 2016 was driven by growth in our Heavy-Duty Motive and Technology Solutions markets as well as a full-year contribution from our Portable Power market.

Gross margin as a percentage of revenues in 2016 was 28%, compared to 18% in 2015. As expected, the gross margin improvement in 2016 was driven primarily by the increase in volumes and improved product mix, including important contributions from our Heavy-Duty Motive, Portable Power and Technology Solutions markets. This increase was also supported by product cost reductions and improved operating efficiencies as we realized the benefits from the expected increase in volumes.

On operating costs, as expected we completed the review of strategic alternatives for our methanol Telecom Backup Power business in 2016 culminating with the CHEM Transaction in the second quarter of 2016. We also completed the corresponding rationalization of our methanol Telecom Backup Power engineering, sales and executive team cost structures that commenced in late 2015. The rationalization initiatives are expected to yield annualized

operating expense savings in excess of \$6 million.

Finally, we ended fiscal 2016 with cash and cash equivalents of \$72.6 million, compared to \$40.0 million at the end of fiscal 2015. As expected, the strengthened balance sheet was supported by the improved financial performance in 2016 as compared to 2015, combined with the closing of a \$28.3 million strategic equity investment made by Broad-Ocean in Ballard on August 18, 2016.

RESULTS OF OPERATIONS – Fourth Quarter of 2016

Revenue and gross margin

(Expressed in thousands of U.S. dollars)		Three months ended December 31,			
Fuel Cell Products and Services	2016	2015	\$ Change	% Change	
Heavy-Duty Motive	\$ 10,994	\$ 4,068	\$ 6,926	170%	
Portable Power	2,905	3,398	(493)	(15%)	
Material Handling	2,985	4,054	(1,069)	(26%)	
Backup Power	2,118	1,622	496	31%	
Technology Solutions	11,682	6,844	4,838	71%	
Revenues	30,684	19,986	10,698	54%	
Cost of goods sold	21,338	16,168	5,170	32%	
Gross Margin	\$ 9,346	\$ 3,818	\$ 5,528	145%	
Gross Margin %	30%	19%	n/a	11 pts	

Fuel Cell Products and Services Revenues of \$30.7 million for the fourth quarter of 2016 increased 54%, or \$10.7 million, compared to the fourth quarter of 2015. The 54% increase was driven by higher Heavy-Duty Motive, Technology Solutions and Backup Power revenues, which more than offset a decline in Material Handling and Portable Power revenues.

Technology Solutions revenues of \$11.7 million increased \$4.8 million, or 71%, due primarily to initial amounts earned in the fourth quarter of 2016 related to the establishment by Synergy JVCo of a production line in Yunfu, China for the manufacture and assembly of FCvelocity®-9SSL fuel cell stacks, by amounts earned in 2016 to enable Synergy Group to exclusively manufacture and sell Ballard's direct hydrogen FCgen®-H2PM fuel cell backup power systems in China, combined with a minor increase in Volkswagen service revenues primarily as a result of program scope and timing requirements. Engineering services and licensing work performed in the fourth quarter of 2016 on the TRC and CRRC Sifang tram projects, the HDF distributed generation project, and other programs were relatively consistent with amounts earned in the fourth quarter of 2015 on the Nantong Zehe and other programs.

Heavy-Duty Motive revenues of \$11.0 million increased \$6.9 million, or 170%, due primarily to significantly higher shipments in the fourth quarter of 2016 of FCvelocityTM-9SSL fuel cell stacks, FCveloCity®-MD 30-kilowatt fuel cell modules and FCveloCity®-HD7 85-kilowatt fuel cell modules primarily to the Synergy Group in China.

Material Handling revenues of \$3.0 million decreased (\$1.1) million, or (26%), primarily as a result of lower stack shipments to Plug Power combined with a lower average selling price

due to product mix.

Portable Power revenues of \$2.9 million decreased (\$0.5) million, or (15%), due to lower revenues generated by Protonex as a result of lower service revenues as product shipments were relatively flat. Revenues in each of the quarters were primarily driven by product shipments of Squad Power Manager (SPM-622) Special Operations Kits for end customer U.S. Special Operations Command under the Nett Warrior program.

Backup Power revenues of \$2.1 million increased \$0.5 million, or 31%, due primarily to an increase in shipments of hydrogen-based backup power stacks to CHEM, combined with the completion in the fourth quarter of 2016 of a final sale of methanol-based backup power systems initiated prior to the CHEM Transaction. During the second quarter of 2016, we sold certain of our methanol Telecom Backup Power assets to CHEM in the CHEM Transaction.

Fuel Cell Products and Services gross margins improved to \$9.3 million, or 30% of revenues, for the fourth quarter of 2016, compared to \$3.8 million, or 19% of revenues, for the fourth quarter of 2015. The improvement in gross margin of \$5.5 million, or 145%, was driven by the 54% increase in total revenues combined with a shift to higher margin product and service revenue resulting in an 11 point improvement in gross margin as a percent of revenues. Gross margin in the fourth quarter of 2016 particularly benefited from the increase in higher margin Technology Solutions and Heavy-Duty Motive revenues, combined with improved manufacturing overhead and related cost absorption as a result of improved scale and efficiency driven by the 54% increase in total revenues.

Cash Operating Costs

(Expressed in thousands of U.S. dollars)		Three months ended December 31,			
	2016	2015	\$ Change	% Change	
Research and Product Development (cash operating cost)	\$ 3,544	\$ 3,065	\$ 479	16%	
General and Administrative (cash operating cost)	2,929	2,806	123	4%	
Sales and Marketing (cash operating cost)	1,667	1,858	(191)	(10%)	
Cash Operating Costs	\$ 8,140	\$ 7,729	\$ 411	5%	

Cash Operating Costs and its components of Research and Product Development (operating cost), General and Administrative (operating cost), and Sales and Marketing (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 section and the reconciliation of Research and Product Development (operating cost), General and Administrative (operating cost), and Sales and Marketing (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, acquisition costs and financing charges.

Cash Operating Costs (see Supplemental Non-GAAP Measures) for the fourth quarter of 2016 were \$8.1 million, an increase of \$0.4 million, or 5%, compared to the fourth quarter of 2015. The \$0.4 million, or 5%, increase was driven by the increase in cash research and product development operating costs of \$0.5 million as slightly higher cash general and administrative operating costs were more than offset by lower cash sales and marketing operating costs.

The overall increase in cash operating costs in the fourth quarter of 2016 was driven by higher engineering and prototyping expenses related to product development and the ongoing improvement of all of our fuel cell products, an increase in Protonex' research and product development efforts, and by higher labour costs as a result of increased bonus

accrual expenses in 2016 as compared to 2015. These cost increases were partially offset by the benefit of cost reductions as a result of the Company's rationalization initiatives undertaken in the first quarter of 2016 which were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities including significant reductions in engineering, sales and marketing efforts associated with this market.

Adjusted EBITDA

(Expressed in thousands of U.S. dollars)

	Three months ended December 31,			
	2016	2015	\$ Change	% Change
Adjusted EBITDA	\$ 1,763	\$ (2,936)	\$ 4,699	160%

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 to GAAP in the Supplemental Non-GAAP Measures section. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, finance and other income, and acquisition costs.

Adjusted EBITDA (see Supplemental Non-GAAP Measures) for the fourth quarter of 2016 was \$1.8 million, compared to (\$2.9) million for the fourth quarter of 2015. The \$4.7 million increase in Adjusted EBITDA in the fourth quarter of 2016 was driven by the \$5.5 million increase in gross margin as a result of the 54% increase in overall revenues combined with the 11 point improvement in gross margin as a percent of revenues. This improvement was partially offset by the increase in Cash Operating Costs of (\$0.4) million primarily as a result of higher research and product development expense and by lower restructuring expenses of (\$0.2) million.

Net income (loss) attributable to Ballard

(Expressed in thousands of U.S. dollars)

	Three months ended December 31,			
	2016	2015	\$ Change	% Change
Net income (loss) attributable to Ballard from continuing operations	\$ (1,121)	\$ (1,355)	\$ 234	17%

Net loss attributable to Ballard from continuing operations for the fourth quarter of 2016 was (\$1.1) million, or (\$0.01) per share, compared to a net loss of (\$1.4) million, or (\$0.01) per share, in the fourth quarter of 2015. The \$0.2 million decrease in net loss in the fourth quarter of 2016 was driven by the improvement in Adjusted EBITDA loss of \$4.7 million, and by lower acquisition costs of \$0.9 million which were incurred for the Protonex acquisition in the fourth quarter of 2015. These fourth quarter of 2016 positive impacts were partially offset by a reduction in gain on sale of intellectual property of (\$5.4) million as we recognized a significant gain of \$5.4 million in the fourth quarter of 2015 on the closing of the second and final tranche of the Volkswagen IP Agreement.

As noted above, net loss attributable to Ballard in the fourth quarter of 2015 was positively impacted by the gain on sale of intellectual property of \$5.4 million, and negatively impacted by acquisition costs of (\$0.9) million. Excluding the impact of the gain on sale of intellectual property and the impact from acquisition costs, Adjusted Net Loss (see Supplemental Non-GAAP Measures) in the fourth quarter of 2015 was (\$5.9) million, or (\$0.04) per share.

Net loss attributable to Ballard from continuing operations excludes the net loss attributed to the interests of the non-controlling shareholder in the losses of Ballard Power Systems

Europe A/S (formerly named Dantherm Power A/S) related to its 43% equity interest in Ballard Power Systems Europe A/S. Net income attributed to non-controlling interests for the fourth quarter of 2016 was \$0.2 million, compared to \$0.1 million for the fourth quarter of 2015.

Cash provided by (used in) operating activities

(Expressed in thousands of U.S. dollars)		Three months ended December 31,		
	2016	2015	\$ Change	% Change
Cash provided by (used in) operating activities	\$ 7,983	\$ (10,566)	\$ 18,549	176%

Cash provided by (used in) operating activities in the fourth quarter of 2016 was \$8.0 million, consisting of cash operating income of \$1.1 million, combined with net working capital inflows of \$6.9 million. Cash used by operating activities in the fourth quarter of 2015 was (\$10.6) million, consisting of cash operating losses of (\$4.7) million and net working capital outflows of (\$5.9) million. The \$18.5 million reduction in cash used by operating activities in the fourth quarter of 2016, as compared to the fourth quarter of 2015, was driven by the relative improvement in cash operating losses of \$5.8 million, combined with the relative reduction in working capital requirements of \$12.8 million. The \$5.8 million decline in cash operating losses in the fourth quarter of 2016 was due primarily to the \$4.7 million reduction in Adjusted EBITDA loss, combined with lower acquisition costs of \$0.9 million which were incurred for the Protonex acquisition in the fourth quarter of 2015.

The total change in working capital of \$6.9 million in the fourth quarter of 2016 was driven by lower inventory of \$6.5 million as we delivered expected Heavy-Duty Motive shipments to customers in the last quarter of 2016, and by higher deferred revenue of \$3.9 million as we collected pre-payments on certain Heavy-Duty Motive and Technology Solutions contracts in advance of work performed. These fourth quarter of 2016 working capital inflows were partially offset by lower accounts payable and accrued liabilities of (\$1.7) million due primarily to the timing of purchases and supplier payments, and by lower accrued warranty obligations of (\$1.5) million due primarily to customer service related expenses incurred in our Material Handling market and by Backup Power warranty contract expirations.

This compares to a total change in working capital of (\$5.9) million in the fourth quarter of 2015 which was driven by higher accounts receivable of (\$2.2) million primarily as a result of the timing of Portable Power and Heavy-Duty Motive revenues and the related customer collections, by lower accounts payable and accrued liabilities of (\$1.8) million due primarily to the timing of purchases and supplier payments including the payment of acquisition and transaction related costs incurred on the Protonex acquisition, and by lower deferred revenue of (\$1.5) million as we completed the contract work on certain Technology Solutions, Heavy-Duty Motive and government grant contracts for which we received pre-payments in an earlier period.

RESULTS OF OPERATIONS – Year ended December 31, 2016

Revenue and gross margin

(Expressed in thousands of U.S. dollars)

Year ended December 31,

Fuel Cell Products and Services	2016	2015	\$ Change	% Change
Heavy-Duty Motive	\$ 26,480	\$ 11,953	\$ 14,527	122%
Portable Power	11,420	3,398	8,022	236%
Material Handling	12,911	12,710	201	2%
Backup Power	4,821	5,737	(916)	(16%)
Technology Solutions	29,638	22,665	6,973	31%
Revenues	85,270	56,463	28,807	51%
Cost of goods sold	61,086	46,489	14,597	31%
Gross Margin	\$ 24,184	\$ 9,974	\$ 14,210	142%
Gross Margin %	28%	18%	n/a	10 pts

Fuel Cell Products and Services Revenues of \$85.3 million in 2016 increased 51%, or \$28.8 million, compared to 2015. The 51% increase was driven by higher Heavy-Duty Motive, Technology Solutions and Material Handling revenues combined with the addition of Portable Power revenues, which more than offset a decline in Backup Power revenues.

Technology Solutions revenues of \$29.6 million increased \$7.0 million, or 31%, due primarily to initial amounts earned starting in the fourth quarter of 2016 related to the establishment by Synergy JVCo of a production line in Yunfu, China for the manufacture and assembly of FCvelocity®-9SSL fuel cell stacks, by amounts earned in 2016 to enable Synergy Group to exclusively manufacture and sell Ballard's direct hydrogen FCgen®-H2PM fuel cell backup power systems in China, and by amounts earned on the TRC and CRRC Sifang tram projects and the HDF distributed generation project, which exceeded amounts earned in 2015 on the Nantong Zehe and other programs. These increases more than offset a minor decline in Volkswagen service revenues which were negatively impacted by approximately (\$0.5) million in 2016, as compared to 2015, as a result of an approximate (4%) lower Canadian dollar, relative to the U.S. dollar, as the Volkswagen Agreement is priced in Canadian dollars. The underlying costs to satisfy the Volkswagen Agreement are primarily denominated in Canadian dollars.

Heavy-Duty Motive revenues of \$26.5 million increased \$14.5 million, or 122%, due primarily to significantly higher shipments in 2016 of FCvelocity™-9SSL fuel cell stacks, FCveloCity®-MD 30-kilowatt fuel cell modules and FCveloCity®-HD7 85-kilowatt fuel cell modules and ready-to-assemble module kits primarily to the Synergy Group in China, combined with an increase in shipments of FCvelocity®-HD6 bus power modules to customers primarily in North America.

Material Handling revenues of \$12.9 million increased \$0.2 million, or 2%, primarily as a result of higher stack shipments to Plug Power, partially offset by a lower average selling price due to product mix.

Portable Power revenues of \$11.4 million increased \$8.0 million, or 236%, due to a full year of revenues generated by Protonex, a company we acquired on October 1, 2015. Revenues

from Protonex were primarily driven by product shipments of Squad Power Manager (SPM-622) Special Operations Kits for end customer U.S. Special Operations Command under the Nett Warrior program, and by service revenues earned on a variety of contracts.

Backup Power revenues of \$4.8 million decreased (\$0.9) million, or (16%), due primarily to a decline in shipments of methanol-based backup power systems as we continued to review strategic alternatives for our methanol Telecom Backup Power business during 2016, ultimately resulting in the CHEM Transaction which closed in the second quarter of 2016. This decrease more than offset revenue increases as a result of slightly higher shipments of hydrogen-based backup power systems and stacks for backup power applications.

Fuel Cell Products and Services gross margins improved to \$24.2 million, or 28% of revenues, for 2016, compared to \$10.0 million, or 18% of revenues, for 2015. The improvement in gross margin of \$14.2 million, or 142%, was driven by the 51% increase in overall revenues combined with a shift to higher margin product and services revenue resulting in a 10 point improvement in gross margin as a percent of revenues. Gross margin in 2016 benefited from the addition of higher margin Portable Power shipments and services as a result of the acquisition of Protonex on October 1, 2015, by the increase in higher margin Heavy-Duty Motive and Technology Solutions revenues, and by improved manufacturing overhead and related cost absorption as a result of improved scale and efficiency driven by the 51% increase in total revenues.

Gross margin in 2016 was also negatively impacted by inventory impairments of (\$0.9) million related primarily to excess and obsolete inventory, and benefited from positive net warranty adjustments of \$0.5 million related primarily to backup power and fuel cell bus contractual warranty expirations. Gross margin in 2015 was negatively impacted by inventory impairments of (\$1.1) million related primarily to excess bus inventory as we transitioned from FCvelocity®-HD6 bus products to FCvelocity®-HD7 bus products, and benefited from positive net warranty adjustments of \$1.3 million related primarily to fuel cell bus contractual warranty expirations and reduced product costs.

Cash Operating Costs

(Expressed in thousands of U.S. dollars)		Year ended December 31,			
		2016	2015	\$ Change	% Change
Research and Product Development (cash operating cost)	\$	16,546	\$ 13,301	\$ 3,245	24%
General and Administrative (cash operating cost)		10,897	9,022	1,875	21%
Sales and Marketing (cash operating cost)		6,895	6,727	168	2%
Cash Operating Costs	\$	34,338	\$ 29,050	\$ 5,286	18%

Cash Operating Costs and its components of Research and Product Development (operating cost), General and Administrative (operating cost), and Sales and Marketing (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 section and the reconciliation of Research and Product Development (operating cost), General and Administrative (operating cost), and Sales and Marketing (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, acquisition costs and financing charges.

Cash Operating Costs (see Supplemental Non-GAAP Measures) in 2016 were \$34.3 million, an increase of \$5.3 million, or 18%, compared to 2015. The \$5.3 million, or 18%, increase was driven by higher cash research and product development operating costs of \$3.2

million, higher cash general and administrative operating costs of \$1.9 million, and higher cash sales and marketing operating costs of \$0.2 million.

The overall increase in cash operating costs in 2016 was driven primarily by the acquisition of Protonex on October 1, 2015, which contributed \$7.6 million of Cash Operating Costs in 2016 as compared to \$1.5 in the fourth quarter of 2015. In addition, we incurred higher engineering and prototyping expenses related to product development and the ongoing improvement of all of our fuel cell products, and higher labour costs as a result of increased bonus accrual expenses in 2016 as compared to 2015. These cost increases were offset by the benefit of cost reductions as a result of the Company's rationalization and renewal initiatives undertaken in the first quarter of 2016 which were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities including significant reductions in engineering, sales and marketing efforts associated with this market. In addition, operating expenses benefited from lower labour costs in Canada as a result of an approximate (4%) lower Canadian dollar, relative to the U.S. dollar, and the resulting positive impact on our Canadian operating cost base.

As noted above, operating costs in 2016 benefited from the positive impact of a weaker Canadian dollar, relative to the U.S. dollar. As a significant amount of our net operating costs (primarily labour) are denominated in Canadian dollars, operating expenses and Adjusted EBITDA 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 (5) basis points, lower in 2016 as compared to 2015, positive foreign exchange impacts on our Canadian operating cost base and Adjusted EBITDA were approximately \$1.8 million. A \$0.01 decrease in the Canadian dollar, relative to the U.S. dollar, positively impacts annual Cash Operating Costs and Adjusted EBITDA by approximately \$0.3 million to \$0.4 million.

Adjusted EBITDA

(Expressed in thousands of U.S. dollars)		Year ended December 31,			
	2016	2015	\$ Change	% Change	
Adjusted EBITDA	\$ (9,883)	\$ (15,259)	\$ 5,376	35%	

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 to GAAP in the Supplemental Non-GAAP Measures section. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, finance and other income, and acquisition costs.

Adjusted EBITDA (see Supplemental Non-GAAP Measures) for 2016 was (\$9.9) million, compared to (\$15.3) million for 2015. The \$5.4 million reduction in Adjusted EBITDA loss in 2016 was driven by the \$14.2 million increase in gross margin as a result of the 51% increase in overall revenues combined with the 10 point improvement in gross margin as a percent of revenues. This improvement was partially offset by the increase in Cash Operating Costs of (\$5.3) million primarily as a result of the acquisition of Protonex and the assumption of a full year of operating costs in 2016 as compared to three months in 2015, by higher restructuring expenses of (\$2.3) million incurred as a result of the Company's rationalization and renewal initiatives undertaken in the first quarter of 2016 which were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities, and by lower recoveries on impairment losses on trade receivables of (\$1.0) million.

Net income (loss) attributable to Ballard

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
	2016	2015	\$ Change	% Change
Net income (loss) attributable to Ballard from continuing operations	\$ (21,112)	\$ (5,815)	\$ (15,297)	(263%)

Net loss attributable to Ballard from continuing operations for 2016 was (\$21.1) million, or (\$0.13) per share, compared to a net loss of (\$5.8) million, or (\$0.04) per share, in 2015. The (\$15.3) million increase in net loss in 2016 was driven by the reduction in gain on sale of intellectual property of (\$19.6) million as we recognized a significant gain of \$14.2 million in the first quarter of 2015 on the closing of the initial tranche of the Volkswagen IP Agreement and an additional gain of \$5.4 million in the fourth quarter of 2015 on the closing of the second and final tranche of the Volkswagen IP Agreement. Net loss in 2016 was also negatively impacted by an increase in impairment losses of (\$1.2) million as we wrote-down certain methanol Telecom Backup Power assets in the first quarter of 2016 while we continued to review strategic alternatives for our methanol Telecom Backup Power assets prior to concluding the transaction with CHEM in the second quarter of 2016, and by an additional loss on sale of assets of (\$0.6) million recognized in relation to the CHEM transaction. These 2016 net loss negative impacts were partially offset by the improvement in Adjusted EBITDA loss of \$5.4 million and by lower acquisition costs of \$1.5 million which were incurred for the Protonex acquisition in 2015.

As noted above, net loss attributable to Ballard in 2016 was negatively impacted by the above noted impairment loss of (\$1.2) million related to a write-down of methanol Telecom Backup Power intangible assets and property, plant and equipment, negatively impacted by a loss on sale of assets of (\$0.6) million recognized on the CHEM transaction. Net income attributable to Ballard in 2015 was positively impacted by the above noted gains on sale of intellectual property under the Volkswagen IP Agreement of \$19.6 million, positively impacted by net impairment recoveries on trade receivables of \$0.9 million, and negatively impacted by acquisition costs related to the Protonex acquisition of (\$1.5) million. Excluding the impact of the gain on sale of intellectual property and the impact from acquisition costs, impairment recoveries on trade receivables, asset impairment charges, and transactional gains and losses on intangible assets and property, plant and equipment, Adjusted Net Loss (see Supplemental Non-GAAP Measures) in 2016 was (\$19.3) million, or (\$0.12) per share, compared to (\$24.8) million, or (\$0.18) per share, for 2015.

Net loss attributable to Ballard from continuing operations excludes the net loss attributed to the interests of the non-controlling shareholder in the losses of Ballard Power Systems Europe A/S (formerly named Dantherm Power A/S) related to its 43% equity interest in Ballard Power Systems Europe A/S. Net loss attributed to non-controlling interests for 2016 was (\$0.6) million, compared to (\$0.8) million for 2015.

Cash used in operating activities

(Expressed in thousands of U.S. dollars)		Year ended December 31,		
	2016	2015	\$ Change	% Change
Cash (used in) provided by operating activities	\$ (3,904)	\$ (25,364)	\$ 21,460	85%

Cash used in operating activities in 2016 was (\$3.9) million, consisting of cash operating losses of (\$12.4) million, partially offset by net working capital inflows of \$8.5 million. Cash used in operating activities in 2015 was (\$25.4) million, consisting of cash operating losses of (\$19.3) million and net working capital outflows of (\$6.0) million. The \$21.5 million reduction in cash used by operating activities in 2016, as compared to 2015, was driven by the relative improvement in cash operating losses of \$6.9 million, combined with the relative reduction in working capital changes of \$14.6 million. The \$6.9 million decline in cash operating losses in 2016 was due primarily to the \$5.4 million reduction in Adjusted EBITDA loss, combined with lower acquisition costs of \$1.5 million which were incurred for the Protonex acquisition in 2015.

The total change in working capital of \$8.5 million in 2016 was driven by higher deferred revenue of \$14.5 million as we collected pre-payments on certain Heavy-Duty Motive and Technology Solutions contracts in advance of work performed, and by higher accounts payable and accrued liabilities of \$1.0 million due primarily to restructuring and wage accrual expenses which will be paid into 2017. These 2016 working capital inflows were partially offset by higher inventory of (\$2.3) million primarily to support expected Heavy-Duty Motive shipments to customers in the first quarter of 2017, by lower accrued warranty obligations of (\$2.6) million due primarily to customer service related expenses incurred in our Material Handling market and by Backup Power warranty contract expirations, by higher prepaid expenses of (\$1.3) million primarily related to withholding taxes incurred on certain Chinese transactions, and by higher accounts receivable of (\$0.8) million primarily as a result of the timing of Material Handling, Technology Solutions and Portable Power revenues and the related customer collections.

This compares to a total change in working capital of (\$6.0) million in 2015 which was driven by higher inventory of (\$5.6) million primarily to support expected Heavy-Duty Motive and Portable Power product shipments in the first quarter of 2016, by lower accrued warranty obligations of (\$3.6) million due primarily to customer service related expenses incurred in our Backup Power market in Asia and by Heavy-Duty Motive warranty contract expirations, and by lower accounts payable and accrued liabilities of (\$1.3) million due primarily to the timing of purchases and supplier payments. These 2015 working capital outflows were partially offset by higher deferred revenue of \$4.0 million as we collected pre-payments on certain Heavy-Duty Motive and Technology Solutions contracts in advance of work performed.

OPERATING EXPENSES AND OTHER ITEMS

Research and product development expenses

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,		
Research and product development	2016	2015	\$ Change	% Change
Research and product development expense	\$ 4,316	\$ 3,461	\$ 855	25%
Less: Depreciation and amortization expense	\$ (512)	\$ (321)	\$ (191)	60%
Less: Stock-based compensation expense	\$ (260)	\$ (74)	\$ (186)	251%
Research and Product Development (cash operating cost)	\$ 3,544	\$ 3,066	\$ 478	16%

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
Research and product development	2016	2015	\$ Change	% Change
Research and product development expense	\$ 19,827	\$ 16,206	\$ 3,621	22%
Less: Depreciation and amortization expense	\$ (2,214)	\$ (1,947)	\$ (267)	14%
Less: Stock-based compensation expense	\$ (1,067)	\$ (957)	\$ (110)	11%
Research and Product Development (cash operating cost)	\$ 16,546	\$ 13,302	\$ 3,244	24%

Research and Product Development (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 (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 Non-GAAP Measures section.

Research and product development expenses for the three months ended December 31, 2016 were \$4.3 million, an increase of \$0.9 million, or 25%, compared to the corresponding period of 2015. Excluding depreciation and amortization expense of (\$0.5) million and (\$0.3) million, respectively, and excluding stock-based compensation expense of (\$0.3) million and (\$0.1) million, respectively, in each of the periods, cash research and product development operating costs (see Supplemental Non-GAAP Measures) were \$3.5 million in the fourth quarter of 2016, an increase of \$0.5 million, or 16%, compared to the fourth quarter of 2015.

The \$0.5 million, or 16%, increase in cash research and development operating costs (see Supplemental Non-GAAP Measures) in the fourth quarter of 2016 was driven primarily by higher engineering and prototyping expenses related to product development and the ongoing improvement of all of our fuel cell products, an increase in Protonex' research and product development efforts, and by higher labour costs as a result of increased bonus accrual expenses in 2016 as compared to 2015. These cost increases were partially offset by lower methanol Telecom Backup Power engineering expenses due to cost reduction initiatives undertaken in the first quarter of 2016 and culminating with the CHEM Transaction.

Research and product development expenses for the year ended December 31, 2016 were \$19.8 million, an increase of \$3.6 million, or 22%, compared to the corresponding period of 2015. Excluding depreciation and amortization expense of (\$2.2) million and (\$1.9) million, respectively, in each of the periods, and excluding stock-based compensation expense of (\$1.1) million in each of the periods, cash research and product development operating costs (see Supplemental Non-GAAP Measures) were \$16.5 million in 2016, an increase of \$3.2 million, or 24%, compared to 2015.

The \$3.2 million, or 24%, increase in cash research and development operating costs (see Supplemental Non-GAAP Measures) in 2016 was driven primarily by the acquisition of Protonex on October 1, 2015, which contributed \$4.7 million of research and product development operating expense in 2016 as compared to \$0.7 million in 2015. In addition, we incurred higher engineering and prototyping expenses in 2016 related to product development and the ongoing improvement of all of our fuel cell products, and higher labour costs as a result of increased bonus accrual expenses in 2016 as compared to 2015. These cost pressures in 2016 were offset by lower methanol Telecom Backup Power engineering expenses due to cost reduction initiatives undertaken in the first quarter of 2016 culminating with the CHEM Transaction, and by lower labour costs in Canada as a result of an approximate (4%) lower Canadian dollar, relative to the U.S. dollar, and the resulting positive impact on our Canadian operating cost base. In addition, FCvelocity®-HD7 development costs of \$1.1 million and \$1.4 million, respectively, were capitalized during 2016 and 2015 as fuel cell technology intangible assets for the now completed FCvelocity®-HD7 development program.

Government funding recoveries were relatively consistent in 2016 as compared to 2015 as slightly lower government funding recoveries in Denmark by Ballard Power Systems Europe A/S (formerly Dantherm Power A/S), were offset by slightly higher government funding recoveries in Canada. During 2016, we successfully completed the 5-year, \$7.2 million Canadian, award agreement from Sustainable Development Technology Canada ("SDTC") to assist us with extending the operating life and lowering the product cost of FCgen™-1300 fuel cell stack and demonstrating the technology in the Ballard's CLEARgen™ distributed generation system at the Toyota Motor Sales U.S.A., Inc. sales and marketing headquarters campus in Torrance, California.

Government research funding and development costs capitalized as fuel cell technology intangible assets are reflected as cost offsets to research and product development expenses, whereas labour and material costs incurred on revenue producing engineering services projects are reallocated from research and product development expenses to cost of goods sold.

Depreciation and amortization expense included in research and product development expense for the three months and year ended December 31, 2016 was \$0.5 million and \$2.2 million, as compared to \$0.3 million and \$1.9 million, respectively, for the corresponding periods of 2015. Depreciation and amortization expense relates primarily to amortization expense on our intangible assets and depreciation expense on our research and product development equipment. Increases in depreciation and amortization expense in 2016 primarily as a result of the acquisition of Protonex on October 1, 2015 and the resulting amortization of acquired intangible assets over their estimated useful lives of 15 to 20 years, were partially offset by declines in amortization expense in 2016 as a result of the write-down of our remaining methanol Telecom Backup Power intangible assets and property, plant and equipment in the first quarter of 2016.

Stock-based compensation expense included in research and product development expense for the three months and year ended December 31, 2016 was \$0.3 million and \$1.1 million, respectively, compared to \$0.1 million and \$1.0 million the corresponding periods of 2015.

General and administrative expenses

(Expressed in thousands of U.S. dollars)		Three months ended December 31,		
General and administrative	2016	2015	\$ Change	% Change
General and administrative expense	\$ 3,514	\$ 3,028	\$ 486	16%
Less: Depreciation and amortization expense	\$ (92)	\$ (140)	\$ 48	(34%)
Less: Stock-based compensation expense	\$ (493)	\$ (82)	\$ (411)	501%
General and Administrative (cash operating cost)	\$ 2,929	\$ 2,806	\$ 123	4%

(Expressed in thousands of U.S. dollars)		Year ended December 31,		
General and administrative	2016	2015	\$ Change	% Change
General and administrative expense	\$ 12,938	\$ 10,594	\$ 2,344	22%
Less: Depreciation and amortization expense	\$ (375)	\$ (280)	\$ (95)	34%
Less: Stock-based compensation expense	\$ (1,666)	\$ (1,292)	\$ (374)	29%
General and Administrative (cash operating cost)	\$ 10,897	\$ 9,022	\$ 1,875	21%

General and Administrative (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 (operating cost) adjusts General and administrative expense for depreciation and amortization expense and stock-based compensation expense. See the reconciliation of the adjustments to General and administrative expense in the Non-GAAP Measures section.

General and administrative expenses for the three months ended December 31, 2016 were \$3.5 million, an increase of \$0.5 million, or 16%, compared to the corresponding period of 2015. Excluding depreciation and amortization expense of (\$0.1) million in each of the periods, and excluding stock-based compensation expense of (\$0.5) million and (\$0.1) million, respectively, in each of the periods, cash general and administrative operating costs (see Supplemental Non-GAAP Measures) were \$2.9 million in the fourth quarter of 2016, an increase of \$0.1 million, or 4%, compared to the fourth quarter of 2015.

The \$0.1 million, or 4%, increase in cash general and administrative operating costs (see Supplemental Non-GAAP Measures) in the fourth quarter of 2016 was driven primarily by higher labour costs as a result of increased bonus accrual expenses in 2016 as compared to 2015, partially offset by lower legal and advisory costs due to the timing of transactional contracting.

General and administrative expenses for the year ended December 31, 2016 were \$12.9 million, an increase of \$2.3 million, or 22%, compared to the corresponding period of 2015. Excluding depreciation and amortization expense of (\$0.4) million and (\$0.3) million, respectively, and excluding stock-based compensation expense of (\$1.7) million and (\$1.3) million, respectively, in each of the periods, cash general and administrative operating costs (see Supplemental Non-GAAP Measures) were \$10.9 million in 2016, an increase of \$1.9 million, or 21%, compared to 2015.

The \$1.9 million, or 21%, increase in cash general and administrative operating costs (see Supplemental Non-GAAP Measures) in 2016 was driven primarily by the acquisition of Protonex on October 1, 2015, which contributed \$1.6 million of general and administrative operating expense in 2016 as compared to \$0.6 million in 2015, combined with higher labour costs as a result of increased bonus accrual expenses in 2016 as compared to 2015. These cost increases in 2016 were partially offset by lower labour costs in Canada as a

result of an approximate (4%) lower Canadian dollar, relative to the U.S. dollar, and the resulting positive impact on our Canadian operating cost base.

Depreciation and amortization expense included in general and administrative expense for the three months and year ended December 31, 2016 was \$0.1 million and \$0.4 million, respectively, compared to \$0.1 million and \$0.3 million, respectively, for the corresponding periods of 2015, and relates primarily to depreciation expense on our office and information technology equipment.

Stock-based compensation expense included in general and administrative expense for the three months and year ended December 31, 2016 was \$0.5 million and \$1.7 million, respectively, compared to \$0.1 million and \$1.3 million, respectively, for the corresponding periods of 2015. The increase in 2016 is primarily as a result of a downward adjustment to accrued stock-based compensation expense made in the fourth quarter of 2015 as certain outstanding restricted share units failed to meet the vesting criteria.

Sales and marketing expenses

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,		
Sales and marketing	2016	2015	\$ Change	% Change
Sales and marketing expense	\$ 1,495	\$ 1,951	\$ (456)	(23%)
Less: Depreciation and amortization expense	\$ -	\$ (2)	\$ 2	(100%)
Less: Stock-based compensation (expense) recovery	\$ 172	\$ (91)	\$ 263	(289%)
Sales and Marketing (cash operating cost)	\$ 1,667	\$ 1,858	\$ (191)	(10%)

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
Sales and marketing	2016	2015	\$ Change	% Change
Sales and marketing expense	\$ 7,190	\$ 7,428	\$ (238)	(3%)
Less: Depreciation and amortization expense	\$ (4)	\$ (2)	\$ (2)	(100%)
Less: Stock-based compensation expense	\$ (291)	\$ (699)	\$ 408	58%
Sales and Marketing (cash operating cost)	\$ 6,895	\$ 6,727	\$ 168	2%

Sales and Marketing (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 (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 Non-GAAP Measures section.

Sales and marketing expenses for the three months ended December 31, 2016 were \$1.5 million, a decrease of (\$0.5) million, or (23%), compared to the corresponding period of 2015. Excluding stock-based compensation (expense) recovery of \$0.2 million and (\$0.1) million, respectively, in each of the periods, cash sales and marketing operating costs (see Supplemental Non-GAAP Measures) were \$1.7 million in the fourth quarter of 2016, a decrease of (\$0.2) million, or (10%) compared to the third fourth of 2015.

The (\$0.2) million, or (10%), decrease in cash sales and marketing operating costs (see Supplemental Non-GAAP Measures) in the fourth quarter of 2016 was driven primarily by cost reductions as a result of the Company's rationalization and renewal initiatives undertaken in the first quarter of 2016 which were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities including significant reductions in our sales and marketing efforts associated with this market. These cost savings were partially offset by higher labour costs as a result of increased bonus accrual expenses in 2016 as compared to 2015.

Sales and marketing expenses for the year ended December 31, 2016 were \$7.2 million, a decrease of (\$0.2) million, or (3%), compared to the corresponding period of 2015. Excluding stock-based compensation expense of (\$0.3) million and (\$0.7) million, respectively, in each of the periods, cash sales and marketing operating costs (see Supplemental Non-GAAP Measures) were \$6.9 million in 2016, an increase of \$0.2 million, or 2% compared to 2015.

The \$0.2 million, or 2% increase in cash sales and marketing operating costs (see Supplemental Non-GAAP Measures) in 2016 was driven primarily by the acquisition of Protonex on October 1, 2015, which contributed \$1.6 million of sales and marketing operating expense in 2016 as compared to \$0.3 million in 2015, combined with higher labour costs as a result of increased bonus accrual expenses in 2016 as compared to 2015. These cost pressures in 2016 was partially offset by cost reductions as a result of the Company's rationalization and renewal initiatives undertaken in the first quarter of 2016 which were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities including significant reductions in our sales and marketing efforts associated with this market. In addition, sales and marketing expense in 2016 were positively impacted by lower labour costs in Canada as a result of an approximate (4%) lower Canadian dollar, relative to the U.S. dollar, and the resulting positive impact on our Canadian operating cost base.

Stock-based compensation expense included in sales and marketing expense (recovery) for the three months and year ended December 31, 2016 was (\$0.2) million and \$0.3 million, respectively, compared to \$0.1 million and \$0.7 million, respectively, for the corresponding periods of 2015. The overall reduction in 2016 was due primarily to the Company's rationalization and renewal initiatives undertaken in the first quarter of 2016, partially offset by a downward adjustment to accrued stock-based compensation expense made in the fourth quarter of 2015 as certain outstanding restricted share units failed to meet the vesting criteria.

Other expense (recovery) for the three months and year ended December 31, 2016 was (\$0.2) million and \$2.5 million, respectively, compared to \$0.9 million and \$0.6 million, respectively for the corresponding periods of 2015. The following tables provide a breakdown of other expense (recovery) for the reported periods:

		Three months ended December 31,			
		2016	2015	\$ Change	% Change
Impairment loss (recovery) on trade receivables	\$	(132)	\$ (39)	\$ 93	238%
Restructuring expense (recovery)		(217)	-	217	100%
Acquisition charges		-	902	902	100%
Other expenses (recovery)	\$	(349)	\$ 863	\$ 1,212	140%

(Expressed in thousands of U.S. dollars)		Year ended December 31,		
	2016	2015	\$ Change	% Change
Impairment loss (recovery) on trade receivables	\$ (63)	\$ (899)	\$ (836)	(93%)
Restructuring expense	2,318	(13)	(2,331)	(17,931%)
Acquisition charges	43	1,542	1,499	97%
Other expenses (recovery)	\$ 2,298	\$ 630	\$ (1,668)	(265%)

Net impairment loss (recovery) on trade receivables of for the three months and year ended December 31, 2016 was (\$0.1) million in each of the periods, compared to (\$0.9) million for the year ended December 31, 2015. Net Impairment (loss) recovery on trade receivables of (\$0.9) million for 2015 consist of a (\$1.5) million impairment recovery as we collected on certain accounts in 2015 principally in Asia that were considered impaired and written down in 2014, less impairment charges in 2015 of (\$0.6) million related to non-collection of certain other accounts primarily in Asia. In the event that we are able to 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 expenses of \$2.3 million for the year ended December 31, 2016 relate primarily to cost reduction initiatives that included the elimination of approximately 50 positions including the elimination of three executive level positions. These cost reduction initiatives were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities as we reviewed strategic alternatives for these assets prior to the CHEM Transaction.

Acquisition charges for the three months and year ended December 31, 2015 of \$0.9 million and \$1.5 million, respectively, consist of brokerage, legal and other costs incurred related to the acquisition of Protonex which closed on October 1, 2015. Acquisition costs are expensed as incurred.

Finance income (loss) and other for the three months and year ended December 31, 2016 was (\$0.7) million and (\$0.8) million, respectively, compared to (\$1.0) million and (\$0.3) million, respectively, for the corresponding periods of 2015. The following tables provide a breakdown of finance and other income (loss) for the reported periods:

(Expressed in thousands of U.S. dollars)		Three months ended December 31,		
	2016	2015	\$ Change	% Change
Employee future benefit plan expense	\$ (48)	\$ (77)	\$ 29	38%
Pension administration expense	(1)	(27)	26	96%
Investment and other income (loss)	60	44	16	36%
Foreign exchange gain (loss)	(703)	(890)	187	21%
Finance income (loss) and other	\$ (692)	\$ (950)	\$ 258	27%

(Expressed in thousands of U.S. dollars)		Year ended December 31,		
	2016	2015	\$ Change	% Change
Employee future benefit plan expense	\$ (263)	\$ (292)	\$ 29	10%
Pension administration expense	(103)	(103)	-	-%
Investment and other income	164	143	21	15%
Foreign exchange gain (loss)	(567)	(53)	(514)	(970%)
Finance income (loss) and other	\$ (769)	\$ (305)	\$ (464)	(152%)

Employee future benefit plan expense for the three months and year ended December 31, 2016 were (\$0.1) million and (\$0.3) million, respectively, consistent with the corresponding periods of 2015. Employee future benefit plan expense primarily represents the excess of expected interest cost on plan obligations in excess of the expected return on plan assets related to a curtailed defined benefit pension plan for certain former United States employees. Pension administration expense of (\$0.1) million for the years ended December 31, 2016 and 2015 represent administrative costs incurred in managing the plan.

Foreign exchange gains (losses) for the three months and year ended December 31, 2016 were (\$0.7) million and (\$0.6) million, respectively, compared to (\$0.9) million and (\$0.1) million, respectively, for the corresponding periods of 2015. Foreign exchange gains and losses are attributable primarily to the effect of the changes in the value of the Canadian dollar, relative to the U.S. dollar, on our Canadian dollar-denominated net monetary position and on any outstanding foreign exchange currency contracts that are marked to market each reporting period if not qualified for hedge accounting treatment. 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.

Investment and other income for the three months and years ended December 31, 2016 and 2015 were nominal and were earned primarily on our cash and cash equivalents.

Finance expense for the three months and year ended December 31, 2016 was (\$0.2) million and (\$0.7) million, respectively, compared to (\$0.2) million and (\$0.8) million, respectively, for the corresponding periods of 2015. Finance expense relates primarily to the sale and leaseback of our head office building in Burnaby, British Columbia which was completed on March 9, 2010. Due to the long term nature of the lease, the leaseback of the building qualifies as a finance (or capital) lease.

Gain on sale of Intellectual Property for the three months and year ended December 31, 2015 was \$5.4 million and \$19.6 million, respectively, and resulted from the transfer of ownership of the UTC Portfolio previously acquired by us from UTC in 2014 to Volkswagen in 2015 through two separate transactions under the Volkswagen IP Agreement for total gross proceeds of \$50 million.

On the closing of the sale of the automotive-related patents and patent applications of the UTC Portfolio in the first quarter of 2015, we recognized a gain on sale of intellectual property of \$14.2 million on net proceeds received of \$29.5 million. On the closing of the initial transaction on February 23, 2015, Ballard transferred ownership of the automotive-related patents and patent applications of the UTC Portfolio in exchange for gross proceeds

of \$40 million. This receipt triggered a 25%, or \$10.0 million, license fee payment to UTC. Although ownership of the patents and patent applications was transferred to Volkswagen, Ballard received a royalty-free back-license to all the transferred patents and patent applications for use in all non-automotive applications, in bus applications and in certain limited pre-commercial automotive applications. The gain on sale of intellectual property of \$14.2 million represents gross proceeds received on the sale of the automotive-related patents and patent applications from Volkswagen of \$40.0 million, net of the license fee paid to UTC of (\$10.0) million, transaction costs of approximately (\$0.5) million, and the ascribed cost of the patents and patent applications in the UTC Portfolio of approximately (\$15.3) million.

On the closing of the sale of a copy of the automotive-related know-how of the UTC Portfolio in the fourth quarter of 2015, we recognized an additional gain on sale of intellectual property of \$5.4 million. On the closing of the second tranche on December 2, 2015, Ballard transferred a copy of the automotive-related know-how of the UTC Portfolio in exchange for gross proceeds receivable of \$10 million. This receivable was recorded in trade and other receivables at December 31, 2015 and was subsequently collected in the first quarter of 2016. This receipt triggered a 9%, or \$0.9 million, payment to UTC in the first quarter of 2016 which was recorded in accounts payable and accrued liabilities as of December 31, 2015. On the closing of the sale of a copy of the automotive-related know-how of the UTC Portfolio, Ballard retained full ownership of the know-how including the right to sell additional copies of the know-how to third parties as well as retaining the right to use the know-how in all our applications. The gain on sale of intellectual property of \$5.4 million represents gross proceeds from Volkswagen of \$10.0 million, net of a fee payable to UTC of (\$0.9) million, and the ascribed cost of the automotive-related know-how of the UTC Portfolio previously classified as assets held for sale of approximately (\$3.8) million.

Impairment (Loss) on Intangible Assets and Property, Plant and Equipment for the year ended December, 2016 of (\$1.2) million consists of a (\$0.8) million impairment charge on intangible assets and a (\$0.4) million impairment charge on property, plant and equipment as we wrote-down certain methanol Telecom Backup Power assets to their estimated net realizable value of \$nil. The impairment charges were incurred during the first quarter of 2016 while we continued to review strategic alternatives for our methanol Telecom Backup Power assets prior to concluding the transaction with CHEM in the second quarter of 2016.

Gain (Loss) on sale of assets for the year ended December 31, 2016 of (\$0.6) million and was recognized as a result of the closing of the transaction with CHEM. During the second quarter of 2016, we completed the sale of certain of our methanol Telecom Backup Power business assets to CHEM for a purchase price of up to \$6.1 million, of which \$3 million was paid on closing. The remaining potential purchase price of up to \$3.1 million consists of an earn-out arising from sales of methanol Telecom Backup Power systems by CHEM during the 18-month period to November 2017 derived from the sales pipeline transferred to CHEM on closing. The remaining potential purchase price of up to \$3.1 million has been recorded as proceeds receivable at its estimated fair value of \$1.8 million. The final gain (loss) on sale arising from the CHEM transaction is subject to change depending upon the final earn-out amount actually received by Ballard through November 2017. No

developments have occurred to date to cause us to reassess the fair value of the remaining potential proceeds at \$1.8 million. On the closing of this transaction, CHEM received certain assets related to the methanol Telecom Backup Power line of our business, including intellectual property rights and physical assets such as inventory and related product brands.

Net income (loss) attributed to non-controlling interests for the three months and year ended December 31, 2016 was \$0.2 million and (\$0.6) million, respectively, compared to \$0.1 million and (\$0.8) million, respectively, for the corresponding periods of 2015. Amounts primarily represent the non-controlling interest of Dansk Industri Invest A/S in the losses of Ballard Power Systems Europe A/S (formerly named Dantherm Power A/S) as a result of their 43% total equity interest in Ballard Power Systems Europe A/S and were relatively consistent period over period.

SUMMARY OF QUARTERLY RESULTS FROM CONTINUING OPERATIONS

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

		Quarter ended,			
		Dec 31, 2016	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016
<i>(Expressed in thousands of U.S. dollars, except per share amounts and weighted average shares outstanding which are expressed in thousands)</i>					
Revenues from continuing operations	\$	30,684	\$ 20,635	\$ 17,647	\$ 16,304
Net income (loss) attributable to Ballard from continuing operations	\$	(1,121)	\$ (4,187)	\$ (5,810)	\$ (9,994)
Net income (loss) per share attributable to Ballard from continuing operations, basic and diluted	\$	(0.01)	\$ (0.03)	\$ (0.04)	\$ (0.06)
Weighted average common shares outstanding		174,722	165,193	156,889	156,851
		Dec 31, 2015	Sep 30, 2015	Jun 30, 2015	Mar 31, 2015
Revenues	\$	19,986	\$ 16,037	\$ 11,177	\$ 9,263
Net income (loss) attributable to Ballard	\$	(1,355)	\$ (4,135)	\$ (7,342)	\$ 7,017
Net income (loss) per share attributable to Ballard from continuing operations, basic and diluted	\$	(0.01)	\$ (0.03)	\$ (0.06)	\$ 0.05
Weighted average common shares outstanding		155,188	141,253	132,595	132,276

Summary of Quarterly Results: There were no significant seasonal variations in our quarterly results from continuing operations. 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. Revenues were positively impacted as of the fourth quarter of 2015 by the acquisition of Protonex on October 1, 2015. Revenues were negatively impacted as of the second quarter of 2016 by the CHEM transaction whereby we disposed certain assets related to our methanol

Telecom Backup Power line of our business including intellectual property rights and physical assets such as inventory and related product brands.

- **Operating expenditures:** Operating expenses were negatively impacted in the first quarter of 2016 by restructuring expenses of (\$2.3) million related to cost reduction initiatives that included the elimination of approximately 50 positions including the elimination of three executive level positions. Operating expenses were negatively impacted as of the fourth quarter of 2015 by the acquisition of Protonex and the assumption of its cost base on October 1, 2015, including the incurrence of acquisition related expenses totaling \$1.5 million incurred in the second and third quarters of 2015. Operating expenses were positively impacted in the first quarter of 2015 by net recoveries of previously impaired trade receivables of \$1.0 million. Impairment losses on trade receivables are recognized in other income (expense). Operating expenses also include the impact of changes in the value of the Canadian dollar, versus the U.S. dollar, on our Canadian dollar denominated expenditures.
- **Net income (loss):** Net income for the first quarter of 2016 was negatively impacted by impairment losses on intangible assets and property, plant and equipment totaling (\$1.2) million as a result of the write-down of certain Telecom Backup Power assets to their estimated net realizable value of \$nil. Net income for the first quarter of 2015 was positively impacted by a gain on sale of intellectual property of \$14.2 million resulting from the sale of the automotive-related patents and patent applications of the UTC Portfolio transferred to Volkswagen on the closing of the initial tranche of the Volkswagen IP Agreement. Net income for the fourth quarter of 2015 was positively impacted by a gain on sale of intellectual property of \$5.4 million resulting from the sale of a copy of the automotive-related know-how of the UTC Portfolio to Volkswagen on the closing of the second and final tranche of the Volkswagen IP Agreement.

CASH FLOWS

Cash and cash equivalents were \$72.6 million at December 31, 2016, compared to \$40.0 million at December 31, 2015. The \$32.6 million increase in cash and cash equivalents in 2016 was driven by net proceeds received in the third quarter of 2016 from the Broad-Ocean strategic equity investment of \$28.2 million, net proceeds of \$9.2 million received in the first quarter of 2016 as a result of the fourth quarter of 2015 sale of the automotive-related know-how of the UTC Portfolio to Volkswagen pursuant to the second and final tranche of the Volkswagen IP Agreement, by net proceeds of \$3.3 million (Canadian \$4.6 million) as we agreed to a settlement agreement with Superior Plus as to the full and final amount payable to us under the Indemnity Agreement, by the initial net proceeds received of \$3.0 million related to the CHEM transaction, and by net working capital inflows of \$8.5 million. These 2016 inflows were partially offset by a net loss (excluding non-cash items) of (\$12.4) million, purchases of property, plant and equipment of (\$2.8) million, investments in fuel cell technology intangible assets of (\$1.1) million, investments in other intangible assets of (\$3.0) million, and by finance lease repayments of (\$1.0) million.

For the three months ended December 31, 2016, cash provided by (used in) operating activities was \$8.0 million, consisting of cash operating income of \$1.1 million, combined with net working capital inflows of \$6.9 million. For the three months ended December 31, 2015, cash used by operating activities was (\$10.6) million, consisting of cash operating

losses of (\$4.7) million and net working capital outflows of (\$5.9) million. The \$18.6 million reduction in cash used by operating activities in the fourth quarter of 2016, as compared to the fourth quarter of 2015, was driven by the relative improvement in cash operating losses of \$5.8 million, combined with the relative reduction in working capital requirements of \$12.8 million. The \$5.8 million decline in cash operating losses in the fourth quarter of 2016 was due primarily to the \$4.7 million reduction in Adjusted EBITDA loss, combined with lower acquisition costs of \$0.9 million which were incurred for the Protonex acquisition in the fourth quarter of 2015.

In the fourth quarter of 2016, net working capital inflows of \$6.9 million was driven by lower inventory of \$6.5 million as we delivered the expected Heavy-Duty Motive shipments to customers in the last quarter of 2016, and by higher deferred revenue of \$3.9 million as we collected pre-payments on certain Heavy-Duty Motive and Technology Solutions contracts in advance of work performed. These fourth quarter of 2016 working capital inflows were partially offset by lower accounts payable and accrued liabilities of (\$1.7) million due primarily to the timing of purchases and supplier payments, and by lower accrued warranty obligations of (\$1.5) million due primarily to customer service related expenses incurred in our Material Handling market and by Backup Power warranty contract expirations.

In the fourth quarter of 2015, net working capital cash outflows of (\$5.9) million were driven by higher accounts receivable of (\$2.2) million primarily as a result of the timing of Portable Power and Heavy-Duty Motive revenues and the related customer collections, by lower accounts payable and accrued liabilities of (\$1.8) million due primarily to the timing of purchases and supplier payments including the payment of acquisition and transaction related costs incurred on the Protonex acquisition, and by lower deferred revenue of (\$1.5) million as we completed the contract work on certain Technology Solutions, Heavy-Duty Motive and government grant contracts for which we received pre-payments in an earlier period.

For the year ended December 31, 2016, cash used in operating activities in 2016 was (\$3.9) million, consisting of cash operating losses of (\$12.4) million, partially offset by net working capital inflows of \$8.5 million. For the year ended December 31, 2015, cash used in operating activities was (\$25.4) million, consisting of cash operating losses of (\$19.3) million and net working capital outflows of (\$6.0) million. The \$21.5 million reduction in cash used by operating activities in 2016, as compared to 2015, was driven by the relative improvement in cash operating losses of \$6.9 million, combined with the relative reduction in working capital changes of \$14.6 million. The \$6.9 million decline in cash operating losses in 2016 was due primarily to the \$5.4 million reduction in Adjusted EBITDA loss, combined with lower acquisition costs of \$1.5 million which were incurred for the Protonex acquisition in 2015.

In 2016, net working capital inflows of \$8.5 million in 2016 were driven by higher deferred revenue of \$14.5 million as we collected pre-payments on certain Heavy-Duty Motive and Technology Solutions contracts in advance of work performed, and by higher accounts payable and accrued liabilities of \$1.0 million due primarily to restructuring and wage accrual expenses which will be paid into 2017. These 2016 working capital inflows were partially offset by higher inventory of (\$2.3) million primarily to support expected Heavy-

Duty Motive shipments to customers in the first quarter of 2017, by lower accrued warranty obligations of (\$2.6) million due primarily to customer service related expenses incurred in our Material Handling market and by Backup Power warranty contract expirations, by higher prepaid expenses of (\$1.3) million primarily related to withholding taxes incurred on certain Chinese transactions, and by higher accounts receivable of (\$0.8) million primarily as a result of the timing of Material Handling, Technology Solutions and Portable Power revenues and the related customer collections.

Working capital outflows of (\$6.0) million in 2015 was driven by higher inventory of (\$5.6) million primarily to support expected Heavy-Duty Motive and Portable Power product shipments in the first quarter of 2016, by lower accrued warranty obligations of (\$3.6) million due primarily to customer service related expenses incurred in our Backup Power market in Asia and by Heavy-Duty Motive warranty contract expirations, and by lower accounts payable and accrued liabilities of (\$1.3) million due primarily to the timing of purchases and supplier payments. These 2015 working capital outflows were partially offset by higher deferred revenue of \$4.0 million as we collected pre-payments on certain Heavy-Duty Motive and Technology Solutions contracts in advance of work performed.

Investing activities resulted in net cash inflows (outflows) of (\$3.4) million and \$5.2 million, respectively, for the three months and year ended December 31, 2016, compared to net cash inflows (outflows) of (\$3.6) million and \$23.3 million, respectively, for the corresponding periods of 2015. Investing activities in 2016 of \$5.2 million consist primarily of net proceeds of \$9.2 million received in the first quarter of 2016 as a result of the fourth quarter of 2015 sale of the automotive-related know-how of the UTC Portfolio to Volkswagen, the initial net proceeds of \$3.0 million received in the second quarter of 2016 from the CHEM transaction, partially offset by capital expenditures of (\$2.8) million, by investments in fuel cell technology intangible assets of (\$1.1) million, and by investments in other intangible assets of (\$3.0) million relating to a fully integrated Enterprise Resource Planning ("ERP") management reporting software system. Investing activities in 2015 of \$23.3 million consist primarily of net proceeds on the sale of intellectual property of \$29.5 million received on the closing of the initial tranche of the Volkswagen IP Agreement, partially offset by capital expenditures of (\$2.3) million, by the acquisition of Protonex of (\$3.8) million partially offset by acquired Protonex cash of \$1.5 million, and by investments in fuel cell technology intangible assets of (\$1.6) million.

Financing activities resulted in net cash inflows of nil and \$31.0 million, respectively, for the three months and year ended December 31, 2016, compared to net cash inflows of \$4.9 million and \$18.1 million, respectively, for the corresponding periods of 2015. Financing activities in 2016 of \$31.0 million consist of net proceeds received from the Broad-Ocean strategic equity investment of \$28.2 million, net proceeds of \$3.3 million (Canadian \$4.6 million) received pursuant to a settlement agreement with Superior Plus as to the full and final amount payable to us under the Indemnity Agreement, proceeds from employee share purchase option exercises of \$0.5 million, partially offset by capital lease payments of (\$1.0) million. Financing activities in 2015 of \$18.1 million consist of net proceeds received from the July 2015 Offering of \$13.4 million, net proceeds from the November 2015 Nisshinbo strategic equity investment of \$5.0 million, net proceeds from share purchase warrant exercises of \$0.2 million, proceeds from employee share purchase option exercises

of \$0.4 million, partially offset by capital lease payments of (\$0.8) million.

LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2016, we had total Liquidity of \$72.6 million. We measure Liquidity as our net cash position, consisting of the sum of our cash, cash equivalents and short-term investments of \$72.6 million, net of amounts drawn on our \$7 million Canadian demand revolving facility ("Operating Facility") of nil. The Operating Facility is occasionally used to assist in financing our short term working capital requirements and is secured by a hypothecation of our cash, cash equivalents and short-term investments.

We also have a \$1.8 million Canadian capital leasing facility ("Leasing Facility") which is occasionally used to finance the acquisition and / or lease of operating equipment and is secured by a hypothecation of our cash, cash equivalents and short-term investments. As of December 31, 2016, nothing was outstanding on the Leasing Facility.

Our Liquidity objective is to maintain cash balances sufficient to fund at least six quarters of forecasted cash used by operating activities at all times. 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, minimizing Cash Operating Costs, managing working capital requirements, and securing additional financing to fund our operations as needed until we do achieve profitable operations that are sustainable. As a result of our recent actions to bolster our cash balances including the net proceeds received pursuant to the Broad Ocean strategic equity investment, the Volkswagen IP Agreement, the July 2015 Offering, the November 2015 Nisshinbo equity investment, and the settlement of the Superior Plus Indemnity Agreement, along with the improvement in our financial performance, we believe that we have adequate liquidity in cash and working capital to meet this Liquidity objective and to finance our operations.

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, and make increased investments in working capital as we grow our business, our actual liquidity requirements will also vary and will be impacted by our relationships with our lead customers and strategic partners, 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.

In addition to our existing cash reserves of \$72.6 million at December 31, 2016, there are 0.1 million warrants outstanding (expire on March 27, 2018) from the March 2013 underwritten offering each of which enables the holder to purchase one common share at a

fixed price of \$1.50 per common share, and 1.7 million warrants outstanding (expire on October 9, 2018) from the October 2013 underwritten offering each of which enable the holder to purchase one common share at a fixed price of \$2.00 per common share. If any of these warrants are exercised, our liquidity position would be further augmented. We may also choose to pursue additional liquidity through the issuance of debt or equity in private or public market financings. To enable such an action and to allow the exercise of warrants, we filed a new short form base shelf prospectus ("Prospectus") in June 2016 ahead of the expiry of our existing short form base shelf prospectus in each of the provinces and territories of Canada, except Quebec, and a corresponding shelf registration statement on Form F-10 ("Registration Statement") with the United States Securities and Exchange Commission. These filings enable offerings of equity securities during the effective period (to July 2018) of the Prospectus and Registration Statements. However, 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.

2017 BUSINESS OUTLOOK

Ballard has committed orders of approximately \$87 million expected for delivery in 2017, along with a significant pipeline of qualified commercial sales opportunities. We believe that these orders and our sales pipeline, along with current market conditions and our strategic, competitive and balance sheet positioning, support continued revenue growth, growth margin expansion and improved financial performance in 2017. Sales to Chinese customers in 2017 are also expected to account for an increased proportion of total revenue.

We anticipate growth in product revenues in 2017 supported by increased activity in Heavy-Duty Motive and growth in Portable Power. We also expect Technology Solutions to account for a larger proportion of total revenue in 2017, supported by work related to contracts in China as well as engineering services work with automotive partners. In addition, Technology Solutions work is expected with customers in the rail, military, and unmanned aerial vehicle sectors.

Given the early stage of fuel cell market development and adoption rate and consistent with our approach in 2016, we have decided not to provide specific financial performance guidance for 2017. While our strategic focus on multiple fuel cell product markets, engineering services and intellectual property monetization serves to mitigate risk, the resulting cadence in customer demand can be uneven through the early stages of market development. As such, our financial results on a quarterly basis are subject to a high degree of variability.

Our outlook for 2017 is based on our internal forecast which reflects an assessment of overall business conditions and takes into account actual sales and financial results in the first six weeks of 2017, sales orders received for units and services to be delivered in the remainder of 2017, an estimate with respect to the generation of new sales and the timing of deliveries in each of our markets for the balance of 2017, and assumes an average U.S. dollar exchange rate in the mid 70's in relation to the Canadian dollar for the remainder of 2017. The primary risk factors to our business outlook expectations for 2017 are delays from forecast in terms of closing and delivering expected sales primarily in our Heavy-Duty Motive and Portable Power markets, potential adverse macro-economic conditions negatively impacting our Chinese customer's access to capital and program plans which

could adversely impact our Heavy-Duty market, potential disruptions in the Material Handling market as a result of our reliance on a single customer in this market and that 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 Technology Solutions revenues (including the technology development and engineering services agreement with Volkswagen) are priced in Canadian dollars.

Furthermore, potential fluctuations in our financial results make financial forecasting difficult. The Company's revenues, cash flows and other operating results can vary significantly from quarter to quarter. Sales and margins may be lower than anticipated due to general economic conditions, market-related factors and competitive factors. Cash receipts may also vary from quarter to quarter due to the timing of cash collections from customers. As a result, quarter-to-quarter comparisons of revenues, cash flows and other operating results may not be meaningful. 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, cash flows or results of operations on a quarterly basis. It is likely that in one or more future quarters, financial results will fall below the expectations of securities analysts and investors. If this occurs, the trading price of the Company's shares may be materially and adversely affected.

OFF-BALANCE SHEET ARRANGEMENTS & CONTRACTUAL OBLIGATIONS

Periodically, we use forward foreign exchange and forward platinum purchase contracts to manage our exposure to currency rate fluctuations and platinum price fluctuations. We record these contracts at their fair value as either assets or liabilities on our balance sheet. 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 if either not designated, or not qualified, under hedge accounting criteria. At December 31, 2016, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$10.75 million at an average rate of 1.32 Canadian per U.S. dollar, resulting in an unrealized loss of Canadian (\$0.2) million at December 31, 2016. The outstanding foreign exchange currency contracts are not qualified under hedge accounting.

At December 31, 2016, 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.

At December 31, 2016, we had the following contractual obligations and commercial commitments:

<i>(Expressed in thousands of U.S. dollars)</i>		Payments due by period,			
Contractual Obligations	Total	Less than one year	1-3 years	4-5 years	After 5 years
Operating leases	\$ 9,706	\$ 2,617	\$ 4,382	\$ 1,227	\$ 1,480
Capital leases	9,362	1,055	2,109	2,414	3,783
Asset retirement obligations	4,375	-	2,720	-	1,655
Total contractual obligations	\$ 23,443	\$ 3,672	\$ 9,211	\$ 3,641	\$ 6,918

In addition, we have outstanding commitments of \$3.9 million at December 31, 2016

related primarily to the ongoing implementation of an ERP management reporting software system and for purchases of capital assets. 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 on April 24, 2014, we retain a royalty obligation to pay UTC a portion (typically 25%) of any future intellectual property sale and licensing income generated from our intellectual property portfolio for a period of 15-years expiring in April 2029.

As at December 31, 2016, 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 as a result of 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 as a result of 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.

At December 31, 2016, we have not accrued any amount owing, or receivable, as a result of any indemnity agreements undertaken in the ordinary course of business.

RELATED PARTY TRANSACTIONS

Related parties include shareholders with a significant ownership interest in us including their subsidiaries and affiliates, and our equity accounted investee. Revenues and costs recognized from such transactions reflect the prices and terms of sale and purchase transactions with related parties, which are in accordance with normal trade practices at fair value. Transactions between us and our subsidiaries are eliminated on consolidation. For the three months and years ended December 31, 2016 and 2015, related party transactions and balances were limited to transactions with our 10% equity accounted investee, Synergy JVCo as follows:

<i>(Expressed in thousands of U.S. dollars)</i>		Three Months and Year Ended December 31,	
Transactions with related parties		2016	2015
Revenues	\$	4,389	\$ -
Purchases	\$	-	\$ -

<i>(Expressed in thousands of U.S. dollars)</i>		As at December 31,	
Balances with related parties		2016	2015
Investments	\$	1,185	\$ -
Trade and other payables	\$	1,005	\$ -
Deferred revenue	\$	15,501	\$ -

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 30 to our annual consolidated financial statements for the year ended December 31, 2016.

OUTSTANDING SHARE DATA

As at March 1, 2017	
Common share outstanding	174,749,630
Warrants outstanding	1,797,563
Options outstanding	5,537,729
DSU's outstanding	1,125,250
RSU's and PSU's outstanding (subject to vesting criteria)	1,473,408

CRITICAL ACCOUNTING POLICIES AND KEY SOURCES OF ESTIMATION UNCERTAINTY

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.

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 the Corporation's ability to continue as a going concern (See Note 2 (e) to our annual consolidated financial statements).

Our significant accounting policies are detailed in note 4 to our annual consolidated financial statements for the year ended December 31, 2016.

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

On standard equipment and material sales contracts, revenues are recognized when (i)

significant risks and rewards of ownership of the goods has been transferred to the buyer; (ii) we retain neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold; (iii) the amount of revenue can be measured reliably; (iv) it is probable that the economic benefits associated with the sale will accrue to us; and (v) the costs incurred, or to be incurred, in respect of the transaction can be measured reliably. Provisions are made at the time of sale for warranties. Revenue recognition for standard equipment and material sales contracts does not usually involve significant estimates.

On standard licensing and sale and technology transfer agreements, revenues are recognized on the transfer of the rights to the licensee if (i) the rights to the assets are assigned to the licensee in return for a fixed fee or a non-refundable guarantee; (ii) the contract is non-cancellable; (iii) the licensee is able to exploit its rights to the asset freely; and (iv) the Company has no remaining obligations to perform. Otherwise, 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. Revenue recognition for 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, revenues are recorded on the percentage-of-completion basis over the duration of the contract, which consists of recognizing revenue on a given contract proportionately with its percentage of completion at any given time. The percentage of completion is determined by dividing the cumulative costs incurred as at the balance sheet date by the sum of incurred and anticipated costs for completing a contract.

- The determination of anticipated 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 probability that the revenue will be received and in determining the measurement of that amount.

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 our assessment of the progress achieved against milestones, or that our estimates of the work required to complete a contract may change. The cumulative effect of changes to anticipated revenues and anticipated costs for completing a contract are recognized in the period in which the revisions are identified. If the anticipated costs exceed the anticipated revenues on a contract, such loss is recognized in its entirety in the period it becomes known.

During the three months and year ended December 31, 2016 and 2015, there was no material adjustments to revenues relating to revenue recognized in a prior period.

ASSET IMPAIRMENT

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

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

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

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

We perform the annual review of goodwill as at December 31 of each year, more often if events or changes in circumstances indicate that it might be impaired. 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.

As of December 31, 2016, our consolidated goodwill balance of \$40.6 million relates solely to our Fuel Cell Products and Services segment. Based on the impairment test performed as at December 31, 2016, we have concluded that no goodwill impairment charge is required for the year ending December 31, 2016. Details of our 2016 goodwill impairment tests are as follows:

- One of the methods used to assess the recoverable amount of the goodwill is a fair value, less costs to sell, test. Our fair value 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, 2016 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, 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, 2016 indicating that no impairment charge is required for 2016.
- In addition to this fair value test, we also performed a value in use test on our Fuel Cell Products and Services segment that compared the carrying value of the segment to the present value of future cash flows expected to be derived from the segment. The principal factors used in this discounted cash flow analysis requiring significant estimation are the projected results of operations, the discount rate based on the weighted average cost of capital ("WACC"), and terminal value assumptions. Our value in use test was based on a WACC of 15%; an average estimated compound annual growth rate of approximately 25% from 2017 to 2022; and a terminal year EBITDA multiplied by a terminal value multiplier of 10. Our value in use assessment resulted in an estimated fair value for the Fuel Cell Products and Services segment that is consistent with that as determined under the above fair value, less costs to sell, assessment. As a result of this assessment, we have determined that the fair value of the Fuel Cell Products segment exceeds its carrying value by a significant amount as of December 31, 2016 indicating that no impairment charge is required in 2016.

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 year ended December 31, 2016, we recorded impairment losses on intangible assets of (\$0.8) million and impairment losses on property, plant and equipment of (\$0.4) million as we wrote-down certain methanol Telecom Backup Power assets to their estimated net realizable value of \$nil. The impairment charges were incurred during the first quarter of 2016 while we continued to review strategic alternatives for our methanol Telecom Backup Power assets prior to concluding the transaction with CHEM in the second quarter of 2016.

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, 2016, we recorded provisions to accrued warranty liabilities of \$0.4 million and \$1.1 million, respectively, for new product sales, compared to \$0.3 million and \$0.9 million, respectively, for the three months and year ended December 31, 2015.

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, 2016 were adjusted downwards by a net amount of \$0.4 million and \$0.5 million, respectively, compared to a net adjustment downwards of \$0.5 million and \$1.3 million for the three months and year ended December 31, 2015. The positive adjustments to the accrued warranty liability provisions in 2016 were due primarily to contractual expirations and improved lifetimes of our Backup Power products, whereas the positive adjustments to the accrued warranty liability provision in 2015 were due primarily due to contractual warranty expirations and improved lifetimes and reliability of our Heavy-Duty Motive products.

INVENTORY PROVISION

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. During the three months and year ended December 31, 2016, negative inventory adjustments of (\$0.6) million were recorded as a charge to cost of product and service revenues, compared to negative inventory adjustments of (\$0.4) million and (\$0.6) million, respectively, for the three months and year ended December 31, 2015.

IMPAIRMENT (LOSSES) RECOVERIES ON TRADE RECEIVABLES

Trade and other receivables are recognized initially at fair value and subsequently at amortized cost using the effective interest method, less any impairment losses. Fair value is estimated as the present value of future cash flows, discounted at the market rate of interest at the reporting date. In determining the fair value of our trade and other receivables and establishing the appropriate provision for doubtful accounts, we perform regular reviews to estimate the likelihood that our trade and other accounts receivable will

ultimately be collected in a timely manner. Where we determine that customer collectability issues have occurred and will have a negative impact on the value of trade and other receivables, appropriate provisions are made. If there is a subsequent recovery in the value of trade and other receivables, reversals of previous write-downs to fair value are made. Unforeseen changes in these factors could result in additional impairment provisions, or reversals of previous impairment provisions, being required. During the three months and year ended December 31, 2016, net impairment (charges) on trade receivables of (\$0.1) million were recorded in other operating income, compared to net impairment (charges) recoveries of nil and \$0.9 million, respectively, for the three months and year ended December 31, 2015.

EMPLOYEE FUTURE BENEFITS

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

INCOME TAXES

We use the asset and liability method of accounting for income taxes. Under this method, deferred income taxes are recognized for the deferred income tax consequences attributable to differences between the financial statement carrying values of assets and liabilities and their respective income tax bases (temporary differences) and for loss carry-forwards. The resulting changes in the net deferred tax asset or liability are included in income.

Deferred tax assets and liabilities are measured using enacted, or substantively enacted, tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities, of a change in tax rates, is included in income in the period that includes the substantive enactment date. Deferred income tax assets are reviewed at each reporting period and are reduced to the extent that it is no longer probable that the related tax benefit will be realized. As of December 31, 2016 and 2015, we have not recorded any deferred income tax assets on our consolidated statement of financial position.

NEW AND FUTURE IFRS ACCOUNTING POLICIES

Recently Adopted Accounting Policy Changes:

We did not adopt any new accounting standard changes or amendments effective January 1, 2016 that had a material impact on our consolidated financial statements.

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.

IFRS 2 – SHARE-BASED PAYMENTS

On June 20, 2016, the IASB issued amendments to *IFRS 2 Share-based Payment*, clarifying how to account for certain types of share-based payment transactions.

The amendments provide requirements on the accounting for:

- the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments;
- share-based payment transactions with a net settlement feature for withholding tax obligations; and
- a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled.

The amendments apply for annual periods beginning on or after January 1, 2018. As a practical simplification, the amendments can be applied prospectively. Retrospective, or early, application is permitted if information is available without the use of hindsight. The Corporation intends to adopt the amendments to IFRS 2 in its financial statements for the fiscal year beginning on January 1, 2018. The extent of the impact of adoption of the standard has not yet been determined.

IFRS 15 – REVENUE FROM CONTRACTS WITH CUSTOMERS

On May 28, 2014, the IASB issued *IFRS 15 Revenue from Contracts with Customers*. IFRS 15 will replace *IAS 11 Construction Contracts*, *IAS 18 Revenue*, *IFRIC 13 Customer Loyalty Programmes*, *IFRIC 15 Agreements for the Construction of Real Estate*, *IFRIC 18 Transfer of Assets from Customers*, and *SIC 31 Revenue – Barter Transactions Involving Advertising Services*. On April 12, 2016, the IASB issued *Clarifications to IFRS 15, Revenue from Contracts with Customers*, which is effective at the same time as IFRS 15.

IFRS 15 contains a single model that applies to contracts with customers and two approaches to recognizing revenue: at a point in time or over time. The model features a contract-based five-step analysis of transactions to determine whether, how much, and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized. The new standard applies to contracts with customers. It does not apply to insurance contracts, financial instruments or lease contracts, which fall in the scope of other IFRSs. The clarifications to IFRS 15 provide additional guidance with respect to the five-step analysis, transition, and the application of the Standard to licenses of intellectual property.

The new standard is effective for annual periods beginning on or after January 1, 2018 and is available for early adoption. The Corporation intends to adopt IFRS 15 in its financial statements for the fiscal year beginning on January 1, 2018. The extent of the impact of adoption of the standard has not yet been determined.

IFRS 9 – FINANCIAL INSTRUMENTS

On July 24, 2014, the IASB issued the complete *IFRS 9 Financial Instruments* (“IFRS 9 (2014)”). IFRS 9 (2014) introduces new requirements for the classification and measurement of financial assets. Under IFRS 9 (2014), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows.

The standard introduces additional changes relating to financial liabilities. It also amends the impairment model by introducing a new 'expected credit loss' model for calculating impairment.

IFRS 9 (2014) also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management. This new standard does not fundamentally change the types of hedging relationships or the requirement to measure and recognize ineffectiveness; however it will provide more hedging strategies that are used for risk management to qualify for hedge accounting and introduce more judgment to assess the effectiveness of a hedging relationship. Special transitional requirements have been set for the application of the new general hedging model.

The mandatory effective date of IFRS 9 (2014) is for annual periods beginning on or after January 1, 2018 and must be applied retrospectively with some exemptions. Early adoption is permitted. The restatement of prior periods is not required and is only permitted if information is available without the use of hindsight. The Corporation intends to adopt IFRS 9 (2014) in its financial statements for the fiscal year beginning on January 1, 2018. The extent of the impact of adoption of the standard has not yet been determined.

IFRS 16 – LEASES

On January 13, 2016, the IASB issued IFRS 16 Leases. IFRS 16 introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. A lessee is required to recognize a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments.

This standard substantially carries forward the lessor accounting requirements of IAS 17, while requiring enhanced disclosures to be provided by lessors. Other areas of the lease accounting model have been impacted, including the definition of a lease. Transitional provisions have been provided.

The new standard is effective for annual periods beginning on or after January 1, 2019. Early adoption is permitted for entities that apply *IFRS 15 Revenue from Contracts with Customers* as at or before the date of initial adoption of IFRS 16. IFRS 16 will replace *IAS 17 Leases*. The Corporation intends to adopt IFRS 16 in its financial statements for the fiscal year beginning on January 1, 2019. The extent of the impact of adoption of the standard has not yet been determined.

SUPPLEMENTAL NON-GAAP MEASURES

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, and Adjusted Net Loss. 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, net income, cash flows and

other measures of financial performance and liquidity reported in accordance with GAAP.

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, operating expenses, primarily because it does not include stock-based compensation expense, depreciation and amortization, impairment losses or recoveries on trade receivables, restructuring charges, acquisition costs, and financing charges. The following tables show a reconciliation of operating expenses to Cash Operating Costs for the three months and year ended December 31, 2016 and 2015:

<i>(Expressed in thousands of U.S. dollars)</i>			
Three months ended December 31,			
Cash Operating Costs	2016	2015	\$ Change
Total Operating Expenses	\$ 8,976	\$ 9,303	\$ (327)
Stock-based compensation (expense) recovery	(581)	(248)	(333)
Impairment recovery (losses) on trade receivables	132	39	93
Acquisition and integration costs	-	(902)	902
Restructuring (charges) recovery	217	-	217
Financing charges	-	-	-
Depreciation and amortization	(604)	(463)	(141)
Cash Operating Costs	\$ 8,140	\$ 7,729	\$ 411

<i>(Expressed in thousands of U.S. dollars)</i>			
Year ended December 31,			
Cash Operating Costs	2016	2015	\$ Change
Total Operating Expenses	\$ 42,253	\$ 34,858	\$ 7,395
Stock-based compensation (expense) recovery	(3,024)	(2,949)	(75)
Impairment recovery (losses) on trade receivables	63	899	(836)
Acquisition and integration costs	(43)	(1,542)	1,499
Restructuring (charges) recovery	(2,318)	13	(2,331)
Financing charges	-	-	-
Depreciation and amortization	(2,593)	(2,229)	(364)
Cash Operating Costs	\$ 34,338	\$ 29,050	\$ 5,288

The components of Cash Operating Costs of research and product development (operating cost), general and administrative (operating cost), and sales and marketing (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 and depreciation and amortization expense. A reconciliation of these respective operating expenses to the respective components of Cash Operating Costs for the three months and year ended December 31, 2016 and 2015 is included in Operating Expense and Other Items.

A breakdown of total stock-based compensation expense for the three months and year ended December 31, 2016 and 2015 are as follows:

<i>(Expressed in thousands of U.S. dollars)</i>			
	Three months ended December 31,		
Stock-based compensation expense	2016	2015	\$ Change
Total stock-based compensation expense recorded as follows:			
Cost of goods sold	\$ -	\$ -	\$ -
Research and product development expense	260	74	186
General and administrative expense	493	82	411
Sales and marketing expense (recovery)	(172)	92	(264)
Stock-based compensation expense	\$ 581	\$ 248	\$ 333

<i>(Expressed in thousands of U.S. dollars)</i>			
	Year ended December 31,		
Stock-based compensation expense	2016	2015	\$ Change
Total stock-based compensation expense recorded as follows:			
Cost of goods sold	\$ -	\$ -	\$ -
Research and product development expense	1,067	957	110
General and administrative expense	1,666	1,292	374
Sales and marketing expense	291	700	(409)
Stock-based compensation expense	\$ 3,024	\$ 2,949	\$ 75

A breakdown of total depreciation and amortization expense for the three months and year ended December 31, 2016 and 2015 are as follows:

<i>(Expressed in thousands of U.S. dollars)</i>			
	Three months ended December 31,		
Depreciation and amortization expense	2016	2015	\$ Change
Total depreciation and amortization expense recorded as follows:			
Cost of goods sold	\$ 451	\$ 1,073	\$ (622)
Research and product development expense	512	321	191
General and administrative expense	92	140	(48)
Sales and marketing expense	1	2	(1)
Depreciation and amortization expense	\$ 1,056	\$ 1,536	\$ (480)

<i>(Expressed in thousands of U.S. dollars)</i>			
	Year ended December 31,		
Depreciation and amortization expense	2016	2015	\$ Change
Total depreciation and amortization expense recorded as follows:			
Cost of goods sold	\$ 1,951	\$ 2,146	\$ (195)
Research and product development expense	2,214	1,947	267
General and administrative expense	375	280	95
Sales and marketing expense	4	2	2
Depreciation and amortization expense	\$ 4,544	\$ 4,375	\$ 169

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 attributable to Ballard, primarily because it does not include finance expense, income taxes, depreciation of property, plant and equipment, amortization of intangible assets, and goodwill impairment charges. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, asset impairment charges, finance and other income, and acquisition costs. The following tables show a reconciliation of net loss attributable to Ballard to EBITDA and Adjusted EBITDA for the three months and year ended December 31, 2016 and 2015:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,		
EBITDA and Adjusted EBITDA	2016		2015	\$ Change
Net income (loss) attributable to Ballard	\$ (1,121)	\$	(1,355)	\$ 234
Depreciation and amortization	1,056		1,536	(480)
Finance expense	164		208	(44)
Income taxes	127		(1)	128
EBITDA attributable to Ballard	\$ 226	\$	388	\$ (162)
Stock-based compensation expense	581		248	333
Acquisition and integration costs	-		902	(902)
Finance and other (income) loss	700		950	(250)
Gain on sale of intellectual property	-		(5,424)	5,424
Loss on sale of assets	256		-	256
Adjusted EBITDA	\$ 1,763	\$	(2,936)	\$ 4,699

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
EBITDA and Adjusted EBITDA	2016		2015	\$ Change
Net income (loss) attributable to Ballard	\$ (21,112)	\$	(5,815)	\$ (15,297)
Depreciation and amortization	4,544		4,375	169
Finance expense	686		794	(108)
Income taxes	381		211	170
EBITDA attributable to Ballard	\$ (15,501)	\$	(435)	\$ (15,066)
Stock-based compensation expense (recovery)	3,024		2,949	75
Acquisition and integration costs	43		1,542	(1,499)
Finance and other (income) loss	777		305	472
Gain on sale of intellectual property	-		(19,619)	19,619
Impairment charges on intangible assets and property, plant and equipment	1,151		-	1,151
Loss (gain) on sale of assets	623		(1)	624
Adjusted EBITDA	\$ (9,883)	\$	(15,259)	\$ 5,376

Adjusted Net Loss

This supplemental non-GAAP measure is provided to assist readers in determining our financial performance. We believe this measure is useful in assessing our actual performance by adjusting our results from continuing operations for transactional gains and losses and impairment losses. Adjusted Net Loss (formerly named Normalized Net Loss) differs from the most comparable GAAP measure, net loss attributable to Ballard, primarily because it does not include impairment losses or recoveries on trade receivables,

transactional gains and losses, asset impairment charges, and acquisition costs. The following table shows a reconciliation of net loss attributable to Ballard to Adjusted Net Loss for the three months and year ended December, 2016 and 2015.

<i>(Expressed in thousands of U.S. dollars)</i>			
Three months ended September 30,			
Adjusted Net Loss	2016	2015	\$ Change
Net (loss) attributable to Ballard	\$ (1,121)	\$ (1,355)	\$ 234
Impairment loss (recovery) on trade receivables	(132)	(39)	(93)
Acquisition and integration costs	-	902	(902)
Gain on sale of intellectual property	-	(5,424)	5,424
Loss on sale of assets	260	-	260
Adjusted Net Loss	\$ (993)	\$ (5,916)	\$ 4,923
Adjusted Net Loss per share	\$ (0.01)	\$ (0.04)	\$ 0.03

<i>(Expressed in thousands of U.S. dollars)</i>			
Year ended December 31,			
Adjusted Net Loss	2016	2015	\$ Change
Net (loss) attributable to Ballard	\$ (21,112)	\$ (5,815)	\$ (15,297)
Impairment loss (recovery) on trade receivables	(63)	(899)	836
Acquisition and integration costs	43	1,542	(1,499)
Gain on sale of intellectual property	-	(19,619)	19,619
Loss on sale of assets	632	-	632
Impairment charges on intangible assets and property, plant and equipment	1,151	-	1,151
Adjusted Net Loss	\$ (19,349)	\$ (24,791)	\$ 5,442
Adjusted Net Loss per share	\$ (0.12)	\$ (0.18)	\$ 0.06

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, 2016, 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 effected 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, 2016.

KPMG LLP, our independent registered public accounting firm, has audited our consolidated financial statements and expressed an unqualified opinion thereon. KPMG has also expressed an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2016.

Changes in internal control over financial reporting

During the year ended December 31, 2016, we updated the design of our disclosure controls and procedures and internal controls over financial reporting to include the controls, policies and procedures of Protonex, which was acquired on October 1, 2015. During the year ended December 31, 2016, there were no other 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 now includes controls, policies and procedures covering both Protonex and Ballard Power Systems Europe A/S (formerly Dantherm Power A/S).

RISKS & 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 which remain substantively unchanged. The risks and uncertainties described in our Annual Information Form are not the only ones 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.sedar.com) and U.S. securities regulatory authorities (www.sec.gov).

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

- We may not be able to successfully execute our business plan;

- In our Heavy-Duty Motive market, we depend on Chinese customers for a majority of our revenues. Macro-economic conditions, including government subsidy programs and significant and recent volatility in China's capital markets, may adversely impact our Chinese customer's access to capital and program plans which could adversely impact our business;
- In our Technology Solutions market, we depend on a single customer for the majority of our revenues;
- In our Portable Power market, defense spending volatility could have an adverse impact on our business;
- In our Portable Power market, defense acquisition process changes could have an adverse impact on our business;
- In our Material Handling market, we depend on a single customer for the majority of our revenues and are subject to risks from that customer's internal stack development and commercialization plans;
- In our Heavy-Duty Motive market, a significant amount of operations are conducted by a joint venture that we cannot operate solely for our benefit;
- We expect our cash reserves will be reduced due to future operating losses and working capital requirements, 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;
- We are dependent upon Original Equipment Manufacturers and Systems Integrators to purchase certain of our products;
- We may not be able to achieve commercialization of our products on the timetable we anticipate, or at all;
- A mass market for our products may never develop or may take longer to develop than we anticipate;
- We have limited experience manufacturing fuel cell products on a commercial basis;
- Warranty claims could negatively impact our gross margins and financial performance;
- We could be adversely affected by risks associated with acquisitions;
- We are subject to risks inherent in international operations;
- We depend on our intellectual property, and our failure to protect that intellectual property could adversely affect our expected future growth and success;
- 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, subcontractors and joint venture partners;
- Global macro-economic conditions are beyond our control and may have an adverse impact on our business or on our key suppliers and / or customers;
- We currently face and will continue to face significant competition;

- We could lose or fail to attract the personnel necessary to run our business;
- Public Policy and regulatory changes could hurt the market for our products;
- We are dependent on third party suppliers for the supply of key materials and components for our products and services;
- 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;
- We could be liable for environmental damages resulting from our research, development or manufacturing operations; and
- Our products use flammable fuels and some generate high voltages, which could subject our business to product liability claims.

FORWARD-LOOKING STATEMENTS DISCLAIMER

This document contains forward-looking statements that 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. Such statements include, but are not limited to, statements with respect to our objectives, goals, liquidity, sources of capital and our outlook including our estimated revenue and gross margins, cash flow from operations, Cash Operating Costs, EBITDA and Adjusted EBITDA (see Non-GAAP Measures) as well as statements with respect to our beliefs, plans, objectives, expectations, anticipations, estimates and intentions. Words such as "estimate", "project", "believe", "anticipate", "intend", "expect", "plan", "predict", "may", "should", "will", the negatives of these words or other variations thereof and comparable terminology are intended to identify forward-looking statements. 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 the generation of new sales, producing, delivering and selling the expected product and service volumes at the expected prices, controlling our costs, and obtaining the expected benefits arising from the Protonex acquisition. They are also based on a variety of general factors and assumptions including, but not limited to, our expectations regarding product development efforts, manufacturing capacity, 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: the condition of the global economy; the rate of mass adoption of our products; changes in product or service pricing; changes in our customers' requirements, the competitive environment and related market conditions; product development delays; changes in the availability or price of raw materials, labour and supplies; our ability to

attract and retain business partners, suppliers, employees and customers; changing environmental regulations including subsidies or incentives associated with the adoption of clean energy products; our access to funding and our ability to provide the capital required for product development, operations and marketing efforts, and working capital requirements; our ability to protect our intellectual property; risks relating to the Company's successful integration of Protonex and its operations, such as the loss of key personnel due to the transaction, the disruption to the operations of the Company and Protonex' respective businesses, the cost of integration exceeding that projected by Ballard, and the integration failing to achieve the expected benefits of the transaction; the magnitude of the rate of change of the Canadian dollar versus the U.S. dollar; and the general assumption that none of the risks identified in the Risks and Uncertainties section of this report or in our most recent Annual Information Form will materialize. Readers should not place undue reliance on Ballard's forward-looking statements.

The forward-looking statements contained in this document speak only as of the date of this Management Discussion and Analysis. Except as required by applicable legislation, Ballard does not undertake any obligation to release publicly any revisions to these forward-looking statements to reflect events or circumstances after the date of this Management Discussion and Analysis, including the occurrence of unanticipated events.