

CLEAN ENERGY PRODUCTS + SERVICES

NOTICE OF ANNUAL MEETING, MANAGEMENT PROXY CIRCULAR &

2017 ANNUAL REPORT



BALLARD POWER SYSTEMS

Power to Change the World®

CONTENTS

ABOUT BALLARD POWER SYSTEMS

Ballard Power Systems (TSX and NASDAQ: BLDP) provides innovative clean energy products and services that reduce customer costs and risks, and helps customers solve difficult technical and business challenges in their fuel cell programs. Our business is based on two key growth platforms: Power Products and Technology Solutions. To learn more about Ballard, please visit www.ballard.com.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements concerning: revenue estimates; market growth projections; operating expenses; cost savings; adjusted EBITDA; product cost reductions and product shipments. These forward-looking statements reflect Ballard's current expectations as contemplated under section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Any such forward-looking statements are based on Ballard's assumptions relating to its financial forecasts and expectations regarding its product development efforts, manufacturing capacity, and market demand.

These statements involve risks and uncertainties that may cause Ballard's actual results to be materially different, including general economic and regulatory changes, detrimental reliance on third parties, successfully achieving our business plans and achieving and sustaining profitability. For a detailed discussion of these and other risk factors that could affect Ballard's future performance, please refer to Ballard's most recent Annual Information Form. Readers should not place undue reliance on Ballard's forward-looking statements and Ballard assumes no obligation to update or release any revisions to these forward-looking statements, other than as required under applicable legislation.



BALLARD POWER SYSTEMS INC.

9000 Glenlyon Parkway Burnaby, British Columbia, Canada V5J 5J8

NOTICE OF ANNUAL MEETING

TO OUR SHAREHOLDERS:

Our 2017 Annual Meeting (the "Meeting") will be held at Vantage Venues, 150 King Street West, 27th Floor, Toronto, Ontario, on Wednesday, June 6, 2018 at 10:30 a.m. (Eastern Daylight Time) for the following purposes:

- 1. To receive our audited financial statements for the financial year ended December 31, 2017 and the report of our auditors thereon;
- 2. To elect our directors for the ensuing year;
- 3. To appoint our auditors for the ensuing year and to authorize our Audit Committee to fix the remuneration of the auditors;
- 4. To consider and, if thought appropriate, to approve a resolution, on an advisory basis, accepting the Corporation's approach to executive compensation;
- 5. To consider and, if thought appropriate, to approve resolutions to re-confirm and approve the Corporation's Equity-based Compensation Plans; and
- 6. To transact such other business as may properly be brought before the Meeting or any adjournment thereof.

A detailed description of the matters to be dealt with at the Meeting and our 2017 Annual Report are included with this Notice.

If you are unable to attend the Meeting in person and wish to ensure that your shares will be voted at the Meeting, you must complete, date and execute the enclosed form of proxy and deliver it in accordance with the instructions set out in the form of proxy and in the Management Proxy Circular accompanying this Notice, so that it is received by Computershare Investor Services Inc. no later than 10:30 a.m. (Eastern Daylight Time) on Monday, June 4, 2018.

If you plan to attend the Meeting you must follow the instructions set out in the form of proxy and in the Management Proxy Circular to ensure that your shares will be voted at the Meeting.

DATED at Burnaby, British Columbia, April 9, 2018.

BY ORDER OF THE BOARD

"Kerry Hillier"

Kerry Hillier

Corporate Secretary

Ballard Power Systems Inc.



Letter from IAN A. BOURNE Chair of the Board

Fellow Shareholders:

2017 was another strong year in exceptional times. Our company made solid progress in 2017; we improved strategic positioning and delivered good financial performance.

The board had a busy 2017, including activities relating to corporate strategy, talent development, succession planning, review of our Protonex business, oversight of operating activities and performance management, review of anti-corruption practices, and review of executive compensation. The board also travelled to China in order to better understand the evolving dynamics of our largest market through meeting partners and customers.

We continued board renewal, with two new women directors joining the Ballard board in 2017. In total, four new directors have joined the Ballard board over the past 3 years. We are now ready for Chair renewal. Our governance policies include term limits that restrict directors to a maximum of 15 consecutive years of service. I have now been serving the Ballard board for 15 years, including as Chair during the past 12 years. We have been planning for my retirement for a few years now and, subject to being re-elected at the Annual General Meeting, Jim Roche will succeed me. It has been a pleasure to participate on the exciting Ballard journey during a fascinating (if not tumultuous) period. It's been an honour to serve an innovative company that is doing important work and will make a positive impact for the next generation. I want to thank the talented board members and members of management I have had the pleasure to call my colleagues over my tenure.

The long-term future of this business has never looked more promising. Global trends toward decarbonization, improving air quality and the electrification of propulsion systems are underpinning a growing interest in fuel cell electric vehicles for heavy and medium duty applications, particularly where long range, rapid refueling, heavy payloads and route flexibility are customer requirements. With these trends, your business is developing new commercial opportunities for near, mid and long-term value creation, with deeper diversification. We have good partners and a growing order book.

On behalf of my board colleagues, I wish to extend our appreciation to all Ballard employees for their continued integrity, customer focus, innovation and commitment to doing the right things in our business, every day. We draw your attention to a subset of employees identified on page 7, who received special recognition as 2017 Ballard Impact Award winners.

On behalf of the board of directors, we thank our shareholders for your continued support. On a personal note, I look forward to tracking Ballard's continued progress and future growth for many years to come.

"Ian A. Bourne"

IAN A. BOURNE

Chair of the Board of Directors



Letter from R. RANDALL MACEWEN President and Chief Executive Officer

Fellow Shareholders,

2017 was a milestone year for Ballard on our path to profitability. We generated record revenue of \$121.3 million, gross margin of 34% and Adjusted EBITDA of \$3.3 million. This was the first time in our 38-year history that we posted positive Adjusted EBITDA. We ended the year with \$60.3 million in cash reserves.



In addition to improved financial performance, we made measured progress in 2017 on our strategic positioning. Our customer-centric business model features two cross-leveraging growth platforms – Power Products and Technology Solutions. These growth platforms are enabled by substantially the same core competencies, technology, products and intellectual property.

We believe we are poised with highly disruptive and field-proven technology at the convergence of three global megatrends – decarbonization, air quality and electrification of propulsion – presenting a compelling future for Ballard. Our fuel cell value proposition is gaining traction across a broadening array of fuel cell electric vehicles (FCEVs), including buses, commercial trucks and rail, and in the key geographic markets of China, Europe and the United States. We believe that FCEVs will become a meaningful portion of the heavy,

medium and light duty transport markets where long range, rapid refueling, heavy payloads and route flexibility are customer requirements.

China is the world's largest market for buses and commercial vehicles. In 2017, we made important progress on the localization of Ballard-designed stacks and modules in China, including commissioning of our Synergy-Ballard stack joint venture operation in Guangdong Province, and commissioning of Broad-Ocean's engine assembly line in Shanghai. Notably, Shanghai unveiled the "Shanghai Fuel Cell Vehicle Development Plan", which contemplates the annual production of 3,000 FCEVs by 2020. We recently announced the expected deployment of 500 fuel cell-powered delivery trucks in Shanghai starting in 2018. We also advanced our two fuel cell development programs for light rail train applications with partners CRRC Sifang and CRRC Tangshan.

We made a critical investment as Ballard built out our China operating platform to support planned market growth, including the registration of our Chinese subsidiary, the set-up of our office in Guangzhou, and the build-out of our team, with capabilities in business development, account management, applications engineering, after-sales support, quality assurance and supply chain management.

We also made important progress in Europe over the past year. We shored up our European platform in 2017 through the acquisition of 100% control of our subsidiary located in Denmark, which we have since renamed Ballard Europe. We made advances in the European transportation market, including announced deployments with Van Hool for 8 fuel cell buses in France and, more recently, another 40 fuel cell buses in Germany.

Importantly, we also signed a 3-year Development Agreement with Siemens AG in Germany to design a 200 kilowatt engine to power its new Mireo commuter train platform, which Siemens plans to begin deploying in 2021. And, we also began collaborating with ABB and Royal Caribbean Cruises on the design of a fuel cell system that can provide hotel power when passenger ships are docked at port.

The U.S. market also gained momentum in 2017. We delivered 5 engines for buses to be deployed with SunLine Transit Agency in California and expect to begin shipping engines in 2018 for 20 buses to be delivered to AC Transit and Orange County Transit Agency in California. We are partnering with Kenworth on a high profile trial of a fuel cell drayage truck, operating at the Ports of Los Angeles and Long Beach, where it hauls shipping containers to area warehouses.

In 2017 we had continued challenges at our Protonex subsidiary in Massachusetts. This business has not delivered the results we had expected over the past two years, due primarily to a delay in a key procurement milestone with the U.S. Army. This milestone – called 'Milestone C' in the Program of Record – was finally achieved in September 2017. This now enables military customers to order our Power Manager products in production volumes. Given the underperformance in this business, we took action to reduce costs through divestment of non-core assets and implementation of cost reductions, with total expected annualized cost savings of \$2.6 million.

We continued our collaboration with Insitu, a Boeing subsidiary, on the ScanEagle drone platform and with Lockheed Martin on the Desert Hawk drone platform. Our next-generation 1.3 kilowatt propulsion system is now being tested in Insitu's ScanEagle. We also progressed on important business development and testing activities with new customers for the commercial drone market.

Our Technology Solutions platform had a strong 2017. We made further progress under our HyMotion program with Volkswagen Group, delivered strong results on significant technology transfer work in China, progressed our program with Nisshinbo Holdings on the use of non-precious metal catalyst technology for material handling, began the development program with Siemens, signed a follow-on contract with a leading global automotive OEM and, in early 2018, began a program to develop an ultra-high durability air-cooled fuel cell stack for material handling applications.

We continued our strong tradition of innovation, with important progress against our technology and product development programs. We are not resting on our current technology leadership. Ballard continues to stretch towards higher performance and lower costs. We also maintained our focus on safety, quality, operational excellence and continuous improvement.

As we look forward beyond 2017, our outlook for the future is extremely positive – particularly in view of the impressive scaffolding of fuel cell applications that we see occurring in the transportation sector. While heavy duty buses and commercial vehicles are providing early traction in the key markets of China, Europe and the U.S., we are now also sowing the seeds of growth in train and heavy truck applications. We are excited with the longer-term commercialization of fuel cells in additional heavy, medium and light duty applications that include marine, commercial drones and consumer passenger cars.

As we look out to 2020, we expect strong growth in FCEV demonstration programs and commercial scaling. With continued investment in talent, technology, products, customer engagement and our brand, we see Ballard having a leading position in select large and growing addressable markets.

We express deep appreciation to our valued customers and partners for their trust and their business. We also thank our extraordinary team at Ballard for their talent, passion, grit and professionalism.

Finally, we thank our shareholders for your confidence. We intend to continue earning your trust by delivering against our strategy, driving to sustainable profitability and building long-term shareholder value. We look forward to reporting our progress over the coming year.

"R. Randall MacEwen"

R. RANDALL MACEWEN President & CEO

Ballard Power Systems Inc.

We publicly acknowledge our DEDICATION TO SUSTAINABILITY each year through our Sustainability Report and continually support this objective in our daily operations.

IMPACT OF BALLARD PRODUCTS ON THE ENVIRONMENT

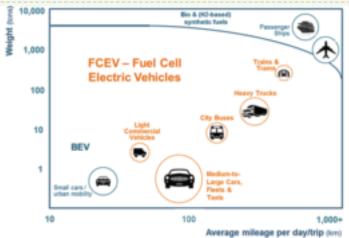


Figure 1 - Source: "Hydrogen Scaling Up", Hydrogen Council, November 2017, p. 31

"...due to their high mileage and heavy weights, [a fleet of 350,000 light, medium, and heavy trucks] would have the same abatement potential as almost 2.5 million FCEVs in the passenger car segment."

"Hydrogen Scaling Up", Hydrogen Council, November 2017, p. 38

Ballard's portfolio of Power Products contributes to a reduction in greenhouse gas (GHG) emissions and to improved air quality in cities around the world. Our Power Products include fuel cell stacks and complete modules that power a range of Fuel Cell Electric Vehicles (FCEVs). Figure 1 depicts the transportation applications representing the most attractive targets for fuel cell propulsion systems, according to work conducted by McKinsey & Company. The most attractive targets are use cases in which the vehicle exceeds about 7 tons in weight and/or travels more than 100 kilometers daily (the size of the circles in Figure 1 depict the relative annual energy consumption of each type of vehicle in 2013). These use cases typically contribute a disproportional amount of GHG emissions and air pollutants.

Fuel cells provide a zero-emission power solution, at the tailpipe, for target vehicle applications. Fuel cells do not emit any toxic fumes, GHGs or particulate matter – the only by-products of Ballard's proton membrane exchange (PEM) fuel cell modules are water and heat. As a result, Ballard FCveloCity® power modules can enable cities to meet emission reduction objectives and environmental regulations.

"Once the 644 FCveloCity power modules that we manufactured in 2017 are integrated into buses and trucks, they will offer a potential reduction in GHG emissions of 7,000 tons per year."

Randy MacEwen, Ballard President & CEO

Commitment to Sustainability

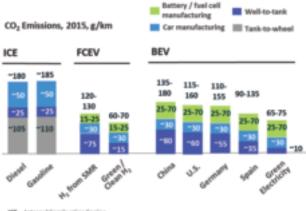
Ballard is dedicated to conducting our own business in a manner that has a minimal impact on the environment. We are committed to:

- Conducting our operations in an environmentally sound manner through our ISO14001:2015
 Environmental Management System
- Reducing our environmental impact, including reducing pollution
- Compliance with all applicable environmental, legal and regulatory requirements
- Training our employees in best practices
- Focusing on energy and resource efficiency
- Promoting environmental responsibility across our value chain

Ballard continues to improve its environmental programs and practices relating to air emissions, waste water and facility water management, physical waste disposal, building energy management and hazardous waste management. We have a recycling program in place for our by-products and end-of-life components in order to ensure that we capture and collect all materials and then dispose (or recover them) in an appropriate manner. Ballard is focused on achieving maximum utilization from our existing equipment and processes in order to reduce energy-to-output ratios. We are also developing programs around sustainable purchasing practices.

"...due to their high mileage and fuel requirements, buses can reduce road emissions significantly: a single city bus running 16 hours a day emits as much as 50 tons of CO2 per year, equivalent to roughly 25 medium-sized passenger cars."

FCEVs Can Achieve Very Low CO₂ Emissions if the Whole Lifecycle is Considered



ICE - Internal Combustion Engine PCEV - Fuel Cell Electric Vehicle BEV - Battery Electric Vehicle

Source: "Hydrogen Scaling Up", Hydrogen Council, November 2017, p. 36

2017 Ballard Impact Awards Recipients

Innovation Award

Electrode Processing Improvements

Alan Young, Jeff Glandt, Sonia Cheung, Jason Chen, Derek Cheng, Brenda Chen, Laura Stolar, Felipe Bigornia, Ryan Paddon, Bevan Moss, Brooks Friess, Alex Barber, Lito Venturina, Joselito Jickain, Mary Flynn, Mike Lauritzen, Ales Horkey, Lida Ghassemzadeh, Emad Girgis

Safety Award

Safety Data Sheet and Nanomaterials Specification Work Erin Rogers

Listen & Deliver Award

Hybridization System Model Analysis Mike Ebbehoj

Quality. Always Award

Improvements to Voltage Transducer Terry Moreau

Implementation of Vision Inspection System
Laura Stolar, Alex Leung, Mary Flynn, Hank Hsu, Derek Cheng

Inspire Excellence Award

Leadership of Six Sigma Master Belts on Continuous Improvement Projects Brenda Chen, Derek Cheng, Laura Stolar, Kailyn Domican, Alan Li, Grace Valle

Own it Award

Nisshinbo Relationship
Dustin Banham, Siyu Ye, Chris Ekholm

Row Together Award

Establishing the Joint Venture Manufacturing Facility in China Evelyn Lai, Paul Fong, Ashkan Soheili, Garth Currier, Francis Zhuang, Monte Jensen, Jaegen Milley, Ron Mott, Andy Chan, Charles Coyle

POWER TO CHANGE THE WORLD®

MANAGEMENT PROXY CIRCULAR

dated as of April 9, 2018

MATTERS TO BE VOTED UPON

Registered Shareholders or their duly appointed proxyholders will be voting on:

- the election of directors to our Board;
- the re-appointment of our auditors and authorization for our Audit Committee to fix the remuneration of the auditors;
- on an advisory basis, the Corporation's approach to executive compensation;
- the re-confirmation and approval of the Corporation's Equity-based Compensation Plans; and
- to transact such other business as may properly be brought before the meeting.

As of the date of this Management Proxy Circular, we know of no amendment, variation or other matter that may come before the Meeting other than the matters referred to in the Notice of Annual Meeting. If any other matter is properly brought before the Meeting, it is the intention of the persons named in the enclosed proxy to vote the proxy on that matter in accordance with their best judgment.

VOTING INFORMATION

SOLICITATION OF PROXIES

This Management Proxy Circular is furnished in connection with the solicitation of proxies by our management in connection with the Meeting to be held on Wednesday, June 6, 2018 at 10:30 a.m. (Eastern Daylight Time) in Toronto, Ontario, or the date and place of any adjournment thereof. We are soliciting proxies primarily by mail, but our directors, officers and employees may solicit proxies personally, by telephone, by facsimile transmission or by other means of electronic communication. The cost of the solicitation will be borne by us. The approximate date on which this Management Proxy Circular and the related materials are first being sent to Registered Shareholders is April 23, 2018.

OBTAINING A PAPER COPY OF MANAGEMENT PROXY CIRCULAR AND FINANCIAL STATEMENTS

In lieu of mailing the Notice of Meeting, Management Proxy Circular and our audited financial statements and management's discussion and analysis for the year ended December 31, 2017, the Corporation is using notice-and-access to provide an electronic copy of these documents to registered shareholders and beneficial shareholders of the Corporation's Common Shares by posting them on www.ballard.com and on the Corporation's profile on www.SEDAR.com. For more information regarding notice-and-access, you may call toll free at 1-855-887-2244, from Canada or the United States.

If you wish to obtain a paper copy of these documents, you may call toll free at 1-877-907-7643, from Canada or the United States. You must call to request a paper copy by May 23, 2018 in order to receive a paper copy prior to the deadline for submission of your voting instructions or form of proxy. If your request is received on or after the date of the Meeting, then the documents will be sent to you within ten calendar days of your request. Ballard will provide a paper copy of the documents to any registered or beneficial shareholder upon request for a period of one year following the date of the filing of this Management Proxy Circular on www.SEDAR.com.

If you have standing instructions to receive paper copies of these documents and would like to revoke them, you may call toll free at 1-877-907-7643, from Canada or the United States.

HOW TO VOTE

Only Registered Shareholders or their duly appointed proxyholders are permitted to vote at the Meeting. Beneficial Shareholders are not permitted to vote at the Meeting as only proxies from Registered Shareholders can be recognized and voted at the Meeting. You may vote as follows:

Registered Shareholders: If you are a Registered Shareholder you may vote by attending the Meeting in person, or if you do not plan to attend the Meeting, by completing the proxy and delivering it according to the instructions contained in the form of proxy and this Management Proxy Circular.

Beneficial Shareholders: If you are a Beneficial Shareholder you may only vote by carefully following the instructions on the voting instruction form or proxy form provided to you by your stockbroker or financial intermediary. If you do not follow the special procedures described by your stockbroker or financial intermediary, you will not be entitled to vote.

Should a Beneficial Shareholder who receives a VIF wish to attend the Meeting or have someone else attend on his or her behalf, the beneficial shareholder may request a legal proxy as set forth in the VIF, which will grant the beneficial shareholder or his/her nominee the right to attend and vote at the Meeting.

Distribution of Meeting Materials to Beneficial Shareholders

The Corporation has distributed copies of the notice-and-access notice and VIF to the depositories and intermediaries for onward distribution to beneficial shareholders. Beneficial shareholders who have previously provided standing instructions will receive a paper copy of the Notice of Meeting, Management Proxy Circular, financial statements and related management discussion and analysis. If you are a beneficial shareholder and the Corporation or its agent has sent these materials directly to you, your name and address and information about your holdings and securities have been obtained in accordance with securities regulatory requirements from the intermediary holding on your behalf.

EXECUTION AND REVOCATION OF PROXIES

A Registered Shareholder or the Registered Shareholder's attorney authorized in writing or, where the Registered Shareholder is a company, a duly authorized officer or attorney of that company, must execute the proxy. In order to be effective, completed proxies must be deposited at the office of the registrar and transfer agent for the Shares, being Computershare Investor Services Inc. ("Computershare"), Proxy Dept., 100 University Avenue, 9th Floor, Toronto Ontario, M5J 2Y1 (Fax: within North America: 1-866-249-7775; outside North America: 1-416-263-9524), not less than 48 hours (excluding Saturdays and holidays) before the time of the Meeting. The individuals named as proxyholders in the accompanying form of proxy are directors and officers of Ballard. A Registered Shareholder desiring to appoint a person or company (who need not be a shareholder) to represent him or her at the Meeting, other than the persons or company in the enclosed proxy, may do so by inserting the name of such other person or company in the blank space provided in the proxy.

A proxy may be revoked by written notice executed by the Registered Shareholder or by his or her attorney authorized in writing or, where the Registered Shareholder is a company, by a duly authorized officer or attorney of that company, and delivered to:

- Computershare, at the address or fax number set out above, at any time up to and including the last business day preceding the day of the Meeting;
- the registered office of the Corporation at any time up to and including the last business day preceding the day of the Meeting; or
- the chair of the Meeting on the day of the Meeting and before any vote in respect of which the proxy is to be used is taken.

A proxy may also be revoked in any other manner provided by law. Any revocation of a proxy will not affect a matter on which a vote is taken before such revocation.

VOTING OF SHARES AND EXERCISE OF DISCRETION BY PROXIES

If you complete and deposit your proxy properly, then the proxyholder named in the accompanying form of proxy will vote or withhold from voting the Shares represented by the proxy in accordance with your instructions.

If you do not specify a choice on any given matter to be voted upon, your Shares will be voted in favour of such matter. The proxy grants the proxyholder the discretion to vote on amendments to or variations of matters identified in the Notice of Annual Meeting and with respect to other matters that may properly come before the Meeting.

VOTING SHARES AND PRINCIPAL SHAREHOLDERS

As of the Record Date of April 9, 2018, we had 178,669,712 Shares issued and outstanding, each carrying the right to one vote. On a show of hands, every individual who is present as a Registered Shareholder or as a representative of one or more corporate Registered Shareholders, or who is holding a proxy on behalf of a Registered Shareholder who is not present at the Meeting, will have one vote, and on a poll, every Registered Shareholder present in person or represented by proxy and every person who is a representative of one or more corporate Registered Shareholders, will have one vote for each Share recorded in the Registered Shareholder's name in the Corporation's central securities register.

As of the Record Date, to the knowledge of our directors and executive officers, no person beneficially owns, controls or directs, directly or indirectly, Shares carrying more than 10% of the voting rights attached to all issued and outstanding Shares carrying the right to vote in all circumstances.

INTEREST OF CERTAIN PERSONS OR COMPANIES IN MATTERS TO BE ACTED UPON

No one who has been a director, director nominee or executive officer of ours at any time since January 1, 2018, or any of his or her associates or affiliates, has any material interest, direct or indirect, by way of beneficial ownership of Shares or otherwise, in any matter to be acted on at the Meeting other than the election of directors.

ELECTION OF DIRECTORS

At the Meeting you will be asked to elect seven directors. All of our nominees are currently members of the Board. Each elected director will hold office until the end of our next annual shareholders' meeting (or if no director is then elected, until a successor is elected) unless the director resigns or is otherwise removed from office earlier. If any nominee for election as a director advises us that he or she is unable to serve as a director, the persons named in the enclosed proxy will vote to elect a substitute director at their discretion.

After 15 years of service, including 12 years as Chair, Ian Bourne is retiring and will not stand for election this year. He will continue to serve as Chair until the conclusion of the Meeting; at which time Mr. Roche will be appointed Chair, if elected.

The following information pertains to our nominees for election as directors at the Meeting, as of April 9, 2018.

The number of Shares shown as being held by each nominee constitute the number beneficially owned, or controlled or directed, directly or indirectly, by that nominee and such information has been provided to us by that nominee.



Douglas P. Hayhurst
Age: 71
B.C., Canada
Director since: 2012

Independent

Mr. Hayhurst's principal occupation is corporate director. Previously, Mr. Hayhurst was an executive with IBM Canada Business Consulting Services (consulting services) and a partner with PricewaterhouseCoopers Management Consultants (consulting services). Prior to that, Mr. Hayhurst held various senior executive management roles with Pricewaterhouse including National Deputy Managing Partner (Toronto) and Managing Partner for British Columbia (Vancouver). Mr. Hayhurst received a Fellowship (FCA) from the Institutes of Chartered Accountants of British Columbia and of Ontario. He has completed the Directors Education Program of the Institute of Corporate Directors and has received his ICD.D designation.

Board and Committee Membership	Attendance		Other Public Board Memberships		
Board Audit (Chair) Corporate Governance & Compensation	8 5 5	89% 83% 83%	Current: none Previous: Accend Capital Corporation; Canexus Corporation; Catalyst Paper Corporation ⁽¹⁾ ; Northgate Minerals Corporation		
			Securities Held ⁽²⁾		
Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) ⁽³⁾	Director Share Ownership Guidelines
2018	5,000	186,101	191,101	\$831,289	On track
2017	5,000	173,960	178,960	\$690,786	On track



Board and Committee

Age: 55
Texas, USA
Director since: 2017

Independent

Ms. Le is President of DLE Management Consulting LLC (management consulting services), a position she has held since 2016. Previously, Ms. Le was a Senior Fellow at Texas Instruments Incorporated (semiconductor design and manufacturing) from 2002 to 2015; Program Manager and Fellow from 1998 to 2002; and Design Engineer and Manager from 1982 to 1998.

Membership	Atten	dance	Other Public Board Memberships				
Board Audit Corporate Governance & Compensation	9 6 6	100% 100% 100%	Current: National Instruments Inc. Previous: none				
			Securities Held ⁽²⁾				
Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) ⁽³⁾	Director Share Ownership Guidelines		
2018	50,000	11,955	61,955	\$269,504	On track		
2017	20,000	3 378	23 378 \$90 239 On track				



R. Randall MacEwen

Age: 49

B.C., Canada

Director since: 2014

Non-Independent

Mr. MacEwen is President and Chief Executive Officer of Ballard, a position he has held since October 2014. Previously, Mr. MacEwen was the founder and Managing Partner at NextCleanTech LLC (consulting services) from 2010 to 2014; and President & CEO and Executive Vice President, Corporate Development at Solar Integrated Technologies, Inc. (solar) from 2006 to 2009 and 2005 to 2006, respectively. Prior to that, Mr. MacEwen was Executive Vice President, Corporate Development at Stuart Energy Systems Corporation (onsite hydrogen generation systems) from 2001 to 2005; and an associate at Torys LLP (law firm) from 1997 to 2001.

Board and Committee Membership	Attendance		Other Public Board Memberships			
Board	9	100%	Current: none Previous: Solar Integrated Technologies Inc.			
	•		Securities Held ^(2, 4)			
Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) ⁽³⁾	Director Share Ownership Guidelines	
2018	161,821	148,046	309,867	\$1,347,921	On track	
2017	96,063	116,667	212,730 \$821,138 On track			



Marty Neese Age: 55

California, USA

Director since: 2015 *Independent*

Mr. Neese's principal occupation is corporate director. Previously, he was Chief Operating Officer of Velodyne LiDAR, Inc. (autonomous vehicles) from February 2017 to October 2017. Prior to that, Mr. Neese was Chief Operating Officer of SunPower Corporation (solar power equipment and services) from 2008 to 2017; responsible for Global Operations at Flextronics (electronics manufacturing services) from 2007 to 2008 following its acquisition of Solectron Corporation (electronics manufacturing services) where he was Executive Vice President from 2004 to 2007.

Board and Committee Membership	Attendance ⁽⁵⁾		Other Public Board Memberships		
Board Audit Corporate Governance &	6 5 6	67% 83% 100%	Current: none Previous: none		
Compensation					
Securities Held ⁽²⁾					
Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) ⁽³⁾	Director Share Ownership Guidelines
2018	0	37,856	37,856	\$164,674	On track
2017	0	34,010	34,010	\$131,279	On track



James Roche Age: 55

Ontario, Canada

Director since: 2015

Independent

Mr. Roche is founder, President and Chief Executive Officer of Stratford Managers Corporation (management consulting services), a position he has held since 2008. Prior to that, Mr. Roche was co-founder, President and Chief Executive Officer of Tundra Semiconductor (semiconductor component manufacturer) from 1995 to 2006 and founding member and executive at Newbridge Networks Corporation (communications equipment manufacturer) from 1986 to 1995.

Board and Committee Membership	Atten	dance	Other Public	Board Memberships	;
Board Audit Corporate Governance & Compensation	9 6 6	100% 100% 100%	Current: none Previous: Wi-LAN Inc.; Tundra Semiconductor Corporation; Aztech Innovations Inc		
			Securities Held ⁽²⁾		
Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) ⁽³⁾	Director Share Ownership Guidelines
2018	50,000	51,609	101,609	\$441,999	On track
2017	50,000	40,638	90,638 \$349,863		On track



Ian Sutcliffe
Age: 65
Ontario, Canada
Director since: 2013

Independent

Mr. Sutcliffe's principal occupation is corporate director. Mr. Sutcliffe has been a partner at Sutcliffe & Associates Management Consultants (management consulting services) since June 1985. Previously, Mr. Sutcliffe was Executive Chair of PureFacts Financial Solutions (financial software services) from May 2013 to November 2016. Prior to that, he was co-CEO of PHeMI, Inc. (medical software and IT infrastructure) form July 2010 to November 2012; CEO, Chairman and independent director of BluePoint Data (IT services) from Sept 2001 to June 2011; and Vice Chair and CEO of BCS Global (video conferencing services) from January 2003 to March 2004. Mr. Sutcliffe was President of Mediconsult.com (public internet health services) from June 1995 to June 1999 and President and CEO from 1999 to 2001.

Board and Committee Membership	Atten	dance	Other Public Board Memberships				
Board Audit Corporate Governance & Compensation	9 6 6	100% 100% 100%	Current: none Previous: BluePoint Data Inc. (1)				
	Securities Held ⁽²⁾						
Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) ⁽³⁾	Director Share Ownership Guidelines		
2018	10,000	78,665	88,665	\$385,693	On track		
2017	10,000	69,061	79,061 \$305,175 On track				



Janet Woodruff
Age: 61
B.C., Canada
Director since: 2017

Independent

Ms. Woodruff's principal occupation is corporate director. Previously, Ms. Woodruff served as acting CEO to the Transportation Investment Corporation (*transportation infrastructure management*) from 2014 to 2105, advisor to the board (2013-2014) and interim Chief Financial Officer (2012-2013). Prior to that, she was Vice President and Special Advisor to BC Hydro (*public utility*) from 2010 to 2011; Interim President (2009-2010) and Vice President, Corporate Services and Chief Financial Officer (2007-2008) of BC Transmission Corporation (*electricity transmission infrastructure*); and Chief Financial Officer and Vice President, Systems Development and Performance of Vancouver Coastal Health from 2003 to 2007.

Membership	Attend	lance ⁽⁶⁾	Other Public Board Memberships			
Board Audit Corporate Governance & Compensation	6 4 4	100% 100% 100%	Current ⁽⁷⁾ : Keyera Corporation; Altus Group Limited; Capstone Infrastructure Corporation; FortisBC Energy Inc. and FortisBC Inc. Previous: Nordion Inc. (formerly MDS Inc.); Pacific Northern Gas			
			Securities Held ⁽²⁾			
Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) ⁽³⁾	Director Share Ownership Guidelines	
2018	0	9,404	9,404	\$40,907	On track	
2017	0	0	0	\$0	On track	

- Canadian securities legislation requires disclosure of any company that becomes insolvent while a director is a member of its board, or within one year from ceasing to act as a director. In this regard, Mr. Hayhurst was a director of Catalyst Paper Corporation, which sought an Initial Order under the *Companies' Creditors Arrangement Act* on January 31, 2012. Mr. Ian Sutcliffe was a director of BluePoint Data Inc. on May 12, 2012 when the British Columbia Securities Commission issued a cease trade order against it for failure to file its financial statements and management's discussion and analysis related thereto for the year ended December 31, 2011. Mr. Sutcliffe resigned as a director on June 27, 2012, subsequent to which BluePoint sold its business and distributed the proceeds to its shareholders.
- (2) As of April 9, 2018 and April 18, 2017, respectively.
- Based on a CDN\$4.35 and CDN\$3.86 closing Share price on the TSX as of April 9, 2018 and April 18, 2017, respectively.
- (4) As President and CEO, Mr. MacEwen also holds PSUs and Options. See the Executive Compensation Tables on page 39 and following for more details.
- (5) Mr. Neese was unable to attend board meetings on June 5 and 6, 2017, due to unexpected scheduling conflicts with his former employer. This situation is not expected to recur.
- (6) Ms. Woodruff was appointed to the board as of April 1, 2017, and attended all board and committee meetings from that date.
- (7) Fortis BC Inc. and Fortis BC Energy Inc. are both wholly owned subsidiaries of Fortis Inc., but which have public debt securities outstanding. Capstone Infrastructure Corporation is a wholly owned subsidiary of Irving Infrastructure Corp., but which has preferred shares which are publicly traded on the TSX.

APPOINTMENT OF AUDITORS

Our Audit Committee has recommended that KPMG LLP, Chartered Accountants, of 777 Dunsmuir Street, Vancouver, British Columbia, be nominated at the Meeting for re-appointment as our external auditors. Our Audit Committee will fix the remuneration of our external auditors if authorized to do so by Shareholders at the Meeting. It is expected that representatives of KPMG LLP will be present at the Meeting. KPMG LLP were appointed as our external auditors in 1999. Total fees paid to KPMG in 2017 and 2016 are set forth in the table below. We comply with the requirement regarding the rotation of our audit engagement partner every five years. The current audit engagement partner at KPMG LLP may continue in his role until the end of 2021.

The following table shows the fees we incurred with KPMG LLP in 2017 and 2016:

Type of Audit Fees	2017 (CDN\$)	2016 (CDN\$)
Audit Fees	\$543,000	\$448,000
Audit-Related Fees	Nil	Nil
Tax Fees	Nil	Nil
All Other Fees ⁽¹⁾	Nil	\$20,000

⁽¹⁾ All Other Fees related to valuation advisory services for 2016.

For a more detailed description of the Audit Committee or to see the Audit Committee's mandate, a copy of which is posted on our website (www.ballard.com), see the section entitled "Audit Committee Matters" in our Annual Information Form dated February 28, 2018, which section is incorporated by reference into this Management Proxy Circular.

ADVISORY VOTE ON APPROACH TO EXECUTIVE COMPENSATION

The Corporate Governance & Compensation Committee ("CGCC") monitors developments and trends relating to best practices on corporate governance and executive compensation, including relating to "say-on-pay" in Canada and in the United States. In the United States, the SEC has established "say-on-pay" advisory shareholder vote requirements for certain issuers. Although the Corporation's shares are traded on NASDAQ, Ballard is a "foreign private issuer" under applicable SEC rules and, accordingly, these requirements do not apply to the Corporation. Although "say-on-pay" shareholder votes have yet to be mandated in Canada, a number of larger issuers in Canada have voluntarily implemented such advisory votes. Ballard has also voluntarily implemented "say on pay" advisory votes. At the request of the Board, our Shareholders have passed resolutions, on an advisory basis, accepting the Corporation's approach to executive compensation since 2011.

The CGCC recommended to the Board that Ballard Shareholders again be provided the opportunity, on an advisory basis, to vote at the Meeting in respect of the Corporation's approach to executive compensation. The CGCC also recommended that adoption by the Board of a formal "say-on-pay" policy should continue to be deferred until applicable Canadian securities regulatory authorities have set out the regulatory requirements applicable to the Corporation.

Accordingly, the Shareholders of the Corporation are able to vote at this Meeting, on an advisory and non-binding basis, "FOR" or "AGAINST" the Corporation's current approach to executive compensation through the following resolution:

"RESOLVED, on an advisory basis and not to diminish the role and responsibilities of the Board of Directors of the Corporation, that the Shareholders accept the approach to executive compensation disclosed in the Corporation's management proxy circular delivered in advance of the Corporation's 2018 annual meeting of Shareholders."

The Board believes that Shareholders should be well informed about and fully understand the objectives, philosophy and principles that it has used to make executive compensation decisions. For information

regarding Ballard's approach to executive compensation, Shareholders should review the section entitled "Executive Compensation – Compensation Discussion and Analysis" appearing below in this Management Proxy Circular.

Approval of the above resolution will require an affirmative vote of a majority of the votes cast on the matter at the Meeting. Abstentions will have no effect and will not be counted as votes cast on the resolution. As the vote on this resolution is advisory, the results will not be binding on the Board or the CGCC. However, the Board and the CGCC will take the results of the advisory vote into account, as appropriate, as part of their ongoing review of the Corporation's executive compensation objectives, philosophy, principles, policies and programs.

EQUITY-BASED COMPENSATION PLANS

The Corporation adopted two equity-based compensation plans approved by our Shareholders at the 2009 Annual Meeting and most recently re-approved at the 2015 Annual Meeting⁽¹⁾:

- (a) a consolidated share option plan (the "Option Plan"; and
- (b) a consolidated share distribution plan (the "SDP").

For a detailed description of the principal terms of our equity-based compensation plans, see Appendix "A" and "B" of this Management Proxy Circular.

The TSX requires that equity-based compensation plans of a listed issuer be re-approved by a majority of the issuer's directors and by its shareholders every three years if such plan does not have a fixed maximum number of securities that can be issued under them. The current Option Plan and SDP provide that the maximum number of the Corporation's Shares available for issuance under them, in aggregate, cannot exceed 10% of the issued and outstanding Shares at the time of grant.

The TSX also requires that certain revisions to a listed issuer's equity-based compensation plans be approved by its shareholders, including any changes to the amendment provisions of such plans.

On February 28, the Board approved certain changes to the Option Plan and SDP: providing common definitions for both plans; removing references to predecessor plans that are no longer relevant; and updating other provisions to reflect current practice or to comply with U.S. income tax requirements.

In addition, the Board approved setting the maximum number of the Corporation's Shares available for issuance under the Option Plan and SDP, in aggregate, cannot exceed 8.5% of the issued and outstanding Shares at the time of grant. **This change requires shareholder approval.**

As set out in the description of "Long Term Incentives" in the Compensation Discussion and Analysis section, the actual number of outstanding securities awarded under the Option Plan and SDP, in aggregate, over the last three years has been under 6% of the issued and outstanding Shares at the time of grant, and the Board anticipates this will continue to be the case for the foreseeable future.

The other key changes to the Option Plan were:

• Reducing the Share acquisition threshold for an accelerated vesting event from "at least two-thirds" of Shares to "more than 50%"; and privatization is no longer a required intent or outcome if Ballard joins in any business combination that results in Ballard's shareholders owning less than 50% of the voting shares of the combined entity. These revisions reflect standard terms for such provisions.

The Corporation also adopted a plan, administered by an independent trustee, for the purchase of Ballard Shares on the open market for the redemption of PSU awards (the "Market Purchase PSU Plan"). The independent trustee makes these open market purchases through the facilities of the TSX, and holds the purchased Shares in escrow until the restriction period is complete and any performance criteria have been satisfied. Shares purchased under this plan do not count against the rolling cap under the Option Plan or SDP.

- References to predecessor plans were deleted as all existing Options were issued under the current Option Plan.
- The exercise provisions were amended to reflect the Corporation's use of an online service provider to allow Optionees to exercise options. The previous version contemplated delivery of paper forms only.
- The amending provision was amended to conform to current TSX rules and to conform to the remainder of the text of the Option Plan. The substantive changes that conform to current TSX rules consist of limiting the Board's power, without shareholder approval, to reduce the exercise price or extend the term of options held by insiders (whereas previously this restriction applied to all options, not just those held by insiders), and deleting the blanket prohibition on the Board's ability to approve transfers of Options without shareholder approval. Minor conforming changes primarily consisted of changing the term "Common Shares" to "Shares" so that the same term is used throughout the Option Plan. **These changes require shareholder approval.**

The other key changes to the SDP were:

- Replacing "Restricted Share Unit" and "RSU" with the terms "Performance Share Unit" and "PSU" to reflect the fact that the vast majority of such grants issued under the SDP include performance criteria related to the award.
- Reducing the Share acquisition threshold for an accelerated vesting event from "at least two-thirds" of Shares to "more than 50%"; and privatization is no longer a required intent or outcome if Ballard joins in any business combination that results in Ballard's shareholders owning less than 50% of the voting shares of the combined entity. These revisions reflect standard terms for such provisions.
- Provisions relating to plan participants who are eligible to be considered Retired were revised to comply with U.S. income tax requirements.
- In the amending provision, the term "Restricted Share Unit" was replaced by the term "Performance Share Unit" (as already noted above). **This change requires shareholder approval.**

Copies of the Option Plan and SDP as approved by the Board in February are available on the Corporation's profile on www.sedar.com (as "Other securityholder documents – English", filed on April 3, 2018) and will be posted on the Governance section of the Corporation's website (http://ballard.com/investors/governance) following the Meeting, if approved.

The following table sets out, as of December 31, 2017, the number of securities we are authorized to issue under our equity-based compensation plans and the relevant exercise prices at which such securities may be issued.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (#) (a)	Weighted -Average Exercise Price of Outstanding Options, Warrants and Rights (CDN\$) (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans excluding securities reflected in column (a) (c)
Equity-based compensation plans approved by security holders	6,188,365	1.97	11,617,902
Equity-based compensation plans not approved by security holders	Nil	N/A	N/A
Total	6,188,365	1.97	11,617,902

Shareholders will be asked at the Meeting to consider and, if deemed appropriate, to approve, by a simple majority of votes cast at the Meeting, a resolution, in the form below, to re-confirm and approve the Option Plan and SDP. If this resolution is not passed at the Meeting, no further awards will be made under the Equity-based Compensation Plans, however, the plans will continue on the same terms as they were the day before the Meeting in respect of equity-based compensation previously granted.

"BE IT RESOLVED THAT:

- 1. The consolidated option plan ("Option Plan"), in the form approved by the Board, and its adoption by the Corporation, is hereby re-confirmed and approved.
- 2. The consolidated share distribution plan ("SDP"), in the form approved by the Board, and its adoption by the Corporation, is hereby re-confirmed and approved.
- 3. All unallocated entitlements under the Option Plan and SDP are approved and ratified until June 6, 2021.
- 4. Any one officer or director of the Corporation is authorized on behalf and in the name of the Corporation to execute all such documents and to take all such actions as may be necessary or desirable to implement and give effect to this resolution or any part thereof."

In order for this ordinary resolution to be passed, it requires the positive approval of a simple majority (greater than 50%) of the votes cast thereon at the Meeting.

The Board recommends that Shareholders vote "FOR" the foregoing resolutions. The representatives of management named in the enclosed form of proxy, if named as proxyholders, intend to vote for the resolution, unless the Shareholder has specified in the form of proxy that his or her shares are to be voted against the resolution.

CORPORATE GOVERNANCE

Our Board and senior management consider good corporate governance to be central to our effective and efficient operation. We monitor corporate governance initiatives as they develop and benchmark industry practices to ensure that we are in compliance with corporate governance rules.

Our corporate governance practices are reflected in our Corporate Governance Policy, which provides for board composition and director qualification standards, tenure and term limits, director responsibilities, the form and amount of director compensation, director orientation and continuing education, management succession planning and performance evaluation of the Board. A copy of the Corporate Governance Policy can be found on our website at www.ballard.com. We have also reviewed our internal control and disclosure procedures, and are satisfied that they are sufficient to enable our Chief Executive Officer and Chief Financial Officer to certify our interim and annual financial reports filed with Canadian securities regulatory authorities, and to certify our annual financial reports filed with or submitted to the SEC.

In addition, we have set up a process for Shareholders to communicate to the Board, the details of which can be found on our website. A summary of shareholder feedback is provided to the Board through a semi-annual report.

We believe that we comply with all applicable Canadian securities administrators ("CSA") and NASDAQ corporate governance rules and guidelines. The CSA requires that listed corporations subject to *National Instrument 58-101 - Disclosure of Corporate Governance Practices* ("NI 58-101") disclose their policies respecting corporate governance. We comply with NI 58-101, which addresses matters such as the constitution and independence of corporate boards, the functions to be performed by boards and their committees, and the effectiveness and education of board members. We are exempt from the NASDAQ corporate governance rule requiring that each NASDAQ quoted company has in place a minimum quorum requirement for shareholder meetings of 33 1/3% of the outstanding shares of the company's voting common stock. Our by-laws currently provide that a quorum is met if holders of at least 25% of the votes eligible to be cast at a Shareholders' meeting are present or represented by proxy at the meeting.

BOARD COMPOSITION AND NOMINATION PROCESS

All of our directors are independent except for Randall MacEwen, our President and Chief Executive Officer. "Independence" is judged in accordance with the provisions of the United States *Sarbanes-Oxley Act of 2002* ("**Sarbanes-Oxley**"), and as determined by the CSA and the NASDAQ. We conduct an annual review of the other corporate boards on which our directors sit, and have determined that currently there are no board

interlocks with respect to our directors. The Board has also established a guideline for the maximum number of public company boards on which a director should sit. This guideline has been set at no more than four public company boards, including the Corporation's Board; and for directors who are CEOs (or hold similar positions), no more than one public company board in addition to his/her own company's board. Currently all of our board members comply with this guideline.

The Board believes that its membership should be composed of highly qualified directors with diverse backgrounds, skills sets and experience bases and who demonstrate integrity and suitability for overseeing management. The CGCC and the Board have determined that the criteria to be considered when selecting directors and recommending their election by the Shareholders include the following:

- a) Direct experience in leading a business as a CEO or other senior executive
- b) Strategy development experience
- c) Sales/Marketing experience
- d) Finance/Accounting experience & education
- e) Product development experience
- f) Corporate governance experience & education
- g) Early-Stage business commercialization experience
- h) CleanTech sector knowledge
- i) Asian market experience

In addition to these criteria, we also take into consideration other industry and business factors in determining the composition of our Board.

Our CGCC conducts an annual process under which an assessment is made of the skills, expertise and competencies of the directors and is compared to our needs and the needs of the Board. This process culminates in a recommendation to the Board of individual nominee directors for election at our annual Shareholders' meeting. To this end, the CGCC will, when identifying candidates to recommend for appointment or election to the Board:

- a) consider only candidates who are highly qualified based on their relevant experience, expertise, perspectives, and personal skills and qualities, and cultural fit;
- b) consider diversity criteria including gender, age, ethnicity and geographic background; and
- c) in addition to its own search, as and when appropriate from time to time, engage qualified independent external advisors to conduct a search for candidates who meet the Board's expertise, skills and diversity criteria.

Currently, we have two women serving on our board, a representation of 29%. As part of its approach to Board diversity, the Board has not established specific targets for any diversity criteria at this time. The CGCC will assess the effectiveness of this approach annually and recommend amendments to the Board, including the possible adoption of measurable objectives for achieving Board diversity, as appropriate. The Corporation is a member of the Canadian chapter of the 30% Club, a group whose aspirational goal is for 30% of board seats and C-Suites to be held by women by 2022.

The following table identifies some of the current skills and other factors considered as part of the competency matrix developed by the CGCC. Each director was asked to indicate the top three competencies which he/she believes they possess.

	Douglas P. Hayhurst	Duy-Loan Le	R. Randall MacEwen	Marty Neese	James Roche	Ian Sutcliffe	Janet Woodruff
President/CEO Experience			✓			✓	√
Strategy	✓				✓		
Sales/ Marketing						✓	
Finance/ Accounting	✓						✓
Product Development		✓		✓	✓		
Corporate Governance	✓						✓
Early Stage Business Commercialization		✓	✓		✓	✓	
Clean Technology			✓	✓			
Asian Markets		✓		✓			

TENURE AND TERM LIMITS

Directors are elected yearly at our annual Shareholders' meeting and serve on the Board until the following annual Shareholders' meeting, at which time they either stand for re-election or leave the Board. If no meeting is held, each director serves until his or her successor is elected or appointed, unless the director resigns earlier.

Independent directors are expected to serve on at least one Committee of the Board. The CGCC and Audit Committee are tasked with ensuring a rotation of Committee members and Chairs to broaden the experience and skills of each member of the Board, and ensure an appropriate mix of experience and expertise in respect of the various roles of the Board and its committees. Currently, each independent director serves as a member of the Audit Committee and the CGCC. A director may only serve on the Board for a maximum of 15 consecutive years. These provisions do not apply to the President & Chief Executive Officer in his/her role as a Board member.

DIRECTOR SHARE OWNERSHIP GUIDELINES

We have minimum share ownership guidelines that apply to our independent directors.

All independent directors are required to hold at least the number of Ballard Shares that has a value equivalent to three times the director's annual retainer. Directors have six years from the date that they are first elected to the Board to comply with this minimum share ownership guideline. In determining whether a director is in compliance with the minimum share ownership guidelines, any DSUs that a director receives as payment for all or part of their annual retainer will be credited towards calculating achievement of the minimum share ownership requirements.

The value of Shares held by directors will be measured on or about December 31st of each year based on the purchase price actually paid by the director for such Shares, or the value of DSUs or Shares received by the director when issued to him or her by the Corporation, as applicable.

Any director who fails to comply with the share ownership guideline will not be eligible to stand for reelection. Currently, all of our directors have met or are on track to achieve these guidelines.

BOARD MEETINGS

The Board meets on a regularly scheduled basis and directors are kept informed of our operations at meetings of the Board and its committees, and through reports by and discussions with management. In 2017, *in camera* sessions, chaired by the Chair of the Board, were held after each regularly scheduled Board meeting

involving all of the independent directors without the presence of management. In addition, communications between the directors and management occur apart from regularly scheduled Board and committee meetings. The Board has set a minimum meeting attendance guideline of 75%. Non-compliance with this guideline by a director is one of the factors considered in his or her individual performance evaluation at the end of the year.

ROLES AND RESPONSIBILITIES

The Board operates under a formal mandate (a copy of which is attached as Appendix "A" and is posted on our website at www.ballard.com), which sets out its duties and responsibilities, including matters such as corporate strategy, fiscal management and reporting, selection of management, legal and regulatory compliance, risk management, external communications and performance evaluation. The Board has also established terms of reference and corporate governance guidelines for individual directors (copies of which are also posted on our website), which set out the directors' individual responsibilities and duties. Terms of reference are also established for the Board Chair and the CEO. These terms of reference and guidelines serve as a code of conduct with which each director is expected to comply, and address matters such as conflicts of interest, the duties and standard of care of directors, the level of availability expected of directors, requirements for maximizing the effectiveness of Board and committee meetings, and considerations that directors are to keep in mind in order to make effective and informed decisions.

In addition, we have a Board-approved "Code of Ethics", which applies to all members of the Board, as well as our officers and employees. A copy of the Code of Ethics can be found on our website (www.ballard.com). This document is reviewed annually and updated or revised as necessary. Annually, all employees in Sales & Marketing, Finance & Administration, Supply Chain, Customer Service and Quality, and all management employees and officers, are required to formally acknowledge they have read, reviewed and comply with the Code of Ethics. A compliance report is then presented to the Audit Committee and Board.

The Chair of the Board is responsible for ensuring the appropriate organization, content and flow of information to the Board and that all concerns of the directors are addressed. The Chair of the Board reviews and sets the agenda for each Board meeting. The Chair of the Board is also responsible for organizing and setting the frequency of Board meetings and ensuring that Board meetings are conducted efficiently. The Chair of the Board is an independent director.

Each year, the Board identifies a list of focus priorities for the Board during the year. The CGCC regularly monitors the Board's progress against these priorities throughout the year.

BOARD ORIENTATION AND EDUCATION

We have established a formal director orientation and ongoing education program. Upon joining our Board, each director receives an orientation regarding our business. Such orientation includes site visits to our manufacturing facilities, presentations regarding our business, technology and products, and a manual that contains various reference documents and information. Continuing education is offered by way of ongoing circulation of informative materials aimed at topical subject matters, material industry developments, and management presentations at Board meetings, as well as guest speakers who are invited to speak to our Board on various topics. From time to time we have invited guest speakers to speak to our Board about the fuel cell industry, government regulation, regional markets, capital markets, corporate governance and risk management, and internal management representatives to speak about various issues, including relating to our industry, business, strategy, markets, customers, projects, technology, products, services, operations, employee relations, investor relations and risks. In 2017, guest speakers discussed fuel cell market developments in the EU and China. The orientation and ongoing educational presentations that are made by internal management provide an opportunity for Board members to meet and interact with members of our management team.

In April 2017, the Board and senior management travelled to China for five days for meetings, presentations and site visits with certain fuel cell market participants, including customers, partners and government

officials, concerning developments in China and to provide insight into the Corporation's strategy and efforts there.

SHAREHOLDER FEEDBACK AND COMMUNICATION

We have an e-mail process for Shareholders to communicate with the Board, through the Chair of the Board. Shareholders who wish to send a message to the Chair of the Board can find the details of this process on our website at www.ballard.com. In addition, a summary of shareholder feedback that is received by us is provided to the Board through a semi-annual report.

BOARD AND DIRECTOR PERFORMANCE EVALUATIONS

Each year, the Board conducts an evaluation and review of its performance during the past year. The evaluation is conducted through a process determined from time to time by the CGCC which elicits responses from individual directors on a confidential basis regarding performance of the Board and individual directors. The process may include the completion of a questionnaire by all of the directors as well as individual director self-evaluations and peer evaluations. The CGCC presents the summary results to the full Board, which then, based on the results of the evaluation, determines appropriate actions and changes to improve Board effectiveness.

COMMITTEES OF THE BOARD

The Board has established two standing committees: (1) the Audit Committee; and (2) the Corporate Governance & Compensation Committee ("CGCC").

Each committee has been delegated certain responsibilities, performs certain advisory functions and either makes certain decisions or makes recommendations to the Board. Each committee chair reports on the activities of the committee to the Board following each committee meeting. The members of these committees are all independent. Given a number of considerations, including the past and planned size of the Board, the composition of the Board, considerations relating to the efficiency and effectiveness of the Board and these two committees, and the flat retainer fee structure used for compensating the Board, these two committees are represented by all directors other than the CEO.

The following chart sets out current members of our standing committees:

	Audit Committee	Corporate Governance & Compensation Committee
Ian A. Bourne	✓¹	√1
Douglas P. Hayhurst	✓ (Chair)	✓
Duy-Loan Le	✓	✓
Marty Neese	✓	✓
James Roche	✓	✓ (Chair)
Carol M. Stephenson ²	✓	✓
Ian Sutcliffe	✓	✓
Janet Woodruff ³	✓	✓

¹ As Chair of the Board Mr. Bourne is an ex officio member of each of the committees and is entitled to vote at meetings.

After the Meeting, we will reconstitute all of the standing committees to reflect the newly elected Board.

In addition to the standing committees of the Board, the Director Search Committee, an ad hoc committee first established in 2014, met in 2017.

Audit Committee

The Audit Committee is responsible for assisting the Board in fulfilling its oversight responsibilities regarding the integrity of the Corporation's accounting and financial reporting, the Corporation's systems of internal controls over financial reporting, the independence and performance of the Corporation's external and internal auditors, the identification and management of the Corporation's risks, the Corporation's whistleblower reporting processes, the Corporation's financial policies and the review and approval of related party transactions.

The Audit Committee met six (6) times during 2017. The Audit Committee is constituted in accordance with SEC rules, applicable Canadian securities laws and applicable NASDAQ rules, and assists the Board in fulfilling its responsibilities by reviewing financial information, the systems of corporate controls and the audit process. The Audit Committee has at least three members, Douglas P. Hayhurst, Ian A. Bourne and Janet Woodruff, who qualify as audit committee financial experts under applicable securities regulations. All of the members of the Audit Committee are independent directors in accordance with the applicable Canadian and United States securities laws and exchange requirements and are financially literate.

The external auditors report directly to the Audit Committee. The Audit Committee approves in advance, on a case-by-case basis, any services to be provided by the external auditors that are not related to the audit. The Audit Committee is responsible for monitoring the external auditor's qualifications and independence, determining the appropriate level of compensation for the external auditors, and evaluating the effectiveness of the external audit and the external auditors in support of making a recommendation for the appointment of our external auditors to our Shareholders. The Audit Committee annually conducts a formal audit effectiveness assessment to drive continuous improvement in the external audit. In 2017, the Audit Committee, in coordination with Management and KPMG, participated in the Canadian Public Accountability Board's audit quality indicators project. The project is aimed at improving audit quality through the use of quantitative measures to evaluate audit quality. Using the year-end audit quality indicators report, the Audit Committee will evaluate how to best integrate the indicators into its regular processes and into the external audit.

² Ms. Stephenson did not stand for election and left the board on June 7, 2017.

³ Ms. Woodruff joined the board on April 1, 2017.

The Audit Committee is responsible for recommending the appointment of our external auditors (for Shareholder approval at our annual general meeting), monitoring the external auditors' qualifications and independence, and determining the appropriate level of remuneration for the external auditors. The external auditors report directly to the Audit Committee. The Audit Committee also approves in advance, on a case-by-case basis, any services to be provided by the external auditors that are not related to the audit. The Audit Committee is also responsible for the appointment of our internal auditors (or persons responsible for the function), and directing, monitoring and providing guidance to the internal audit function and review the performance of the internal auditor at least annually.

In addition, the Audit Committee is mandated to review all financial disclosure contained in prospectuses, annual reports, annual information forms, management proxy circulars and other similar documents. The Audit Committee is also responsible for ensuring that the internal audit function is being effectively carried out. The Audit Committee reviews and approves, in advance, related party transactions (including transactions and agreements in respect of which a director or executive officer has a material interest) on a case-by-case basis.

For a more detailed description of the Audit Committee or to see the Audit Committee's mandate, a copy of which is posted on our website, see the section entitled "Audit Committee Matters" in our Annual Information Form dated February 28, 2018, which section is incorporated by reference into this Management Proxy Circular.

Corporate Governance & Compensation Committee

The CGCC met six (6) times during 2017. Collectively, the CCGC members have extensive compensation-related experience as senior executives (past and present) and members of the board of directors and committees of other public and private corporations. The Board is confident that the CCGC collectively has the knowledge, experience and background to carry out the Committee's mandate effectively and to make executive compensation decisions in the best interests of the Corporation and its Shareholders.

The CGCC is responsible for the following:

- recommending the size of the Board and the formation and membership of committees of the Board;
- review and approval of all director nominations to the Board;
- determining director compensation;
- maintaining an ongoing education program for Board members;
- ensuring a formal process exists to evaluate the performance of the Board, Board committees, individual directors, and the Chair of the Board, and ensuring that appropriate actions are taken, based on the results of the evaluation, to improve the effectiveness of the Board;
- conducting succession planning for the Chair of the Board; and
- monitoring corporate governance and making recommendations to enable the Board to comply with best corporate governance practices in Canada and the United States;

The CGCC is also responsible for:

- considering and authorizing the terms of employment and compensation of executive officers and providing advice on organizational and compensation structures in the various jurisdictions in which we operate;
- reviewing and setting the minimum share ownership requirement for executive officers;
- reviewing all distributions under our equity-based compensation plans, and reviewing and approving the design and structure of, and any amendments to, those plans;
- ensuring appropriate CEO and senior management succession planning, recruitment, development, training and evaluation; and

• annually reviewing the performance objectives of our CEO and conducting his annual performance evaluation.

Any compensation consultants engaged by us, at the direction of the CGCC, report directly to the CGCC, which has the authority to appoint such consultants, determine their level of remuneration, and oversee and terminate their services.

The CGCC does not have a written policy regarding succession planning or recruitment of executive officers. However, the CGCC takes the same approach when identifying candidates for executive officers that it takes in respect of director candidates. The CGCC will, when identifying executive officer candidates:

- a) consider only candidates who are highly qualified based on their experience, expertise, perspectives, and personal skills and qualities; and
- b) consider diversity criteria including gender, age, ethnicity and geographic background.

The CGCC has not established targets for any diversity criteria for executive officers at this time. The CGCC and Board annually review executive succession plans and emerging leadership candidates, including a review of demographic information to ensure the correct focus on diversity. Individual development plans are established by management, including those for female leaders, and the Corporation has sponsored and supported participation in activities including the Minerva "Women in" annual luncheon series and Boardled career discussions. As of the Record Date, there are no women executive officers of the Corporation.

A copy of the CGCC's mandate is posted on our website (www.ballard.com). The mandate is reviewed annually and the CGCC's performance is assessed annually through a process overseen by the Board.

Director Search Committee

The Director Search Committee is a temporary sub-committee of the CGCC established in 2014 for the purpose of establishing and leading a search and selection process of potential director nominees for consideration by the Board.

The Director Search Committee met twice during 2017. The members are James Roche, Ian A. Bourne and Douglas P. Hayhurst. The committee engaged Korn Ferry to provide services in support of the director nominee candidate selection and interview process.

During 2017, there were two new directors – Duy-Loan Le and Janet Woodruff – that joined the Board as a result of the work of the Director Search Committee.

EXECUTIVE COMPENSATION

COMPENSATION DISCUSSION AND ANALYSIS

This section discusses the elements of compensation earned by our "Named Executive Officers" as of December 31, 2017:

Randall MacEwen	Tony Guglielmin	Robert Campbell	Kevin Colbow	Paul Osenar
President and Chief Executive Officer	Vice President and Chief Financial Officer	Chief Commercial Officer	Vice President, Technology & Product Development	President, Protonex Technology Corporation

INTRODUCTION

Setting executive compensation in an early-stage high technology business – such as our hydrogen fuel cell enterprise – in a way that balances 'motivation and incentive' with 'creation of shareholder value' is a challenging task. As a result, the Corporation puts a considerable amount of effort into the development, and ongoing monitoring and management of our executive compensation plan. This includes the involvement of

expert third parties to provide independent advice, monitoring of industry best-practices, and benchmarking against relevant comparators inside and outside the fuel cell industry sector.

Commitment to improve 'Advisory Say on Pay' approval

We solicit investor feedback on our executive compensation approach by providing an advisory "Say on Pay" vote, which we introduced in 2011.

The CGCC committed to better understand the relatively modest 'For' vote on Say on Pay in 2016, analyze this information and engage where possible with shareholders on Executive pay issues. The large proportion of retail Shareholders and the relatively low number of votes cast for this matter (10.5% of outstanding shares voted, with 2.9% votes against) made it challenging to solicit feedback from Shareholders. Over the past two years, the CGCC has continued to review and refine our executive compensation philosophy, executive compensation programs and executive compensation disclosure. In 2016, we revised our approach to executive compensation disclosure to make the disclosure clearer, more transparent and more communicative. We believe these efforts, along with improved corporate financial performance, led to an increase in our votes for our Say on Pay resolution in 2017, which passed by over 97% as compared to 72.5% in 2016.

Executive Compensation Program Highlights

Ballard's executive compensation program is designed to attract the skillsets and experience needed to lead the development and execution of the Corporation's strategy, to incent and reward executives appropriately for performance and risk management, and to incent retention and align executive compensation with long-term shareholder value. Our executive compensation program is comprised of the following elements:

- **Annual Base Salary** set to reflect the size and scope of the role, as well as individual experience and performance, and market competitiveness;
- Annual Performance Bonus expressed as a percentage of annual base salary and typically paid in cash, annual performance bonus is determined based on achievement levels against a weighted mix of annual corporate performance goals and individual performance goals that support the overall corporate goals, both quantitative and qualitative at the Board's discretion;

• Long-Term Incentive

- Performance Share Units (PSUs) performance-based PSUs are awarded annually as a percentage of annual base salary and typically vest over three years, subject to the achievement of corporate performance objectives; PSUs are aligned with shareholder interests as vesting is dependent on corporate performance, retention over three years, and the realizable value of PSUs partly depends on our share price after vesting. In limited circumstances, such as new hire grants, PSUs may be awarded that are subject to time vesting only, typically over three years; these one-time awards are aligned with shareholder interests as the realizable value depends on our share price after vesting. For awards made in 2016 and after, we determined that PSU grants will vest after three years.
- Stock Options stock options are awarded annually, vest over three years and have a seven year term; stock options are aligned with shareholder interests as their realizable value depends on growth in our share price.

With these compensation elements, a significant proportion of compensation is put "at risk" (for NEOs, from 27% to 77% of total compensation), since it depends on successful performance and growth in Ballard's share price – both of which effectively align executive compensation with shareholder interests.

To further align with the shareholder experience, our executive officers are required to comply with minimum share ownership requirements. Specifically, executive officers are required to hold between 100% and 300% of their individual base salary in Common Shares or Deferred Share Units, depending on their level within the Corporation. They have 5 years in which to meet this minimum share ownership requirement.

In setting, monitoring and managing executive compensation the Corporation ensures careful consideration of the relevant factors impacting each element of the plan through a rigorous process, with appropriate oversight designed to pay appropriate short- and long-term incentive amounts that are strongly aligned with the creation of long-term value for shareholders.

In recruiting our CEO in October 2014, we were mindful to adopt best practices, including claw-back provisions, and state-of-the-art provisions dealing with termination and change of control, as well as to align the total compensation package at a level appropriate for the Corporation's size and stage of development

Significant Program Changes in 2017

Executive Claw-Back Provisions

During 2016 and 2017, all Named Executive Officers agreed to the following claw-back provision:

• Where there is a restatement of the financial results of the Corporation for any reason other than a restatement caused by a change in applicable accounting rules or interpretations, and, in connection with such restatement a senior officer engaged in gross negligence, fraud or willful misconduct, the Board may: (a) require that a senior officer return or repay to the Corporation, or reimburse the Corporation for, all or part of the after-tax portion of any excess compensation; and/or (b) cause all or part of any awarded and unpaid or unexercised performance-based compensation (whether vested or unvested) that constitutes excess compensation for a senior officer to be cancelled.

Executive Compensation Review

• In 2017, the CGCC engaged with Willis Towers Watson in order to conduct a competitive review of the compensation structure for the executive team, including, base salary, performance bonus incentive, target total cash (salary and target bonus), long-term incentive awards and total direct compensation (including theoretical value of long-term incentives). Data was sourced by Willis Towers Watson from an updated comparator group (disclosed below) and Willis Towers Watson's General Industry Executive Compensation Survey. As a result of this review, certain structural changes and compensation values were made to the Corporation's executive compensation program in 2017 to strengthen the Corporation's executive compensation program, better align the program with current practices, standardize certain program components, and adjust compensation based on the peer group data.

Context of Our Executive Compensation Practices

There are a number of industry and business factors that present challenges to creating and implementing an effective executive compensation program, including the following:

- Despite our lengthy history, we are a pre-profit, publicly-listed company developing and commercializing new technology, products and services that are highly disruptive in our markets and disruptive to incumbent markets.
- Our business is complex and volatile:
 - We have a relatively complex business model for a company with our revenue base. Our business activities include technology and product development, commercialization of new products in global markets, manufacturing operations, engineering services, sales and marketing for various market applications, and after-sales service support. We have operations and offices in Canada, the United States, Denmark, and China with an international sales and service team. Many of our customers and markets are outside North America creating a degree of complexity, and requiring us to recruit executives with wider skills and international experience than may be the case for many companies our size
 - Setting longer-term performance targets in an early-stage business with significant volatility and market risks is particularly challenging. The CGCC seeks to balance setting concrete, challenging performance targets that reflect genuine progress in the business consistent with

our strategy, which are also reasonably achievable and capable of dealing with the volatility and complexity of our business.

- While we may be considered an industrial products company, we also compete for talent in the technology industry, where there is a higher emphasis on equity to compensate key employees than general industry.
- We use equity incentives as a way to compete for talent with larger companies while conserving our shareholders' cash for investment in our business.
- Many of our competitors are headquartered in the United States and are subject to different market conditions relating to executive compensation than typical Canadian-headquartered companies.
- Our head office is located in Burnaby, British Columbia, which is a suburb of Vancouver. The Greater Vancouver Area has increasingly become a relatively high cost of living area.

The CGCC seeks to balance these factors, the expectations of our shareholders and the highest standards of governance. As our business becomes more robust and predictable through the execution of our strategy, the CGCC intends to continue to align compensation more predictably to performance, for example, through the use of performance metrics that demonstrate and measure our performance relative to peer group companies.

Highlights of our Executive Compensation Philosophy

Our compensation philosophy focuses on creating shareholder value and paying for performance and effective risk management. Our objective is to pay competitively in the markets in which we compete for talent, while also aligning compensation with value created for shareholders.

We target our compensation at the 50th percentile of the market, with actual compensation varying above and below based on performance.

Objectives	How We Achieve It

Attract and retain	•	Paying compensation, including salaries, which are competitive in the markets in which we compete for executive talent
Motivate	•	Directly linking bonuses to annual performance measures that are tied to our corporate strategy to motivate short term performance
	•	Delivering a majority of long-term incentives contingent on achieving sustained performance consistent with our corporate strategy
Align	•	Delivering a significant portion of total compensation in long- term incentives that are tied to our creation of shareholder value, including share price performance
	•	Requiring executive officers to maintain a meaningful equity ownership in Ballard

The Use of Benchmarking

Our overall compensation objective is to pay executives, on average, around the 50th percentile of our comparator group for achieving performance goals at the levels targeted by the Board. Over-achievement or under-achievement will result in actual payments for performance-based compensation being over or under the targeted amounts.

Benchmarking for a company of Ballard's size and stage of business is particularly challenging as our industry is nascent and there are few direct comparables. Many of the direct competitors in our industry are smaller, niche fuel cell companies. By contrast, companies in broader comparator groups, such as industrials and technology companies, are often significantly larger companies that provide similarly inappropriate benchmarks. In determining the appropriate comparator group, the CGCC considers several factors detailed below, including the labor markets in which we compete for executive talent.

In 2017, the CGCC, working with Willis Towers Watson, updated the comparator companies comprising the Corporation's compensation comparator group to better reflect the Corporation's current business size, complexity and market focus. A revised list of comparator companies was reviewed and accepted by the CGCC, which selected the group of comparators ensuring a suitable mix of Canadian and United States companies exhibiting a growth oriented mix of revenues, employee base, asset base, market capitalization and market focus. This comparator group provides the primary source of compensation data used to review the competitiveness of our executive compensation. The CGCC reviews and updates the composition of the comparator group annually.

Our current comparator group is:

Canada (6)	United States (8)
Calian Group Ltd.	AeroVironment Inc.
EXFO Inc.	Allied Motion Technologies Inc.
Hydrogenics Corp.	American Superconductor Corporation
Sandvine Corporation	Fuel Cell Energy Inc.
Sierra Wireless Inc.	Plug Power Inc.
Westport Fuel Systems	Maxwell Technologies, Inc.
	Capstone Turbine Corporation
	Ultralife Corporation

The CGCC compares each executive officer's annual salary, target annual incentive bonus and long-term incentive compensation value, both separately and in the aggregate, to amounts paid for similar positions at comparator group companies.

Market Analysis

Willis Towers Watson conducted a review and assessed the market competitiveness of the compensation arrangements for Ballard's executive team against the comparator group of companies in similar industries. When viewing the market data in nominal dollars (USD = CAD) for target total direct compensation (salary + target bonus + long-term incentives) it was determined in collaboration with the CGCC that changes in compensation structure would be implemented as outlined below.

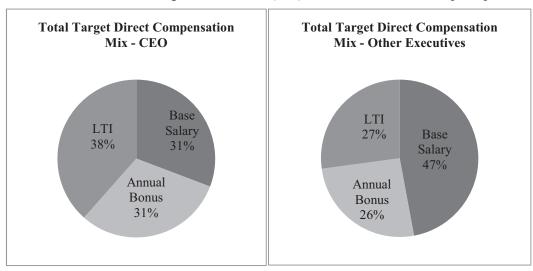
Compensation Framework for 2017

The compensation program for our executive officers has five primary components that deliver pay over the short- and long-term:

Element Features		2017 Performance Measures	
Base Salary	• Set to reflect market conditions and the size and scope of the role, as well as individual experience and performance	N/A	
Annual Bonus	 Paid annually in cash or DSUs Each executive has a specified target bonus expressed as a percentage of his or her base salary Actual bonuses based on Corporate and Individual performance multipliers that range from 0% - 150% of target based on Corporate and Individual performance Outcomes are formula-driven subject to the Board's overarching discretion 	Corporate Quantitative (60%) Revenue Gross margin Cash flow from operations Qualitative (40%) Achieving Key Milestones in China Strategy Signing Major Agreement	
Long-Term Incentive: Performance Share Units (PSUs)	 Each executive has a specified target long-term incentive expressed as a percentage of base salary 75% of each executive's target long-term incentive is awarded in the form of PSUs Annual grants with three year term Awards vest over three years based on annual achievement of Corporate objectives Payout can range from 0% - 150% of target award For special purposes (e.g. on-hire award), one-time awards vest in equal thirds over three year period 	Annual RevenueGross Margin	
Long-Term Incentive: Stock Options	 Annual grants Exercise price equal to market price at grant Awards vest in equal amounts annually over three years Seven-year term 	Option value contingent on share price growth	

Executive Pay Mix and the Emphasis on "At Risk" Pay

We emphasize performance by linking a significant proportion of our executive officers' total annual compensation to corporate and individual performance. For 2017, an average of 55% of the target annual compensation earned by each of our Named Executive Officers was "at risk", in the form of variable and / or performance-related compensation as shown below (including annual bonus, stock options and PSUs). As such, executives will only receive value from those elements to the extent that the relevant performance conditions are met, with long-term incentive (LTI) values also tied to share price performance.



Pay for Performance and Incentive Awards aligned with Shareholders Interests

The alignment between pay for performance for Executive Officers and Shareholder interests is clearly demonstrated as follows:

Annual Bonus Plan – Performance measures are substantially and directly linked to the Annual Operating Plan and achievement against those measures determines the size of the annual executive bonus award. When corporate performance is below the minimum level expected by the Board this amount could be zero. Equally, over achievement against the measures may result in payment of bonus greater than the targeted amount, up to a capped amount.

Long Term Incentive Plan — Stock Options align pay with share price performance as the compensation realised is based solely on share price appreciation. PSUs deliver compensation value to executives by tying the vesting of PSUs (i.e. ability to receive value from units) to the extent that performance measures related to key business objectives are met, while the value of each vested unit changes in line with movements in the Corporation's share price.

How Executive Compensation is Determined

The CGCC reviews and approves executive officers' benefit policies and compensation plans, including our annual bonus plan and our long-term equity-based compensation plans. As part of its mandate, the CGCC:

- Approves and recommends to the Board the appointment of our executive officers;
- Reviews and approves the amount and form of their compensation, their development and succession plans, and any significant organizational or executive management changes;
- Retains independent compensation consultants for professional advice and as a source of competitive market information as required;
- Determines the annual compensation, sets the performance conditions relating to the annual bonus and long-term incentives, and determines the actual bonus payments in relation to our President and

CEO. The President and CEO is not a member of the CGCC and does not participate in the portions of the CGCC discussions that relate directly to his personal compensation;

- Seeks the advice and recommendations of our President and CEO with respect to the compensation
 of our other executive officers including setting annual compensation, approving performance
 conditions and targets for short- and long-term incentive awards, and proposed long-term incentive
 awards and actual bonus payments; and
- Ensures 100% of CGCC (Corporate Governance & Compensation Committee) meetings include an in-camera session, and our CGCC is advised by independent compensation counsel.

Annual Salary

The CGCC approves the annual salary of our executive officers. Salary guidelines and adjustments for our executive officers are considered with reference to:

- (a) compensation benchmarking as set out above;
- (b) the experience and qualifications of each executive officer;
- (c) the individual performance of each executive officer; and
- (d) the scope of responsibilities of each executive officer.

In 2017, based on the analysis and recommendations from Willis Towers Watson, the following base salaries were approved by the CGCC:

Randall MacEwen, President & CEO	\$550,000
Anthony Guglielmin, Vice President & CFO	\$350,000
Robert Campbell, Vice President & COO	\$350,000
Kevin Colbow, Vice President, Technology & Product Development	\$250,000

Annual Bonus for Executive Officers

In 2017, the annual target bonus was set at 100% of base salary for Mr. MacEwen; 70% of salary for Mr. Guglielmin and Mr. Campbell; and 55% of base salary for Dr. Colbow and Dr. Osenar.

Annual performance bonus payments for each of the executive officers are determined at the discretion of the CGCC and the Board with reference to (i) actual annual corporate performance against predetermined Corporate Scorecard goals, resulting in a Corporate Scorecard Multiplier, and (ii) actual annual individual executive performance against predetermined annual individual objectives, resulting in an Individual Performance Multiplier.

The Corporate Scorecard typically includes weighted quantitative financial objectives and weighted qualitative strategic objectives. The individual scorecard performance is determined by the achievement of the executive against a weighted individual scorecard with quantitative and qualitative goals that typically support and align with the Corporate Scorecard as well as the individual executive's performance against the Corporation's cultural values.

For a full discussion of annual incentive compensation for our President and CEO, see the section entitled "CEO Compensation".

Methodology for Determining Annual Incentives

For 2017, the actual annual bonus for each executive officer is determined by the CGCC on the basis of the following formula:



Corporate Scorecard Multiplier

The Corporate Scorecard Multiplier is determined on completion of each fiscal year by the CGCC and approved by the Board with reference to achievement against the corporate goals set out in a Corporate Performance Scorecard approved by the CGCC and the Board at the commencement of the year. Each corporate performance goal on the Corporate Performance Scorecard is assigned a relative weighting in terms of importance to annual performance of the Corporation. The Corporate Performance Scorecard typically includes a mix of quantitative financial metrics and qualitative goals. The quantitative financial metrics typically include a threshold level of performance below which the contribution of that goal to the overall corporate scorecard multiplier is zero, and a maximum beyond which no further contribution to the corporate scorecard multiplier accrues. The financial metrics typically contain a "stretch" achievement component whereby 100% achievement of the pre-determined financial metrics against the Corporation's annual operating plan goals equates to 50% payout with respect to such financial goals. This means that in order to achieve 100% payout against the financial targets in the Corporate Performance Scorecard, actual annual performance must exceed the annual operating plan.

For 2017, the Corporate Performance Scorecard reflected a balance of Quantitative annual goals focused on delivery of the 2017 operating plan (60% of the scorecard) and Qualitative goals focused on key strategic outcomes to be achieved during 2017 to better position the Corporation for longer term success (40% of the scorecard).

The quantitative annual goals included goals related to annual revenue, gross margin contribution (in dollars) and cash flow from operations. Each of the revenue, gross margin and cash flow from operations goals were weighted at 20% each, representing a total of 60% of the 2017 Corporate Scorecard. The range of possible scoring against each of these Quantitative metrics was between 0% and 150% of achievement, with a 50% rating being achieved at the Corporation's annual operating plan for 2017.

The 2017 Corporate Scorecard included two qualitative goals, each weighted at 20% (40% in total). The first qualitative goal was focused on the Corporation's achievement against key milestones on its China strategy. The second qualitative goal was focused on signing an agreement relating to a significant strategic transaction, major customer program or major commercial contract that accelerates future scaling and profitability.

Based on the Corporation's actual performance in 2017, the CGCC and Board assessed the Corporate Performance Scorecard as follows:

Component Weight	Performance Areas	Performance Highlights
Quantitative (60%)	Annual revenue	Over-achieved
	Annual gross margin dollar contribution	Over-achieved
	Annual cash flow from operations	Over achieved
Qualitative (40%)	Achieve Key milestones in China strategy	Over-achieved
	Signing Major Agreement	Substantially achieved

The Corporation's 2017 revenue of \$121.3 million significantly exceeded the annual operating plan revenue target. The 2017 gross margin contribution of \$41.6 million significant exceeded the annual operating plan gross margin target. The Corporation's defined metric of cash flow from operations also significantly outperformed the annual operating plan target. The Corporation also significantly out-performed against the China strategy deliverables, including the progress and successful technology transfer program and

commissioning of the Synergy-Ballard joint venture operation in Guangdong Province, progress against the Corporation's supply agreement and technology transfer collaboration with Broad-Ocean Motors, progress against deliverables under the China tram programs with CRRC, and successful implementation of the Corporation's China operating platform and staffing plan. The Corporation substantially achieved its goal relating to signing a major agreement as a result of various customer programs and contracts, including the new multi-year development program with Siemens AG relating to fuel cell trains in Europe.

Based on its review and assessment, the CGCC and Board determined the Corporate Scorecard Multiplier achievement for 2017 to be 110%.

Individual Performance Multiplier

The individual performance multiplier is determined with reference to achievement against the individual goals set for each executive officer. Individual goals are set for individual executive officers by the CEO and reviewed by the CGCC, and are based on agreed, objective and identifiable measures related to their roles, and aligned to the corporate performance goals. An individual performance multiplier greater than 100% may be awarded for superior performance against these goals, with an individual performance multiplier of less than 100% being awarded for performance that does not achieve the goals.

In 2017, individual multipliers for each Executive Officer ranged from 0% to 150%. Our Executive Officers elected to receive a portion of their 2017 bonus in DSUs rather than in cash. A summary of the Executive Officers' annual bonus payments for 2017 is as follows:

Name	Target Bonus (% of salary)	Corporate Score/Multiplier	Individual Score/Multiplier	Bonus paid as a % of Salary
CEO	100%	110%	125%	137.5%
Other NEOs	55% - 70%	110%	0 to 150%	0% to 115.5%

Long Term Incentives

We provide our Executive Officers with equity-based long-term incentives through the Consolidated Share Option Plan ("Option Plan") and the Consolidated Share Distribution Plan ("SDP"). Our equity-based long-term incentives typically take the form of Stock Options or PSUs (that vest after a specified time but normally only in the event that performance conditions are satisfied). These plans are designed to align Executive Officer remuneration with performance and long-term shareholder value. They serve a vital role in retaining executives as value under the plans is only received over time.

The annual burn rate, representing the number of securities granted under the Option Plan and SDP, respectively, relative to the weighted average number of securities outstanding for the fiscal years ended on December 31, 2017, December 31, 2016, and December 31, 2015, are as follows:

	Annual Burn Rate		
Year	Option Plan	SDP	
2017	0.85%	0.57%	
2016	0.83%	0.80%	
2015	1.64%	0.85%	

The Option Plan and SDP provide that the maximum number of the Corporation's Shares available for issuance under them, in aggregate, cannot exceed 10% of the issued and outstanding Shares at the time of grant. The following table summarizes the aggregate plan maximum, the outstanding securities awarded

under the Option Plan and SDP, and the remaining securities available for grant for the fiscal years ended on December 31, 2017, December 31, 2016, and December 31, 2015.

	December 31, 2017		December 31, 2016		December 31, 2015	
	#	% ⁽¹⁾	#	% ⁽¹⁾	#	% ⁽¹⁾
Plan Maximum	17,806,267	10.00%	17,474,963	10.00%	15,683,719	10.00%
Outstanding Securities Awarded under the Option Plan	4,828,173	2.71%	5,537,729	3.17%	5,505,500	3.51%
Outstanding Securities Awarded under the SDP	2,539,981	1.43%	2,598,658	1.49%	2,626,251	1.67%
Remaining Securities Available for Grant	10,438,113	5.86%	9,338,576	5.34%	7,551,968	4.82%

⁽¹⁾ The percentages represent the number relative to the number of issued and outstanding shares for the fiscal years ended on December 31, 2017, December 31, 2016, and December 31, 2015, respectively.

Performance Share Units

Performance Share Units (PSUs) comprise 75% of the long-term incentive compensation provided to an executive. The PSUs provide for vesting of one third of the grant each year over a period of three years, subject to achievement of certain performance criteria in each year. The number of PSUs awarded to each Executive Officer is typically determined in the first quarter of each financial year, in conjunction with the determination of that executive officer's annual bonus for the prior financial year. Vesting of PSUs may be satisfied either with Shares bought under the Market Purchase PSU Plan or by treasury shares reserved under the SDP.

In 2016, the performance criteria for PSUs were based on a linear approach to vesting related to two annual financial metrics contained in the Corporate Performance Scorecard, which were (1) Annual Revenue, and (2) Gross Margin, which collectively formed a PSU Scorecard. Each element was equally weighted.

PSU Scorecard	PSU Vesting
< 25%	0%
≥25% and <50%	50%
≥50% and ≤100%	100%
>100%	Up to 150%

The PSU Scorecard achievement for 2017 was 138.7%.

One-time PSU grants that are subject to time vesting only, vest one third of the grant each year over a period of three years and are not subject to the PSU Scorecard.

Stock Options

Stock options are an integral part of each executive's annual compensation package and are granted annually in respect of approximately 25% of the long-term incentive compensation to be provided to an executive.

Under our Option Plan:

(a) the exercise price of each option is determined by the Board, but must not be less than the closing price per Share on the TSX or NASDAQ on the last trading day before the date the option is granted; and

(b) each option may be exercised by the holder in respect of up to one-third of the Shares subject to the option on or after the first, second and third anniversary of the effective date of the option on a cumulative basis.

Vested stock options may normally be exercised for a period of seven years from the grant date (the option "term").

Target Value of LTI

The target value of long-term incentives granted to Named Executive Officers in 2017, and the composition of long-term incentives is set out in the table below.

Total LTI Mix (%)

Name	Target LTI (\$)	PSUs ²	Stock Options ¹
Mr. MacEwen	687,500	75%	25%
Mr. Guglielmin	245,000	75%	25%
Mr. Campbell	245,000	75%	25%
Dr. Colbow	138,000	75%	25%
Dr. Osenar ³	US \$100,000	75%	25%

¹ Converted to a number of options by dividing the dollar value by the Black-Scholes value of the option on the award date. The exercise price of these options was determined based on the closing Share price on the day prior to the award date.

This element of compensation supports the Corporation's overall compensation objectives by linking our Shareholders' interests with those of our Executive Officers, by providing our Executive Officers with compensation that is driven by the experience of our Shareholders in terms of our share price performance, and in the case of PSUs is further tied to the achievement of performance measures. In addition, we require our Executive Officers to comply with minimum share ownership guidelines that further align them with the Shareholders' experience.

For 2017 the awards to our Named Executive Officers were as follows:

Number Granted

Name	Total LTI Granted (\$)	PSUs	Stock Options
Mr. MacEwen	687,500	187,222	119,258
Mr. Guglielmin	245,000	63,821	40,717
Mr. Campbell ⁽¹⁾	627,825	90,719	106,400
Dr. Colbow	137,500	35,086	22,401
Dr. Osenar	US\$100,000	37,500	23,927

⁽¹⁾ Included in the PSUs and stock options issued to Mr. Campbell in 2017 were a \$350,000 grant of 80,831 PSUs (time vested only) and \$224,825 grant of 100,000 stock options, which represented a new hire grant upon his appointment in May 2017.

² Converted to a number of PSUs dividing the dollar value by the closing Share price on either the TSX or NASDAQ on the award date.

^{3.} Dr. Osenar resigned from Protonex effective December 31, 2017.

Units Granted

In 2017, PSUs were issued to the Named Executive Officers, including the President and CEO using the methodology described above on the following dates and amounts:

March 2, 2017 295,084

June 8, 2017 38,433

Vesting Awards

In 2017, there was the following vesting of PSUs to Shares for the Named Executive Officers:

On March 3, 2017, 32,417 PSUs vested and after statutory withholdings, 16,952 PSUs were redeemed into shares, representing 133.11% of one-third of the 2014 annual PSU long-term incentive award granted to Messrs. Guglielmin and Colbow.

On March 3, 2017, 98,677 PSUs vested and after statutory withholdings, 51,606 PSUs were redeemed into shares, representing 133.11% of one-third of the 2015 annual PSU long-term incentive award granted to Messrs. MacEwen, Guglielmin and Colbow.

On November 7, 2017, 55,928 PSUs vested and after statutory withholdings, 29,250 PSUs were redeemed into shares, representing one-third of Mr. MacEwen's new hire PSU grant that is subject to time vesting only.

On November 7, 2017, 20,325 PSUs vested and after statutory withholdings, 12,276 PSUs were redeemed into shares, representing one-third of Dr. Osenar's new hire/acquisition PSU grant that is subject to time vesting only.

In February 2018, the Board determined, based on the 2017 PSU Scorecard achievement, that 138.7% of PSU awards granted in 2017 met the performance vesting requirement. However, these awards are subject to a 3-year vesting period, per the terms of the PSU awards.

CEO Compensation

Mr. MacEwen was appointed President & CEO on October 6, 2014 with a base salary set at CDN\$500,000 per year. As noted above, Mr. MacEwen's base salary was adjusted to CDN \$550,000 in 2017.

Mr. MacEwen's target bonus for 2017 was CDN\$550,000 based on an amount equal to 100% of his annual base salary. His actual bonus for 2017 was determined by the CGCC on the basis of corporate financial and operational performance reflected in the Corporate Performance Scorecard rating, plus performance relative to his individual goals for 2017, as approved by the Board.

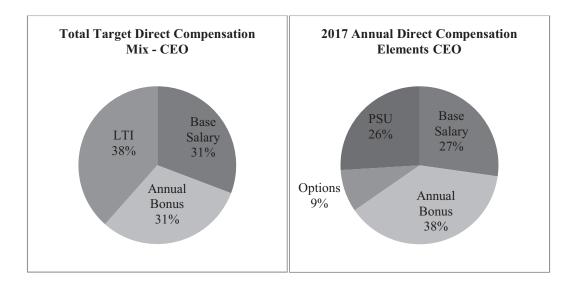
Annual Bonus Outcome Performance Areas Corporate Specific corporate quantitative and qualitative results are described in detail under "Corporate Scorecard Multiplier" In 2017, the corporate score was 110% of target Individual Mr. MacEwen's individual objectives for 2017 were based on: Building a sustainable Business Platform – Over Achieved Operational Scaling and Excellence – Substantially Achieved Organizational Design and Development-Over Achieved For the objective relating to building a sustainable platform, the objective focused on the improvement in the Corporation's positioning to achieve profitability and cash flow breakeven as a result of strengthening the Corporation's strategic position (including markets, customers, technology, products, competencies, assets) for long-term health, profitability, success and risk mitigation. The objective also included a business review and recommendations relating to the Corporation's Protonex business. For the objective relating to operational scaling and excellence, the objective focused on the Corporation's long-term plan relating to the scaling of manufacturing operations and the continued implementation towards operational excellence. For the objective relating to organization design and development, the objective focused on continuous improvement, leadership development, organizational capabilities and cultural values. In 2017, Mr. MacEwen's individual performance multiplier was 125% of target.

Overall	Mr. MacEwen's annual bonus award was CDN\$756,250 representing 137.5% of
	, 1
Outcome	his target bonus, based on a corporate multiplier of 110% and an individual
	performance multiplier of 125%.

Long-term Incentives	Type	Value	Features
Annual Award (\$687,500)	Stock Option	\$171,875	7-year term, with one-third of the options vesting at the end of each of the first three years
	PSU	\$515,625	3-year vesting with performance criteria

For the CEO, 69% of his target compensation is 'at-risk' (via the annual bonus plan and long term incentive awards). 60% of his target compensation is linked directly to performance goals (via annual bonus plan and

PSUs). 38% of his target compensation is linked to the performance of the Ballard common shares (via PSUs and Stock Option grants).



CEO Realized Pay

In 2017, actual CEO realized pay, as defined by the sum of base salary earned, annual bonus achieved plus the value of vested equity during the year equalled CDN\$2,150,533 in total.

Perquisites

In addition to cash and equity compensation, the Corporation provides Named Executive Officers with certain personal benefits, consistent with similar benefits coverage within the comparator group. These benefits include a car allowance, medical benefits program, long and short-term disability coverage, life insurance, an annual medical and a financial planning allowance.

Retirement Benefits

Executives are eligible to receive a matching contribution by the Corporation to their RRSP, up to 50% of the maximum amount allowable under the *Income Tax Act* (Canada).

In 2017, Mr. MacEwen, Mr. Guglielmin, Dr. Colbow and Mr. Campbell (pro-rated) each received an RRSP contribution from the Corporation, equal to 50% of the maximum amount allowable under the *Income Tax Act* (Canada), as each of them made an equivalent personal matching contribution.

None of the Named Executive Officers currently participates in any Corporation-sponsored Defined Benefits Plan, Defined Contribution Plan, or Supplemental Executive Retirement Plan, nor do they receive contributions to any such plan on their behalf from the Corporation.

Share Ownership Guidelines and Share Trading Policy

Our Executive Officer minimum share ownership guidelines oblige each executive officer to own a minimum number of our Shares expressed as a multiple of Base Salary as set out below.

Position	Multiple of Base Salary
President and CEO	3.0x
Other Executives	1.0x

For the purposes of this section, the "fair market value" is defined as the closing price of our Shares as listed on the TSX on the date that the Executive Officer acquired the Common Shares, or DSUs were allocated to them. All executive officers have met or are on track to meet the applicable guidelines. Executives have 5 years in which to meet these requirements.

Executives and directors are not permitted to hedge the market value of the Corporation securities granted to them as compensation or otherwise held, directly or indirectly, by them.

Compensation Risk Considerations

The CGCC and Board believe that the risk associated with our compensation practices is relatively low. Given the increased emphasis placed on ensuring that compensation practices do not encourage behaviours that expose the corporation to greater risk, the CGCC and Board continue to monitor this issue closely.

The CGCC and Board consider the risks associated with the Corporation's compensation policies and practices are mitigated by:

- its evaluation of the impact of each compensation component on management behaviour:
 - o total compensation levels are set relative to median of a peer group of companies that are broadly comparable to the Corporation
 - o base salary is set relative to median and at levels which the CGCC considers unlikely to create inappropriate risks;
 - o for short term cash incentives, the potential risks are evaluated as low as the plan uses multiple metrics in the Corporate Multiplier, both quantitative and qualitative (described above) and maximum earnings available under each component of the plan are capped;
 - o the use of long-term incentives themselves minimizes short-term or inappropriate risk-taking by linking value to long-term share price performance, and
 - the long-term equity-based incentive programs are evaluated as low risk in structure, in part
 due to the mix of PSU and Option awards with overlapping terms and vesting / performance
 periods, and / or performance based vesting conditions that are generally consistent with
 public company risks;
- ensuring the CGCC and Board mandates reflect appropriate accountabilities, oversight and controls
 on the Corporation's compensation policies and practices, especially as they relate to executive
 compensation; and
- working with management and/or external consultants to stress test each compensation component, to ensure boundary conditions are reasonable and do not produce unexpected or unintended financial windfalls.

The CGCC and Board have not identified any risks arising from the compensation policies and practices that are reasonably likely to have a material adverse effect on the Corporation.

Advisors to the Corporate Governance & Compensation Committee

Willis Towers Watson has been retained by the CGCC since 2008 to provide executive compensation benchmarking and general executive compensation, equity plan and Board compensation advisory services. As noted above, in 2017, Willis Towers Watson provided significant input into the Executive Compensation Review.

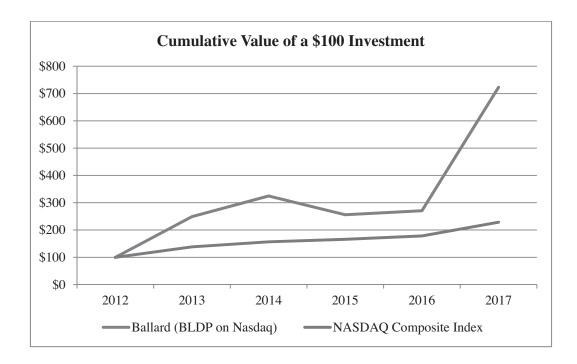
The following table sets out the fees paid to Willis Towers Watson during each of the two most recently completed financial years:

	Compensation-Related Fees	All Other Fees
2017	\$74,897	Nil
2016	Nil	Nil

Performance Graph

The following graph compares the total cumulative return to a Shareholder who invested \$100 in our Shares on December 31, 2010, assuming reinvestment of dividends, with the total cumulative return of \$100 on the NASDAQ Composite Index for the last five years. NASDAQ data was selected because the majority of trading of Ballard's shares (typically >75%) occurs on this exchange.

(Dec 31)	<u>2012</u> (\$)	<u>2013</u> (\$)	<u>2014</u> (\$)	<u>2015</u> (\$)	<u>2016</u> (\$)	<u>2017</u> (\$)
Ballard	100	249	325	256	270	723
NASDAQ Composite Index	100	138	157	166	178	229



The trend shown by this graph does not reflect the trend in the Corporation's compensation to its Named Executive Officers.

Executive Compensation Tables

The following table summarizes the compensation paid for the fiscal years ended on December 31, 2015, December 31, 2016 and December 31, 2017 to our Named Executive Officers.

Summary Compensation Table							
				Long-Tern	Incentives		
Name and Principal Position	Year	Salary ⁽³⁾ (CDN\$)	Bonus ⁽⁴⁾ (CDN\$)	Share-Based Awards ⁽⁵⁾ (CDN\$)	Option-Based Awards ⁽⁶⁾ (CDN\$)	All Other Compensation ⁽⁷⁾ (CDN\$)	Total Compensation (CDN\$)
R. Randall MacEwen ⁽¹⁾	2017	540,385	756,250	515,625	171,875	53,721	2,037,856
President and Chief	2016	500,000	530,000	468,750	156,250	58,971	1,713,971
Executive Officer	2015	500,000	210,000	968,750	490,250	98,069	2,267,069
Tony Guglielmin	2017	343,846	404,250	183,750	61,250	38,787	1,031,883
Vice President and Chief	2016	318,000	314,820	144,000	48,000	37,159	861,979
Financial Officer	2015	318,000	104,177	144,000	48,000	33,326	647,503
Rob Campbell	2017	222,115	125,000	389,750	238,075	24,087	999,027
Vice President and Chief	2016	0	0	0	0	0	0
Commercial Officer	2015	0	0	0	0	0	0
Kevin Colbow	2017	240,385	189,062	103,125	34,375	21,300	588,247
Vice President,	2016	194,118	146,801	75,000	25,000	19,278	460,197
Technology and Product Development	2015	162,696	39,462	50,000	66,800	17,540	336,498
Paul Osenar ⁽²⁾	2017	338,715	0	94,088	31,363	46,820	510,986
Vice President and	2016	338,715	84,764	94,088	31,362	16,794	565,723
President, Protonex Technology Corporation	2015	75,577	122,369	94,088	66,802	4,771	363,607

⁽¹⁾ Mr. MacEwen was appointed President and Chief Executive Officer as of October 6, 2014. He is also a director, but receives no compensation for his service as a director

The United States dollar amounts for 2017 were US\$602,830, US\$322,240, US\$99,641, and US\$150,707 for Messrs. MacEwen, Guglielmin, Campbell, and Colbow, respectively. In 2017, Messrs. MacEwen, Guglielmin, Campbell, and Colbow elected to have 20%, 20%, 20%, and 50% of their bonus paid as DSUs, respectively, with the remaining amount paid in cash. The United States dollar amounts for 2016 were US\$422,479, US\$250,953, US\$0 and US\$117,020 for Messrs. MacEwen, Guglielmin, Campbell, and Colbow, respectively. In 2016, the bonus for each of the Named Executive Officers was paid in cash. The United States dollar amounts for 2015 were US\$168,397, US\$83,042, US\$0, and US\$31,456 for Messrs. MacEwen, Guglielmin, Campbell, and Colbow, respectively. In 2015, Messrs. MacEwen and Guglielmin elected to have 100% of their bonus paid as DSUs and the bonus for Dr. Colbow was paid in cash. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 29, 2017. The amounts of the bonus paid in cash and issued as DSUs including the number of DSUs issued to each Named Executive Officer in respect of the fiscal years ended December 31, 2017, December 31, 2016 and December 31, 2015 is as follows:

Dr. Osenar's compensation was paid in United States dollars. The United States dollar amounts were converted into Canadian dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 29, 2017. Dr. Osenar resigned from Protonex effective December 31, 2017.

⁽³⁾ Salary of each of the Named Executive Officers was paid in Canadian dollars, with the exception of Dr. Osenar, who was paid in United States dollars (US\$270,000, US\$270,000, and US\$60,245 for 2017, 2016 and, 2015, respectively). The United States dollar amounts for 2017 were US\$430,757, US\$274,090, US\$177,055, and US\$191,618 for Messrs. MacEwen, Guglielmin, Campbell, and Colbow, respectively. The United States dollar amounts for 2016 were US\$398,565, US\$253,487, US\$0, and US\$154,737 for Messrs. MacEwen, Guglielmin, Campbell, and Colbow, respectively. The United States dollar amounts for 2015 were US\$398,565, US\$253,487, US\$0, and US\$129,690 for Messrs. MacEwen, Guglielmin, Campbell, and Colbow, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 29, 2017. In 2017 Mr. Kassam departed his position. In connection with the departure, the total of salary, salary continuance, lump sum and accrual for benefits and employment counselling was \$630.306.

⁽⁴⁾ Bonus of each of the Named Executive Officers was paid in cash or DSUs. Cash bonus was paid in Canadian dollars with the exception of Dr. Osenar, who was paid in United States dollars (US\$0, US\$67,568, and US\$97,544 for 2017, 2016, and 2015, respectively). The DSU amount is based on the grant date fair market value of the award, which equals the closing price of the Shares on the TSX on the date of issuance of the award.

Bonus							
Named Executive Officer	Year	DSUs (#)	Fair Market Value of a Share (CDN\$) ^(A)	DSU Total (CDN\$)	Cash Total (CDN\$)	Total Bonus (CDN\$)	
R. Randall MacEwen	2017	31,380	4.82	151,250	605,000	756,250	
	2016	0	0	0	530,000	530,000	
	2015	116,667	1.80	210,000	0	210,000	
Tony Guglielmin	2017	16,774	4.82	80,850	323,400	404,250	
	2016	0	0	0	314,820	314,820	
	2015	57,876	1.80	104,177	0	104,177	
Rob Campbell	2017	5,187	4.82	25,000	100,000	125,000	
	2016	0	0	0	0	0	
	2015	0	0	0	0	0	
Kevin Colbow	2017	19,612	4.82	94,531	94,531	189,062	
	2016	0	0	0	146,801	146,801	
	2015	0	0	0	39,462	39,462	
Paul Osenar	2017	0	0	0	0	0	
	2016	0	0	0	84,764	84,764	
	2015	0	0	0	122,369	122,369	

⁽A) The fair market value of a Share has been calculated using the Canadian dollar closing price of the Shares underlying the DSUs on the TSX on the date of issuance.

Represents the total fair market value of PSUs issued to each Named Executive Officer during the 2017, 2016, and 2015 fiscal years. This amount is based on the grant date fair market value of the award, which equals the closing price of the Shares on the TSX and NASDAQ on the date of issuance of the award. Fair value is determined in accordance with IFRS 2 of the International Financial Reporting Standards (accounting fair value) is recorded as compensation expense in the statement of operations over vesting periods of one to three years. There is no difference in Canadian dollars between the grant date fair market value of the award and the accounting fair value.

As noted above, a dollar value is approved for the long term incentive awarded to each executive and approximately 75% of this amount is awarded in the form of PSUs with the remaining 25% being awarded in the form of stock options in 2017. In 2016, approximately 75% of this amount is awarded in the form of PSUs with the remaining 25% being awarded in the form of stock options. In 2015, approximately 43-75% of this amount is awarded in the form of PSUs with the remaining 25-57% being awarded in the form of stock options. The number of PSUs awarded is equal to the dollar amount of the award divided by the fair market value of the Shares at the time of issuance (based on the closing price of the Shares on the TSX and NASDAQ on the date of issuance). The number of PSUs issued to each Named Executive Officer in respect of the fiscal years ended December 31, 2017, December 31, 2016 and December 31, 2015 is as follows:

Share-Based Awards							
Named Executive Officer	Year	PSUs (#)	Fair Market Value of a Share (CDN\$) ^(D)	Total (CDN\$) ^(E)			
R. Randall MacEwen	2017	187,222	2.75	515,625			
	2016	260,417	1.80	468,750			
	2015 ^(A)	325,084	2.98	968,750			
Tony Guglielmin	2017	63,821	2.88	183,750			
	2016	80,000	1.80	144,000			
	2015	48,322	2.98	144,000			
Rob Campbell	2017 ^(B)	90,719	4.30	389,750			
	2016	0	0	0			
	2015	0	0	0			
Kevin Colbow	2017	35,086	2.94	103,125			
	2016	41,667	1.80	75,000			
	2015	16,779	2.98	50,000			
Paul Osenar (D)	2017	37,500	2.51	94,088			
	2016	56,391	1.67	94,008			
	2015 ^(C)	60,976	1.54	94,008			

⁽A) Included in the PSUs issued to Mr. MacEwen in 2015 was a \$500,000 grant of 167,785 PSUs (time vested only), which represented a new hire grant upon his appointment in October 2014. Mr. MacEwen was subject to a trading blackout at the time of this award and therefore the PSUs were not issued until February 26, 2015.

⁽B) Included in the PSUs issued to Mr. Campbell in 2017 was a \$350,000 grant of 80,831 PSUs (time vested only), which represented a new hire grant upon his appointment in May 2017.

⁽C) The PSUs issued to Dr. Osenar in 2015 was a \$94,088 grant of 60,976 PSUs (time vested only), which represented a new hire grant upon the acquisition of Protonex Technology Corporation on October 1, 2015.

- (D) The fair market value of a Share has been calculated using the Canadian dollar closing price of the Shares underlying the PSUs on the TSX on the date of issuance with the exception of PSUs issued to Dr. Osenar, which have been calculated using the United States dollar closing price of the Shares underlying the PSUs on the NASDAQ on the date of issuance (US2.00, US\$1.33, and US\$1.23 for 2017, 2016, and 2015, respectively). The total value of PSUs issued to Dr. Osenar in United States dollars were US\$75,000, US\$75,000, and US\$75,000 for 2017, 2016, and 2015, respectively. The United States dollar amounts were converted into Canadian dollars for the purpose of this disclosure using the Bank of Canada noon rate of exchange on December 29, 2017
- The United States dollar amounts for 2017 were US\$411,020, US\$146,473, US\$310,682, and US\$82,204 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The United States dollar amounts for 2016 were US\$373,655, US\$114,787, US\$0, and US\$59,785 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The United States dollar amounts for 2015 were US\$772,220, US\$114,787, US\$0, and US\$39,857 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 29, 2017.
- (6) Represents the total of the fair market value of options to purchase our Shares issued under the Option Plan granted to each Named Executive Officer during each fiscal year. This amount is based on the grant date fair market value of the award determined using the Black-Scholes valuation model using the following key assumptions: expected life of 4 years, expected volatility of 70% and risk free interest rate of 1% for 2017; expected life of 4 years, expected volatility of 77% and risk free interest rate of 1% for 2016; and expected life of 4 years, expected volatility of 78% and risk free interest rate of 1% for 2015. Accounting fair value is recorded as compensation expense in the statement of operations over the vesting period. There is no difference in Canadian dollars between the grant date fair market value of the award determined using the Black-Scholes valuation model and accounting fair value determined in accordance with IFRS 2 of the International Financial Reporting Standards (accounting fair value).

As noted above, a dollar value is approved for the long term incentive awarded to each executive and approximately 75% of this amount is awarded in the form of PSUs with the remaining 25% being awarded in the form of stock options in 2017. In 2016, approximately 75% of this amount is awarded in the form of PSUs with the remaining 25% being awarded in the form of stock options. In 2015, approximately 43-75% of this amount is awarded in the form of PSUs with the remaining 25-57% being awarded in the form of stock options. The number of stock options awarded is equal to the dollar amount of the award divided by the fair market value of the Shares at the time of issuance (based on the closing trading price of the Shares on the TSX on the day prior to issuance). The number of stock options issued to each Named Executive Officer in respect of the fiscal years ended December 31, 2017, December 31, 2016 and December 31, 2015 is as follows:

Option-Based Awards						
Named Executive Officer	Year	Shares Under Options (#)	Black-Scholes Value of Shares Underlying Options on Date of Grant (CDN\$/Share) ^(C)	Fair Market Value (CDN\$) ^(D)		
R. Randall MacEwen	2017	119,258	1.44	171,875		
	2016	154,702	1.01	156,250		
	2015 ^(A)	293,563	1.67	490,250		
Tony Guglielmin	2017	40,717	1.50	61,250		
	2016	47,524	1.01	48,000		
	2015	28,743	1.67	48,000		
Rob Campbell	2017 ^(B)	106,400	2.24	238,075		
	2016	0	0	0		
	2015	0	0	0		
Kevin Colbow	2017	22,401	1.53	34,375		
	2016	24,752	1.01	25,000		
	2015	40,000	1.67	66,800		
Paul Osenar ^(C)	2017	23,927	1.31	31,363		
	2016	33,333	0.94	31,362		
	2015	75,000	0.89	66,802		

- (A) Included in the stock options issued to Mr. MacEwen in 2015 was a grant of 200,000 stock options, which represented a new hire grant upon his appointment in October 2014. Mr. MacEwen was subject to a trading blackout at the time of this award and therefore the stock options were not issued until February 27, 2015.
- (B) Included in the stock options issued to Mr. Campbell in 2017 was a grant of 100,000 stock options, which represented a new hire grant upon his appointment in May 2017.
- The fair market value of a Share has been calculated based on the Black-Scholes valuation model using the Canadian dollar closing price of the Shares underlying the options on the TSX on the date of issuance, with the exception of options issued to Dr. Osenar, which have been calculated using the United States dollar closing price of the Shares underlying the options on the NASDAQ on the date of issuance. The United States dollar amount of the Black Scholes value of a Share issued to Dr. Osenar were US\$1.04, US\$0.75, and US\$0.71 for 2017, 2016, and 2015, respectively, and the total option-based awards issued to Dr. Osenar were US\$25,000, US\$25,000, and US\$53,250, for 2017, 2016, and 2015, respectively. The United States dollar amounts were converted into Canadian dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 29, 2017.

- The United States dollar amounts for 2017 were US\$137,006, US\$48,822, US\$189,775, and US\$27,398 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The United States dollar amounts for 2016 were US\$124,552, US\$38,262, US\$0, and US\$19,928 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The United States dollar amounts for 2015 were US\$390,793, US\$38,262, US\$0, and US\$53,248 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 29, 2017.
- (7) All Other Compensation was paid in Canadian dollars with the exception of Other Compensation for Dr. Osenar, which was paid in United States dollars (US\$37,322, US\$13,387, and US\$3,803 for 2017, 2016, and 2015, respectively). The United States dollar amounts for 2017 were US\$42,923, US\$30,917, US\$19,200, and US\$16,978 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The United States dollar amounts for 2016 were US\$47,007, US\$29,621, US\$0, and US\$15,367 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The United States dollar amounts for 2015 were US\$78,173, US\$26,564, US\$0, and US\$13,982 for Messrs. MacEwen, Guglielmin, Campbell and Colbow, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of the table above using the Bank of Canada rate of exchange on December 29, 2017.

The value of the items included in this amount was based on the aggregate incremental cash cost to the Corporation. All Other Compensation, including the type and amount of each perquisite, the value of which exceeds 25% of the total value of perquisites reported for a Named Executive Officer, includes:

	All Other Compensation							
Named Executive Officer	Year	Retirement Benefits (RRSP / 401k / Defined Benefits) (CDN\$)	Insurance Premiums (CDN\$)	Other ^(A) (CDN\$)	Total (CDN\$)			
R. Randall MacEwen	2017	13,007	1,540	39,174	53,721			
	2016	12,685	1,314	44,972	58,971			
	2015	12,465	1,188	84,416	98,069			
Tony Guglielmin	2017	13,007	1,472	24,308	38,787			
	2016	12,685	1,203	23,271	37,159			
	2015	12,465	1,077	19,784	33,326			
Rob Campbell	2017	8,504	882	14,701	24,087			
	2016	0	0	0	0			
	2015	0	0	0	0			
Kevin Colbow	2017	11,346	954	9,000	21,300			
	2016	9,641	637	9,000	19,278			
	2015	8,135	477	8,928	17,540			
Paul Osenar	2017	0	429	46,391	46,820			
	2016	0	36	16,758	16,794			
	2015	0	68	4,703	4,771			

⁽A) Includes automobile allowances, temporary living and travel allowances, financial planning services and medical and health benefits.

INCENTIVE PLAN AWARDS

The following table sets forth all option-based and share-based awards granted to our Named Executive Officers that are outstanding as of December 31, 2017.

Outstanding Share-Based Awards and Option-Based Awards (as of December 31, 2017)

	Option-Based Awards			Share-Based Awards		
Named Executive Officer	Number of Securities Underlying Unexercised Options (#)	Option Exercise Price ⁽¹⁾ (CDN\$)	Option Expiration Date	Value of Unexercised In- The-Money Options ⁽²⁾ (CDN\$)	Number of PSUs That Have Not Vested (#)	Market or Payout Value of PSUs That Have Not Vested ⁽³⁾ (CDN\$)
R. Randall MacEwen	200,000 93,563 ⁽⁵⁾ 154,702 ⁽⁶⁾ 111,710 ⁽⁴⁾ 7,548 ⁽⁴⁾	2.98 2.98 1.80 2.67 4.02	Feb. 27, 2022 Feb. 27, 2022 Feb. 26, 2023 Mar. 3, 2024 Jun. 9, 2024	516,000 160,928 193,892 0	528,814	2,940,204
Tony Guglielmin	53,448 60,674 75,000 29,947 28,743 ⁽⁷⁾ 47,524 ⁽⁸⁾ 34,317 ⁽⁴⁾ 6,400 ⁽⁴⁾	2.10 1.69 1.22 3.73 2.98 1.80 2.67 4.02	Mar. 9, 2018 Feb. 24, 2019 Mar. 8, 2020 Feb. 27, 2021 Feb. 27, 2022 Feb. 26, 2023 Mar. 3, 2024 Jun. 9, 2024	184,930 234,808 325,500 54,803 49,438 59,562 0	168,757	938,288
Rob Campbell	100,000 ⁽⁴⁾ 6,400 ⁽⁴⁾	4.33 4.02	May 2, 2024 Jun. 9, 2024	0	90,719	504,400
Kevin Colbow	7,500 25,000 40,000 40,000 ⁽⁹⁾ 24,752 ⁽¹⁰⁾ 17,873 ⁽⁴⁾ 4,528 ⁽⁴⁾	1.69 1.22 3.73 2.98 1.80 2.67 4.02	Feb. 24, 2019 Mar. 8, 2020 Feb. 27, 2021 Feb. 27, 2022 Feb. 26, 2023 Mar. 3, 2024 Jun. 9, 2024	29,025 108,500 73,200 68,798 31,020 0	86,945	483,412
Paul Osenar	75,000 ⁽¹¹⁾ 33,333 ⁽¹²⁾ 23,927 ⁽⁴⁾	1.54 1.67 2.51	Oct. 2, 2022 Feb. 26, 2023 Mar. 3, 2024	199,466 42,931 0	120,440	666,315

⁽¹⁾ All figures are in Canadian dollars. Where options are exercisable in United States dollars, the exercise price has been converted to Canadian dollars using the Bank of Canada rate of exchange on December 29, 2017.

Such amounts may not represent the actual value of the PSUs which ultimately vest, as the value of the Shares underlying the PSUs may be of greater or lesser value and/or the exchange rate may be higher or lower on vesting. However, given that it would not be feasible for the Corporation to estimate, with any certainty, the market value of its Shares or the exchange rate on vesting, the Corporation has used the market value and exchange rate at the end of the most recently completed financial year for the purpose of calculating the amount disclosed.

- (4) Unvested options.
- (5) Comprising 62,375 vested and 31,188 unvested options.
- (6) Comprising 51,567 vested and 103,135 unvested options.
- (7) Comprising 19,162 vested and 9,581 unvested options.
- (8) Comprising 15,841 vested and 31,683 unvested options.
- (9) Comprising 26,666 vested and 13,334 unvested options.
- (10) Comprising 8,250 vested and 16,502 unvested options.
- (11) Comprising 50,000 vested and 25,000 unvested options.
- (12) Comprising 11,111 vested and 22,222 unvested options.

This amount is based on the difference between the closing price of the Shares underlying the options on the TSX or NASDAQ as at December 29, 2017, and the exercise price of the option. For options with an exercise price in United States dollars, the price was converted to Canadian dollars using the Bank of Canada rate of exchange on December 29, 2017. Where the difference is a negative number, the value is deemed to be 0. The United States dollar amount was US\$159,000, US\$34,222 and US\$0 for Dr. Osenar.

⁽³⁾ This amount is calculated by multiplying the number of PSUs that have not vested by the closing price of the Shares underlying the PSUs on the TSX or NASDAQ as at December 29, 2017, with the exception of Dr. Osenar, whose unvested PSUs were multiplied by the closing price of the Shares underlying the PSUs on the NASDAQ as at December 29, 2017 and then converted to Canadian dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 29, 2017. The United States dollar amount was US\$531,140 for Dr. Osenar.

The following table sets forth the value of the incentive plan awards vested or earned during the year ended December 31, 2017 by our Named Executive Officers.

Incentive Plan Awards – Value Vested or Earned During the Year (2017)

Named Executive Officer	Option-Based Awards – Value Vested During the Year ⁽¹⁾ (CDN\$)	Share-Based Awards – Value Vested During the Year ⁽²⁾ (CDN\$)	Non-equity incentive plan compensation – Value earned during the year (CDN\$)
R. Randall MacEwen	265,859	588,039	0
Tony Guglielmin	12,039	132,230	0
Rob Campbell	0	0	0
Kevin Colbow	6,270	36,962	0
Paul Osenar	120,258	141,512	0

⁽¹⁾ This value was determined by calculating the difference between the market price of the underlying Shares on the TSX or NASDAQ on the vesting date and the exercise price of the options on the vesting date. Where the difference is a negative number the value is deemed to be 0.

The number of options vesting to Named Executive Officers under the Option Plan during the most recently completed financial year is 255,855.

For a detailed description of the principal terms of our equity-based compensation plans, see Appendix "A" and "B" of this Management Proxy Circular. Copies of the Option Plan and SDP as approved by the Board in February 2018, are available on the Corporation's profile on www.sedar.com (as "Other securityholder documents – English", filed on April 3, 2018) and will be posted on the Governance section of the Corporation's website (http://ballard.com/investors/governance) following the Meeting, if approved. As noted in the Outstanding Share-Based Awards and Option-Based Awards table, as at December 31, 2017, there were 995,675 PSUs awarded to Named Executive Officers that were still unvested. The performance criteria for each of these PSUs will be determined by the Board at the appropriate time, and they are set to vest (subject to the terms of the Consolidated Share Distribution Plan or Market Purchase PSU Plan) as follows:

Named Executive Officer	Number of PSUs That Have Not Vested	Vesting Date
R. Randall MacEwen	52,433 289,158 175,562 11,661	February 25, 2018 February 25, 2019 March 2, 2020 June 8, 2020
Tony Guglielmin	16,107 88,829 53,933 9,888	February 25, 2018 February 25, 2019 March 2, 2020 June 8, 2020
Rob Campbell	26,943 26,944 26,944 9,888	May 1, 2018 May 1, 2019 May 1, 2020 June 8, 2020
Kevin Colbow	5,594 46,265 28,090 6,996	February 25, 2018 February 25, 2019 March 2, 2020 June 8, 2020
Paul Osenar	20,326 62,614 37,500	September 30, 2018 February 25, 2019 March 2, 2020

This value was determined by calculating the dollar value realized by multiplying the number of Shares by the market value of the underlying Shares on the TSX or NASDAQ on the vesting date.

PENSION PLAN BENEFITS

None of the Named Executive Officers participate in a Corporation-sponsored Defined Benefits Plan or Defined Contribution Plan, nor do they receive contributions to any such plan on their behalf from the Corporation.

TERMINATION AND CHANGE OF CONTROL BENEFITS

Employment Contracts

Ballard employs a standard-form executive employment agreement which all of our Named Executive Officers have executed. These agreements have indefinite terms, provide for payments to be made on termination and otherwise include standard industry terms and conditions, including intellectual property, confidentiality, and non-competition and non-solicitation provisions in favour of Ballard.

The annual salary paid to each of our Named Executive Officers under their employment agreements for 2017 was as follows: Mr. MacEwen received CDN\$540,385 Mr. Guglielmin received CDN\$343,846; Mr. Campbell received CDN\$222,115; Dr. Colbow received CDN\$240,385; and Dr. Osenar received CDN\$338,715.

Pursuant to these employment agreements, a Named Executive Officer's employment terminates immediately, without any required period of notice or payment in lieu thereof, for just cause or upon the death of the executive. In every other circumstance for Mr. MacEwen and Mr. Guglielmin, other than one following a change of control, we are required to provide notice of up to 12 months plus one month for every year of employment completed with us, to a maximum of 24 months, or payment in lieu of such notice, consisting of the salary, target bonus and other benefits that would have been earned during such notice period. For Mr. Campbell, we are required to provide notice of up to 12 months plus one month for every year of employment completed with us, to a maximum of 18 months, or payment in lieu of such notice, consisting of the salary, target bonus and other benefits that would have been earned during such notice period. For Dr. Colbow, we are required to provide statutory notice plus one day for each month worked, or payment in lieu of such notice, consisting of the salary, target bonus and other benefits that would have been earned during such notice period. For Dr. Osenar, we are required to provide 6 months notice, or payment in lieu of such notice and COBRA payments for the notice period.

The employment contracts for Mr. MacEwen, Mr. Guglielmin and Mr. Campbell include a "double-trigger" in relation to a change of control – if the executive's employment is terminated (including a constructive dismissal) within two years following the date of a change of control, the executive is entitled to a payment equivalent to payment in lieu of a 24 month notice period. For these purposes, a "change of control" under the employment agreements is defined as occurring when:

- (a) a person or persons acting in concert acquires at least one-half of Ballard's shares;
- (b) the persons who comprise the Board of Ballard do not consist of a majority of persons who were previously directors of Ballard, or who were recommended to the Shareholders for election to the Board by a majority of the Directors;
- (c) there is a disposition of all or substantially all of Ballard's assets to an entity in which Ballard does not have a majority interest; or
- (d) Ballard is involved in any business combination that results in Ballard's Shareholders owning less than one-half of the voting shares of the combined entity.

In addition, all Named Executive Officers have agreed to the claw-back provision discussed previously.

Equity-Based Compensation Plans

The Option Plan provides that, if a participant ceases to be an employee of Ballard or its subsidiaries (other than by reason of death/disability or being retired), he or she will have up to 90 days, in the event of termination other than for just cause, or 30 days, in the event of voluntary resignation, in which to exercise his or her vested options (in each case subject to extension if the option would otherwise expire during, or within 9 business days after the end of, a blackout period). In the event of termination other than for just cause, the CEO has the discretion to extend the exercise period to up to one year after the optionee ceases to work for Ballard and to accelerate the vesting of unvested options that would have otherwise vested during that period in the next year (in effect, enabling the continuance of the options during a notice period).

All Ballard PSUs awarded under either the SDP or the Market Purchase PSU Plan expire on the last day on which the participant works for Ballard or any of its subsidiaries (other than by reason of death/disability or being retired).

DSUs will be redeemed for Shares under the SDP by no later than December 31 of the first calendar year commencing after the holder's employment with Ballard and its subsidiaries is terminated, except in the case of US holders, whose DSUs will be redeemed for Shares approximately 6 months after termination of employment.

The Option Plan provides for the accelerated vesting of options upon a change of control, which is defined as:

- (a) a person making a take-over bid that could result in that person or persons acting in concert acquiring at least two-thirds of Ballard's shares and in respect of which the Board approves the acceleration of options;
- (b) any person or persons acting in concert acquiring at least two-thirds of the outstanding Shares;
- (c) there is a disposition of all or substantially all of Ballard's assets to an entity in which Ballard does not have a majority interest;
- (d) Ballard joins in any business combination that results in Ballard's Shareholders owning onethird or less of the voting shares of the combined entity and Ballard is privatized (or the parties to the business combination have publicly expressed an intention to privatize Ballard); or
- (e) any other transaction, a consequence of which is to privatize Ballard is approved by Ballard security holders or, if such approval is not required, is approved by Ballard.

If an accelerated vesting event occurs, any outstanding option may be exercised at any time before the 60th day after such event.

Under the SDP and the Market Purchase PSU Plan, the occurrence of any of the accelerated vesting events described above triggers (subject to Board approval in the case of a take-over bid) the termination of the restriction period applicable to PSUs such that holders will become immediately entitled to receive Shares in respect of their PSUs (subject to satisfaction of any performance criteria or other conditions specified in the award).

The following table shows, for each Named Executive Officer, the amount such person would have been entitled to receive if on December 31, 2017: (1) their employment was terminated without just cause; (2) a change of control occurred; or, (3) their employment was terminated without just cause and that termination occurred following a change in control.

	Triggering Event (as of December 31, 2017)					
Named Executive Officer	Termination of Employment (2) (CDN\$)(1)	Change of Control (3) (CDN\$)(1)	Termination of Employment following Change of Control (CDN\$) ⁽¹⁾			
R. Randall MacEwen						
Severance	\$1,396,849	\$0	\$2,200,000			
Other benefits	\$68,218	\$0	\$132,441			
Accelerated vesting	\$0	\$3,811,024	\$0			
Total	\$1,465,067	\$3,811,024	\$2,332,441			
Tony Guglielmin						
Severance	\$942,083	\$0	\$1,190,000			
Other benefits	\$61,410	\$0	\$102,571			
Accelerated vesting	\$0	\$1,847,329	\$0			
Total	\$1,003,494	\$1,847,329	\$1,292,571			
Robert Campbell			•			
Severance	\$595,000	\$0	\$1,190,000			
Other benefits	\$56,575	\$0	\$148,229			
Accelerated vesting	\$0	\$504,400	\$0			
Total	\$651,575	\$504,400	\$1,338,229			
Kevin Colbow						
Severance	\$484,375	\$0	\$484,375			
Other benefits	\$26,625	\$0	\$26,625			
Accelerated vesting	\$0	\$793,955	\$0			
Total	\$511,000	\$793,955	\$511,000			
Paul Osenar ⁽⁴⁾						
Severance	\$209,250	\$0	\$209,250			
Other benefits	\$7,171	\$0	\$7,171			
Accelerated vesting	\$0	\$908,712	\$0			
Total	\$216,421	\$908,712	\$216,421			

⁽¹⁾ All values are in Canadian dollars, unless otherwise stated

DIRECTOR COMPENSATION

Our CGCC is responsible for determining compensation for our Directors.

The objective of the CGCC is to ensure that the annual retainer paid to Directors is sufficient to allow the Corporation to attract and retain candidates with an appropriate level of skill and expertise as has been the case in the past. As a result, the CGCC seeks to provide compensation for directors at approximately the 50th percentile of its comparator group of North American companies. The committee retains independent compensation consultants (Willis Towers Watson) for professional advice and as a source of competitive market information.

Based on accrued service to December 31, 2017.

⁽³⁾ All options and PSUs vest immediately upon a change of control. Value shown equals, in the case of PSUs, the price of the underlying Shares on December 31, 2017 multiplied by the number of PSUs. Value shown in the case of Options is the difference between the market price on December 31, 2017 and the exercise price for options, for those options where the market price on that date is greater than the exercise price.

⁽⁴⁾ Dr. Osenar resigned from Protonex effective December 31, 2017.

During 2015, the CGCC reviewed the Director Compensation program from the viewpoint of best governance trends and practices, the Board/Committee model currently employed at Ballard and the appropriate level of compensation for Directors as compared to the comparator group. As a result a new structure contemplating an all-in, flat annual retainer was approved, effective January 1, 2016 as follows:

- Flat Fee Structure for Board Chair.
- Annual Flat Fee Structure for directors. No additional meeting attendance fees for board or committee meetings.
- Additional annual retainer fees for committee chairs.
- All retainer fees are paid in CAD\$, regardless of director's country of residence.

We remunerate directors who are not executive officers for services to the Board, committee participation and special assignments. The following table describes the compensation of independent directors in 2017:

2017 Compensation Elements	
Annual Retainer (Non-Executive Chair of the Board)	
Annual Retainer (Director)	
Annual Retainer (Committee Chairs)	

Directors are also reimbursed for travel and other reasonable expenses incurred in connection with fulfilling their duties. If a meeting or group of meetings is held on a continent other than the continent on which an independent director is resident, that director will receive an additional fee of CDN\$2,250, in recognition of the additional time required to travel to and from the meeting or meetings.

In 2017, the following compensation was paid to the directors:

Director	Board Retainer (CDN\$)	Committee Retainer (CDN\$)	Meeting Fees ⁽¹⁾ (CDN\$)	Total Compensation (CDN\$) (1)
Ian A. Bourne	150,000	N/A	2,250	152,250
Douglas P. Hayhurst	90,000	15,000	2,250	107,250
Duy-Loan Le ⁽²⁾	82,500	0	2,250	84,750
Marty Neese	90,000	0	0	90,000
Jim Roche	90,000	15,000	2,250	107,250
Carol M. Stephenson ⁽³⁾	39,066	0	0	39,066
Ian Sutcliffe	90,000	0	2,250	92,250
Janet Woodruff ⁽⁴⁾	67,500	0	2,250	69,750

^{1.} Directors attended a meeting in China in April 2017.

Retainers are paid 50% in DSUs and 50% in cash. Directors can elect to take their fees up to 100% in the form of DSUs annually in support of their share ownership targets. The period over which share ownership targets must be met (remaining at 3x annual retainer) was increased from 5 years to 6 years, recognizing the higher retainer level multiple to be achieved.

Directors are entitled to participate in the deferred share unit section for directors (the "DSU Plan for Directors") in the SDP. Each DSU is convertible into one Share. The number of DSUs to be credited to a

^{2.} Ms. Le was appointed effective February 1, 2017, and received a pro rata portion of her board retainer.

^{3.} Ms. Stephenson left the board effective June 1, 2017, and received a pro rata portion of her board retainer.

^{4.} Ms. Woodruff was appointed effective April 1, 2017, and received a pro rata portion of her board retainer.

Director is determined quarterly by dividing the amount of the eligible remuneration to be deferred into DSUs by the fair market value per Share, being a price not less than the closing sale price at which the Shares are traded on the TSX (in respect of a DSU issued or to be issued to a person who is resident in any country other than the U.S.) or NASDAQ (in respect of a DSU issued or to be issued to a person who is resident in the U.S.) on the trading day before the relevant date. For the Directors, DSUs are credited to an account maintained for each eligible person by Ballard at the time specified by the Board (DSUs are granted in equal instalments over the course of a year, at the end of each quarter). However, a DSU is not redeemed until the Director leaves the Board, and its value on redemption will be based on the value of our Shares at that time. The SDP or any successor plans will be used to satisfy the redemption of DSUs issued pursuant to the DSU Plan for Directors.

Directors have not been issued any stock options in the last 5 years, and there is no current intention to do so in the future.

INCENTIVE PLAN AWARDS

The following table sets forth all option-based and share-based awards granted to our non-executive directors that are outstanding as of December 31, 2017.

In 2003, we ceased the practice of annual grants of share options to our independent Directors.

Outstanding Share-Based Awards and Option-Based Awards (as of December 31, 2017)

		Option-Based Awards				
Name	Number of Securities Underlying Unexercised Options	Option Exercise Price ⁽¹⁾ (CDN\$)	Option Expiration Date	Value of Unexercised In-The-Money Options ⁽²⁾ (CDN\$)		
Ian A. Bourne	0	_	_	_		
Doug Hayhurst	0	_	_	_		
Duy-Loan Le	0	_	_	_		
Marty Neese	0	_	_	_		
Jim Roche	0	_	_	_		
Carol Stephenson	0	_	_	_		
Ian Sutcliffe	0	_	_	_		
Janet Woodruff	0	_	_	_		

⁽¹⁾ All figures are in Canadian dollars.

No incentive plan awards vested for, or were earned by, our Directors during the year ended December 31, 2017.

Directors are not permitted to hedge the market value of the Corporation securities they hold.

⁽²⁾ This amount is based on the difference between the closing price of the Shares underlying the options on the TSX as at December 29, 2017, and the exercise price of the option. Where the difference is a negative number the value is deemed to be 0.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table sets out, as of December 31, 2017, the number of securities we are authorized to issue under our equity-based compensation plans and the relevant exercise prices at which such securities may be issued.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (#) (a)	Weighted -Average Exercise Price of Outstanding Options, Warrants and Rights (CDN\$) (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans excluding securities reflected in column (a) (c)
Equity-based compensation plans approved by security holders	6,188,365 ⁽¹⁾	1.97	11,617,902
Equity-based compensation plans not approved by security holders	Nil	N/A	N/A
Total	6,188,365(1)	1.97	11,617,902

⁽¹⁾ Shares issuable under the DSU Plan for Directors and the DSU Plan for Executive Officers (together, the "DSU Plans") will be satisfied with Shares reserved under the SDP or any successor plan.

For a detailed description of our equity-based compensation plans, see Appendix "B" and "C" of this Management Proxy Circular.

INTEREST OF INFORMED PERSONS IN MATERIAL TRANSACTIONS

To the best of our knowledge, no informed person, proposed director or person who has been a director or executive officer of the Corporation (or any associate of affiliate of such persons) had any interest in any material transactions during the past year or has any interest in any material transaction to be considered at the Meeting, except as disclosed in this Management Proxy Circular.

INDEBTEDNESS OF DIRECTORS AND EXECUTIVE OFFICERS

In compliance with Sarbanes-Oxley, we do not make or arrange personal loans to directors or executive officers. As of April 9, 2018, our current or former directors, officers and employees have no outstanding indebtedness to the Corporation, its subsidiaries or to any other entity and which is guaranteed by the Corporation or its subsidiaries.

DIRECTORS' AND OFFICERS' LIABILITY INSURANCE

We purchase and maintain insurance for the benefit of our directors and officers for losses arising from claims against them for certain actual or alleged wrongful acts they may undertake while performing their director or officer function. The total annual premium in respect of our directors' and officers' liability insurance program was approximately US\$217,000 for 2017 and US\$238,000 for 2016. The aggregate maximum coverage provided by the policy for all claims, for both directors and officers, in any single policy year is US\$30 million. In addition to the payment of the premiums, we are accountable for the payment of the policy deductible of US\$0 to US\$200,000 per claim. We have also agreed to indemnify each of our directors and officers against all expenses, liability and loss, reasonably incurred or suffered, arising from the performance of his or her duties as an officer or director of Ballard.

ADDITIONAL INFORMATION

Additional information relating to us is included in the following public filings, which are incorporated by reference (the "**Incorporated Documents**") into, and form an integral part of, this Management Proxy Circular:

- Annual Information Form dated February 28, 2018;
- Audited Annual Financial Statements for the year ended December 31, 2017 together with the auditors' report thereon; and
- Management's Discussion and Analysis for the year ended December 31, 2017.

Copies of the Incorporated Documents and all our other public filings providing additional information relating to us may be obtained at www.sec.gov, or upon request and without further charge from either our Corporate Secretary, at 9000 Glenlyon Parkway, Burnaby, British Columbia, Canada V5J 5J8, or by calling our Investor Relations Department at (604) 454-0900.

PROPOSALS

Any Shareholder who intends to present a proposal at our 2019 annual Shareholders' meeting must send the proposal to our Corporate Secretary at 9000 Glenlyon Parkway, Burnaby, British Columbia, Canada V5J 5J8. In order for the proposal to be included in the proxy materials we send to Shareholders for that meeting, the proposal:

- must be received by us no later than March 6, 2019; and
- must comply with the requirements of section 188 of the *Business Corporations Act (British Columbia)*.

We are not obligated to include any shareholder proposal in our proxy materials for the 2019 annual Shareholders' meeting if the proposal is received after the March 6, 2019 deadline.

APPROVAL BY THE BOARD

Our Board has approved the contents and the sending of this Management Proxy Circular to the Shareholders of the Corporation.

BY ORDER OF THE BOARD

"Kerry Hillier"

Kerry Hillier Corporate Secretary Ballard Power Systems Inc.

Dated: April 9, 2018

DEFINED TERMS

In this Management Proxy Circular:

"Ballard", "Corporation", "we", "us" and "our" refer to Ballard Power Systems Inc.

"Beneficial Shareholders" means holders of our Shares that do not hold our Shares in their own name, but instead, whose Shares are held on the Record Date by a bank, trust company, securities broker or other nominee.

"Board" means the board of directors of Ballard.

"CDN\$" refers to Canadian currency.

"Equity-based Compensation Plans" means the Option Plan and the SDP.

"DSU" means deferred share unit.

"\$" or "dollars" refer to United States currency unless specifically stated otherwise.

"Meeting" means the 2018 annual meeting of our Registered Shareholders and includes any adjournment thereof, unless otherwise indicated.

"NASDAQ" means the NASDAQ Global Market.

"Option Plan" means the Corporation's consolidated share option plan, the principal terms of which are set out in Appendix "B".

"PSU" means restricted share unit subject to time and performance vesting criteria.

"Record Date" means 5:00 p.m. Pacific Daylight Time on April 9, 2018.

"Registered Shareholders" means registered holders of our Shares on the Record Date.

"SDP" means the Corporation's consolidated share distribution plan, the principal terms of which are set out in Appendix "C".

"SEC" means the U.S. Securities and Exchange Commission.

"Shares" means common shares without par value in the capital of Ballard.

"TSX" means the Toronto Stock Exchange.

"US\$" refers to United States currency.

APPENDIX "A" BOARD MANDATE

PURPOSE

The board of directors (the "Board") is responsible for the overall corporate governance of the Corporation. It oversees and directs the management of the Corporation's business and affairs. In doing so, it must act honestly, in good faith, and in the best interests of the Corporation. The Board guides the Corporation's strategic direction, evaluates the performance of the Corporation's executive officers, monitors the Corporation's financial results, and is ultimately accountable to the Corporation's shareholders, employees, customers, suppliers, and regulators. Board members are kept informed of the Corporation's operations at meetings of the Board and its committees, and through reports and analyses by, and discussions with, management. The Board manages the delegation of decision-making authority to management through Board resolutions under which management is given authority to transact business, but only within specific limits and restrictions. In this Mandate, the "Corporation" means Ballard Power Systems Inc. and a "director" means a Board member.

COMPOSITION

- A. As stated in the Articles of the Corporation, the Board will be composed of no fewer than five and no more than fifteen directors.
- B. The Board will have a majority of independent directors.
- C. The Board will appoint its own Chair.

MEETINGS

- D. Meetings of the Board will be held as required, but at least four times a year.
- E. The Board will appoint its own Secretary, who need not be a director. The Secretary, in conjunction with the Chair of the Board, will draw up an agenda, which will be circulated in advance to the members of the Board along with the materials for the meeting. The Secretary will be responsible for taking and keeping the Board's meeting minutes.
- F. As set out in the By-laws of the Corporation, meetings will be chaired by the Chair of the Board, or if the Chair is absent, by a member chosen by the Board from among themselves.
- G. If all directors consent, and proper notice has been given or waived, a director or directors may participate in a meeting of the Board by means of such telephonic, electronic or other communication facilities as permit all persons participating in the meeting to communicate adequately with each other, and a director participating in such a meeting by any such means is deemed to be present at that meeting.
- H. The Board will conduct an in-camera session excluding management at the end of each Board meeting.
- I. A majority of directors constitute a quorum.
- J. All decisions made by the Board may be made at a Board meeting or evidenced in writing and signed by all Board members, which will be fully effective as if it had been made or passed at a Board meeting.

DUTIES AND RESPONSIBILITIES

K. Selection of Management

The Board is responsible for appointing the Chief Executive Officer ("CEO"), for monitoring and evaluating the CEO's performance, and approving the CEO's compensation. Upon recommendation of the CEO and the Corporate Governance & Compensation Committee, the Board is also responsible for appointing all officers. The Board also ensures that adequate plans are in place for management development and succession and conducts an annual review of such plans.

L. Corporate Strategy

The Board is responsible for reviewing and approving the Corporation's corporate mission statement and corporate strategy on a yearly basis, as well as determining the goals and objectives to achieve and implement the corporate strategy, while taking into account, among other things, the opportunities and risks of the business. Each year, the Board meets for a strategic planning session to set the plans for the upcoming year. In addition to the general management of the business, the Board expects management to achieve the corporate goals set by the Board, and the Board monitors throughout the year the progress made against these goals.

In addition, the Board approves key transactions, which have strategic impact to the Corporation, such as acquisitions, key collaborations, key supply arrangements, and strategic alliances. Through the delegation of signing authorities, the Board is responsible for setting out the types of transactions that require approval of the Board before completion.

M. Fiscal Management and Reporting

The Board monitors the financial performance of the Corporation and must ensure that the financial results are reported: (a) to shareholders and regulators on a timely and regular basis; and (b) fairly and in accordance with generally accepted accounting principles. The Board must also ensure that all material developments of the Corporation are disclosed to the public on a timely basis in accordance with applicable securities regulations. In the spring of each year, the Board reviews and approves the Annual Report, which is sent to shareholders of the Corporation and describes the achievements and performance of the Corporation for the preceding year.

N. Legal Compliance

The Board is responsible for overseeing compliance with all relevant policies and procedures by which the Corporation operates and ensuring that the Corporation operates at all times in compliance with all applicable laws and regulations, and to the highest ethical and moral standards.

O. Statutory Requirements

The Board is responsible for approving all matters, which require Board approval as prescribed by applicable statutes and regulations, such as payment of dividends and issuances of shares. Management ensures that such matters are brought to the attention of the Board as they arise.

P. Formal Board Evaluation

The Board, through a process led by the Corporate Governance& Compensation Committee, conducts an annual evaluation and review of the performance of the Board, Board committees, and the Chair of the Board. The Corporate Governance & Compensation Committee reviews the results of such evaluation and together with the Chair of the Board, discusses potential ways to improve Board effectiveness. The Corporate Governance & Compensation Committee discusses the results of the evaluation and the recommended improvements with the full Board. The Board also sets annual effectiveness goals and tracks performance against those goals. In addition, each individual director's performance is evaluated and reviewed regularly.

Q. Risk Management

The Board is responsible for identifying the Corporation's principal risks and ensuring the implementation of appropriate systems to manage these risks. The Board is also responsible for the integrity of the Corporation's internal controls and management information systems.

R. External Communications

The Board is responsible for overseeing the establishment, maintenance and annual review of the Corporation's external communications policies which address how the Corporation interacts with analysts and the public and which also contain measures for the Corporation to avoid selective disclosure. The Board is responsible for establishing a process for receiving shareholder feedback. This is achieved through a semi-annual presentation of an investor relations report, which contains a summary of the feedback and common enquiries received from shareholders, as well as a Board email address, which has been set up for the public to submit messages to the Board.

APPENDIX "B" DESCRIPTION OF OPTION PLAN

All directors, officers and employees of Ballard and its subsidiaries are eligible to participate in the Option Plan.

As of April 9, 2018, the total number of Shares issued and reserved and authorized for issue under the Option Plan was 5,425,587 Shares, representing 3.0% of the issued and outstanding Shares as of that date.

The number of options granted under the Option Plan may adjust if any share reorganization, stock dividend or corporate reorganization occurs.

The Option Plan limits insider participation such that the number of Shares issued to insiders, within any one-year period, and issuable to insiders, at any time, under the plan and any other Ballard equity-based compensation arrangements, cannot exceed 10% of Ballard's issued and outstanding Shares.

In any year, a non-executive Director's participation in all Ballard equity-based compensation arrangements is limited to that number of shares (or that number of securities in respect of underlying shares) having a value of not more than CDN\$100,000 on the date of grant, excluding any securities issued in respect of the non-executive Director's annual retainer.

Apart from the limits on Shares issued or issuable to insiders and to non-executive Directors, described above, the Option Plan does not restrict the number of Shares that can be issued to any one person or to Directors.

The exercise price of a Ballard option will be determined by the Board and is to be no less than the closing price per Share on the TSX on the last trading day before the date the option is granted.

Ballard options may have a term of up to 10 years from the date of grant, and unless otherwise determined by the Board, will vest in equal amounts on the first, second and third anniversaries of the date of grant.

If an "accelerated vesting event" occurs, any outstanding option may be exercised at any time before the 60th day after such event. An accelerated vesting event occurs when: (a) a person makes a take-over bid that could result in that person or persons acting in concert acquiring at least two-thirds of Shares; (b) any person or persons acting in concert acquire at least two-thirds of Shares; (c) there is a disposition of all or substantially all of Ballard's assets; (d) Ballard joins in any business combination that results in Ballard's shareholders owning one-third or less of the voting shares of the combined entity and Ballard is privatized (or the parties to the business combination have publicly expressed an intention to privatize Ballard); or (e) any other transaction is approved, a consequence of which is to privatize Ballard.

The Option Plan also contains a "double trigger" in the event of a take-over. Accordingly, vesting will only be accelerated if the Board approves the acceleration. In such circumstances, the Board will also have the ability to make such changes as it considers fair and appropriate, including accelerating vesting, otherwise modifying the terms of options to assist the holder to tender into the take-over bid or terminating options which have not been exercised prior to the successful completion of the accelerated vesting event.

Under the Option Plan each option will expire (or no longer be capable of being exercised) on the earlier of:

- (a) the expiration date as determined by the Board, which date will not be more than 10 years from the date of grant; and
- (b) if the optionee is a director, officer or employee, the optionee ceases to hold such position, except that, an option will be capable of exercise, if the optionee ceases to be a director, officer or employee:
 - (i) because of his or her death, for one year after the optionee dies;
 - (ii) as a result of voluntary resignation, for 30 days after the last day on which the optionee ceases to be a director, or the officer or employee ceases to work for Ballard; or

(iii) other than as a result of voluntary resignation (in the case of a director) or termination other than for just cause (in the case of an officer or employee), for 90 days after the last day on which the optionee ceases to be a director, or the officer or employee ceases to work for Ballard (although in these circumstances, the Chief Executive Officer has discretion to extend the exercise period to up to one year after the optionee ceases to work for Ballard).

In the event that the optionee dies, all previously unvested options vest and, in the circumstances described in (b)(iv) above, the Chief Executive Officer has discretion to accelerate the vesting of unvested options that would have otherwise vested in the next year. In the other circumstances described above, an option is only capable of being exercised in respect of options that were vested at the time the optionee ceased to be a director or ceased to work for Ballard.

In the event that an optionee becomes "totally disabled" (as defined in the Option Plan), his or her options will continue to vest and be exercisable as they would have had the optionee continued to be a director, officer or employee of Ballard.

Similarly, if an optionee becomes "retired" (as defined in the Option Plan), his or her options will continue to vest and be exercisable as they would have had the optionee continued to be a director, officer or employee of Ballard.

If an option would otherwise expire or cease to be exercisable during a blackout period or within nine business days after the end of a blackout period (that is, a period during which employees and/or directors cannot trade in securities of the Corporation because they may be in possession of insider information), the expiry date of the option is extended to the date which is 10 business days after the end of the blackout period.

The Board is entitled to make, at any time, and from time to time, and without obtaining shareholder approval, any of the following amendments

- (a) amendments to the definitions and other amendments of a clerical nature;
- (b) amendments to any provisions relating to the granting or exercise of options, including but not limited to provisions relating to the term, termination, amount and payment of the subscription price, vesting period, expiry or adjustment of options, provided that, without shareholder approval, such amendment does not entail:
 - (i) a change in the number or percentage of Shares reserved for issuance under the plan;
 - (ii) a reduction in the exercise price of an option or the cancellation and reissuance of options;
 - (iii) an extension of the expiry date of an outstanding option;
 - (iv) an increase to the maximum number of Shares that may be:
 - (A) issued to insiders within a one-year period; or
 - (B) issuable to insiders at any time,

under all of Ballard's equity-based compensation arrangements, which could exceed 10% of the issued and outstanding Shares at that time;

- (v) an increase in the maximum number of securities that can be granted to directors (other than directors who are also officers) under all of Ballard's equity-based compensation arrangements, which could exceed such number of securities in respect of which the underlying Shares have a Fair Market Value (as defined in the plan) on the date of grant of such securities of CDN\$100,000;
- (vi) permitting options to be transferable or assignable other than for normal course estate settlement purposes; or

- (vii) a change to the amendment provisions of the plan;
- (c) the addition or amendment of terms relating to the provision of financial assistance to optionees or resulting in optionees receiving any Ballard securities, including pursuant to a cashless exercise feature;
- (d) any amendment in respect of the persons eligible to participate in the plan, provided that, without shareholder approval, such amendment does not permit non-employee directors to re-gain participation rights under the plan at the discretion of the Board if their eligibility to participate had previously been removed or increase limits previously imposed on non-employee director participation;
- (e) such amendments as are necessary for the purpose of complying with any changes in any relevant law, rule, regulation, regulatory requirement or requirement of any applicable stock exchange or regulatory authority; or
- (f) amendments to correct or rectify any ambiguity, defective provision, error or omission in the plan or in any agreement to purchase options.

Options are not assignable except as permitted by applicable regulatory authorities in connection with a transfer to an optionee's registered retirement savings plan or registered retirement income fund or to the personal representative of an optionee who has died.

APPENDIX"C" DESCRIPTION OF SDP

The SDP is a single plan divided into the following three principal sections:

- 1. A deferred share unit section for senior executives (the "DSU Plan for Executive Officers"). Under the SDP, DSUs are granted at the election of each executive officer of Ballard who is eligible (as determined by the Board) in partial or full payment of his or her annual bonus, which otherwise is paid in Shares.
- 2. A deferred share unit section for directors (the "**DSU Plan for Directors**"). Under the DSU Plan for Directors, each independent outside director elects annually the proportion (0% to 100%) of his or her annual retainer that he or she wishes to receive in DSUs.

Under the SDP, DSUs are credited to an account maintained for each eligible person by Ballard. Each DSU is convertible into one Share. The number of DSUs to be credited to an eligible person is determined on the relevant date by dividing the amount of the eligible remuneration to be deferred into DSUs by the fair market value per Share, being a price not less than the closing sale price at which the Shares are traded on the TSX (in respect of a DSU issued or to be issued to a person who is resident in any country other than the U.S.) or NASDAQ (in respect of a DSU issued or to be issued to a person who is resident in the U.S.) on the trading day before the relevant date. In the case of the executive officers, the relevant date is set by the Board but if such date occurs during a trading blackout, the number of DSUs will be determined on the first trading day after the day on which the blackout is lifted. For directors, DSUs are credited at the time specified by the Board (currently DSUs are granted in equal instalments over the course of a year, at the end of each quarter).

On any date on which a dividend is paid on the Shares, an eligible person's account will be credited with the number of DSUs calculated by: (i) multiplying the amount of the dividend per Share by the aggregate number of DSUs that were credited to that account as of the record date for payment of the dividend; and (ii) dividing the amount obtained in (i) by the fair market value (determined as set out above) of Shares on the date on which the dividend is paid.

A departing director or executive officer may receive Shares in respect of the DSUs credited to that person's account (at the ratio of one Share per DSU, subject to the deduction of any applicable withholding tax in the case of an eligible person who is a United States citizen or resident for the purpose of United States tax). A DSU, however, cannot be redeemed until such time as the director leaves the Board or the executive officer ceases to work for Ballard, and its value on redemption will be based on the value of Shares at that time. All DSUs vest immediately as they are issued in respect of remuneration that would have otherwise been paid in Shares or cash. DSUs do not expire. Except in the case of death, DSUs can only be assigned with consent.

3. A restricted share unit section (the "RSU Plan"). All employees (excluding non-executive directors) are eligible to participate in the RSU Plan.

The vesting of RSUs issued under the SDP occurs up to three years from the date of issuance, subject to the achievement of any performance criteria which may be set by the Board and to earlier vesting upon the occurrence of any accelerated vesting event (as defined in the SDP). Each RSU is convertible into one Share, which will be issued under the SDP.

A "double trigger" is included in the event of a take-over. Accordingly, in the event of a take-over the accelerated vesting of an RSU (technically, the shortening of the restriction period) will only occur if the Board so determines. In such circumstances, the Board will also have the ability to make such changes as it considers fair and appropriate in the circumstances, including the date on which the restriction period ends or otherwise modifying the terms of RSUs to assist the holder to tender into the take-over bid.

In addition, the Board has the discretion to deem performance criteria or other conditions to have been met on the occurrence of an accelerated vesting event.

If any performance criteria or other conditions specified in an award of RSUs is not met on or before the last day of the restriction period applicable to the relevant grant (usually three years less one day from the date of

grant), the RSUs will expire and the participant will no longer be entitled to receive any Shares upon conversion of those RSUs.

All RSUs awarded to a participant under the SDP will also expire on the last day on which the participant works for Ballard or any of its subsidiaries except that,

- (a) in the event of the participant's death or total disability, the performance criteria and conditions specified in the participant's award of RSUs will, unless otherwise specified in the award, be deemed satisfied and the RSUs will be converted into Shares; and
- (b) if the participant is retired, the vesting of RSUs will continue on the same terms as they would have had the participant continued to be an officer or employee of Ballard.

RSUs cannot be assigned other than by will or the laws of descent and distribution.

Under the SDP, the Board can elect to satisfy the conversion of RSUs through Ballard Shares purchased on the open market.

As of April 9, 2018, the total number of Shares issued and reserved and authorized for issue under the SDP was 1,464,839 Shares, representing 0.8% of the issued and outstanding Shares as of that date.

The SDP limits insider participation such that the number of Shares issued to insiders, within any one-year period, and issuable to insiders, at any time, under the plan and any other Ballard equity-based compensation arrangements, cannot exceed 10% of Ballard's issued and outstanding Shares.

Under the SDP, in any year, a non-executive Director's participation in all Ballard equity-based compensation arrangements is limited to that number of shares (or that number of securities in respect of underlying shares) having a value of not more than CDN\$100,000 on the date of grant, excluding any securities issued in respect of the non-executive Director's annual retainer.

The SDP does not limit the number of DSUs that can be issued to executive officers.

The SDP does not limit the number of RSUs that can be issued to any one participant.

Apart from the limits on Shares issued or issuable to insiders and non-executive Directors described above, the SDP does not restrict the number of Shares that can be issued to any one person, to executive officers or to Directors.

The SDP permits the Board, without obtaining shareholder approval, to amend any provision of the SDP and/or any RSU and/or DSU governed by it (whether outstanding or otherwise) (subject to any stock exchange or regulatory requirement at the time of any such amendment) including, without limitation, any of the following amendments:

- (a) amendments to the definitions and other amendments of a clerical nature;
- (b) amendments to any provisions relating to the issuance of Shares, granting or conversion of DSUs or RSUs, including but not limited to provisions relating to the term, termination, and number of DSUs or RSUs to be awarded, provided that, without shareholder approval, such amendment does not entail:
 - (i) a change in the number or percentage of Shares reserved for issuance under the plan;
 - (ii) a reduction of the issue price of the Shares issued under the plan or the cancellation and reissue of Shares;
 - (iii) a reduction to the fair market value used to calculate the number of DSUs to be awarded;
 - (iv) an extension of time for redemption of a DSU or an extension beyond the original restriction period of a RSU;
 - (v) an increase to the maximum number of Shares that may be:
 - (A) issued to insiders within a one-year period; or

(B) issuable to insiders at any time,

under all of Ballard's equity-based compensation arrangements, which could exceed 10% of the issued and outstanding Shares at that time;

- (vi) an increase in the maximum number of securities that can be granted to directors (other than directors who are also officers) under all of Ballard's equity-based compensation arrangements, which could exceed such number of securities in respect of which the underlying Shares have a Fair Market Value (as defined in the plan) on the date of grant of such securities of CDN\$100,000;
- (vii) permitting DSUs or RSUs to be transferable or assignable other than for normal course estate settlement purposes; or
- (viii) a change to the amendment provisions of the plan;
- (c) any amendment in respect of the persons eligible to participate in the plan (or any part of it), provided that, without shareholder approval, such amendment does not permit non-employee directors to:
 - (i) participate as holders of RSUs at the discretion of the Board;
 - (ii) re-gain participation rights under any section of the plan at the discretion of the Board if their eligibility (as a class) to participate had previously been removed; or
 - (iii) increase limits previously imposed on non-employee director participation;
- (d) such amendments as are necessary for the purpose of complying with any changes in any relevant law, rule, regulation, regulatory requirement or requirement of any applicable stock exchange or regulatory authority; or
- (e) amendments to correct or rectify any ambiguity, defective provision, error or omission in the plan or in any option agreement, notice to redeem DSUs or RSU agreement.

BALLARD POWER SYSTEMS INC. MANAGEMENT'S DISCUSSION AND ANALYSIS FOURTH QUARTER 2017

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements about expected events and the financial and operating performance of Ballard Power Systems Inc. ("Ballard", "the Company", "we", "us" or "our"). Forward-looking statements include any statements that do not refer to historical facts. Forward-looking statements are based on the beliefs of management and reflect our current expectations as contemplated under the safe harbor provisions of Section 21E of the United States Securities Exchange Act of 1934, as amended. 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), order backlog, order book of expected deliveries over the subsequent 12-months, 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 technology and 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 or related ecosystem, including the availability of cost-effective hydrogen; changes in product or service pricing; changes in our customers' requirements, the competitive environment and/or related market conditions; the relative strength in the value proposition that we offer our customers with our products or services; changes in competitive technologies, including battery technologies; product safety, liability or warranty issues; challenges or delays in our technology and product development activities; 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 government or environmental regulations including subsidies or incentives associated with the adoption of clean energy products, including hydrogen and fuel cells; 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, and the integration failing to achieve the expected benefits of the transaction; currency fluctuations, including 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 ("MD&A"). 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 MD&A including the occurrence of unanticipated events.

MANAGEMENT'S DISCUSSION AND ANALYSIS

February 28, 2018

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1. INTRODUCTION

1.1 Preparation of the MD&A

This discussion and analysis of financial condition and results of operations of Ballard Power Systems Inc. ("Ballard", "the Company", "we", "us" or "our") is prepared as at February 28, 2018 and should be read in conjunction with our audited consolidated financial statements and accompanying notes for the year ended December 31, 2017. 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.

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

Disclosure controls and procedures

Our disclosure controls and procedures are designed to provide reasonable assurance that relevant information is gathered and reported to senior management, including the Chief Executive Officer ("CEO") and the Chief Financial Officer ("CFO"), on a timely basis so that appropriate decisions can be made regarding public disclosures.

As of the end of the period covered by this report, we evaluated, under the supervision and with the participation of management, including the CEO and the CFO, the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a–15(e) and 15d-15(e) of the Securities Exchange Act of 1934 ("Exchange Act"). The CEO and CFO have concluded that as of December 31, 2017, 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, 2017.

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, 2017.

Changes in internal control over financial reporting

During the year ended December 31, 2017, we updated the design of our disclosure controls and procedures and internal controls over financial reporting as we replaced our incumbent financial and other resource systems with a fully integrated Enterprise Resource Planning ("ERP") management reporting software system and aligned our internal controls over financial reporting with the new ERP system. During the year ended December 31, 2017, 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 includes controls, policies and procedures covering all of our subsidiaries including Protonex Technology Corporation, Ballard Power Systems Europe A/S, and Guangzhou Ballard Power Systems Co., Ltd.

1.3 Risks and Uncertainties

An investment in our common shares involves risk. Investors should carefully consider the risks and uncertainties described below and in our Annual Information Form 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 a limited number of 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. Furthermore, successful large-scale deployment of zero-emission vehicles will require adequate investment in hydrogen fueling infrastructure and competitive pricing of hydrogen. Inadequate hydrogen fueling infrastructure and/or excessive hydrogen fuel costs could negatively impact deployment of zero-emission vehicles and may negatively impact our business, financial condition and results of operations. Our performance in China is dependent on our business model of localization, including the strength and performance of our localization partners. A key part of our strategy is based on the localization of stack production with a joint venture partner, where we do not control

- the joint venture;
- 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 as well as our reliance on a limited number of customers in the United States military;
- 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 in China 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, product performance guarantees, or indemnification 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 operate our business;
- Public Policy and regulatory changes could hurt the market for our products and services;

- 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.

2. CORE BUSINESS AND STRATEGY

2.1 Core Business

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, truck, rail and marine 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 are based in Canada, with head office, research and development, testing, manufacturing and service facilities in Burnaby, British Columbia. We also have a sales, manufacturing, research and development facility in Southborough, Massachusetts, and have a sales, assembly, service and research and development facility in Hobro, Denmark. We also have an office in Guangzhou, the capital of Guangdong Province, China. This office serves as the Company's initial operations center in China, with China management, sales and business development, technical, quality, supply chain, after-sales and administrative support personnel. We also have a service center based in Yunfu, China.

2.2 Strategic Imperatives

We plan to build value for our shareholders by developing, manufacturing, selling and servicing industry-leading PEM 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 is designed to include two growth platforms (power products and technology solutions), 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 and the unmanned aerial vehicle ("UAV") or drone 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 new-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 business model in which we seek to mitigate market adoption risk and capital investment by engaging partnerships with 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 payments from our partners of

significant value for technology transfer early in the transfer process, requirements for ongoing purchases by our partners of components from us, and requirements for 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 to that country 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 currently do not provide technology transfer and licensing relating to the manufacture of our proprietary membrane electrode assemblies ("MEAs"), a key high value technology component 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 strive to reserve flexibility on how we introduce these next generation products to the markets, including to China.

3. SELECT ANNUAL FINANCIAL INFORMATION AND 2018 BUSINESS OUTLOOK 3.1 Select Annual Financial Information

Results of Operations			Year ended,	
	2017		2016	2015
(Expressed in thousands of U.S. dollars, except per share amounts and gross margin %)				
Revenues	\$ 121,288	\$	85,270	\$ 56,463
Gross margin	\$ 41,600	\$	24,184	\$ 9,974
Gross margin %	34%		28%	18%
Total Operating Expenses	\$ 46,477	\$	42,253	\$ 34,858
Cash Operating Costs (1)	\$ 39,053	\$	34,338	\$ 29,050
Adjusted EBITDA ⁽¹⁾	\$ 3,324	\$	(9,883)	\$ (15,259)
Net loss attributable to Ballard	\$ (8,048)	\$	(21,112)	\$ (5,815)
Net loss per share attributable to Ballard, basic and diluted	\$ (0.05)	\$	(0.13)	\$ (0.04)
Adjusted Net Loss (1)	\$ (5,190)	\$	(19,286)	\$ (24,791)
Adjusted Net Loss per share ⁽¹⁾	\$ (0.03)	\$	(0.12)	\$ (0.18)
Financial Position (expressed in thousands of U.S. dollars)	2017	At	December 31, 2016	2015
Total assets	\$ 177,657	\$	183,446	\$ 161,331
Cash, cash equivalents and short-term investments	\$ 60,255	\$	72,628	\$ 40,049

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.

3.2 2017 Performance compared to 2017 Business Outlook

Although we did not provide specific financial performance guidance for 2017, we did indicate that we expected growth in product revenues in 2017, as compared to 2016, supported by increased activity in Heavy-Duty Motive, due primarily to increased sales to customers in China. We also indicated that we expected 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 various partners in the automotive, rail, military, and UAV sectors. We subsequently forecast lower Portable Power product revenues in 2017 as a result of the delay in obtaining Program of Record ("Milestone C") status with the U.S. Army (which was received in September 2017, later than initially forecast) for certain of our Portable Power products including our Squad Power Manager (SPM-622).

Actual revenues in 2017 of \$121.3 million increased 42%, or \$36.0 million, compared to 2016. As expected, overall revenue growth in 2017 was driven by growth in our Heavy-Duty Motive and Technology Solutions markets, partially offset by lower Portable Power revenues. Heavy-Duty Motive revenues in 2017 of \$63.7 million increased 140%, or \$37.2 million, from 2016; Technology Solutions revenues in 2017 of \$43.7 million increased 47%, or \$14.0 million from 2016; whereas Portable Power revenues in 2017 of \$4.5 million declined (61%), or (\$7.0) million, from 2016.

3.3 2018 Business Outlook

Given the early stage of the hydrogen fuel cell market development and adoption rate, and consistent with our approach in 2017, we are not providing specific financial performance quidance for 2018.

Global trends toward decarbonization, improving air quality and the electrification of propulsion systems have underpinned a growing interest in fuel cell electric vehicles ("FCEVs") for heavy and medium duty applications, including buses, commercial truck, rail and marine markets. Industry activity levels are increasing in China, Europe and the United States, including relating to demonstration programs and commercial deployments.

Looking to 2020, the Company expects strong growth in FCEV demonstration programs and commercial scaling in certain heavy and medium duty applications in China, Europe and North America. With continued investment in talent, technology, products, customer engagement and our brand, we expect Ballard to have a leading market position.

In 2018, Ballard will continue to pursue a corporate strategy and business model that mitigates risk by diversifying its business across a portfolio of market opportunities that are enabled by substantially the same core competencies, technology, products and intellectual property.

<u>China</u>

As noted in the Strategic Imperatives section above, we increased our efforts on growing our business in China starting in 2015 given that China represents a potentially unique opportunity for clean energy solutions.

In China, Ballard has been pursuing a strategy that includes the development of a local fuel cell supply chain and related ecosystem to address the zero emission bus and commercial vehicle markets. 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 stacks and modules for heavy-duty motive applications in China, including bus, commercial vehicles and light-rail train applications. We believe this strategy aligns with expected local content requirements for government subsidies supporting the adoption of fuel cell electric vehicles. Key elements of our strategy include adopting a business model in which we seek to mitigate market adoption risk and capital investment by engaging in partnerships with local companies that market our products and invest in manufacturing operations and supply chain localization. We also structure our business model in China to protect our core intellectual property.

The Company accomplished important progress in 2017 with the localization of stack and module assembly operations in China. In particular, the Company supported our stack joint venture in Guangdong Province, Guangdong Synergy Ballard Hydrogen Power Co., Ltd. ("Synergy JVCo"), on various aspects of the set-up and commission of the operations line, including the design, construction and layout of the production facility and related infrastructure; manufacturing and test equipment specification, procurement, delivery, installation, validation and optimization; management and staffing of the joint venture; quality processes; supplier and materials procurement and qualification; pilot production; and production scaling. This project contributed significant revenue and gross margin in 2017, which will not be duplicated in 2018 as we now transition to a supplier relationship with the joint venture based on a take-or-pay supply agreement for the supply by Ballard of MEAs.

In 2017, we also supported Zhongshan Broad-Ocean Motor Co., Ltd. ("Broad-Ocean") with technology transfer services relating to the set-up and commissioning of an initial module assembly line in Shanghai. In parallel to these technology transfer and module assembly line commissioning activities, we also supplied Broad-Ocean with module and components supply for 600 modules to support initial FCEV demonstration programs in key Chinese markets. This program contributed significant revenue and gross margin in 2017, which will not be duplicated in 2018 as we transition to a business model where Broad-Ocean assembles Ballard-designed modules and sources stacks from Synergy JVCo while also paying royalties to Ballard on assembled modules.

As a result of the localization of stack and module production in China that supported strong revenue growth in 2017, the Company expects field deployments of FCEVs to begin scaling in 2018, subject to anticipated parallel scaling of hydrogen refueling infrastructure and service infrastructure. In 2018, with completion of these localization activities, we expect the China revenue mix to shift from the sale of modules towards MEA component sales and royalties from the sale of locally-assembled modules. With this transition in business model, combined with the absence of the one-time revenue related to the technology transfer activities and module sales in 2017, Ballard expects year-on-year revenue from China to be lower in 2018. However, beyond 2018, we expect to generate increasing revenue from MEA sales, royalties and future Technology Solutions opportunities as a result of increasing demand for FCEV engines in a range of applications.

Europe

In Europe, the Company expects increased market activity in 2018 for fuel cell electric buses, commercial trucks, train and marine. The Company also expects new contract

awards for FCEVs under certain European programs, which we expect to result in growth in purchase orders for our fuel cell modules.

United States

In the United States, the Company expects increased 2018 market activity relating to fuel cell electric buses and commercial trucks. The Company also expects new contract awards for FCEVs in California, which we expect to lead to growth in purchase orders for our fuel cell modules.

The Company expects growth in revenues from our Protonex subsidiary in 2018. We believe obtaining the Program of Record "Milestone C" status with the U.S. Army in September 2017 for certain of our Portable Power products will support sales growth in 2018. While we believe the recent passage of the U.S. federal budget with a significant increase in planned military budget spending is a positive development for our Protonex business, it is currently uncertain whether this will impact our 2018 results.

Given Plug Power's continued movement since 2016 towards internally-manufactured and sourced stacks for their fuel cell systems integrated into forklifts, we expect this trend to continue with a further decline in our sales of stacks in Material Handling to Plug Power in 2018. We expect increased activities in this market segment with other partners in our Technology Solutions business.

Technology Solutions

Technology Solutions revenue is expected to be relatively flat in 2018 given the significant contribution made in 2017 from the technology transfer projects in China that will not be duplicated in 2018. This decline however is expected to be largely offset by increases in engineering services activities for existing and new customers, including in the automotive, rail, material handling and unmanned aerial vehicle sectors, including the Company's HyMotion program with the Volkswagen Group.

Summary

In summary, given the relatively early stage of development in some of our markets, the length and uncertainty of timing in contract award and program deliveries in 2018, together with the significant one-time contributions from key projects in 2017, we expect revenue to be relatively flat in 2018, coincident with a strengthening of the underlying business mix for long-term growth prospects. The 2018 revenue outlook is supported by a solid foundation to start the year with a 12-month Order Book of approximately \$73 million at the 2017 year end. Since year end, we have added additional orders of approximately \$18 million, such that we now have total committed orders of approximately \$91 million expected for delivery in 2018, together with a robust pipeline of qualified commercial sales opportunities.

Our outlook for 2018 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 two months of 2018; sales orders received for units and services expected to be delivered in the remainder of 2018; an estimate with respect to the generation of new sales and the timing of deliveries in each of our markets for the balance of 2018; and assumes an average U.S. dollar exchange rate of approximately \$0.80 in relation to the Canadian dollar for the remainder of 2018.

The primary risk factors to our business outlook expectations for 2018 are customer or production delays in delivering against existing orders and delays from forecast in terms of closing and delivering expected sales primarily in our Heavy-Duty Motive and Portable Power markets; adverse macro-economic conditions, changes in government subsidy and incentive programs; inadequate investment in hydrogen infrastructure and / or excessive hydrogen fuel costs, all of which could negatively impact our Chinese customers' access to capital and the success of their program plans which could adversely impact our Heavy-Duty market; disruptions in our Heavy-Duty market due to delays of supply of key materials and components from third party suppliers; disruptions in our Technology Solutions market as a result of our reliance on a single customer in this market and that customer's internal commercialization plans and budget requirements; disruptions in our Portable Power market as a result of U.S. defense spending volatility and potential defense procurement or acquisition process changes; 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.

As noted above, the above outlook for 2018 is supported by our December 31, 2017 12-month Order Book of approximately \$73 million which is derived from our Order Backlog of approximately \$221 million as of December 31, 2017, as well as by incremental contract bookings in January and February 2018. Our Order Backlog represents the estimated aggregate value of orders for which customers have made contractual commitments and our 12-month Order Book represents the aggregate expected value of that portion of the Order Backlog that the Company expects to deliver in the subsequent 12-month period.

Our Order Backlog and our 12-month Order Book are currently comprised of a relatively limited number of contracts and a relatively limited number of customers, including our MEA supply agreement with Synergy JVCo. Given the relative immaturity of our industry and customer deployment programs, our Order Backlog and 12-month Order Book are potentially vulnerable to risk of cancellation, deferral or non-performance by our customers for a variety of reasons including: risks related to customer liquidity; credit risks; risks related to changes, reductions or eliminations in government policies, subsidies and incentives; risks related to slower market adoption; risks related to vehicle integration challenges; risks related to the development of effective hydrogen refueling infrastructure; risks related to the ability of our products to meet evolving market requirements; and supplier-related risks.

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, operating 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; instead, we believe our operating performance should be assessed over a number of quarters and years. 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.

4. RECENT DEVELOPMENTS (Including Contractual Updates)

4.1 China

Shanghai Reinventing Fire Technology Company Limited

On February 13, 2018, we announced the planned deployment of 500 licensed fuel cell electric commercial trucks – all using Ballard fuel cell stack technology – in Shanghai, China. Each of the 500 Dongfeng Special Vehicle trucks is now licensed, plated and powered by a 30 kilowatt fuel cell engine that was designed and integrated by Shanghai Reinventing Fire Technology Company Limited ("Re-Fire"), featuring Ballard FCvelocity®-9SSL proton exchange membrane (PEM) fuel cell stacks. Ballard and Re-Fire have entered into a collaboration agreement under which Re-Fire has agreed to use Ballard-designed fuel cell stacks in its fuel cell engines. Ballard's FCvelocity®-9SSL stacks are now being manufactured and are available from Synergy JVCo, Ballard's joint venture in Yunfu, Guangdong Province.

Zhongshan Broad-Ocean Motor Co., Ltd.

On December 6, 2017, we announced that a subsidiary of strategic partner Broad-Ocean called Shanghai Edrive Co. Ltd. ("Shanghai Edrive") has commissioned its fuel cell engine manufacturing facility located in the City of Shanghai, China. Shanghai Edrive plans to primarily assemble Ballard FCveloCity® 30-kilowatt (kW) fuel cell engines at the facility under a technology transfer, licensing and supply arrangement between Ballard and Broad-Ocean that closed earlier in 2017. Broad-Ocean also plans to assemble Ballard-designed engines in Hubei and Shandong Provinces.

On June 5, 2017, we announced the closing of an approximate \$18 million supply contract with Broad-Ocean to support the expected deployment of 400 FCveloCity® fuel cell engines integrated into clean energy buses and trucks in key Chinese cities. This announcement, together with an approximate \$11 million transaction announced on April 6, 2017 for the planned deployment of 200 FCveloCity® fuel cell engines, means that Ballard is supporting Broad-Ocean through the expected deployment of 600 fuel cell engines having a total value of approximately \$29 million. All 600 fuel cell engines and related components were delivered by Ballard in 2017. Revenue earned from these agreements (\$20.7 million in the fourth quarter of 2017; \$28.7 million in fiscal 2017), which are now complete, is recorded as Heavy-Duty Motive revenues.

On April 6, 2017, we also announced the closing of a transaction (the "Broad-Ocean Program") previously announced on February 16, 2017, relating to technology transfer, licensing and supply arrangements with Broad-Ocean for the assembly and sale of FCveloCity® 30-kilowatt (kW) and 85kW fuel cell engines in China and received an initial payment of \$3.6 million. Under the Broad-Ocean Program, Broad-Ocean plans to manufacture fuel cell modules in three strategic regions in China, including Shanghai. The Broad-Ocean Program is dependent on the attainment of certain commissioning milestones and if met, 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 plus future royalties and the supply of test equipment. 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. Ballard will have the exclusive right to purchase fuel cell engines from any of the Broad-Ocean manufacturing operations for sale outside China. Each Ballard-designed fuel cell engine assembled by Broad-Ocean is required to utilize FCvelocity®-9SSL fuel cell stacks. Stack supply is expected to be transferred to Synergy JVCo, since Synergy JVCo became operational in late-2017. Ballard will be the exclusive supplier of MEAs for stacks manufactured by Synergy JVCo. Revenue earned from these Broad-Ocean technology transfer agreements (\$0.6 million in the fourth quarter of 2017; \$2.0 million in fiscal 2017) is recorded as Technology Solutions revenues.

On August 18, 2016, Broad-Ocean became Ballard's largest shareholder following an investment made through a subscription and purchase of 17.25 million Ballard common shares issued from treasury for total proceeds to Ballard of \$28.3 million. The investment represented approximately 9.9% of Ballard's outstanding common shares following the transaction. Broad-Ocean and Ballard also entered into an Investor Rights Agreement under which Broad-Ocean has agreed to a two-year hold period (expiring on July 25, 2018) 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.

Guangdong Synergy Ballard Hydrogen Power Co., Ltd.

On September 5, 2017, a ceremonial opening event was held at the company's FCvelocity®-9SSL fuel cell stack joint venture operation in the city of Yunfu, in China's Guangdong Province. Ballard has a 10% interest in the joint venture – called Synergy JVCo – together with our partner Guangdong Nation Synergy Hydrogen Power Technology Co. Ltd. (a member of the "Synergy Group"). The fuel cell stacks manufactured by Synergy JVCo are expected to be used primarily in fuel cell engines assembled in China to provide propulsion power for zero-emission fuel cell electric buses and commercial vehicles in China. Synergy JVCo operation is currently ramping to an estimated annualized production capacity of approximately 6,000 fuel cell stacks by late 2017 and is designed to achieve an annualized production capacity of approximately 20,000 fuel cell stacks, based on 3 shifts running 5-days per week. Since becoming operational in September 2017, Synergy JVCo has produced more than 1,000 stacks in 2017, including 558 stacks manufactured in December.

The joint venture transaction and related sales agreements, which closed on October 25, 2016 and originally announced on July 18, 2016, have a contemplated minimum sales value to Ballard of approximately \$170 million over 5-years. 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. Revenue earned from these technology transfer agreements (\$1.7 million in the fourth quarter of 2017; \$16.0 million in fiscal 2017; \$4.4 million in the fourth quarter of 2016 and in fiscal 2016), which are now effectively complete, is recorded as Technology Solutions revenues; and
- Ballard's exclusive supply of membrane electrode assemblies ("MEA"s), a key component of every fuel cell, for each fuel cell stack manufactured by Synergy JVCo, with minimum annual MEA volume commitments on a "take or pay" value of at least \$150 million over the initial 5-year term from 2017 to 2021. Revenue earned from the MEA supply agreement (\$4.7 million in the fourth quarter of 2017; \$14.9 million in fiscal 2017; nil in fiscal 2016) is recorded as Heavy-Duty Motive revenues.

Synergy JVCo has an exclusive right to manufacture and sell FCvelocity®-9SSL stacks in China. Exclusivity is subject to Synergy JVCo achieving certain performance criteria, including compliance with: a code of ethics; Ballard's quality policies and branding practices; payment terms; and certain intellectual property covenants; as well as achievement of the minimum annual "take or pay" MEA volumes. Ballard will have the exclusive right to purchase FCvelocity®-9SSL fuel cell stacks and sub-components from Synergy JVCo for sale outside China.

Ballard contributed approximately \$1.0 million for its 10% interest in Synergy JVCo in 2017. We have no obligation to provide future funding to Synergy JVCo. Ballard's CEO serves as one of the three members of the Synergy JVCo board of directors. Ballard has veto rights over certain key Synergy JVCo decisions, including the appointment of certain key management, appointment of auditors, and Synergy JVCo's pricing and branding policies.

Guangdong Nation Synergy Hydrogen Power Technology Co. Ltd.

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 licensed 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 transfer 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. Revenue earned from this technology transfer agreement (\$0.1 million in the fourth quarter of 2017; \$0.7 million in fiscal 2017; \$0.8 million in the fourth quarter of 2016; \$1.3 million in fiscal 2016) is recorded as Technology Solutions revenues whereas revenue earned from sales of fuel cell stacks is recorded as Backup Power revenues.

On January 21, 2016, we announced the signing of an equipment supply agreement, valued

at \$12 million, with Synergy Group to provide FCvelocity®-9SSL fuel cell stacks for range extension applications in commercial vehicles in China. Ballard delivered the stacks in 2016 and 2017. Synergy Group was expected to collaborate with Dongfeng Xiangyangtouring Car Co., Ltd. ("DFAC"), which is part of Dongfeng Motor Corporation, a Chinese state-owned automobile manufacturer headquartered in Wuhan. Revenue earned from this agreement (nil in the fourth quarter of 2017; \$4.1 million in fiscal 2017; \$2.5 million in the fourth quarter of 2016; \$7.9 million in fiscal 2016), which are now complete, is recorded as Heavy-Duty Motive revenues.

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 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. Revenue earned from this agreement (\$0.4 million in the fourth quarter of 2017; \$0.7 million in fiscal 2017; \$6.6 million in the fourth quarter of 2016; \$13.7 million in fiscal 2016; \$2.9 million in fiscal 2015), which are now effectively complete (except for any future royalty payments), is recorded as either Heavy-Duty Motive or Technology Solutions revenues depending on the nature of work performed.

China - Other

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 delivered the engines in 2017 for expected integration into Yinlong buses. Revenue earned from this agreement (nil in the fourth quarter of 2017; \$0.7 million in fiscal 2017), which is now complete, is recorded as Heavy-Duty Motive revenues.

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. Revenue earned from this agreement (nil in the fourth quarter of 2017; \$0.2 million in fiscal 2017; \$0.6 million in the fourth quarter of 2016; \$2.0 million in fiscal 2016; \$0.5 million in fiscal 2015), which is effectively complete, is recorded as Technology Solutions revenue.

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 has developed 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. With delays in the construction of the Gaoming Line, deployment of these trams is now expected to occur starting in 2019. Revenue earned from these agreements (nil in the fourth quarter of 2017; \$3.1 million fiscal 2017; \$0.1 million in the fourth quarter of 2016; \$0.9 million in fiscal 2016) is recorded as either Heavy-Duty Motive or Technology Solutions revenues depending on the nature of work performed.

4.2 Europe

On February 28, 2018, we announced the receipt of a Letter of Intent ("LOI") from Van Hool NV ("Van Hool"), a bus OEM partner in Belgium, for 40 FCveloCity®-HD fuel cell engines to power buses under the Joint Initiative For Hydrogen Vehicles Across Europe ("JIVE") funding program. These buses are expected to be the first fuel cell bus deployments supported under JIVE I. The 40 buses will be powered by Ballard FCveloCity®-HD 85 kilowatt fuel cell engines, which Ballard expects to receive a purchase order for and to begin shipping in the second half of 2018. Van Hool plans to deploy 30 of these buses with the Regionalverkehr Köln GmbH transit agency in the city of Cologne, Germany, and plans to deploy the remaining 10 buses with WSW mobil GmbH transit agency in Wuppertal, Germany, with deliveries expected to begin in 2019.

On November 14, 2017, we announced the signing of a Development Agreement with Siemens AG ("Siemens") for the development of a zero-emission fuel cell engine to power Siemens' Mireo light rail train. The Development Agreement has a contemplated value of approximately \$9.0 million to Ballard. Under the terms of the Development Agreement, Ballard will develop a 200 kilowatt fuel cell engine for integration into Siemens' new Mireo train platform. Initial deployments of the fuel cell-powered Mireo train are planned for 2021. Revenue earned from this agreement (\$0.7 million in the fourth quarter of 2017 and in fiscal 2017) is recorded as Technology Solutions revenue.

On September 13, 2017, we announced the acceptance of a Letter of Intent to provide FCveloCity®-HD 100-kilowatt fuel cell engines to power 8 ExquiCity tram-buses to be built by Van Hool for delivery in Pau, France to the SMTU-PPP (Syndicat Mixte de Transports urbains – Pau Portes des Pyrénées) and the STAP (Société de Transport de l'Agglomération Paloise). These will be the first hydrogen bus routes in France and the world's first hydrogen tram-buses for a full BRT (Bus Rapid Transit) system. Ballard expects to deliver the 8 fuel cell engines to Van Hool during 2018.

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, which have now been fully delivered. Revenue earned from this initial agreement (\$0.8 million in the fourth quarter of 2017; \$2.5 million in fiscal 2017; \$0.3 million in the fourth quarter of 2016 and fiscal 2016), which is now complete, is recorded as Heavy-Duty Motive revenues.

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 early 2018, Ballard received an additional €1.6 million in February 2017 for onsite assembly and commissioning. Revenue earned from this agreement (\$0.2 million in the fourth quarter of 2017; \$1.6 million in fiscal 2017; \$0.2 million in the fourth quarter of 2016; \$1.0 million in fiscal 2016; \$0.8 million in fiscal 2015) is recorded as Technology Solutions revenue.

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. This technology development and engineering services contract 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. Revenue earned from this and related agreements (\$5.0 million in the fourth quarter of 2017; \$18.0 million fiscal 2017; \$4.0 million in the fourth quarter of 2016; \$13.9 million in fiscal 2016) is recorded as Technology Solutions revenues.

4.3 North America

Protonex Technology Corporation

On January 30, 2018, we announced that the Company's subsidiary, Protonex Technology Corporation ("Protonex"), has received a \$1.6 million 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 was the first issued by the Program Executive Office (PEO) – Soldier, as part of the newly approved program of record, with Milestone C approval having been received in 2017.

On January 3, 2018, we announced that as a result of our strategic review in 2017 of our Protonex subsidiary, we implemented certain changes at Protonex including the divestiture of certain non-core assets. This action is in addition to steps taken in August 2017 to reduce and align the Protonex cost base. Together, these actions are expected to yield annualized cost savings of \$2.6 million. In the fourth quarter of 2017, it was determined that certain of

Protonex' Solid Oxide Fuel Cells ("SOFC") assets were not core to Ballard's proton exchange membrane (PEM) fuel cell business, and the Company decided to divest these non-core assets. As a result, certain SOFC assets were transferred to a private, start-up company, Upstart Power Inc. ("Upstart"), effective December 31, 2017, for nominal consideration. Initially, 10 Protonex employees have moved to Upstart, with an additional 6 employees expected to be transferred later in 2018 on completion of certain Technology Solutions contracts. As part of this transfer of employees, Dr. Paul Osenar, previously President of Protonex has moved to Upstart as CEO. Our understanding is that Dr. Osenar and other former Protonex employees who have moved to Upstart are also security-holders of Upstart. This action has enabled Ballard to significantly reduce the cost structure at Protonex. No restructuring expense was incurred as a result of this transaction. During the fourth quarter of 2017, we recorded a loss on sale of assets of (\$0.5) million related primarily to the sale of SOFC inventory to Upstart. We also recorded impairment losses of (\$1.5) million in the fourth quarter of 2017 related to a write-down of certain SOFC intangible assets and property, plant and equipment.

On September 24, 2017, we announced that the U.S. Army Program Executive Office Soldier (PEO-Soldier) has received signature approval for its Mobile Soldier Power Program of Record to full rate production status, commonly known as "Milestone C". This Program of Record includes a number of new devices focused on improving power and energy management on and around the soldier, including Protonex' Squad Power Manager Kit (SPM-622), conformal wearable batteries, and man-worn power and data distribution devices. The Milestone C designation now enables the U.S. Army to field the SPM-622 as part of the Mobile Soldier Power Program of Record in higher volume. This announcement follows an announcement made on January 19, 2017 whereby we announced that Protonex received certification from the U.S. Government enabling its SPM-622 and its Vest Power Manager Kit (VPM-402) 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.

North America - Other

On July 18, 2017, we announced that we received an order from SunLine Transit Agency ("SunLine") for five (5) FCveloCity® fuel cell engines to power clean energy buses in Palm Desert, California. All five 150 kilowatt engines were delivered in 2017. Ballard is partnering with ElDorado National, a key North American bus OEM, and BAE Systems, a system integrator and major supplier of electric drive systems, to deliver buses to SunLine. SunLine received funding from the Federal Transit Administration ("FTA") to purchase and deploy 5 hydrogen electric fuel cell buses. Revenue earned from this agreement (nil million in the fourth quarter of 2017; \$2.1 million in fiscal 2017), which is now effectively complete, is recorded as Heavy-Duty Motive revenues.

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 starting in late 2018. The buses are to be supported by advanced hydrogen fueling infrastructure provided by The Linde Group. Revenue earned from this agreement (nil to date) will be recorded as Heavy-Duty Motive revenues.

4.4 Other

Nisshinbo Holdings

On February 21, 2018, we announced the receipt of a follow-on purchase order from Nisshinbo Holdings ("Nisshinbo") to progress a Technology Solutions program to the next stage that was initially announced on September 17, 2017. On September 17, 2017, we received a purchase order from Nisshinbo to engage in a multi-year Technology Solutions program to assess the potential development of fuel cell stacks using a Non Precious Metal Catalyst ("NPMC") for use in commercial material handling applications. With successful completion of this initial assessment, this next stage will focus on certain performance and power density enhancements to support development of low cost NPMC-based fuel cell stacks again for material handling applications.

This follows an announcement made on September 12, 2017 whereby Nisshinbo and Ballard announced that we had successfully collaborated on development of the world's first NPMC-based proton exchange membrane (PEM) fuel cell product – the FCgen®-1040 – which is a new 30-watt air-cooled fuel cell stack incorporating NPMC expected to launch in late-2017 with possible uses in ultralight-weight applications such as laptop and cell phone chargers, and military soldier power devices. The NPMC is an innovative technology enabling a reduction in product cost through the use of significantly lower amounts of platinum.

Nisshinbo has been a strategic supplier of compression molded bipolar flow field carbon plates to Ballard for over 20 years. In November 2015, Nisshinbo also became a strategic equity investor in Ballard.

<u>Other</u>

On February 14, 2018, we announced that the signing of a Technology Solutions program with an unnamed strategic customer to develop a next generation air-cooled fuel cell stack. The multi-year program has an initial value to Ballard of approximately \$4.2 million. A key objective of the Technology Solutions program is to design and validate an ultra-high durability, high performance air-cooled fuel cell stack for uses in a number of target market applications, including certain material handling applications, with a target operating lifetime of 20,000 hours. A key market opportunity will be the integration of the next generation stacks into fuel cell systems for class 3 lift trucks, such as pallet jacks, deployed in high throughput distribution centers and warehouse operations. Other potential applications include systems for stationary continuous and backup power.

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 to us on closing (the "CHEM Transaction"). The remaining potential purchase price of up to \$3.1 million consisted 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. During the second quarter of 2017, we recorded an additional loss on sale of assets of (\$0.8) million as the remaining potential purchase price was written down to its revised estimated fair value of \$1.0 million from the previous estimate of \$1.8 million. During the third quarter of 2017, we recorded an additional loss on sale of assets of (\$0.1) million as the remaining potential purchase price was written down to its further revised estimated fair value of \$0.95 million (which was fully collected in the fourth quarter of 2017) from the previous estimate of \$1.0 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. 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 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 included minimum sales of \$2 million over an 18-month period (now completed). Revenue earned under the fuel cell stack supply agreement with CHEM (nil in the fourth quarter of 2017; \$0.3 million in fiscal 2017; \$0.6 million in the fourth quarter of 2016; \$1.7 million in fiscal 2016; \$2.0 million to date), which is now complete, is recorded as Backup Power revenues.

5. RESULTS OF OPERATIONS

5.1 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, truck, rail and marine 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.

5.2 Summary of Key Financial Metrics – Three Months Ended December 31, 2017 *Revenue and gross margin*

(Expressed in thousands of U.S. doll	'ars)		Three mo	Three months ended December 31,								
Fuel Cell Products and Services		2017		2016	5	Change	% Change					
Heavy-Duty Motive	\$	26,551	\$	10,993	\$	15,558	142%					
Portable Power		1,510		2,905		(1,395)	(48%)					
Material Handling		1,307		2,985		(1,679)	(56%)					
Backup Power		712		2,069		(1,357)	(66%)					
Technology Solutions		10,177		11,731		(1,554)	(13%)					
Revenues		40,257		30,684		9,574	31%					
Cost of goods sold		27,661		21,338		6,323	30%					
Gross Margin	\$	12,596	\$	9,346	\$	3,251	35%					
Gross Margin %		31%		30%		n/a	1 pt					

Fuel Cell Products and Services Revenues of \$40.3 million for the fourth quarter of 2017 increased 31%, or \$9.6 million, compared to the fourth quarter of 2016. The 31% increase was driven by higher Heavy-Duty Motive revenues which more than offset declines in Material Handling, Technology Solutions, Portable Power and Backup Power revenues.

Heavy-Duty Motive revenues of \$26.6 million increased \$15.6 million, or 142%, due primarily to increased shipments of a variety of fuel cell bus products to customers, principally in China but also supported by sales in Europe. Heavy-Duty Motive revenues on a quarter to quarter basis are also impacted by product mix due to varying customer requirements and various fuel cell products, including power configurations required by our customers (and the resulting impact on selling price) of our FCveloCity®-HD7 200-kilowatt fuel cell modules, FCveloCity®-HD6 150-kilowatt fuel cell modules, FCveloCity®-HD7 85kilowatt fuel cell modules, FCveloCity®-MD 30-kilowatt fuel cell modules, FCvelocity®-9SSL fuel cell stacks, MEA's, and related component and parts kits. Heavy-Duty Motive revenues in the fourth quarter of 2017 include product shipments of \$20.7 million to Broad-Ocean to complete each of the \$11 million supply contract announced on April 6, 2017 for 200 FCveloCity® fuel cell engines and the \$18 million supply contract announced on June 5, 2017 for 400 FCveloCity® fuel cell engines and consisting primarily of shipments of FCveloCity®-MD 30-kilowatt fuel cell products. Heavy-Duty Motive revenues in the fourth quarter of 2017 also include \$4.7 million of shipments of MEA's under the MEA Supply Agreement with Synergy JVCo and \$0.8 million of shipments of FCveloCity®-HD7 85kilowatt fuel cell modules to Solaris.

Technology Solutions revenues of \$10.2 million decreased (\$1.6) million, or (13%), due primarily to program scope and timing requirements of the underlying service contracts. Amounts earned in the fourth quarter of 2017 consist of amounts earned under various customer programs, primarily including Volkswagen program revenues of \$5.0 million, amounts earned from Synergy JVCo of \$1.4 million on the now completed FCvelocity®-9SSL fuel cell stack production line in Yunfu, China, initial amounts earned on the Siemens development agreement of \$0.7 million, and amounts earned relating to ongoing technology transfer arrangements with Broad-Ocean of \$0.6 million for the assembly and sale by Broad-Ocean of FCveloCity® 30-kilowatt (kW) and 85kW fuel cell engines in China. Amounts earned in the fourth quarter of 2016 were driven by initial amounts earned from

Synergy JVCo of \$4.4 million related to the establishment by Synergy JVCo of the FCvelocity®-9SSL fuel cell stack production line in Yunfu, China, Volkswagen program revenues of \$4.0 million, and amounts earned of \$0.8 million to enable Synergy Group to exclusively manufacture and sell Ballard's direct hydrogen FCgen®-H2PM fuel cell backup power systems in China. Volkswagen service revenues were also positively impacted by approximately \$0.4 million in the fourth quarter of 2017, as compared to the fourth quarter of 2016, as a result of an approximate 5% higher 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.

Portable Power revenues of \$1.5 million decreased (\$1.4) million, or (48%), due to lower product and service revenues generated by Protonex. Revenues from Protonex in the fourth quarter of 2016 benefited from \$1.4 million of product shipments of Squad Power Manager (SPM-622) Special Operations Kits for end customer U.S. Special Operations Command under the Nett Warrior program which was completed in the fourth quarter of 2016. Portable Power revenues are impacted by the demand and timing of end customers' product deployments as well as the demand and timing of their engineering services projects.

Material Handling revenues of \$1.3 million decreased (\$1.7) million, or (56%), as a result of lower stack shipments to Plug Power combined with the impact of a lower average selling price due to product mix.

Backup Power revenues of \$0.7 million decreased (\$1.4) million, or (66%), due primarily to a decrease in shipments of hydrogen-based backup power stacks and methanol-based backup power systems, partially offset by an increase in hydrogen-based backup power system equipment for backup power applications.

Fuel Cell Products and Services gross margins improved to \$12.6 million, or 31% of revenues, for the fourth quarter of 2017, compared to \$9.3 million, or 30% of revenues, for the fourth quarter of 2016. The improvement in gross margin of \$3.3 million, or 35%, was driven primarily by the 31% increase in total revenues, combined with a shift to a slightly higher overall margin product and service revenue mix resulting in a 1 percentage point improvement in gross margin as a percent of revenues. Gross margin in the fourth quarter of 2017 particularly benefited from the increase in higher margin Heavy-Duty Motive revenues, combined with improved manufacturing overhead and related cost absorption as a result of improved scale and efficiency driven by the 31% increase in total revenues. These gross margin benefits in the fourth quarter of 2017 were partially offset by the decline in higher margin Technology Solutions and Portable Power revenues.

Cash Operating Costs

(Expressed in thousands of U.S. dollars)	Three months ended December 31,							
		2017		2016	\$ Change	% Change		
Research and Product								
Development (cash operating cost)	\$	6,730	\$	3,544	\$ 3,186	90%		
General and Administrative								
(cash operating cost)		2,544		2,929	(385)	(13%)		
Sales and Marketing (cash operating								
cost)		1,970		1,667	303	18%		
Cash Operating Costs	\$	11,244	\$	8,140	\$ 3,104	38%		

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

Cash Operating Costs (see Supplemental Non-GAAP Measures) for the fourth quarter of 2017 were \$11.2 million, an increase of \$3.1 million, or 38%, compared to the fourth quarter of 2016. The \$3.1 million, or 38%, increase was driven by an increase in research and product development cash operating costs of \$3.2 million and by higher sales and marketing cash operating costs of \$0.3 million, partially offset by lower general and administrative cash operating costs (\$0.4) million.

The 38% increase in cash operating costs in the fourth quarter of 2017 was driven primarily by higher engineering and prototyping expenses related to research and product development and the ongoing improvement of all of our fuel cell products including the design and development of our next generation fuel cell products, and by increased investment to support our commercial efforts in China. In addition, operating expenses were negatively impacted by higher labour costs in Canada as a result of an approximate 5% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base.

As noted above, operating costs in the fourth quarter of 2017 was impacted by the negative impact of a stronger Canadian dollar, relative to the U.S. dollar, as compared to the fourth quarter of 2016. 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 5%, or 6 basis points, higher in the fourth quarter of 2017 as compared to the fourth quarter of 2016, negative foreign exchange impacts on our Canadian operating cost base and Adjusted EBITDA were approximately \$0.6 million. A \$0.01 increase in the Canadian dollar, relative to the U.S. dollar, negatively impacts annual Cash Operating Costs and Adjusted EBITDA by approximately \$0.4 million.

Adjusted EBITDA

(Expressed in thousands of U.S. dollars)	Three months ended December 31,									
		2017		2016		\$ Change	% Change			
Adjusted ERITDA	\$	2,086	\$	1,763	\$	323	18%			

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

Adjusted EBITDA (see Supplemental Non-GAAP Measures) for the fourth quarter of 2017

was \$2.1 million, compared to \$1.8 million for the fourth quarter of 2016. The \$0.3 million improvement in Adjusted EBITDA in the fourth quarter of 2017 was driven by the \$3.3 million increase in gross margin as a result of the 31% increase in overall revenues combined with the 1 point improvement in gross margin as a percent of revenues. This improvement was partially offset by the increase in Cash Operating Costs of (\$3.1) million due primarily as a result of higher research and product development cash operating costs.

Net income (loss) attributable to Ballard

(Expressed in thousands of U.S. dollars)	Three months ended December 31,						
	2017 2016 \$ Change %					% Change	
Net income (loss) attributable to Ballard	\$	(2,887)	\$	(1,121)	\$	(1,766)	(158%)

Net loss attributable to Ballard for the fourth quarter of 2017 was (\$2.9) million, or (\$0.02) per share, compared to a net loss of (\$1.1) million, or (\$0.01) per share, in the fourth quarter of 2016. The (\$1.8) million increase in net loss in the fourth quarter of 2017 was driven by a loss on sale of assets of (\$0.5) million as we sold certain SOFC fuel cell inventory to Upstart for nominal proceeds, and by impairment charges of (\$1.5) million consisting of a (\$1.2) million impairment charge on intangible assets and a (\$0.3) million impairment charge on property, plant and equipment as we wrote-down certain SOFC fuel cell assets to their nominal estimated net realizable value. These negative impacts were partially offset by the improvement in Adjusted EBITDA of \$0.3 million and by lower finance and other income losses of \$0.5 million in 2017 due primarily to lower foreign exchange losses.

As noted above, net loss attributable to Ballard in the fourth quarter of 2017 was negatively impacted by a loss on sale of assets of (\$0.5) million and asset impairment charges of (\$1.5) million related primarily to the divestiture of certain SOFC assets during the Upstart Transaction. Net loss attributable to Ballard in the fourth quarter of 2016 was negatively impacted by a loss on sale of assets of (\$0.3) million. Excluding the impact of asset impairment charges on intangible assets and property, plant and equipment, transactional gains and losses, and acquisition costs, Adjusted Net Loss (see Supplemental Non-GAAP Measures) in the fourth quarter of 2017 was (\$0.9) million, or (\$0.01) per share, compared to (\$0.9) million, or (\$0.00) per share, for the fourth quarter of 2016.

Net loss attributable to Ballard in the fourth quarter of 2016 excludes the net income (loss) attributed to the interests of the non-controlling shareholder in the losses of Ballard Power Systems Europe A/S related to its 43% equity interest in Ballard Power Systems Europe A/S during that time. In early January 2017, we purchased all of the shares in the Company's European subsidiary held by Dansk Industri Invest A/S for a nominal payment. As a result, Ballard now owns 100% of Ballard Power Systems Europe A/S. Net income (loss) attributed to non-controlling interests for the fourth quarter of 2017 was nil, compared to \$0.2 million for the fourth quarter of 2016.

Cash provided by (used in) operating activities

(Expressed in thousands of U.S. dollars)	Three months ended December 31,							
		2017		2016		\$ Change	% Change	
Cash provided by (used in) operating	\$	(728)	\$	7,983	\$	(8,711)	(109%)	
activities								

Cash provided by (used in) operating activities in the fourth quarter of 2017 was (\$0.7) million, consisting of cash operating income of \$1.7 million partially offset by net working capital outflows of (\$2.4) million. Cash provided by 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. The (\$8.7) million increase in cash used in operating activities in the fourth quarter of 2017, as compared to the fourth quarter of 2016, was driven by the relative increase in working capital requirements of (\$9.3) million, partially offset by the relative improvement in cash operating income (loss) of \$0.6 million. The relative \$0.6 million improvement in cash operating income (loss) in the fourth quarter of 2017 was due primarily to the \$0.3 million improvement in Adjusted EBITDA.

The total change in working capital of (\$2.4) million in the fourth quarter of 2017 was driven by higher accounts receivable of (\$5.7) million primarily as a result of the timing of revenues and the related customer collections, and by lower deferred revenue of (\$1.5) million as we fulfilled contract deliverables on certain Heavy-Duty Motive and Technology Solutions contracts for which we received pre-payments in an earlier period. These fourth quarter of 2017 outflows were partially offset by higher accounts payable and accrued liabilities of \$2.1 million as a result of the timing of supplier payments and annual compensation awards, by lower inventory of \$2.0 million as we delivered expected Heavy-Duty Motive shipments to customers in the last quarter of 2017, and by higher accrued warranty obligations of \$0.8 million due to increased product shipments.

This compares to a total change in working capital of \$6.9 million in the fourth quarter of 2016 which 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.

5.3 Summary of Key Financial Metrics – Year ended December 31, 2017 Revenue and gross margin

(Expressed in thousands of U.S. doll	lars)		Year ende	ed December 3			
Fuel Cell Products and Services		2017	2016			Change	% Change
Heavy-Duty Motive	\$	63,684	\$	26,480	\$	37,204	140%
Portable Power		4,468		11,420		(6,953)	(61%)
Material Handling		7,535		12,910		(5,375)	(42%)
Backup Power		1,933		4,821		(2,888)	(60%)
Technology Solutions		43,668		29,638		14,030	47%
Revenues		121,288		85,270		36,018	42%
Cost of goods sold		79,688		61,086		18,602	30%
Gross Margin	\$	41,600	\$	24,184	\$	17,416	72%
Gross Margin %		34%		28%		n/a	6 pts

Fuel Cell Products and Services Revenues of \$121.3 million in 2017 increased 42%, or \$36.0 million, compared to 2016. The 42% increase was driven by higher Heavy-Duty Motive and Technology Solutions revenues, which more than offset declines in Portable Power, Material Handling and Backup Power revenues.

Heavy-Duty Motive revenues of \$63.7 million increased \$37.2 million, or 140%, due primarily to increased shipments of a variety of fuel cell bus products to customers, principally in China but also supported by sales in Europe and North America. Heavy-Duty Motive revenues are also impacted by product mix due to varying customer requirements and various fuel cell products, including power configurations required by our customers (and the resulting impact on selling price) of our FCveloCity®-HD7 200-kilowatt fuel cell modules, FCveloCity®-HD6 150-kilowatt fuel cell modules, FCveloCity®-HD7 85-kilowatt fuel cell modules, FCveloCity®-MD 30-kilowatt fuel cell modules, FCvelocity®-9SSL fuel cell stacks, MEA's, and related component and parts kits. Heavy-Duty Motive revenues in 2017 include product shipments of \$28.7 million to Broad-Ocean to complete the \$11 million supply contract announced on April 6, 2017 for 200 FCveloCity® fuel cell engines and the \$18 million supply contract announced on June 5, 2017 for 400 FCveloCity® fuel cell engines and consisting primarily of shipments of FCveloCity®-MD 30-kilowatt fuel cell products and MEA's. Heavy-Duty Motive revenues in 2017 also include \$14.9 million of shipments of MEA's under the MEA Supply Agreement with Synergy JVCo, \$8.7 million of shipments of FCvelocity®-9SSL fuel cell stacks to Synergy Group for a variety of programs, \$2.9 million of shipments of FCveloCity®-HD7 200-kilowatt fuel cell modules to CRRC Sifang, \$2.5 million of shipments of FCveloCity®-HD7 85-kilowatt fuel cell modules to Solaris, and \$2.1 million of shipments of FCveloCity®-HD6 150-kilowatt fuel cell modules to Sunline.

Technology Solutions revenues of \$43.7 million increased \$14.0 million, or 47%, due primarily to certain larger customer programs, program scope and timing requirements of the underlying service contracts. Amounts earned in 2017 of \$43.7 million consist of amounts earned under various customer programs, primarily including Volkswagen program revenues of \$18.0 million, amounts earned from Synergy JVCo of \$15.1 million on the now completed FCvelocity®-9SSL fuel cell stack production line in Yunfu, China, amounts earned

relating to ongoing technology transfer arrangements with Broad-Ocean of \$2.0 million for the assembly and sale by Broad-Ocean of FCveloCity® 30-kilowatt (kW) and 85kW fuel cell engines in China, initial amounts earned on the Siemens development agreement of \$0.7 million, and amounts earned on a variety of other programs including the HDF distributed generation project, the TRC and CRRC Sifang tram development projects, and the project to enable Synergy Group to exclusively manufacture and sell Ballard's direct hydrogen FCgen®-H2PM fuel cell backup power systems in China. Amounts earned in 2016 of \$29.6 million consist primarily of Volkswagen program revenues of \$13.9 million, initial amounts earned from Synergy JVCo of \$4.4 million related to the establishment by Synergy JVCo of the FCvelocity®-9SSL fuel cell stack production line in Yunfu, China, amounts earned 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. Volkswagen service revenues were also positively impacted by approximately \$0.6 million in of 2017, as compared to 2016, as a result of an approximate 2% higher 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.

Material Handling revenues of \$7.5 million decreased (\$5.4) million, or (42%), as a result of lower stack shipments to Plug Power combined with the impact of a lower average selling price due to product mix.

Portable Power revenues of \$4.5 million decreased (\$7.0) million, or (61%), due to lower product and service revenues generated by Protonex. Revenues from Protonex in 2016 benefited from \$6.4 million of product shipments of Squad Power Manager (SPM-622) Special Operations Kits for end customer U.S. Special Operations Command under the Nett Warrior program which was completed in the fourth quarter of 2016. Portable Power revenues are impacted by the demand and timing of end customers' product deployments as well as the demand and timing of their engineering services projects.

Backup Power revenues of \$1.9 million decreased (\$2.9) million, or (60%), due primarily to a decrease in shipments of hydrogen-based backup power stacks, combined with a decline in shipments of methanol-based backup power systems as we sold certain of our methanol Telecom Backup Power assets to CHEM in the CHEM Transaction in the second quarter of 2016. This decrease more than offset revenue increases as a result of higher shipments of hydrogen-based backup power system equipment for backup power applications.

Fuel Cell Products and Services gross margins improved to \$41.6 million, or 34% of revenues, for 2017, compared to \$24.2 million, or 28% of revenues, for 2016. The improvement in gross margin of \$17.4 million, or 72%, was driven partially by the 42% increase in total revenues, combined with a shift to a higher overall margin product and service revenue mix resulting in a 6 percentage point improvement in gross margin as a percent of revenues. Gross margin 2017 particularly benefited from the increase in higher margin Technology Solutions (including amounts earned from Synergy JVCo related to the now completed FCvelocity®-9SSL fuel cell stack production operation in Yunfu, China) and Heavy-Duty Motive revenues. Gross margin in 2017 also benefited from cost reductions in per unit material cost on certain modules due to an increased focus on supply chain sourcing in China for certain of our material components, combined with activities done to

improve manufacturing overhead (including cost reduction as a result of the closure of our contract manufacturing facility in Tijuana, Mexico in the first quarter of 2016) and the related cost absorption due to improved scale and efficiency driven by the 42% increase in total revenues. These gross margin benefits in 2017 were partially offset by the decline in higher margin Portable Power shipments and services.

Cash Operating Costs

(Expressed in thousands of U.S. dollars)	Year ended December 31,								
		2017		2016	\$ Change	% Change			
Research and Product Development (cash operating cost)	\$	21,332	\$	16,546	\$ 4,786	29%			
General and Administrative (cash operating cost) Sales and Marketing (cash operating		10,248		10,897	(649)	(6%)			
cost)		7,473		6,895	578	8%			
Cash Operating Costs	\$	39,053	\$	34,338	\$ 4,715	14%			

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

Cash Operating Costs (see Supplemental Non-GAAP Measures) in 2017 were \$39.1 million, an increase of \$4.7 million, or 14%, compared to 2016. The \$4.7 million, or 14%, increase was driven by an increase in research and product development cash operating costs of \$4.8 million and by higher sales and marketing cash operating costs of \$0.6 million, partially offset by lower general and administrative cash operating costs (\$0.6) million.

The 14% increase in cash operating costs in 2017 was driven primarily by higher engineering and prototyping expenses related to research and product development and the ongoing improvement of all of our fuel cell products including the design and development of our next generation fuel cell products, and by increased investment to support our commercial efforts in China. In addition, operating expenses were negatively impacted by higher labour costs in Canada as a result of an approximate 2% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base. These cost increases were partially offset by the benefit of cost reductions as a result of the Company's rationalization initiatives undertaken during 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.

As noted above, operating costs in 2017 was impacted by the negative impact of a stronger Canadian dollar, relative to the U.S. dollar, as compared to the fourth quarter of 2016. 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 2%, or 3 basis points, higher in 2017 as compared to 2016, negative foreign exchange impacts on our Canadian operating cost base and Adjusted EBITDA were approximately \$1.2 million. A \$0.01 increase in the Canadian dollar, relative to the U.S. dollar, negatively impacts annual Cash Operating Costs and Adjusted EBITDA by

approximately \$0.4 million.

Adjusted EBITDA

(Expressed in thousands of U.S. dollars)	Year ended December 31,							
		2016		\$ Change	% Change			
Adjusted EBITDA	\$	3,324	\$	(9,883)	\$	13,207	134%	

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

Adjusted EBITDA (see Supplemental Non-GAAP Measures) for 2017 was \$3.3 million, compared to (\$9.9) million for 2016. The \$13.2 million improvement in Adjusted EBITDA in 2017 was driven by the \$17.4 million increase in gross margin as a result of the 42% increase in overall revenues combined with the 6 point improvement in gross margin as a percent of revenues. This improvement was partially offset by the increase in Cash Operating Costs of (\$4.7) million primarily as a result of higher cash research and product development operating costs.

In addition, Adjusted EBITDA in 2017 benefited from lower other operating expenses of \$1.4 million due primarily to lower restructuring expenses period over period. During 2017, restructuring expenses of \$0.8 million were incurred and relate primarily to a leadership change in sales and marketing combined with cost reduction initiatives in the general and administration function undertaken in the first quarter of 2017, and by cost reduction initiatives undertaken at Protonex in the third quarter of 2017. This compares to restructuring expenses of \$2.3 million incurred in 2016 which were as a result of cost reduction initiatives that included the elimination of approximately 50 positions including the elimination of three executive level positions. These 2016 cost reduction initiatives were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities.

Net income (loss) attributable to Ballard

(Expressed in thousands of U.S. dollars)	Year ended December 31,					
	2017		2016		\$ Change	% Change
Net income (loss) attributable to Ballard	\$ (8,048)	\$	(21,112)	\$	13,064	62%

Net loss attributable to Ballard for 2017 was (\$8.0) million, or (\$0.05) per share, compared to a net loss of (\$21.1) million, or (\$0.13) per share, in 2016. The \$13.1 million reduction in net loss in 2017 was driven by the improvement in Adjusted EBITDA loss of \$13.2 million, and by higher finance and other income of \$2.6 million in 2017 due primarily to higher foreign exchange gains. These net income improvements were partially offset by higher income taxes of (\$1.2) million in 2017 related to withholding taxes on certain Chinese commercial contracts, higher impairment charges of (\$0.3) million as we wrote-down certain SOFC fuel cell assets in 2017 and certain methanol Telecom Backup Power assets in 2016, and by a higher loss on sale of assets of (\$0.7 million) related to the Upstart SOFC Transaction and the CHEM Transaction.

As noted above, net loss attributable to Ballard in 2017 was negatively impacted by a loss on sale of assets of (\$1.4) million, compared to a loss on sale of assets of (\$0.6) million in 2016. These transactional losses were as a result of the SOFC Transaction with Upstart in

2017 and the CHEM Transaction in 2016 and the subsequent change in estimated fair value of potential proceeds receivable during 2017. In addition, net loss attributable to Ballard in 2017 was negatively impacted by impairment charges of (\$1.5) million related to a writedown of SOFC fuel cell intangible assets and property, plant and equipment, whereby net loss attributable to Ballard in 2016 was negatively impacted by impairment charges of (\$1.2) million related to a write-down of methanol Telecom Backup Power intangible assets and property, plant and equipment. Excluding the impact of asset impairment charges on intangible assets and property, plant and equipment, transactional gains and losses, and acquisition costs, Adjusted Net Loss (see Supplemental Non-GAAP Measures) in 2017 was (\$5.2) million, or (\$0.03) per share, compared to (\$19.3) million, or (\$0.12) per share, for 2016.

Net loss attributable to Ballard in 2016 excludes the net loss attributed to the interests of the non-controlling shareholder in the losses of Ballard Power Systems Europe A/S related to its 43% equity interest in Ballard Power Systems Europe A/S during that time. In early January 2017, we purchased all of the shares in the Company's European subsidiary held by Dansk Industri Invest A/S for a nominal payment. As a result, Ballard now owns 100% of Ballard Power Systems Europe A/S. Net loss attributed to non-controlling interests for 2017 was nil, compared to (\$0.6) million for 2016.

Cash provided by (used in) operating activities

(Expressed in thousands of U.S. dollars)	Year ended December 31,							
	2017 2016 \$ Change % Change							
Cash used in operating activities	\$ (9,768) \$ (3,904) \$ (5,864) (1509)							

Cash used in operating activities in 2017 was (\$9.8) million, consisting of cash operating income of \$2.5 million more than offset by net working capital outflows of (12.3) million. 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. The (\$5.9) million increase in cash used by operating activities in 2017, as compared to 2016, was driven by the relative increase in working capital requirements of (\$20.8) million, partially offset by the relative improvement in cash operating losses of \$14.9 million. The \$14.9 million reduction in cash operating losses in 2017 was due primarily to the \$13.2 million improvement in Adjusted EBITDA, and by higher finance and other income of \$2.6 million in 2017 due primarily to higher foreign exchange gains, partially offset by higher income taxes of (\$1.2) million in 2017 related to withholding taxes on certain Chinese commercial contracts.

The total change in working capital of (\$12.3) million in 2017 was driven by lower deferred revenue of (\$12.5) million as we fulfilled contract deliverables on certain Heavy-Duty Motive and Technology Solutions contracts for which we received pre-payments in an earlier period, by higher accounts receivable of (\$9.4) million primarily as a result of the timing of revenues and the related customer collections, and by higher inventory of (\$0.6) million primarily to support expected shipments in the first quarter of 2018. These 2017 working capital outflows were partially offset by higher accounts payable and accrued liabilities of \$6.9 million as a result of the timing of supplier payments and accrued compensation awards, by higher accrued warranty obligations of \$2.4 million due to increased product shipments, and by lower prepaid expenses of \$0.9 million.

This compares to a total change in working capital of \$8.5 million in 2016 which 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 were paid during 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.

5.4 Operating Expenses and Other Items – Three Months and Year ended December 31, 2017

Research and product development expenses

(Expressed in thousands of U.S. dollars)	Three months ended December 31,								
Research and product development		2017		2016		\$ Change	% Change		
Research and product development expense	\$	7,787	\$	4,316	\$	3,471	80%		
Less: Depreciation and amortization expense	\$	(654)	\$	(512)	\$	(142)	(28%)		
Less: Stock-based compensation expense	\$	(403)	\$	(260)	\$	(143)	(55%)		
Research and Product Development (cash	\$	6,730	\$	3,544	\$	3,186	90%		
operating cost)									

(Expressed in thousands of U.S. dollars)	Year ended December 31,								
Research and product development		2017		2016	\$ Change		% Change		
Research and product development expense	\$	25,022	\$	19,827	\$	5,195	26%		
Less: Depreciation and amortization expense	\$	(2,566)	\$	(2,214)	\$	(352)	(16%)		
Less: Stock-based compensation expense	\$	(1,124)	\$	(1,067)	\$	(57)	(5%)		
Research and Product Development (cash	\$	21,332	\$	16,546	\$	4,786	29%		
operating cost)									

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

Research and product development expenses for the three months ended December 31, 2017 were \$7.8 million, an increase of \$3.5 million, or 80%, compared to the corresponding period of 2016. Excluding depreciation and amortization expense of (\$0.7) million and (\$0.5) million, respectively, in each of the periods, and excluding stockbased compensation expense of (\$0.4) million and (\$0.3) million, respectively, in each of the periods, research and product development cash operating costs (see Supplemental Non-GAAP Measures) were \$6.7 million in the fourth quarter of 2017, an increase of \$3.2 million, or 90%, compared to the fourth quarter of 2016.

The \$3.2 million, or 90%, increase in research and development operating costs (see Supplemental Non-GAAP Measures) in the fourth quarter of 2017 was driven primarily by higher engineering and prototyping expenses related to research and product development and the ongoing improvement of all of our fuel cell products including the design and

development of our next generation fuel cell products, and by higher labour costs in Canada as a result of an approximate 5% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base.

Research and product development expenses for the year ended December 31, 2017 were \$25.0 million, an increase of \$5.2 million, or 26%, compared to the corresponding period of 2016. Excluding depreciation and amortization expense of (\$2.6) million and (\$2.2) million, respectively in each of the periods, and excluding stock-based compensation expense of (\$1.1) million in each of the periods, research and product development cash operating costs (see Supplemental Non-GAAP Measures) were \$21.3 million in 2017, an increase of \$4.8 million, or 29%, compared to 2016.

The \$4.8 million, or 29%, increase in research and development cash operating costs (see Supplemental Non-GAAP Measures) in 2017 was driven primarily by higher engineering and prototyping expenses related to research and product development and the ongoing improvement of all of our fuel cell products including the design and development of our next generation fuel cell products, and by higher labour costs in Canada as a result of an approximate 2% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base. These cost increases in 2017 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.

Government funding recoveries were lower in 2017 as compared to 2016 due to a decline in government funding recoveries in Canada. Government funding recoveries in Denmark by Ballard Power Systems Europe A/S were relatively consistent year over year. 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, 2017 was \$0.7 million and \$2.6 million, respectively, compared to \$0.5 million and \$2.2 million, respectively, for the corresponding periods of 2016. Depreciation and amortization expense relates primarily to amortization expense on our intangible assets and depreciation expense on our research and product development equipment. Research and product development depreciation and amortization expense is primarily due to 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.

Stock-based compensation expense included in research and product development expense for the three months and year ended December 31, 2017 was \$0.4 million and \$1.1 million, respectively, relatively consistent with the amounts recognized in the corresponding periods of 2016 of \$0.3 million and \$1.1 million, respectively.

General and administrative expenses

(Expressed in thousands of U.S. dollars)		Three months ended December 31,								
General and administrative		2017	2016 \$ C		\$ Change	% Change				
General and administrative expense	\$	3,223	\$	3,514	\$	(291)	(8%)			
Less: Depreciation and amortization expense	\$	(352)	\$	(92)	\$	(260)	(283%)			
Less: Stock-based compensation expense	\$	(516)	\$	(493)	\$	(23)	(5%)			
Add: Unrealized gain (loss) on foreign exchange contracts	\$	189	\$	-	\$	189	100%			
General and Administrative (cash operating cost)	\$	2,544	\$	2,929	\$	(385)	(13%)			

(Expressed in thousands of U.S. dollars)	Year ended December 31,								
General and administrative		2017		2016	2016 \$		% Change		
General and administrative expense	\$	12,602	\$	12,938	\$	(336)	(3%)		
Less: Depreciation and amortization expense	\$	(1,019)	\$	(375)	\$	(644)	(172%)		
Less: Stock-based compensation expense	\$	(1,524)	\$	(1,666)	\$	142	9%		
Add: Unrealized gain (loss) on foreign exchange contracts	\$	189	\$	-	\$	189	100%		
General and Administrative (cash operating cost)	\$	10,248	\$	10,897	\$	(649)	(6%)		

General and Administrative (cash operating cost) is a non-GAAP measure. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. General and Administrative (cash operating cost) adjusts General and administrative expense for depreciation and amortization expense, stock-based compensation expense and unrealized gains or losses on foreign exchange contracts. 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, 2017 were \$3.2 million, a decrease of (\$0.3) million, or (8%), compared to the corresponding period of 2016. Excluding depreciation and amortization expense of (\$0.4) million and (\$0.1) million, respectively, in each of the periods, excluding stock-based compensation expense of (\$0.5) million in each of the periods, and excluding unrealized gains on foreign exchange contracts of \$0.2 million in the three months ended December 31, 2017, general and administrative cash operating costs (see Supplemental Non-GAAP Measures) were \$2.5 million in the fourth quarter of 2017, a decrease of (13%), compared to the fourth quarter of 2016.

The (\$0.4) million, or (13%), decrease in cash general and administrative operating costs (see Supplemental Non-GAAP Measures) in the fourth quarter of 2017 was driven primarily by a decline in costs at Protonex as a result of steps taken in August 2017 to reduce and align the Protonex cost base, partially offset by higher labour costs in Canada as a result of an approximate 5% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base.

General and administrative expenses for the year ended December 31, 2017 were \$12.6 million, a decrease of (\$0.3) million, or (3%), compared to the corresponding period of 2016. Excluding depreciation and amortization expense of (\$1.0) million and (\$0.4) million, respectively, in each of the periods, excluding stock-based compensation expense of (\$1.5) million and (\$1.7) million, respectively, in each of the periods, and excluding unrealized gains on foreign exchange contracts of \$0.2 million in 2017, general and administrative cash operating costs (see Supplemental Non-GAAP Measures) were \$10.2 million in 2017, a decrease of (\$0.6) million, or (6%), compared to 2016.

The (\$0.6) million, or (6%), decrease in general and administrative cash operating costs (see Supplemental Non-GAAP Measures) in 2017 was driven primarily by a decline in costs at Protonex as a result of steps taken in August 2017 to reduce and align the Protonex cost base, partially offset by higher labour costs in Canada as a result of an approximate 2% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative 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, 2017 was \$0.4 million and \$1.0 million, respectively, compared to \$0.1 million and \$0.4 million, respectively, for the corresponding periods of 2016. The expense relates primarily to depreciation and amortization expense on our office and information technology intangible assets and on our office and information technology equipment and has increased in 2017 as a result of increased investment in a new ERP system.

Stock-based compensation expense included in general and administrative expense for the three months and year ended December 31, 2017 was \$0.5 million and \$1.5 million, respectively, compared to \$0.5 million and \$1.7 million, respectively, for the corresponding periods of 2016. The decline in 2017 is primarily as a result of cost reduction activities at Protonex.

Unrealized gains (losses) on foreign exchange contracts included in general and administrative expense for the three months and year ended December 31, 2017 was \$0.2 million, compared to nil for the corresponding periods of 2016. Periodically, we use forward foreign exchange contracts to manage our exposure to currency rate fluctuations. We record these contracts at their fair value as either assets or liabilities on our balance sheet. Any changes in fair value are recorded in profit or loss (general and administrative expense) as these contracts are not designated or qualified under hedge accounting criteria. At December 31, 2017, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$12.0 million at an average rate of 1.2777 Canadian per U.S dollar, resulting in an unrealized gain of Canadian \$0.2 million at December 31, 2017.

Sales and marketing expenses

(Expressed in thousands of U.S. dollars)	•	Three months ended December 31,								
Sales and marketing Sales and marketing expense		2017		2016	9	\$ Change % C				
		2,144	\$	1,495	\$	649	43%			
Less: Depreciation and amortization expense	\$	-	\$	-	\$	-	-%			
Less: Stock-based compensation (expense)	\$	(174)	\$	172	\$	(346)	(201%)			
recovery										
Sales and Marketing (cash operating cost)	\$	1,970	\$	1,667	\$	303	18%			

(Expressed in thousands of U.S. dollars)		Year ended December 31,							
Sales and marketing		2017		2016	9	\$ Change	% Change		
Sales and marketing expense		7,951	\$	7,190	\$	761	11%		
Less: Depreciation and amortization expense	\$	(1)	\$	(4)	\$	3	75%		
Less: Stock-based compensation expense	\$	(477)	\$	(291)	\$	(186)	(64%)		
Sales and Marketing (cash operating cost)	\$	7,473	\$	6,895	\$	578	8%		

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

Sales and marketing expenses for the three months ended December 31, 2017 were \$2.1 million, an increase of \$0.6 million, or 43%, compared to the corresponding period of 2016. Excluding stock-based compensation (expense) recovery of (\$0.2) million and \$0.2 million, respectively, in each of the periods, sales and marketing cash operating costs (see Supplemental Non-GAAP Measures) were \$2.0 million in the fourth quarter of 2017, an increase of \$0.3 million, or 18%, compared to the fourth quarter of 2016.

The \$0.3 million, or 18%, increase in sales and marketing cash operating costs (see Supplemental Non-GAAP Measures) in the fourth quarter of 2017 was driven primarily by an increased investment to support our commercial sales and marketing efforts in China, combined with higher labour costs in Canada as a result of an approximate 5% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base.

Sales and marketing expenses for the year ended December 31, 2017 were \$8.0 million, an increase of \$0.8 million, or 11%, compared to the corresponding period of 2016. Excluding stock-based compensation expense of (\$0.5) million and (\$0.3) million, respectively, in each of the periods, sales and marketing cash operating costs (see Supplemental Non-GAAP Measures) were \$7.5 million in 2017, an increase of \$0.6 million, or 8%, compared to 2016.

The \$0.6 million, or 8%, increase in sales and marketing cash operating costs (see Supplemental Non-GAAP Measures) in 2017 was driven primarily by an increased investment to support our commercial sales and marketing efforts in China, combined with higher labour costs in Canada as a result of an approximate 2% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base. These cost increases in 2017 were partially offset by cost reductions due to the Company's rationalization and renewal initiatives undertaken during 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 at the time.

Stock-based compensation expense included in sales and marketing expense (recovery) for the three months and year ended December 31, 2017 was \$0.2 million and \$0.5 million, respectively, compared to (\$0.2) million and \$0.3 million, respectively, for the corresponding periods of 2016. The increase in 2017 is primarily as a result of increased investment to support our commercial sales and marketing efforts in China.

Other expense (recovery) for the three months and year ended December 31, 2017 was \$nil million and \$0.9 million, respectively, compared to (\$0.3) million and \$2.3 million, respectively for the corresponding periods of 2016. The following tables provide a breakdown of other expense (recovery) for the reported periods:

(Expressed in thousands of U.S. dollars)			Th	ree months	ended	December 31,	,				
	2017			2016 \$ Change			% Change				
Impairment loss (recovery) on trade receivables	\$	101	\$	(132)	\$	233	177%				
Restructuring expense (recovery)		(71)		(217)		146	67%				
Acquisition charges		-		-		-	-				
Other expenses (recovery)	\$	30	\$	(349)	\$	379	109%				

(Expressed in thousands of U.S. dollars)	Year ended December 31,								
		2017		2016		\$ Change	% Change		
Impairment loss (recovery) on trade receivables	\$	103	\$	(63)	\$	166	263%		
Restructuring expense		799		2,318		(1,519)	(66%)		
Acquisition charges		-		43		(43)	(100%)		
Other expenses (recovery)	\$	902	\$	2,298	\$	(1,396)	(61%)		

Net impairment loss (recovery) on trade receivables for the three months and year ended December 31, 2017 was \$0.1 million in each of the periods, compared to (\$0.1) million for the corresponding periods of 2016. 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 \$0.8 million for the year ended December 31, 2017 relate primarily to a leadership change in sales and marketing combined with cost reduction initiatives in the general and administration function undertaken in the first quarter of 2017, and by cost reduction initiatives at Protonex undertaken in the third quarter of 2017. Restructuring expenses for the year ended December 31, 2016 of \$2.3 million relate primarily to cost reduction initiatives undertaking in 2016 that included the elimination of approximately 50 positions including the elimination of three executive level positions. These 2016 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.

Finance income (loss) and other for the three months and year ended December 31, 2017 was (\$0.2) million and \$1.8 million, respectively, compared to (\$0.7) million and (\$0.8) million, respectively, for the corresponding periods of 2016. The following tables provide a breakdown of finance and other income (loss) for the reported periods:

(Expressed in thousands of U.S. dollars)	<u>.</u>	Three months ended December 31,								
		2017		2016	5	\$ Change	% Change			
Employee future benefit plan expense	\$	(51)	\$	(48)	\$	(3)	(6%)			
Pension administration expense		-		(1)		1	100%			
Investment and other income (loss)		147		79		68	87%			
Foreign exchange gain (loss)		(322)		(730)		408	56%			
Finance income (loss) and other	\$	(226)	\$	(700)	\$	474	68%			

(Expressed in thousands of U.S. dollars)	Year ended December 31,							
	2017		2016		\$ Change	% Change		
Employee future benefit plan expense	\$ (230)	\$	(263)	\$	33	13%		
Pension administration expense	(118)		(103)		(15)	(15%)		
Investment and other income	436		112		324	290%		
Foreign exchange gain (loss)	1,692		(523)		2,215	423%		
Finance income (loss) and other	\$ 1,780	\$	(777)	\$	2,557	329%		

Employee future benefit plan expense for the three months and year ended December 31, 2017 were (\$0.05) million and (\$0.2) million, respectively, relatively consistent with the corresponding periods of 2016. 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 approximately (\$0.1) million for the years ended December 31, 2017 and 2016 represent administrative costs incurred in managing the plan.

Foreign exchange gains (losses) for the three months and year ended December 31, 2017 were (\$0.3) million and \$1.7 million, respectively, compared to (\$0.7) million and (\$0.5) million, respectively, for the corresponding periods of 2016. 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. Foreign exchange gains and losses 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 are recorded in comprehensive income (loss).

Investment and other income for the three months and year ended December 31, 2017 were \$0.1 million and \$0.4 million, respectively, compared to \$0.1 million for each of the corresponding periods of 2016. Amounts were earned primarily on our cash and cash equivalents.

Finance expense for the three months and year ended December 31, 2017 was (\$0.2) million and (\$0.7) million, respectively, consistent with the corresponding periods of 2016. 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.

Loss on sale of assets for the year ended December 31, 2016 was (\$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 \$3.0 million was paid on closing. The remaining potential purchase price of up to \$3.1 million consisted 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 was recorded as proceeds receivable in 2016 at its estimated fair value of \$1.8 million. The final

gain (loss) on sale arising from the CHEM transaction was subject to change during 2017 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.

Loss on sale of assets for the year ended December 31, 2017 was (\$1.4) million, consisting of additional losses incurred in the first three quarters of 2017 of (\$0.9) million as a result of the CHEM Backup Power Transaction, and a loss incurred in the fourth quarter of 2017 of (\$0.5) million on the Upstart SOFC Transaction.

During 2017, we recorded a loss on sale of assets of (\$0.9) million as the remaining estimated potential purchase price owing from the 2016 CHEM Transaction was written down to its revised and final fair value of \$0.9 million (which was collected in the fourth quarter of 2017) from its previous fair value estimate of \$1.8 million as of December 31, 2016.

During the fourth quarter of 2017, we sold certain SOFC assets consisting primarily of SOFC inventory to Upstart for nominal consideration resulting in a loss on sale of assets of (\$0.5) million. Initially, 10 Protonex employees have also moved to Upstart, with an additional 6 employees expected to be transferred later in 2018 on completion of certain Technology Solutions contracts. As part of this transfer of employees, Dr. Paul Osenar, previously President of Protonex has moved to Upstart as CEO. This action has enabled Ballard to significantly reduce the cost structure at Protonex. No restructuring expense was incurred as a result of this transaction.

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.

Impairment (Loss) on Intangible Assets and Property, Plant and Equipment for the three months and year ended December 31, 2017 was (\$1.5) million and consists of a (\$1.2) million impairment charge on intangible assets and a (\$0.3) million impairment charge on property, plant and equipment as we wrote-down certain SOFC fuel cell assets to their estimated net realizable value of \$0.05 million. The impairment charges were incurred during the fourth quarter of 2017 while we continued to review strategic alternatives for our SOFC fuel cell assets at Protonex prior to concluding the transaction with Upstart.

Income tax expense for the three months and year ended December 31, 2017 was (\$0.2) million and (\$1.6) million, respectively, compared to (\$0.1) million and (\$0.4) million, respectively, for the corresponding periods of 2016. Income tax expense relates primarily to withholding taxes in China deducted from proceeds earned on certain Chinese commercial contracts.

Equity in income (loss) of investment for the three months and year ended December 31, 2017 was \$0.3 million and \$0.2 million, respectively, compared to nil million for the corresponding periods of 2016. Equity in income of investment relates to the pickup of 10% of the net income (loss) of Synergy JVCo as a result of our 10% ownership position in the China joint venture which is accounted using the equity method of accounting.

Net 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. Amounts 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 during 2016. In early January 2017, we purchased all of the shares in the Company's European subsidiary held by Dansk Industri Invest A/S for a nominal payment. As a result, Ballard now owns 100% of Ballard Power Systems Europe A/S.

5.5 Summary of Quarterly Results

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

(Expressed in thousands of U.S. dollars, except per share and weighted average shares outstanding which are exprethousands)	- · · · · · · · · · · · · · · · · · · ·								
		Dec 31, 2017		Sep 30, 2017		Jun 30, 2017		Mar 31, 2017	
Revenues	\$	40,257	\$	31,854	\$	26,521	\$	22,656	
Net income (loss) attributable to Ballard	\$	(2,887)	\$	(1,027)	\$	(1,201)	\$	(2,935)	
Net income (loss) per share attributable to Ballard, basic and diluted	\$	(0.02)	\$	(0.01)	\$	(0.01)	\$	(0.02)	
Weighted average common shares outstanding		177,803		176,438		175,953		174,853	
		Dec 31, 2016		Sep 30, 2016		Jun 30, 2016		Mar 31, 2016	
Revenues	\$	30,684	\$	20,635	\$	17,647	\$	16,304	
Net income (loss) attributable to Ballard	\$	(1,121)	\$	(4,187)	\$	(5,810)	\$	(9,994)	
Net income (loss) per share attributable to Ballard, basic and diluted	\$	(0.01)	\$	(0.03)	\$	(0.04)	\$	(0.06)	
Weighted average common shares outstanding		174,722		165,193		156,889		156,851	

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

• Revenues: Variations in fuel cell product and service revenues reflect the demand and timing of our customers' fuel cell vehicle, bus and fuel cell product deployments as well as the demand and timing of their engineering services projects. Variations in fuel cell product and service revenues also reflect the timing of work performed and the achievements of milestones under long-term fixed price contracts. Revenues were positively impacted in the fourth quarter of 2017 as we fulfilled an \$18 million supply contract (announced on June 5, 2017) for 400 FCveloCity® fuel cell engines and consisting primarily of shipments of FCveloCity®-MD 30-kilowatt fuel cell products and MEA's. 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 2017 by restructuring expenses of (\$0.6) million related to a leadership change in sales and marketing and by cost reduction initiatives in the general and administration function. Operating expenses were negatively impacted in the first quarter of 2016 by restructuring expenses of (\$2.2) million related to cost reduction initiatives that included the elimination of approximately 50 positions including the elimination of three executive level positions. 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 (loss) for the fourth quarter of 2017 was negatively impacted by a loss on sale of assets of (\$0.5) million as we sold certain SOFC fuel cell inventory to Upstart for nominal proceeds. Net loss in the fourth quarter of 2017 was also negatively impacted by impairment charges of (\$1.5) million consisting of a (\$1.2) million impairment charge on intangible assets and a (\$0.3) million impairment charge on property, plant and equipment as we wrote-down certain SOFC fuel cell assets to their estimated net realizable value of \$0.05 million. Net income (loss) for the second quarter of 2017 was negatively impacted by a loss on sale of assets of (\$0.8) million as we recorded an impairment adjustment against the potential purchase price receivable from the CHEM Transaction by reducing the estimated fair value of the potential remaining earn-out to \$1.0 million from \$1.8 million. Net income (loss) in the second quarter of 2016 was negatively impacted by a loss on sale of assets of (\$0.4) million recognized on the closing of the CHEM Transaction after initially estimating the fair value of the remaining potential purchase price of up to \$3.1 million to approximate \$1.8 million. Net income (loss) in 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.

6. CASH FLOWS, LIQUIDITY AND CAPITAL RESOURCES

6.1 Summary of Cash Flows

Cash and cash equivalents were \$60.3 million at December 31, 2017, compared to \$72.6 million at December 31, 2016. The (\$12.3) million decrease in cash and cash equivalents in 2017 was driven by net working capital outflows of (\$12.3) million, purchases of property, plant and equipment of (\$3.1) million, investments in other intangible assets of (\$3.4) million, by investments in associated companies of (\$1.0) million, and by finance lease repayments of (\$0.6) million. These 2017 outflows were partially offset by net income (excluding non-cash items) of \$2.5 million, net proceeds received from share purchase warrant exercises of \$2.0 million, and by net proceeds received from share purchase option exercises of \$3.6 million.

6.2 Cash Provided by (Used by) Operating Activities

For the three months ended December 31, 2017, cash provided by (used in) operating activities was (\$0.7) million, consisting of cash operating income of \$1.7 million partially

offset by net working capital outflows of (\$2.4) million. For the three months ended December 31, 2016, cash provided by 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. The (\$8.7) million increase in cash used in operating activities in the fourth quarter of 2017, as compared to the fourth quarter of 2016, was driven by the relative increase in working capital requirements of (\$9.3) million, partially offset by the relative improvement in cash operating income (loss) of \$0.6 million. The relative \$0.6 million improvement in cash operating income (loss) in the fourth quarter of 2017 was due primarily to the \$0.3 million improvement in Adjusted EBITDA.

In the fourth quarter of 2017, net working capital outflows of (\$2.4) million were driven by higher accounts receivable of (\$5.7) million primarily as a result of the timing of revenues and the related customer collections, and by lower deferred revenue of (\$1.5) million as we fulfilled contract deliverables on certain Heavy-Duty Motive and Technology Solutions contracts for which we received pre-payments in an earlier period. These fourth quarter of 2017 outflows were partially offset by higher accounts payable and accrued liabilities of \$2.1 million as a result of the timing of supplier payments and annual compensation awards, by lower inventory of \$2.0 million as we delivered expected Heavy-Duty Motive shipments to customers in the last quarter of 2017, and by higher accrued warranty obligations of \$0.8 million due to increased product shipments.

This compares to net working capital inflows of \$6.9 million in the fourth quarter of 2016 which were 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.

For the year ended December 31, 2017, cash used in operating activities was (\$9.8) million, consisting of cash operating income of \$2.5 million offset by net working capital outflows of (\$12.3) million. 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. The (\$5.9) million increase in cash used by operating activities in 2017, as compared to 2016, was driven by the relative increase in working capital requirements of (\$20.8) million, partially offset by the relative improvement in cash operating losses of \$14.9 million. The \$14.9 million reduction in cash operating losses in 2017 was due primarily to the \$13.2 million improvement in Adjusted EBITDA, and by higher finance and other income of \$2.6 million in 2017 due primarily to higher foreign exchange gains, partially offset by higher income taxes of (\$1.2) million in 2017 related to withholding taxes on certain Chinese commercial contracts.

In 2017, net working capital outflows of (\$12.3) million was driven by lower deferred revenue of (\$12.5) million as we fulfilled contract deliverables on certain Heavy-Duty Motive and Technology Solutions contracts for which we received pre-payments in an earlier

period, by higher accounts receivable of (\$9.4) million primarily as a result of the timing of revenues and the related customer collections, and by higher inventory of (\$0.6) million primarily to support expected shipments in the first quarter of 2018. These 2017 working capital outflows were partially offset by higher accounts payable and accrued liabilities of \$6.9 million as a result of the timing of supplier payments and accrued compensation awards, by higher accrued warranty obligations of \$2.4 million due to increased product shipments, and by lower prepaid expenses of \$0.9 million.

This compares to a total change in working capital of \$8.5 million in 2016 which 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.

6.3 Cash Provided by (Used by) Investing Activities

Investing activities resulted in net cash outflows of (\$0.5) million and (\$6.5) million, respectively, for the three months and year ended December 31, 2017, compared to net cash inflows (outflows) of (\$3.4) million and \$5.2 million, respectively, for the corresponding periods of 2016.

Investing activities in 2017 of (\$6.5) million consist primarily of capital expenditures of (\$3.1) million, investments in other intangible assets of (\$3.4) million related primarily to the implementation of a new Enterprise Resource Planning ("ERP") management reporting software system, investments in associated companies of (\$1.0) million paid for our 10% investment in Synergy JVCo, partially offset by final net proceeds of \$1.0 million received in the fourth quarter of 2017 from the CHEM Transaction.

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 the commencement of implementation of a fully integrated ERP management reporting software system.

6.4 Cash Provided by (Used by) Financing Activities

Financing activities resulted in net cash inflows of \$1.6 million and \$5.0 million, respectively, for the three months and year ended December 31, 2017, compared to net cash inflows of \$nil million and \$31.0 million, respectively, for the corresponding periods of

2016.

Financing activities in 2017 of \$5.0 million consist of proceeds from share purchase warrant exercises of \$2.0 million, proceeds from share purchase option exercises of \$3.6 million, partially offset by capital lease payments of (\$0.6) million.

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.

6.5 Liquidity and Capital Resources

At December 31, 2017, we had total Liquidity of \$60.3 million. We measure Liquidity as our net cash position, consisting of the sum of our cash, cash equivalents and short-term investments of \$60.3 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, 2017, 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, maintaining discipline over 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. 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 including their ability to successfully finance and fund their operations and programs and agreements with us, our success in developing new channels to market and relationships with customers, our success in generating revenue growth from near-term product, service

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

In addition to our existing cash reserves of \$60.3 million at December 31, 2017, there were 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 0.7 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.

7. OTHER FINANCIAL MATTERS

7.1 Off-Balance Sheet Arrangements and 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 (general and administrative expense) if either not designated, or not qualified, under hedge accounting criteria. At December 31, 2017, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$12.0 million at an average rate of 1.2777 Canadian per U.S dollar, resulting in an unrealized gain of Canadian \$0.2 million at December 31, 2017. The outstanding foreign exchange currency contracts are not qualified under hedge accounting.

At December 31, 2017, 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, 2017, we had the following contractual obligations and commercial commitments:

(Expressed in thousands of U.S. dollars)		Pa	yme	nts due by p	erio	d,	
Contractual Obligations	Total	Less than		1-3 years		4-5 years	After 5
		one year					years
Operating leases	\$ 22,017	\$ 2,459	\$	4,698	\$	4,236	\$ 10,624
Capital leases	8,893	1,127		2,425		2,567	2,774
Asset retirement obligations	1,773	-		-		-	1,773
Total contractual obligations	\$ 32,683	\$ 3,586	\$	7,123	\$	6,803	\$ 15,171

In addition, we have outstanding commitments of \$3.0 million at December 31, 2017 related primarily to purchases of property, plant and equipment. Capital expenditures and expenditures on other intangible assets pertain to our regular operations and are expected to be funded through cash on hand.

In connection with the acquisition of intellectual property from UTC 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 of December 31, 2017, 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, 2017, we have not accrued any amount owing, or receivable, as a result of any indemnity agreements undertaken in the ordinary course of business.

In January and February 2018, certain related class action complaints were filed in U.S. Federal Court alleging violations of U.S. federal securities laws. Neither complaint has been served on Ballard. Ballard will vigorously contest, and defend against, the complaints and believes the claims are without merit.

7.2 Related Party Transactions

Related parties include our 10% owned equity accounted investee, Synergy JVCo. Transactions between us and our subsidiaries are eliminated on consolidation. For the three months and year ended December 31, 2017, related party transactions and balances with Synergy JVCo are as follows:

(Expressed in thousands of U.S. dollars)	Three Months Ended D	December 31,
Transactions with related parties	2017	2016
Revenues	\$ 6,369	\$ -
Cost of goods sold and operating expense	\$ -	\$ -

(Expressed in thousands of U.S. dollars)	Year Ended [Decem	ber 31,
Transactions with related parties	2017		2016
Revenues	\$ 30,916	\$	-
Cost of goods sold and operating expense	\$ -	\$	-

(Expressed in thousands of U.S. dollars)		As at Decem	ıber 31,
Balances with related parties	2017		2016
Accounts receivable	\$ 1,415	\$	-
Investments	\$ 676	\$	-
Deferred revenue	\$ 2,973	\$	-

We also provide key management personnel, being board directors and executive officers, certain benefits, in addition to their salaries. Key management personnel also participate in the Company's share-based compensation plans. Key management personnel compensation is summarized in note 29 to our annual consolidated financial statements for the year ended December 31, 2017.

7.3 Outstanding Share and Equity Information

As at February 28, 2018	
Common share outstanding	178,082,082
Warrants outstanding	785,063
Options outstanding	4,670,774
DSU's outstanding	865,344
RSU's and PSU's outstanding (subject to vesting criteria)	1,534,433

8. ACCOUNTING MATTERS

8.1 Overview

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

8.2 Critical Judgments in Applying Accounting Policies

Critical judgments that we have made in the process of applying our accounting policies and that have the most significant effect on the amounts recognized in the consolidated financial statements is limited to our assessment of the Corporation's ability to continue as a going concern (See Note 2 (d) 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, 2017.

8.3 Key Sources of Estimation Uncertainty

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

REVENUE RECOGNITION

Revenues are generated primarily from product sales 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 completing 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, 2017 and 2016, 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, 2017, 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, 2017, we have concluded that no goodwill impairment charge is required for the year ending December 31, 2017. Details of our 2017 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 sale, 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, 2017 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, 2017 indicating that no impairment charge is required for 2017.
- 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 19% from 2018 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, 2017 indicating that no impairment charge is required in 2017.

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, 2017, we recorded a loss on sale of assets of (\$0.9) million as the remaining estimated potential purchase price owing from the 2016 CHEM Transaction was written down to its revised and final fair value of \$0.9 million (which was collected in the fourth quarter of 2017) from its previous fair value estimate of \$1.8 million as of December 31, 2016. During the fourth quarter of 2017, we also recognized a loss on sale of assets of (\$0.5) million as we sold certain SOFC fuel cell inventory to Upstart for nominal proceeds, and recorded impairment charges of (\$1.5) million consisting of a (\$1.2) million impairment charge on intangible assets and a (\$0.3) million impairment charge on property, plant and equipment as we wrote-down certain SOFC fuel cell assets to their estimated net realizable value of \$0.05 million. 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, 2017, we recorded provisions to accrued warranty liabilities of \$1.6 million and \$4.1 million, respectively, for new product sales, compared to \$0.4 million and \$1.1 million, respectively, for the three months and year ended December 31, 2016.

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, 2017 were adjusted downwards by \$0.7 million in each of the periods, compared to a net adjustment downwards of \$0.4 million and \$0.5 million, respectively, for the three months and year ended December 31, 2016. The positive adjustments to the accrued warranty liability provisions in 2017 were due primarily to contractual expirations and improved

lifetimes and reliability of our Heavy-Duty Motive products, whereas the positive adjustments to the accrued warranty liability provision in 2016 were due primarily to contractual expirations and improved lifetimes of our Backup Power 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, 2017, inventory adjustments of (\$0.1) million and \$nil million, respectively were recorded as a recovery (charge) to cost of product and service revenues, compared to negative inventory adjustments of (\$0.6) million for the three months and year ended December 31, 2016.

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, 2017, net impairment (charges) on trade receivables of (\$0.1) million were recorded in other operating income, compared to net impairment recoveries of \$0.1 million for the three months and year ended December 31, 2016.

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, 2017 and 2016, we have not recorded any deferred income tax assets on our consolidated statement of financial position.

8.4 Recently Adopted Accounting Policy Changes

We did not adopt any new accounting standard changes or amendments effective January 1, 2017 that had a material impact on our consolidated financial statements.

8.5 Future Accounting Policy Changes

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

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 Company does not expect the amendments to have a material impact on the financial statements.

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. Based on an analysis of the Company's contracts in place as of January 1, 2018, the Company does not expect the standard to have a material impact on the financial statements. The Company continues to evaluate the disclosure obligations under IFRS 15.

IFRS 9 - FINANCIAL INSTRUMENTS

On July 24, 2014, the IASB issued the complete *IFRS 9 Financial Instruments* standard ("IFRS 9"). IFRS 9 introduces new requirements for the classification and measurement of financial assets. Under IFRS 9, 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 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 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 in its financial statements for the fiscal year beginning on January 1, 2018. Based on an analysis of the Company's financial instruments as of January 1, 2018, the Company does not expect the standard to have a material impact on the financial statements.

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.

<u>IFRIC 23 – UNCERTAINTY OVER INCOME TAX TREATMENTS</u>

On June 7, 2017, the IASB issued *IFRIC Interpretation 23 Uncertainty over Income Tax Treatments*. The Interpretation provides guidance on the accounting for current and deferred tax liabilities and assets in circumstances in which there is uncertainty over income tax treatments. The Interpretation requires an entity to:

- contemplate whether uncertain tax treatments should be considered separately, or together as a group, based on which approach provides better predictions of the resolution;
- reflect an uncertainty in the amount of income tax payable (recoverable) if it is probable that it will pay (or recover) an amount for the uncertainty; and
- measure a tax uncertainty based on the most likely amount of expected value depending on whichever method better predicts the amount payable (recoverable).

The Interpretation is applicable for annual periods beginning on or after January 1, 2019. Early application is permitted. The Corporation intends to adopt the Interpretation in its financial statements for the fiscal year beginning on January 1, 2019. The extent of the impact of adoption of the Interpretation has not yet been determined.

9. SUPPLEMENTAL NON-GAAP MEASURES AND RECONCILIATIONS

9.1 Overview

In addition to providing measures prepared in accordance with GAAP, we present certain supplemental non-GAAP measures. These measures are Cash Operating Costs (including its components of research and product development (operating cost), general and administrative (operating cost) and sales and marketing (operating cost)), EBITDA and Adjusted EBITDA, 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.

9.2 Cash Operating Costs

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

We also believe Cash Operating Costs is frequently used by securities analysts and investors when comparing our results with those of other companies. Cash Operating Costs differs from the most comparable GAAP measure, 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, unrealized gains and losses on foreign exchange contracts, 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, 2017 and 2016:

(Expressed in thousands of U.S. dollars)	Three months ended December 31,								
Cash Operating Costs		2017		2016		\$ Change			
Total Operating Expenses	\$	13,184	\$	8,976	\$	4,208			
Stock-based compensation expense		(1,093)		(581)		(512)			
Impairment recovery (losses) on trade receivables		(101)		132		(233)			
Acquisition and integration costs		-		-		-			
Restructuring (charges) recovery		71		217		(146)			
Unrealized gains on foreign exchange contracts		189		-		189			
Financing charges		-		-		-			
Depreciation and amortization		(1,006)		(604)		(402)			
Cash Operating Costs	\$	11,244	\$	8,140	\$	3,104			

(Expressed in thousands of U.S. dollars)		Year en	ded December 31,	
Cash Operating Costs	2017		2016	\$ Change
Total Operating Expenses	\$ 46,477	\$	42,253	\$ 4,224
Stock-based compensation (expense) recovery	(3,125)		(3,024)	(101)
Impairment recovery (losses) on trade receivables	(103)		63	(166)
Acquisition and integration costs	-		(43)	43
Restructuring charges	(799)		(2,318)	1,519
Unrealized gains on foreign exchange contracts	189		-	189
Financing charges	-		-	-
Depreciation and amortization	(3,586)		(2,593)	(993)
Cash Operating Costs	\$ 39,053	\$	34,338	\$ 4,715

The components of Cash Operating Costs of research and product development (cash operating cost), general and administrative (cash operating cost), and sales and marketing (cash operating cost) differ from their respective most comparable GAAP measure of research and product development expense, general and administrative expense, and sales and marketing expense, primarily because they do not include stock-based compensation expense 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, 2017 and 2016 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, 2017 and 2016 are as follows:

(Expressed in thousands of U.S. dollars)	Three months ended December 31,						
Stock-based compensation expense		2017		2016	\$	Change	
Total stock-based compensation expense							
recorded as follows:							
Cost of goods sold	\$	-	\$	-	\$	-	
Research and product development expense		403		260		143	
General and administrative expense		516		493		23	
Sales and marketing expense (recovery)		174		(172)		346	
Stock-based compensation expense	\$	1,093	\$	581	\$	512	

(Expressed in thousands of U.S. dollars)		Year end	led December 31,		
Stock-based compensation expense	2017		2016	9	\$ Change
Total stock-based compensation expense					
recorded as follows:					
Cost of goods sold	\$ -	\$	-	\$	-
Research and product development expense	1,124		1,067		57
General and administrative expense	1,524		1,666		(142)
Sales and marketing expense	477		291		186
Stock-based compensation expense	\$ 3,125	\$	3,024	\$	101

A breakdown of total depreciation and amortization expense for the three months and year ended December 31, 2017 and 2016 are as follows:

(Expressed in thousands of U.S. dollars)		Three months ended December 31,							
Depreciation and amortization expense		2017		2016	\$	Change			
Total depreciation and amortization expense									
recorded as follows:									
Cost of goods sold	\$	474	\$	451	\$	23			
Research and product development expense		654		512		142			
General and administrative expense		352		92		260			
Sales and marketing expense		1		1		-			
Depreciation and amortization expense	\$	1,481	\$	1,056	\$	425			

(Expressed in thousands of U.S. dollars)				
Depreciation and amortization expense	2017	2016	5	\$ Change
Total depreciation and amortization expense				
recorded as follows:				
Cost of goods sold	\$ 1,477	\$ 1,951	\$	(474)
Research and product development expense	2,566	2,214		352
General and administrative expense	1,019	375		644
Sales and marketing expense	1	4		(3)
Depreciation and amortization expense	\$ 5,064	\$ 4,544	\$	520

9.3 EBITDA and Adjusted EBITDA

These supplemental non-GAAP measures are provided to assist readers in determining our operating performance. We believe this measure is useful in assessing performance and highlighting trends on an overall basis. We also believe EBITDA and Adjusted EBITDA are frequently used by securities analysts and investors when comparing our results with those of other companies. EBITDA differs from the most comparable GAAP measure, net loss attributable to Ballard, primarily because it does not include finance expense, income taxes, depreciation of property, plant and equipment, and amortization of intangible assets. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, asset impairment charges, finance and other income, unrealized gains and losses on foreign exchange contracts, 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, 2017 and 2016:

(Expressed in thousands of U.S. dollars)	Th	ree months	ended December	31,	
EBITDA and Adjusted EBITDA	2017		2016		\$ Change
Net income (loss) attributable to Ballard	\$ (2,887)	\$	(1,121)	\$	(1,766)
Depreciation and amortization	1,481		1,056		425
Finance expense	168		164		4
Income taxes	210		127		83
EBITDA attributable to Ballard	\$ (1,028)	\$	226	\$	(1,254)
Stock-based compensation expense	1,093		581		512
Acquisition and integration costs	-		-		-
Finance and other (income) loss	226		700		(474)
Impairment loss (recovery) on intangible assets and property, plant and equipment	1,484		-		1,484
Loss on sale of assets	500		256		244
Unrealized gains on foreign exchange contracts	(189)		-		(189)
Adjusted EBITDA	\$ 2,086	·	1,763	\$	323

(Expressed in thousands of U.S. dollars)		Year end	ed December 31,	
EBITDA and Adjusted EBITDA	2017		2016	\$ Change
Net income (loss) attributable to Ballard	\$ (8,048)	\$	(21,112)	\$ 13,064
Depreciation and amortization	5,064		4,544	520
Finance expense	732		686	46
Income taxes	1,571		381	1,190
EBITDA attributable to Ballard	\$ (681)	\$	(15,501)	\$ 14,820
Stock-based compensation expense (recovery)	3,125		3,024	101
Acquisition and integration costs	-		43	(43)
Finance and other (income) loss	(1,780)		777	(2,557)
Gain on sale of intellectual property	-		-	-
Impairment charges on intangible assets and property, plant and equipment	1,484		1,151	333
Loss (gain) on sale of assets	1,365		623	742
Unrealized gains on foreign exchange contracts	(189)		-	(189)
Adjusted EBITDA	\$ 3,324	\$	(9,883)	\$ 13,207

9.4 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 differs from the most comparable GAAP measure, net loss attributable to Ballard, primarily because it does not include 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 31, 2017 and 2016:

(Expressed in thousands of U.S. dollars)	Three months ended December 31,					
Adjusted Net Loss		2017 2016 \$ C			\$ Change	
Net (loss) attributable to Ballard	\$	(2,887)	\$	(1,121)	\$	(1,766)
Acquisition and integration costs		-		-		-
Impairment charges (recovery) on intangible assets and property, plant and equipment		1,484		-		1,484
Loss on sale of assets		500		260		240
Adjusted Net Loss	\$	(903)	\$	(861)	\$	(42)
Adjusted Net Loss per share	\$	(0.01)	\$	(0.00)	\$	(0.01)

(Expressed in thousands of U.S. dollars)		Year ended December 31,	
Adjusted Net Loss	2017	2016	\$ Change
Net (loss) attributable to Ballard	\$ (8,048)	\$ (21,112)	\$ 13,064
Acquisition and integration costs	-	43	(43)
Impairment charges on intangible assets and property, plant and equipment	1,484	1,151	333
Loss on sale of assets	1,374	632	742
Adjusted Net Loss	\$ (5,190)	\$ (19,286)	\$ 14,096
Adjusted Net Loss per share	\$ (0.03)	\$ (0.12)	\$ 0.09

Consolidated Financial Statements (Expressed in U.S. dollars)

BALLARD POWER SYSTEMS INC.

Years ended December 31, 2017 and 2016

MANAGEMENT'S REPORT

Management's Responsibility for the Financial Statements and Report on Internal Control over Financial Reporting

The consolidated financial statements contained in this Annual Report have been prepared by management in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. The integrity and objectivity of the data in these consolidated financial statements are management's responsibility. Management is also responsible for all other information in the Annual Report and for ensuring that this information is consistent, where appropriate, with the information and data contained in the consolidated financial statements.

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external reporting purposes in accordance with IFRS. Internal control over financial reporting may not prevent or detect fraud or misstatements because of limitations inherent in any system of internal control. Management has assessed the effectiveness of the Corporation's internal control over financial reporting based on the framework in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and concluded that the Corporation's internal control over financial reporting was effective as of December 31, 2017. In addition, management maintains disclosure controls and procedures to provide reasonable assurance that material information is communicated to management and appropriately disclosed. Some of the assets and liabilities include amounts, which are based on estimates and judgments, as their final determination is dependent on future events.

The Board of Directors oversees management's responsibilities for financial reporting through the Audit Committee, which consists of eight directors who are independent and not involved in the daily operations of the Corporation. The Audit Committee meets on a regular basis with management and the external and internal auditors to discuss internal controls over the financial reporting process, auditing matters and financial reporting issues. The Audit Committee is responsible for appointing the external auditors (subject to shareholder approval), and reviewing and approving all financial disclosure contained in our public documents and related party transactions.

The external auditors, KPMG LLP, have audited the financial statements and expressed an unqualified opinion thereon. KPMG has also expressed an unqualified opinion on the effective operation of the internal controls over financial reporting as of December 31, 2017. The external auditors have full access to management and the Audit Committee with respect to their findings concerning the fairness of financial reporting and the adequacy of internal controls.

"RANDALL MACEWEN"

"TONY GUGLIELMIN"

RANDALL MACEWEN
President and
Chief Executive Officer
February 28, 2018

TONY GUGLIELMIN Vice President and Chief Financial Officer February 28, 2018



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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Ballard Power Systems Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Ballard Power Systems Inc. (the "Company") as of December 31, 2017, and 2016, the related consolidated statements of comprehensive loss, changes in equity and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements").

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017, and 2016, and its financial performance and its cash flows for the years then ended, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Report on Internal Control over Financial Reporting

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2017, based on the criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 28, 2018 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits.

We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB and in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada.

We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

KPMG LLP (signed)

Chartered Professional Accountants

We have served as the Company's auditor since 1999.

Vancouver, Canada February 28, 2018



KPMG LLP Chartered Professional Accountants PO Box 10426 777 Dunsmuir Street Vancouver BC V7Y 1K23 Canada Telephone Fax Internet (604) 691-3000 (604) 691-3031 www.kpmg.ca

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Ballard Power Systems Inc.

Opinion on Internal Control Over Financial Reporting

We have audited Ballard Power System Inc.'s (the "Company") internal control over financial reporting as of December 31, 2017, based on the criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Report on the Financial Statements

We also have audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated statements of financial position of the Company as of December 31, 2017, and 2016, the related consolidated statements of comprehensive loss, changes in equity and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements") and our report dated February 28, 2018 expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Responsibility for the Financial Statements and Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB and in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding



prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

KPMG LLP (signed)

Chartered Professional Accountants

Vancouver, Canada February 28, 2018

Consolidated Statement of Financial Position (Expressed in thousands of U.S. dollars)

	Note	Dec	cember 31, 2017	ecember 31, 2016
Assets				
Current assets:				
Cash and cash equivalents		\$	60,255	\$ 72,628
Trade and other receivables	7		23,080	14,924
Inventories	8		17,292	17,228
Prepaid expenses and other current assets			2,175	2,973
Total current assets			102,802	107,753
Non-current assets:				
Property, plant and equipment	9		15,314	15,701
Intangible assets	10		17,950	18,083
Goodwill	11		40,562	40,562
Investments	12		681	1,191
Other long-term assets			348	156
Total assets		\$	177,657	\$ 183,446
Liabilities and Equity				
Current liabilities:				
Trade and other payables	14	\$	25,243	\$ 17,767
Deferred revenue			8,082	20,621
Provisions and Other	15		5,447	3,568
Finance lease liability	16		652	569
Debt to Ballard Power Systems Europe A/S non-controlling interest	17		_	521
Total current liabilities			39,424	43,046
Non-current liabilities:				
Finance lease liability	16		6,229	6,428
Deferred gain on finance lease	16		2,982	3,398
Provisions and Other	15		4,253	3,864
Employee future benefits	18		4,914	5,167
Total liabilities			57,802	61,903
Equity:				
Share capital	19		986,497	977,707
Contributed surplus	19		290,536	295,547
Accumulated deficit			(1,157,382)	(1,149,128)
Foreign currency reserve			204	718
Total equity attributable to equity holders			119,855	124,844
Ballard Power Systems Europe A/S non-controlling interest				(3,301)
Total equity			119,855	121,543
Total liabilities and equity		\$	177,657	\$ 183,446

See accompanying notes to consolidated financial statements.

Approved on behalf of the Board:

"Doug Hayhurst" Director

"lan Bourne" Director

Consolidated Statement of Loss and Comprehensive Loss For the year ended December 31

(Expressed in thousands of U.S. dollars, except per share amounts and number of shares)

	Note	2017	2016
Revenues:			
Product and service revenues	\$	121,288 \$	85,270
Cost of product and service revenues		79,688	61,086
Gross margin		41,600	24,184
Operating expenses:	_	,	
Research and product development		25,022	19,827
General and administrative		12,602	12,938
Sales and marketing		7,951	7,190
Other expense	24 _	902	2,298
Total operating expenses		46,477	42,253
Results from operating activities	_	(4,877)	(18,069)
Finance income (loss) and other	25	1,780	(777)
Finance expense	25	(732)	(686)
Net finance expense	_	1,048	(1,463)
Loss on sale of assets	26	(1,365)	(623)
Equity in earnings of investment in joint venture	12	201	_
Impairment charges on intangible assets and property, plant and equipment	27	(1,484)	(1,151)
Loss before income taxes	_	(6,477)	(21,306)
Income tax expense	28	(1,571)	(381)
Net loss	_	(8,048)	(21,687)
Other comprehensive income (loss):			
Items that will not be reclassified to profit or loss:			
Actuarial loss on defined benefit plans	18 _	(206)	(361)
		(206)	(361)
Items that may be reclassified subsequently to profit or loss:			
Foreign currency translation differences	_	(1,139)	268
	_	(1,139)	268
Other comprehensive loss, net of tax	_	(1,345)	(93)
Total comprehensive loss	3	(9,393) \$	(21,780)

Consolidated Statement of Loss and Comprehensive Loss (cont'd)

For the year ended December 31 (Expressed in thousands of U.S. dollars, except per share amounts and number of shares)

	2017	2016
Net loss attributable to:		
Ballard Power Systems Inc.	\$ (8,048)	\$ (21,112)
Ballard Power Systems Europe A/S non-controlling interest	_	(575)
Net loss	\$ (8,048)	\$ (21,687)
Total comprehensive loss attributable to:		
Ballard Power Systems Inc.	\$ (9,393)	\$ (21,322)
Ballard Power Systems Europe A/S non-controlling interest	_	(458)
Total comprehensive loss	\$ (9,393)	\$ (21,780)
Basic and diluted loss per share attributable to Ballard Power Systems Inc.		
Loss per share	\$ (0.05)	\$ (0.13)
Weighted average number of common shares outstanding	 176,270,305	163,449,737

Consolidated Statement of Changes in Equity (Expressed in thousands of U.S. dollars except per share amounts and number of shares)

	Ballard Power	Sys	tems Inc. E	≣qui	ty			Ballard Power Systems Europe A/S	
	Number of shares		Share capital	C	ontributed surplus	Accumulated deficit	Foreign currency reserve	Non- controlling interests	Total equity
Balance, December 31, 2015	156,837,187	\$	948,213	\$	293,332	\$ (1,127,655)	\$ 567	\$ (2,843)	\$ 111,614
Net loss	_		_		_	(21,112)	_	(575)	(21,687)
Net Offering proceeds (note 19)	17,250,000		28,199		_	_	_	<u> </u>	28,199
DSUs redeemed (note 19)	146,211		299		(565)	_	_	_	(266)
RSUs redeemed (note 19)	80,945		161		(283)	_	_	; _;	(122)
Options exercised (note 19)	435,287		835		(339)	_	_	-	496
Share distribution plan	_		_		3,402	_	_	_	3,402
Other comprehensive income (loss):								:	
Defined benefit plan actuarial loss	_		_		_	(361)	_	! -!	(361)
Foreign currency translation for foreign operations	_		_		_	_	151	117	268
Balance, December 31, 2016	174,749,630	\$	977,707	\$	295,547	\$ (1,149,128)	\$ 718	\$ (3,301)	\$ 121,543
Net loss	_		_		_	(8,048)	_	i –i	(8,048)
Non-dilutive financing (note 20)					12			!	12
DSUs redeemed (note 19)	181,788		297		(737)	_	_	: -:	(440)
RSUs redeemed (note 19)	298,556		706		(1,421)	_	_	: -:	(715)
Options exercised (note 19)	1,820,193		5,762		(2,164)	_	_	: -:	3,598
Warrants exercised (note 19)	1,012,500		2,025		_	_	_	: -:	2,025
Share distribution plan			_		2,745	_	_	: -:	2,745
Ballard Power Systems Europe NCI adjustment for change in ownership (note 17)	_		_		(3,446)	_	625	3,301	480
Other comprehensive loss:									
Defined benefit plan actuarial loss	_		_		_	(206)	_	_	(206)
Foreign currency translation for foreign operations							(1,139)		(1,139)
Balance, December 31, 2017	178,062,667	\$	986,497	\$	290,536	\$ (1,157,382)	\$ 204	\$	\$ 119,855

Consolidated Statement of Cash Flows For the year ended December 31

(Expressed in thousands of U.S. dollars)

	Note		2017	2016
Cash provided by (used in):				
Operating activities:				
Net loss for the year		\$	(8,048) \$	(21,687)
Adjustments for:				
Share-based compensation	19		3,125	3,024
Employee future benefits			201	235
Employee future benefits plan contributions			(660)	(760)
Depreciation and amortization			5,064	4,544
Loss on decommissioning liabilities			390	218
Loss on sale of assets	26		1,365	623
Impairment charges on intangible assets and property, plant and equipment	27		1,484	1,151
Impairment loss on trade receivables	24		103	390
Unrealized gain on forward contracts			(324)	(151)
Equity in earnings of investment in joint venture	12 & 29		(201)	_
			2,499	(12,413)
Changes in non-cash working capital:				,
Trade and other receivables			(9,387)	(771)
Inventories			(572)	(2,339)
Prepaid expenses and other current assets			930	(1,322)
Trade and other payables			6,857	1,010
Deferred revenue			(12,539)	14,536
Warranty provision			2,444	(2,605)
7 P. C. C.			(12,267)	8,509
Cash used in operating activities			(9,768)	(3,904)
Investing activities:				<u> </u>
Additions to property, plant and equipment	9		(3,068)	(2,778)
Net proceeds on sale of property, plant and equipment and other	26		981	3,009
Additions to intangible assets	10		(3,376)	(4,103)
Net proceeds on sale of intangible assets	10		_	9,244
Purchase of non-controlling interest in subsidiary	17		(47)	_
Investment in associated companies	12		(972)	(180)
Cash provided by (used in) investing activities			(6,482)	5,192
Financing activities:			(2,7 2 7	-, -
Non-dilutive equity financing	20		_	3,347
Net payment of finance lease liabilities			(607)	(1,042)
Net proceeds on issuance of share capital from private placement	19		_	28,199
Net proceeds on issuance of share capital from warrant exercises	19		2,025	
Net proceeds on issuance of share capital from share option exercises	19		3,598	496
Cash provided by financing activities	.0		5,016	31,000
Effect of exchange rate fluctuations on cash and cash equivalents held			(1,139)	291
Increase (decrease) in cash and cash equivalents			(12,373)	32,579
Cash and cash equivalents, beginning of year			72,628	40,049
Cash and cash equivalents, segiming of year		\$	60,255 \$	72,628
Taon and taon equivalents, one or your		Ψ	σσ,2σσ ψ	, 2,020

Supplemental disclosure of cash flow information (note 30).

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

1. Reporting entity:

The principal business of Ballard Power Systems Inc. (the "Corporation") is the design, development, manufacture, sale and service of proton exchange membrane ("PEM") fuel cell products for a variety of applications, focusing on the power product markets of Heavy-Duty Motive (consisting of bus, truck, rail and marine 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 the Corporation's 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 Corporation is a company domiciled in Canada and its registered office is located at 9000 Glenlyon Parkway, Burnaby, British Columbia, Canada, V5J 5J8. The consolidated financial statements of the Corporation as at and for the year ended December 31, 2017 comprise the Corporation and its subsidiaries (note 4(a)).

2. Basis of preparation:

(a) Statement of compliance:

These consolidated financial statements of the Corporation have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The consolidated financial statements were authorized for issue by the Board of Directors on February 28, 2018.

(b) Basis of measurement:

The consolidated financial statements have been prepared on the historical cost basis except for the following material items in the statement of financial position:

- Financial instruments classified as fair value through profit or loss and available-for-sale are measured at fair value;
- Derivative financial instruments are measured at fair value; and
- Employee future benefits liability is recognized as the net of the present value of the defined benefit obligation, less the fair value of plan assets.

(c) Functional and presentation currency:

These consolidated financial statements are presented in U.S. dollars, which is the Corporation's functional currency.

(d) Use of estimates:

The preparation of the consolidated financial statements in conformity with IFRS requires the Corporation's management 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 these 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.

Significant areas having estimation uncertainty include revenue recognition, asset impairment, warranty provision, inventory provision, impairment loss (recoveries) on trade receivables, employee future benefits, and income taxes. These estimates and judgments are discussed further in note 5.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

2. Basis of preparation (cont'd):

(e) Future operations:

The Corporation is required to assess its ability to continue as a going concern or whether substantial doubt exists as to the Corporation's ability to continue as a going concern into the foreseeable future. The Corporation has forecast its cash flows for the foreseeable future and despite the ongoing volatility and uncertainties inherent in the business, the Corporation believes it has adequate liquidity in cash and working capital to finance its operations. The Corporation's ability to continue as a going concern and realize its assets and discharge its liabilities and commitments in the normal course of business is dependent upon the Corporation having adequate liquidity and achieving profitable operations that are sustainable. There are various risks and uncertainties affecting the Corporation including, but not limited to, the market acceptance and rate of commercialization of the Corporation's products, the ability of the Corporation to successfully execute its business plan, and general global economic conditions, certain of which are beyond the Corporation's control.

The Corporation's strategy to mitigate these risks and uncertainties is to execute a business plan aimed at continued focus on revenue growth, improving overall gross margins, and managing operating expenses and working capital requirements. Failure to implement this plan could have a material adverse effect on the Corporation's financial condition and or results of operations.

3. Changes in accounting policies:

The Corporation has consistently applied the accounting policies set out in note 4 to all periods presented in these consolidated financial statements. The Corporation did not adopt any new accounting standard changes or amendments during the year ended December 31, 2017 that had a material impact on these consolidated financial statements.

4. Significant accounting policies:

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements, unless otherwise indicated. Certain prior year comparative figures have been reclassified to comply with current year presentation.

(a) Basis of consolidation:

The consolidated financial statements include the accounts of the Corporation and its principal subsidiaries as follows:

	Percentage owner	Percentage ownership		
	2017	2016		
Guangzhou Ballard Power Systems Co., Ltd.	100%	N/A		
Ballard Hong Kong Ltd.	100%	100%		
Protonex Technology Corporation	100%	100%		
Ballard Services Inc.	100%	100%		
Ballard Fuel Cell Systems Inc.	100%	100%		
Ballard Power Systems Europe A/S	100%	57%		
Ballard Power Corporation	100%	100%		

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(a) Basis of consolidation (cont'd):

Subsidiaries are entities controlled by the Corporation. The Corporation controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns though its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. Intercompany balances and transactions are eliminated in the consolidated financial statements.

On January 10, 2017, the Corporation incorporated Guangzhou Ballard Power Systems Co., Ltd. ("GBPS"), a 100% wholly foreign-owned enterprise ("WFOE") in China to serve as the Corporation's operations entity for all of China.

On July 19, 2016, the Corporation incorporated Ballard Hong Kong Ltd ("BHKL"), a 100% owned holding company in Hong Kong, China.

On September 26, 2016, the Corporation, through BHKL, entered into a joint venture agreement with Guangdong Nation Synergy Hydrogen Power Technology Co., Ltd ("Synergy") to create a new limited liability company based in China called Guangdong Synergy Ballard Hydrogen Power Co., Ltd ("Synergy JVCo"). The purpose of Synergy JVCo is to carry out the Mk9 SSL fuel cell stack technology transfer transaction that was contemplated in the Mk 9 SSL Manufacturing Master Agreement to establish Mk9 SSL fuel cell stack manufacturing capabilities in China. In setting up the joint venture, as specified in the Equity Joint Venture Agreement ("EJV") dated September 26, 2016, Synergy contributed RMB 60,300,000 (\$9,000,000) and the Corporation contributed RMB 6,700,000, (\$971,000) in March 2017 representing 90% and 10% of the registered capital in Synergy JVCo, respectively. The parties made their contributions in cash and the Corporation is not obligated to contribute any additional capital in excess of the amounts noted above. Synergy JVCo is not controlled by the Corporation and therefore is not consolidated. The Corporation's 10% investment in Synergy JVCo is accounted for using the equity method of accounting.

On October 1, 2015, the Corporation acquired Protonex Technology Corporation, a leading designer and manufacturer of advanced power management products and portable fuel cell solutions.

On January 18, 2010, the Corporation acquired a controlling interest in Ballard Power Systems Europe A/S ("BPSE"). BPSE (formerly Dantherm Power A/S) has been consolidated since acquisition. The remaining 43% interest was held by Dansk Industri Invest A/S (previously Dantherm Air Handling A/S). On January 5, 2017, the Corporation purchased all of the shares in its European subsidiary held by Dansk Industri Invest A/S for a nominal value of \$47,000. As a result, the Corporation now owns 100% of BPSE.

(b) Foreign currency:

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Corporation and its subsidiaries at the exchange rate in effect at the transaction date. Monetary assets and liabilities denominated in other than the functional currency are translated at the exchange rates in effect at the balance sheet date. The resulting exchange gains and losses are recognized in earnings. Non-monetary assets and liabilities denominated in other than the functional currency that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined. Non-monetary items that are measured in terms of historical cost in other than the functional currency are translated using the exchange rate at the date of the transaction.

(ii) Foreign operations

The assets and liabilities of foreign operations are translated to the presentation currency using exchange rates at the reporting date. The income and expenses of foreign operations are translated to the presentation currency using exchange rates at the dates of the transactions. Foreign currency differences are recognized in other comprehensive income.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(c) Financial instruments (cont'd):

(i) Financial assets

The Corporation initially recognizes loans and receivables and deposits on the date that they originated and all other financial assets on the trade date at which the Corporation becomes a party to the contractual provisions of the instrument. The Corporation derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or when it transfers substantially all the risks and rewards of ownership of the financial asset.

Financial assets at fair value through profit or loss

Financial assets are classified at fair value through profit or loss if they are held for trading or if the Corporation manages such investments and makes purchase and sale decisions based on their fair value in accordance with the Corporation's documented risk management or investment strategy. Financial assets at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss.

The Corporation also periodically enters into foreign exchange forward contracts and platinum futures contracts to limit its respective exposure to foreign currency rate fluctuations and platinum price fluctuations. These derivatives are recognized initially at fair value and are recorded as either assets or liabilities based on their fair value. Subsequent to initial recognition, these derivatives are measured at fair value and changes to their value are recorded through profit or loss, unless these financial instruments are designated as hedges (note 4 (c)(iv)).

Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Such assets are recognized initially at fair value and subsequently at amortized cost using the effective interest method, less any impairment losses. Loans and receivables are comprised of the Corporation's trade and other receivables.

Cash and cash equivalents

Cash and cash equivalents consist of cash on deposit and highly liquid short-term interest-bearing securities with original maturities of three months or less and are initially measured at fair value, and subsequently measured at amortized cost, which approximates fair value due to the short-term and liquid nature of these assets.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are designated as available-for-sale and that are not classified in any of the previous categories. Subsequent to initial recognition, they are measured at fair value and changes therein, other than impairment losses and foreign currency differences, are recognized in other comprehensive income. When an investment is derecognized, the cumulative gain or loss in other comprehensive income is transferred to profit or loss.

Determination of fair value

The fair value of financial assets at fair value through profit or loss and available-for-sale are determined by reference to their quoted closing bid price at the reporting date if they are traded in an active market. For derivative instruments (foreign exchange forward contracts, platinum futures contracts), fair value is estimated by Management based on their listed market price or broker quotes that include adjustments to take account of the credit risk of the Corporation and the counterparty when appropriate. The fair value of loans and receivables is estimated as the present value of future cash flows, discounted at the market rate of interest at the reporting date.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(c) Financial instruments (cont'd):

(ii) Financial liabilities

Financial liabilities comprise the Corporation's trade and other payables. The financial liabilities are initially recognized on the date they are originated and are derecognized when the contractual obligations are discharged or cancelled or expire. These financial liabilities are recognized initially at fair value and subsequently are measured at amortized costs using the effective interest method, when materially different from the initial amount. Fair value is determined based on the present value of future cash flows, discounted at the market rate of interest.

(iii) Share Capital

Share capital is classified as equity. Incremental costs directly attributable to the issue of shares and share options are recognized as a deduction from equity. When share capital is repurchased, the amount of the consideration paid, including directly attributable costs, is recognized as a deduction from equity. Repurchased shares are classified as treasury shares and are presented as a deduction from equity. When treasury shares are subsequently reissued, the amount received is recognized as an increase in equity, and the resulting surplus or deficit on the transaction is transferred to or from retained earnings.

(iv) Derivative financial instruments, including hedge accounting

The Corporation periodically holds derivative financial instruments to hedge its foreign currency risk exposures that are designated as the hedging instrument in a hedge relationship.

If designated in a qualifying hedge relationship, on initial designation of the hedge, the Corporation formally documents the relationship between the hedging instrument and hedged item, including the risk management objectives and strategy in undertaking the hedge transaction, together with the methods that will be used to assess the effectiveness of the hedging relationship.

The Corporation makes an assessment, both at the inception of the hedge relationship as well as on an ongoing basis, whether the hedging instruments are expected to be "highly effective" in offsetting the changes in the fair value or cash flows of the respective hedged items during the period for which the hedge is designated, and whether the actual results of each hedge are within a range of 80-125 percent. For a cash flow hedge of a forecast transaction, the transaction should be highly probable to occur and should present an exposure to variations in cash flows that could ultimately affect reported net income.

Derivatives are recognized initially at fair value; attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are accounted for as described below.

Cash flow hedges

When a derivative is designated as the hedging instrument in a hedge of the variability in cash flows attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction that could affect profit or loss, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income and presented in unrealized gains/losses on cash flow hedges in equity. The amount recognized in other comprehensive income is removed and included in profit or loss in the same period as the hedged cash flows affect profit or loss under the same line item in the statement of comprehensive income as the hedged item. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognized in other comprehensive income and presented in unrealized gains/losses on cash flow hedges in equity remains there until the forecast transaction affects profit or loss.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(c) Financial instruments (cont'd):

(iv) Derivative financial instruments, including hedge accounting (cont'd)

Cash flow hedges (cont'd)

If the forecast transaction is no longer expected to occur, then the balance in other comprehensive income is recognized immediately in profit or loss. In other cases the amount recognized in other comprehensive income is transferred to profit or loss in the same period that the hedged item affects profit or loss.

Other non-trading derivatives

When a derivative financial instrument is not held for trading, or is not designated in a qualifying hedge relationship, all changes in its fair value are recognized immediately in profit or loss.

(d) Inventories:

Inventories are recorded at the lower of cost and net realizable value. The cost of inventories is based on the first-in first-out principle, and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes materials, labor and appropriate share of production overhead based on normal operating capacity. Costs of materials are determined on an average per unit basis.

Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses. In establishing any impairment of inventory, management estimates the likelihood that inventory carrying values will be affected by changes in market demand, technology and design, which would impair the value of inventory on hand.

(e) Property, plant and equipment:

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and any accumulated impairment losses. The cost of self-constructed assets includes the cost of materials, costs directly attributable to bringing the assets to a working condition for their intended use, and the costs of dismantling and removing items and restoring the site on which they are located. If significant parts of an item of property, plant and equipment have different useful lives, then they are accounted for as separate items (major components) of property, plant and equipment.

Any gain or loss on disposal of an item of property, plant and equipment is recognized in profit or loss.

(ii) Subsequent expenditure

Subsequent expenditure is capitalized only if it is probable that the future economic benefits associated with the expenditure will flow to the Corporation.

(iii) Depreciation

Depreciation is calculated to write-off the cost of items of property, plant and equipment less their estimated residual values using the straight-line method over their estimated useful lives, and is generally recognized in profit or loss. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Corporation will obtain ownership by the end of the lease term.

Notes to Consolidated Financial Statements

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(e) Property, plant and equipment (cont'd):

(iii) Depreciation (cont'd)

The estimated useful lives of property, plant and equipment for current and comparative periods are as follows:

Building under finance lease	15 years
Computer equipment	3 to 7 years
Furniture and fixtures	5 to 14 years
Furniture and fixtures under finance lease	5 years
Leasehold improvements	The shorter of initial term of the respective lease and
	estimated useful life
Production and test equipment	4 to 15 years
Production and test equipment under finance lease	5 years

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

(f) Leases:

Leases where the Corporation assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition the leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to that asset. Other leases are operating leases and not recognized in the statement of financial position.

Minimum lease payments made under finance leases are apportioned between finance expenses and reduction of the outstanding liability. Finance expense is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

Payments made under operating leases are recognized in income on a straight-line basis over the term of the lease. Lease incentives received are recognized as a reduction to the lease expense over the term of the lease.

(g) Goodwill and intangible assets:

(i) Recognition and measurement

Goodwill	Goodwill arising on the acquisition of subsidiaries is measured at cost less accumulated impairment losses.
Research and development	Expenditure on research activities is recognized in profit or loss as incurred.
	Development expenditure is capitalized only if the expenditure can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Corporation intends to and has sufficient resources to complete development and to use or sell the asset. Otherwise, it is recognized in profit or loss as incurred. Subsequent to initial recognition, development expenditure is measured at cost less accumulated amortization and any accumulated impairment losses.
Intangible assets	Intangible assets, including patents, know-how, in-process research and development, trademarks and service marks and software systems that are acquired or developed by the Corporation and have finite useful lives are measured at cost less accumulated amortization and any accumulated impairment losses.

(ii) Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill, is recognized in profit or loss as incurred.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(g) Goodwill and intangible assets (cont'd):

(iii) Amortization

Amortization is calculated to write-off the cost of intangible assets less their estimated residual values using the straight-line method over their estimated useful lives, and is recognized in profit or loss. Goodwill is not amortized

The estimated useful lives for current and comparative periods are as follows:

Internally generated fuel cell intangible assets	5 years
Patents, know-how and in-process research & development	5 to 20 years
ERP management reporting software system	7 years
Trademarks and service marks	15 years
Domain names	15 years
Customer base and relationships	10 years
Acquired non-compete agreements	1 year

Amortization methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

(h) Impairment:

(i) Financial assets

Financial assets not carried at fair value through profit or loss are assessed for impairment at each reporting date by determining whether there is objective evidence that indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

Impairment losses on available-for-sale investment securities are recognized by transferring the cumulative loss that has been recognized in other comprehensive income and presented in accumulated other comprehensive loss in equity, to net loss. The cumulative loss that is removed from other comprehensive income and recognized in net loss is the difference between the acquisition cost, net of any principal repayment and amortization, and the current fair value less any impairment loss previously recognized in net loss. If subsequently the fair value of an impaired available-for-sale security increases, then the impairment loss is reversed, with the amount of the reversal recognized in net loss. However, any subsequent recovery in the fair value of an impaired available for sale equity security is recognized in other comprehensive income.

(ii) Non-financial assets

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

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. Fair value less costs to sell is defined as the estimated price that would be received on the sale of the asset in an orderly transaction between market participants at the measurement date. 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.

Notes to Consolidated Financial Statements Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(h) Impairment (cont'd):

(ii) Non-financial assets (cont'd)

The allocation of goodwill to cash-generating units reflects the lowest level at which goodwill is monitored for internal reporting purposes.

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 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.

(i) Provisions:

A provision is recognized if, as a result of a past event, the Corporation has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risk specific to the liability. The unwinding of the discount is recognized as a finance expense.

Warranty provision

A provision for warranty costs is recorded on product sales at the time the sale is recognized. In establishing the warranty provision, management estimates the likelihood that products sold will experience warranty claims and the estimated cost to resolve claims received, taking into account the nature of the contract and past and projected experience with the products.

Decommissioning liabilities

Legal obligations to retire tangible long-lived assets are recorded at the net present value of the expected costs of settlement at acquisition with a corresponding increase in asset value. These include assets leased under operating leases. The liability is accreted over the life of the asset to the ultimate settlement amount and the increase in asset value is depreciated over the remaining useful life of the asset.

(j) Revenue recognition:

The Corporation generates revenues 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 services revenue is 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) the Corporation retains 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 the Corporation; 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.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(j) Revenue recognition (cont'd):

On standard licensing and sale and technology transfer agreements, revenues are recognized on the transfer of 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 Corporation has no remaining obligations to perform. In other cases, the proceeds are considered to relate to the right to use the asset over the license period and the revenue is recognized over that period.

On cost-plus reimbursable contracts, revenues are recognized as costs are incurred, and include applicable fees earned as services are provided.

On long-term fixed price contracts, revenues are recognized 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 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. In the event that the anticipated costs exceed the anticipated revenues on a contract, such loss is recognized in its entirety in the period it becomes known.

Deferred revenue represents cash received from customers in excess of revenue recognized on uncompleted contracts.

(k) Finance income and expense:

Finance income comprises interest income on funds invested, gains on the disposal of available-for-sale financial assets and changes in the fair value of financial assets at fair value through profit or loss. Interest income is recognized as it accrues in income, using the effective interest method.

Finance expense comprise interest expense on capital leases, unwinding of the discount on provisions, changes in the fair value of financial assets at fair value through profit or loss and impairment losses recognized on financial assets. Foreign currency gains and losses are reported on a net basis.

(I) Income taxes:

The Corporation follows 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 date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

(m) Employee benefits:

Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligation to pay further amounts.

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(m) Employee benefits (cont'd):

Defined contribution plans (cont'd)

Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in profit or loss in the periods during which services are rendered by employees. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available. Contributions to a defined contribution plan that are due more than 12 months after the end of the period in which the employees render the service are discounted to their present value.

Defined benefit plans

A defined benefit plan is a post-employment pension plan other than a defined contribution plan. The Corporation's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value. Any unrecognized past service costs and the fair value of any plan assets are deducted. The discount rate is the yield at the reporting date on AA credit-rated bonds that have maturity dates approximating the terms of the Corporation's obligations and that are denominated in the same currency in which the benefits are expected to be paid. The calculation is performed annually by a qualified actuary using the projected unit credit method.

When the calculation results in a benefit to the Corporation, the recognized asset is limited to the total of any unrecognized past service costs and the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. In order to calculate the present value of economic benefits, consideration is given to any minimum funding requirements that apply to any plan in the Corporation. An economic benefit is available to the Corporation if it is realizable during the life of the plan, or on settlement of the plan liabilities.

The Corporation recognizes all remeasurements arising from defined benefit plans, which comprise actuarial gains and losses, immediately in other comprehensive income. Remeasurements recognized in other comprehensive income are not recycled through profit or loss in subsequent periods.

Other long-term employee benefits

The Corporation's net obligation in respect of long-term employee benefits other than pension plans is the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any related assets is deducted. The discount rate is the yield at the reporting date on AA credit-rated bonds that have maturity dates approximating the terms of the Corporation's obligations. The calculation is performed using the projected unit credit method. Any actuarial gains and losses are recognized in other comprehensive income or loss in the period in which they arise.

Termination benefits

Termination benefits are recognized as an expense (restructuring expense recorded in other operating expense) when the Corporation is committed demonstrably, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognized as an expense if the Corporation has made an offer of voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably. If benefits are payable more than 12 months after the reporting period, then they are discounted to their present value.

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

4. Significant accounting policies (cont'd):

(m) Employee benefits (cont'd):

Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under short-term cash bonus or profit sharing plans if the Corporation has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

(n) Share-based compensation plans:

The Corporation uses the fair-value based method of accounting for share-based compensation for all awards of shares and share options granted. The resulting compensation expense, based on the fair value of the awards granted, excluding the impact of any non-market service and performance vesting conditions, is charged to income over the period that the employees unconditionally become entitled to the award, with a corresponding increase to contributed surplus.

Fair values of share options are calculated using the Black-Scholes valuation method as of the grant date and adjusted for estimated forfeitures. For awards with graded vesting, the fair value of each tranche is calculated separately and recognized over its respective vesting period. Non-market vesting conditions are considered in making assumptions about the number of awards that are expected to vest. At each reporting date, the Corporation reassesses its estimates of the number of awards that are expected to vest and recognizes the impact of any revision in the income statement with a corresponding adjustment to contributed surplus.

The Corporation issues shares and share options under its share-based compensation plans as described in note 19. Any consideration paid by employees on exercise of share options or purchase of shares, together with the amount initially recorded in contributed surplus, is credited to share capital.

(o) Earnings (loss) per share:

Basic earnings (loss) per share is computed using the weighted average number of common shares outstanding during the period, adjusted for treasury shares. Diluted earnings per share is calculated using the treasury stock method.

Under the treasury stock method, the dilution is calculated based upon the number of common shares issued should deferred share units ("DSUs"), restricted share units ("RSUs"), and "in the money" options, if any, be exercised. When the effects of outstanding stock-based compensation arrangements would be anti-dilutive, diluted loss per share is not calculated.

(p) Government assistance and investment tax credits:

Government assistance and investment tax credits are recorded as either a reduction of the cost of the applicable assets, or credited against the related expense incurred in the statement of comprehensive loss, as determined by the terms and conditions of the agreements under which the assistance is provided to the Corporation or the nature of the expenditures which gave rise to the credits. Government assistance and investment tax credit receivables are recorded when their receipt is reasonably assured.

(q) Segment reporting:

An operating segment is a component of the Corporation that engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with any of the Corporation's other components. Segment results include items directly attributable to a segment as well as those that can be allocated on a reasonable basis. Unallocated items comprise mainly corporate assets, head office expenses, and income tax assets and liabilities.

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

5. Critical judgments in applying accounting policies and key sources of estimation uncertainty:

Critical judgments in applying accounting policies:

Critical judgments that management has made in the process of applying the Corporation's accounting policies and that have the most significant effect on the amounts recognized in the consolidated financial statements are limited to management's assessment of the Corporation's ability to continue as a going concern (note 2(e)).

Key sources of estimation uncertainty:

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

(a) Revenue recognition:

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 the Corporation's 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 management's 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.

(b) Asset impairment:

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, the revenue growth rate could be lower than projected due to economic, industry or competitive factors, or the discount rate used in the value in use model could increase due to a change in market interest rates. In addition, future goodwill impairment charges may be necessary if the market capitalization decreased due to a decline in the trading price of the Corporation's common stock, which could negatively impact the fair value of the Corporation's operating segments.

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5. Critical judgments in applying accounting policies and key sources of estimation uncertainty (cont'd):

(c) Warranty provision:

A provision for warranty costs is recorded on product sales at the time of shipment. In establishing the warranty provision, management estimates the likelihood that products sold will experience warranty claims and the cost to resolve claims received. In making such determinations, the Corporation uses estimates based on the nature of the contract and past and projected experience with the products. Should these estimates prove to be incorrect, the Corporation may incur costs different from those provided for in the warranty provision. Management reviews warranty assumptions and makes adjustments to the provision at each reporting date based on the latest information available, including the expiry of contractual obligations. Adjustments to the warranty provision are recorded in cost of product and service revenues.

(d) Inventory provision:

In determining the lower of cost and net realizable value of inventory and in establishing the appropriate provision for inventory obsolescence, management estimates the likelihood that inventory carrying values will be affected by changes in market pricing or demand for the products and by changes in technology or design which could make inventory on hand obsolete or recoverable at less than the recorded value. Management performs regular reviews to assess the impact of changes in technology and design, sales trends and other changes on the carrying value of inventory. Where it is determined that such changes have occurred and will have an negative impact on the value of inventory on hand, appropriate provision 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.

(e) Impairment loss (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 trade and other receivables and establishing the appropriate provision for doubtful accounts, management performs regular reviews to estimate the likelihood that trade and other receivables will ultimately be collected in a timely manner. Where management determines 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.

Employee future benefits:

The present value of the 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.

(g) Income taxes:

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. Management reviews the deferred income tax assets at each reporting period and records adjustments to the extent that it is no longer probable that the related tax benefit will be realized.

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

6. Recent accounting pronouncements and future accounting policy changes:

The Corporation did not adopt any new accounting standard changes or amendments in 2017 that had a material impact on the Corporation's financial statements.

The following is an overview of accounting standard changes that the Corporation will be required to adopt in future years.

(a) 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 Corporation does not expect the amendments to have a material impact on the financial statements.

(b) 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. Based on an analysis of the Corporation's contracts in place as of January 1, 2018, the Corporation does not expect the standard to have a material impact on the financial statements. The Corporation continues to evaluate the disclosure obligations under IFRS 15.

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6. Recent accounting pronouncements and future accounting policy changes (cont'd):

(c) IFRS 9 - Financial Instruments

On July 24, 2014, the IASB issued the complete IFRS 9 Financial Instruments standard ("IFRS 9"). IFRS 9 introduces new requirements for the classification and measurement of financial assets. Under IFRS 9, 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 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 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 in its financial statements for the fiscal year beginning on January 1, 2018. Based on an analysis of the Corporation's financial instruments as of January 1, 2018, the Corporation does not expect the standard to have a material impact on the financial statements.

(d) 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.

(e) IFRIC 23 - Uncertainty over Income Tax Treatments

On June 7, 2017, the IASB issued IFRIC Interpretation 23 Uncertainty over Income Tax Treatments. The Interpretation provides guidance on the accounting for current and deferred tax liabilities and assets in circumstances in which there is uncertainty over income tax treatments. The Interpretation requires an entity to:

- contemplate whether uncertain tax treatments should be considered separately, or together as a group, based on which approach provides better predictions of the resolution;
- reflect an uncertainty in the amount of income tax payable (recoverable) if it is probable that it will pay (or recover) an amount for the uncertainty; and
- measure a tax uncertainty based on the most likely amount of expected value depending on whichever method better predicts the amount payable (recoverable).

The Interpretation is applicable for annual periods beginning on or after January 1, 2019. Early application is permitted. The Corporation intends to adopt the Interpretation in its financial statements for the fiscal year beginning on January 1, 2019. The extent of the impact of adoption of the Interpretation has not yet been determined.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

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7. Trade and other receivables:

	December 31, 2017	December 31, 2016
Trade receivables	\$ 21,443	\$ 11,026
Other	1,637	3,898
	\$ 23,080	\$ 14,924

8. Inventories:

	December 31, 2017	December 31, 2016
Raw materials and consumables	\$ 8,663	\$ 13,039
Work-in-progress	4,694	1,879
Finished goods	2,440	654
Service inventory	1,495	1,656
	17,292	\$ 17,228

In 2017, the amount of raw materials and consumables, finished goods and work-in-progress recognized as cost of product and service revenues amounted to \$55,342,000 (2016 - \$40,172,000).

In 2017, the write-down of inventories to net realizable value amounted to \$611,000 (2016 - \$879,000) and the reversal of previously recorded write-downs amounted to \$531,000 (2016 - \$273,000), resulting in a net writedown of \$80,000 (2016 - \$606,000). Write-downs and reversals are included in either cost of product and service revenues, or research and product development expense, depending on the nature of inventory.

9. Property, plant and equipment:

	December 31,	December 31,
Net carrying amounts	2017	2016
Building under finance lease	\$ 5,819	\$ 6,631
Computer equipment	1,020	1,049
Furniture and fixtures	155	185
Leasehold improvements	1,624	2,188
Production and test equipment	6,696	5,013
Production and test equipment under finance lease		635
	\$ 15,314	\$ 15,701

Cost	Dec	ember 31, 2016	Additions	Disposals	Transfers	 Effect of exchange rates	Dec	cember 31, 2017
Building under finance lease	\$	12,180	\$ _	\$ _	\$ _	\$ _	\$	12,180
Computer equipment		4,607	390	(169)	(54)	13		4,787
Furniture and fixtures		1,163	32	(17)	_	12		1,190
Leasehold improvements		8,794	7	(594)	_	39		8,246
Production and test equipment		33,053	2,639	(809)	1,532	16		36,431
Production and test equipment under		2,078	_	_	(2,078)	_		_
finance lease								
	\$	61,875	\$ 3,068	\$ (1,589)	\$ (600)	\$ 80	\$	62,834

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9. Property, plant and equipment (cont'd):

Accumulated depreciation and impairment loss	Decembe	er 31, 2016	Deprecia	ation	lm	pairment loss	Disposals	Transfe	rs	Effect of movements in exchange rates	December 31, 2017
Building under finance lease	\$ 5	5,549	\$	812	\$	_	\$ _	\$		\$ —	\$ 6,361
Computer equipment	3	3,558		365		_	(169)		_	13	3,767
Furniture and fixtures		978		62		_	(17)		_	12	1,035
Leasehold improvements	6	6,606		566		_	(594)		_	44	6,622
Production and test equipment	28	8,040	1	,366		284	(809)	8	43	11	29,735
Production and test equipment	1	1,443		_		_	_	(1,4	43)	_	_
under finance lease											
	\$ 46	6,174	\$ 3	,171	\$	284	\$ (1,589)	\$ (6	00)	\$ 80	\$ 47,520

Transfers in 2016 related to the buy-out of certain leased production and test equipment which were transferred back into property, plant, and equipment.

Cost	Dec	ember 31, 2015	Additions	Disposals	Transfers	Effect of overnents exchange rates	Dec	cember 31, 2016
Building under finance lease	\$	12,180	\$ _	\$ _	\$ _	\$ _	\$	12,180
Computer equipment		5,133	566	(1,090)	_	(2)		4,607
Furniture and fixtures		891	20	(63)	317	(2)		1,163
Furniture and fixtures under		317	_	_	(317)	_		_
finance lease								
Leasehold improvements		9,079	89	(366)	_	(8)		8,794
Production and test equipment		31,182	2,103	(1,623)	1,393	(2)		33,053
Production and test equipment		3,667	_	(196)	(1,393)	_		2,078
under finance lease								
	\$	62,449	\$ 2,778	\$ (3,338)	\$ _	\$ (14)	\$	61,875

Accumulated depreciation and impairment loss	December 31, 2015	Depreciation	Impairment loss	Disposals	Transfers	Effect of movements in exchange rates	December 31, 2016
Building under finance lease	4,737	812	_	_	_	_	\$ 5,549
Computer equipment	4,307	329	14	(1,090)	_	(2)	3,558
Furniture and fixtures	662	62	3	(64)	317	(2)	978
Furniture and fixtures under finance lease	291	26	_	_	(317)	_	_
Leasehold improvements	6,338	617	24	(365)	_	(8)	6,606
Production and test equipment	26,676	1,231	340	(1,598)	1,393	(2)	28,040
Production and test equipment	2,713	319	_	(196)	(1,393)	_	1,443
under finance lease							
	\$ 45,724	\$ 3,396	\$ 381	\$ (3,313)	\$ —	\$ (14)	\$ 46,174

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9. Property, plant and equipment (cont'd):

Leased assets

The Corporation leases certain assets under finance lease agreements including the Corporation's head office building in Burnaby, British Columbia and certain machinery (note 16).

Impairment loss

The Corporation recorded an impairment loss on property, plant and equipment of \$284,000 in 2017 related to the write-off of certain Protonex assets to their estimated net realizable value of \$50,000 (note 27).

The Corporation recorded an impairment loss on property, plant and equipment of \$381,000 in 2016 related to the write-off of certain methanol Telecom Backup Power assets to their estimated net realizable value of \$nil (note 27).

10. Intangible assets:

	December 31, 2017	December 31, 2016
Intellectual property acquired from UTC	\$ 1,864	\$ 2,311
Intellectual property acquired from H2 Logic A/S	129	215
Intellectual property acquired from Protonex	8,507	10,331
Internally generated fuel cell intangible assets	1,690	2,182
ERP management reporting software system	5,738	3,015
Intellectual property acquired by Ballard Power Systems Europe	22	29
	\$ 17,950	\$ 18,083

Intangible assets		Accumulated	Net carrying
Balance	Cost	amortization	amount
At January 1, 2016	\$ 62,068	\$ 45,739	\$ 16,329
Additions to and acquisition of intangible assets	4,103	_	4,103
Amortization expense	_	1,579	(1,579)
Impairment charges (note 27)	_	770	(770)
At December 31, 2016	66,171	48,088	18,083
Additions to and acquisition of intangible assets	3,376	_	3,376
Amortization expense	_	2,309	(2,309)
Impairment charges (note 27)	_	1,200	(1,200)
At December 31, 2017	\$ 69,547	\$ 51,597	\$ 17,950

Amortization expense on intangible assets is allocated to research and product development expense or general and administration expense depending upon the nature of the underlying assets. In 2017, amortization of \$2,309,000 (2016 - \$1,579,000) was recorded.

During the year ended December 31, 2017, impairment charges of \$1,200,000 were also recorded to write-off certain Protonex patents and customer lists to their net realizable value of \$nil (note 27).

During the year ended December 31, 2016, impairment charges of \$770,000 were recorded to write-off intellectual property acquired from Idatech, LLC in 2012 to its net realizable value of \$nil (note 27).

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10. Intangible assets (cont'd):

ERP Management Reporting Software System

During 2016, the Corporation commenced with the replacement of its incumbent financial and other resource systems with a fully integrated Enterprise Resource Planning (ERP) management reporting software system. The implementation of this company-wide, cloud-based ERP system is designed to provide the Corporation with enhanced reporting capabilities. The Corporation has assessed its expenditure on the ERP acquisition and implementation to be intangible assets. During 2017, development expenditures of \$3,376,000 (2016 - \$3,015,000) have been capitalized as intangible assets. No further costs are expected to be capitalized. Amortization of ERP implementation costs commenced in 2017 over their expected useful life of seven years which aligns to the expected frequency of major release ERP system updates. During the year ended December 31, 2017, amortization expense of \$652,000 (2016 - \$nil) related to the ERP implementation was recorded.

Internally Generated Fuel Cell Intangible Assets

In 2016, the Corporation completed development of two new configurations of its fuel cell module for heavy-duty motive applications which are typically used to power large urban transit buses. The two new product configurations are designed to deliver net power of 30kW and 60kW, respectively, to power smaller buses and to provide range extension solutions. The Corporation has assessed its development expenditure on these product configurations to be internally generated intangible assets. During 2017, total development expenditures of \$nil (2016 - \$1,053,000) have been capitalized at cost. The estimated useful life has been assessed as five years. In 2017, amortization of \$491,000 (2016 -\$253,000) was recorded on these assets.

Sale of Intellectual Property to Volkswagen

On December 2, 2015, the Corporation sold a copy of the automotive-related know-how of the UTC Portfolio to Volkswagen. The net proceeds on sale of \$9,244,000 were collected during 2016.

11. Goodwill:

For the purpose of impairment testing, goodwill is allocated to the Corporation's cash-generating units which represent the lowest level within the Corporation at which the goodwill is monitored for internal management purposes, which is not higher than the Corporation's operating segments (note 31).

Fuel Cell Products and Services

As of December 31, 2017, the aggregate carrying amount of the Corporation's goodwill is \$40,562,000 (2016 - \$40,562,000).

The impairment testing 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.

The Corporation's fair value test is a modified market capitalization assessment, whereby the fair value of the Fuel Cell Products and Services segment is determined by first calculating the value of the Corporation at December 31, 2017 based on the average closing share price in the month of December, adding a reasonable estimated control premium to determine the Corporation's enterprise value on a controlling basis after adjusting for excess cash balances, and deducting the estimated costs to sell from this enterprise value, arriving at the fair value of the Fuel Cell Products and Services segment. Based on the fair value test, the Corporation has determined that the fair value of the Fuel Cell Products and Services segment exceeds its carrying value as of December 31, 2017.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

11. Goodwill (cont'd):

In addition to the fair value test, the Corporation also performed a value in use test on the Fuel Cell Products and Services segment, comparing 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 the 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. The Corporation's value in use test was based on a WACC of 15%; an average estimated compound annual growth rate of approximately 19% from 2018 to 2022; and a terminal year earnings before interest, taxes, depreciation and amortization ("EBITDA") multiplied by a terminal value multiplier of 10. The value in use assessment resulted in an estimated fair value for the Fuel Cell Products and Services segment that is consistent with the conclusion determined under the fair value, less costs to sell, assessment.

As the recoverable amount of the Fuel Cell Products and Services segment was determined to be greater than its carrying amount, zero impairment loss was recorded in 2017 or 2016.

12. Investments:

	December 31, 2017	December 31, 2016
Investment in Synergy JVCo (note 4)	\$ 676	\$ 1,185
Other	5	6
	\$ 681	\$ 1,191

Investment in Synergy JVCo	Dece	ember 31, 2017	December 31, 2016
Beginning balance	\$	1,185	\$ _
Capital contribution to JV		_	1,005
Incorporation costs		_	180
Adjustment for actual cash contributed to JV		(34)	_
Elimination of 10% profit on MEAs not yet sold or consumed		(676)	_
Equity in earnings for 2017		201	_
	\$	676	\$ 1,185

13. Bank facilities:

The Corporation has certain bank facilities available to it, which are secured by a hypothecation of the Corporation's cash and cash equivalents.

Bank Operating Line

The Corporation has a demand revolving facility ("Bank Operating Line") in which an operating line of credit of up to CDN \$7,000,000 is made available to be drawn upon by the Corporation. The Bank Operating Line can be utilized to assist in financing the day-to-day operating activities and short-term working capital requirements of the business. Outstanding amounts are charged interest at the bank's prime rate minus 0.50% per annum and are repayable on demand by the bank.

There was no activity under the Bank Operating Line in 2017, and there were no outstanding amounts payable on the Bank Operating Line as of December 31, 2017 and 2016.

Notes to Consolidated Financial Statements Years ended December 31, 2017, and 2016

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13. Bank facilities (cont'd):

Leasing Facility

The Corporation also has a CDN \$1,830,770 capital leasing facility ("Leasing Facility") which can be utilized to finance the acquisition and lease of operating equipment. Interest is charged on outstanding amounts at the bank's prime rate per annum and is repayable on demand by the bank in the event of certain conditions.

At December 31, 2017, \$nil (2016 - a nominal amount) was outstanding on the Leasing Facility which is included in the finance lease liability (note 16).

Forward Contract Facility

The Corporation also has a CDN \$5,000,000 demand revolving line ("Forward Contract Facility") and a CDN \$20,000,000 credit facility ("EncoreFX Facility"), which are both available for use when the Corporation purchases forward foreign exchange contracts or forward platinum contracts used to hedge against currency and platinum price fluctuations, respectively.

Periodically, the Corporation uses forward foreign exchange and forward platinum purchase contracts to manage exposure to currency rate fluctuations and platinum price fluctuations. These contracts are recorded at their fair value as either assets or liabilities on the balance sheet. Any changes in fair value are either (i) recorded in the statement of comprehensive income if formally designated and qualified under hedge accounting criteria; or (ii) recorded in the statement of operations if either not designated, or not qualified, under hedge accounting criteria.

At December 31, 2017, the Corporation had outstanding foreign exchange currency contracts to purchase a total of CDN \$12,000,000 (2016 – CDN \$10,750,000) at an average rate of 1.28 CDN per U.S. dollar, resulting in an unrealized gain of CDN \$243,000 at December 31, 2017 (2016 – unrealized gain of CDN \$220,000). The outstanding foreign exchange currency contracts are not qualified under hedge accounting.

14. Trade and other payables:

	December 31, 2017	December 31, 2016
Trade accounts payable	\$ 13,181	\$ 5,970
Compensation payable	9,209	8,056
Other liabilities	2,491	3,464
Taxes payable	362	277
	\$ 25,243	\$ 17,767

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15. Provisions and Other:

-	Re	structuring	Warranty		
Balance		provision	provision	Other	Total
At January 1, 2015	\$	7	\$ 5,361	\$ 3,646	\$ 9,014
Provisions made during the year		2,323	2,109	106	4,538
Provisions used/paid during the year		(1,501)	(3,246)	_	(4,747)
Provisions reversed during the year		(7)	(1,533)	_	(1,540)
Effect of movements in exchange rates		(9)	64	112	167
At December 31, 2016		813	2,755	3,864	7,432
Provisions made during the year		912	4,540	111	5,563
Provisions used/paid during the year		(1,424)	(905)	_	(2,329)
Provisions reversed during the year		(81)	(1,198)	_	(1,279)
Effect of movements in exchange rates		28	7	278	313
At December 31, 2017	\$	248	\$ 5,199	\$ 4,253	\$ 9,700
At December 31, 2016					
Current	\$	813	\$ 2,755	\$ _	\$ 3,568
Non-current		_	_	3,864	3,864
	\$	813	\$ 2,755	\$ 3,864	\$ 7,432
At December 31, 2017					
Current	\$	248	\$ 5,199	\$ _	\$ 5,447
Non-current		_	_	4,253	4,253
	\$	248	\$ 5,199	\$ 4,253	\$ 9,700

Restructuring Provision

During 2017, restructuring charges relate primarily to a leadership change in sales and marketing, combined with cost reduction initiatives in the general and administration function and by cost reduction initiatives at Protonex.

During 2016, restructuring charges related 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 the operating cost base associated with methanol Telecom Backup Power activities while the Corporation reviewed strategic alternatives for these assets prior to the sale of certain of its methanol Telecom Back-up Power business assets to Chung-Hsin Electric & Machinery Manufacturing Corporation ("CHEM"), a Taiwanese power equipment company in June 2016 (note 26).

Warranty provision

The Corporation recorded \$4,540,000 (2016 - \$2,109,000) of warranty provisions of which \$4,057,000 (2016 - \$1,132,000) related to new product sales and \$483,000 (2016 - \$977,000) related to upward warranty adjustments. This was offset by warranty expenditures of \$905,000 (2016 - \$3,246,000) and downward warranty adjustments of \$1,198,000 (2016 - \$1,533,000), due primarily to contractual expirations and changes in estimated and actual costs to repair. The remaining \$7,000 (2016 - \$64,000) reduction to the warranty provision related to the effect of movements in exchange rates.

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15. Provisions and Other (cont'd):

Other: Decommissioning liabilities

Provisions for decommissioning liabilities have been recorded for the Corporation's two leased locations in Burnaby, British Columbia, comprising the Corporation's head office building and manufacturing facilities, and are related to estimated site restoration obligations at the end of their respective lease terms. The Corporation has made certain modifications to the leased buildings to facilitate the manufacturing and testing of its fuel cell products. Consequently, the site restoration obligations relate primarily to dismantling and removing various manufacturing and test equipment and restoring the infrastructures of the leased buildings to their original states of when the respective leases were entered into.

Due to the long-term nature of the liability, the most significant uncertainty in estimating the provision is the costs that will be incurred. The Corporation has determined a range of reasonably possible outcomes of the total costs for the head office building and manufacturing facility. In determining the fair value of the decommissioning liabilities, the estimated future cash flows have been discounted at 2.26% per annum (2016 - 2.31%).

The Corporation performed an assessment of the estimated cash flows required to settle the obligations for the two buildings as of December 31, 2017. Based on the assessment, the changes in the estimated cash flows were determined to be nominal and as a result, no adjustment was recorded. The increase in the provision during 2017 was due to accretion costs of \$111,000 (2016 - \$106,000). The total undiscounted amount of the estimated cash flows required to settle the obligation for one of the buildings is \$1,773,000 (2016 - \$1,655,000) which is expected to be settled at the end of the lease term in 2025.

Other: Lease inducement

Alease extension and modification agreement was signed in December 2017 for the second building that eliminated the decommissioning liability at the end of the new 10 year lease term. The contractual elimination of the decommissioning liability of \$2,768,000 for the second building will be treated as a lease inducement and deferred and amortized on a straight-line basis over the amended 10 year lease term, commencing January 2018.

The net discounted amount of estimated cash flows required to settle the obligations for both buildings is \$4,253,000 as at December 31, 2017 (2016 - \$3,864,000), of which \$1,485,000 is the remaining obligation after 2017.

16. Finance lease liability:

The Corporation leases certain assets under finance lease agreements. The finance leases have imputed interest rates ranging from 4.2% to 7.35% per annum and expire between May 2021 and February 2025.

Finance lease liabilities are payable as follows:

	Future minimum	l		sent value of nimum lease
At December 31, 2017	lease payments	;	Interest	payments
Less than one year	\$ 1,127	\$	475	\$ 652
Between one and five years	4,992	2	1,323	3,669
More than five years	2,774	ļ	214	2,560
	\$ 8,893	\$ \$	2,012	\$ 6,881
Current				\$ 652
Non-current				6,229
				\$ 6,881

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16. Finance lease liability (cont'd):

	Future minimu	n		sent value of nimum lease
At December 31, 2016	lease paymen	s	Interest	payments
Less than one year	\$ 1,05	5 \$	486	\$ 569
Between one and five years	4,52	4	1,468	3,056
More than five years	3,78	3	411	3,372
	\$ 9,36	2 \$	2,365	\$ 6,997
Current				\$ 569
Non-current				6,428
				\$ 6,997

The finance lease liability consists primarily of the lease of the Corporation's head office building of \$6,829,000 (2016 - \$6,930,000) and machinery leased by its subsidiary, Protonex of \$52,000 (2016 - \$67,000).

Deferred gains were also recorded on closing of the finance lease agreements and are amortized over the finance lease term. At December 31, 2017, the outstanding deferred gain was \$2,982,000 (2016 – \$3,398,000).

17. Ballard Power Systems Europe A/S non-controlling interests:

On January 5, 2017, the Corporation purchased all of the shares in its European subsidiary held by Dansk Industri Invest A/S (previously Dantherm Air Handling A/S) for a nominal amount. As a result, the Corporation now owns 100% of it subsidiary in Europe, BPSE (formerly Dantherm Power A/S) effective January 5, 2017. The Corporation previously held 57% of the shares in BPSE before purchasing the remaining 43% of shares from Dansk Industri Invest A/S.

The Corporation acquired the remaining shares and obtained the cancellation of debt of \$521,000 owed by BPSE to Dansk Industri Invest A/S for \$47,000. The cancellation of debt and the removal of non-controlling interests were recorded as equity transactions resulting in a net increase of \$480,000 to equity. There was no impact on the Corporation's consolidated statement of loss and other comprehensive loss.

18. Employee future benefits:

	D	ecember 31, 2017	December 31, 2016
Net defined benefit pension plan liability	\$	4,794	\$ 4,971
Net other post-retirement benefit plan liability		120	196
Employee future benefits	\$	4,914	\$ 5,167

The Corporation maintains a defined benefit pension plan covering existing and former employees in the United States. The benefits under the pension plan are based on years of service and salary levels accrued as of December 31, 2009. In 2009, amendments were made to the defined benefit pension plan to freeze benefits accruing to employees at their respective years of service and salary levels obtained as of December 31, 2009. Certain employees in the United States are also eligible for post-retirement healthcare, life insurance, and other benefits.

The Corporation accrues the present value of its obligations under employee future benefit plans and related costs, net of the present value of plan assets.

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18. Employee future benefits (cont'd):

The measurement date used to determine pension and other post-retirement benefit obligations and expense is December 31 of each year. The most recent actuarial valuation of the employee future benefit plans for funding purposes was as of January 1, 2017. The next actuarial valuation of the employee future benefit plans for funding purposes is expected to be performed as of January 1, 2018.

The Corporation expects contributions of approximately \$600,000 to be paid to its defined benefit plans in 2018.

The following tables reconcile the opening balances to the closing balances for the net defined benefit liability and its components for the two plans. The expense recognized in profit or loss is recorded in finance income (loss) and other.

	Defined be	nefit d	obligation	Fair value of	plan assets	Net defined	benefit liability
Defined benefit pension plan	2017		2016	2017	2016	2017	2016
Balance at January 1	\$ 16,253	\$	15,579	\$ (11,282)	(10,463)	\$ 4,971	\$ 5,116
Included in profit or loss							
Current service cost	32		42	_	_	32	42
Interest cost (income)	658		678	(464)	(465)	194	213
Benefits payable	_		_	_	_	_	_
	690		720	(464)	(465)	226	255
Included in other comprehensive income							
Remeasurements loss (gain):							
Actuarial loss (gain) arising from:							
Demographic assumptions	(99)		(186)	_	_	(99)	(186)
Financial assumptions	1,300		715	_	_	1,300	715
Experience adjustment	111		13	_	_	111	13
Return on plan assets excluding interest	_		_	(1,055)	(182)	(1,055)	(182)
income							
Plan expenses	(55)		(30)	55	30	_	_
	1,257		512	(1,000)	(152)	257	360
Other							
Contributions paid by the employer	_		_	(660)	(760)	(660)	(760)
Benefits paid	(597)		(558)	597	558	_	_
	(597)		(558)	(63)	(202)	(660)	(760
Balance at December 31	\$ 17,603	\$	16,253	\$ (12,809)	(11,282)	\$ 4,794	\$ 4,971

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18. Employee future benefits (cont'd):

	D	efined ber	nefit d	bligation	Fair value of p	lan assets	N	let defined b	enefit liabilit	ity
Other post-retirement benefit plan		2017		2016	2017	2016		2017	201	16
Balance at January 1	\$	196	\$	215	\$ - \$	_	\$	196	\$ 21	15
Included in profit or loss										
Interest cost (income)		4		8	_	_		4		8
		4		8	_	_		4		8
Included in other comprehensive income										_
Remeasurements loss (gain):										
Actuarial loss (gain) arising from:										
Demographic assumptions		(1)		_	_	_		(1)	-	_
Financial assumptions		3		1	_	_		3		1
Experience adjustment		(53)		_	_	_		(53)	-	_
		(51)		1	_	_	\$	(51)	\$	1
Other										
Contributions paid by the employer		_		_	(29)	(28)		(29)	(2	28)
Benefits paid		(29)		(28)	29	28		_	-	_
		(29)		(28)	_	_		(29)	(2	28)
Balance at December 31	\$	120	\$	196	\$ — \$	_	\$	120	\$ 19	96

Included in other comprehensive income (loss)	December 2	31, 017	December 31, 2016
Defined benefit pension plan actuarial gain (loss)	\$ (257)	\$ (360)
Other post-retirement benefit plan actuarial gain (loss)		51	(1)
	\$ (206)	\$ (361)

Pension plan assets comprise:

	2017	2016
Cash and cash equivalents	3%	2%
Equity securities	60%	61%
Debt securities	37%	37%
Total	100%	100%

The significant actuarial assumptions adopted in measuring the fair value of benefit obligations at December 31 were as follows:

		2017		2016
	Pension plan	Other benefit plan	Pension plan	Other benefit plan
Discount rate	3.60%	3.27%	4.13%	3.69%
Rate of compensation increase	n/a	n/a	n/a	n/a

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

18. Employee future benefits (cont'd):

The significant actuarial assumptions adopted in determining net expense for the years ended December 31 were as follows:

		2017		2016
	Pension plan	Other benefit plan	Pension plan	Other benefit plan
Discount rate	4.13%	3.69%	4.44%	3.89%
Rate of compensation increase	n/a	n/a	n/a	n/a

The assumed health care cost trend rates applicable to the other post-retirement benefit plan at December 31 were as follows:

	2017	2016
Initial medical/dental health care cost trend rate	8.0%	8.0%
Cost trend rate declines to medical and dental	5.0%	5.0%
Year that the medical rate reaches the rate it is assumed to remain at	2022	2021
Year that the dental rate reaches the rate it is assumed to remain at	2017	2016

A one-percentage-point change in assumed health care cost trend rates would not have a material impact on the Corporation's financial statements.

19. Equity:

Share-based Compensation	December 31, 2017	December 31, 2016
Option Expense	\$ 1,245	\$ 1,414
DSU Expense	679	300
RSU Expense	1,201	1,310
	\$ 3,125	\$ 3,024

(a) Share capital:

Authorized and issued:

Unlimited number of common shares, voting, without par value.

Unlimited number of preferred shares, issuable in series.

Private placement:

On August 18, 2016, the Corporation closed a private placement strategic equity investment with Zhongshan Broad-Ocean Motor Company Limited ("Broad Ocean") of 17,250,000 common shares issued from treasury at \$1.64083 per share for gross proceeds of \$28,304,000.

Gross Broad-Ocean Offering proceeds (17,250,000 shares at \$1.64083 per share)	\$ 28,304
Less: Share issuance costs	(105)
Net Broad-Ocean Offering proceeds	\$ 28,199

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

19. Equity (cont'd):

(b) Share Purchase Warrants:

	Exercise p	rice of	Exercise price of	of Total
Warrants Outstanding	\$	1.50	\$ 2.0	0 Warrants
At January 1, 2016	1:	22,563	1,675,00	0 1,797,563
Warrants exercised in 2016		_	_	
At December 31, 2016	1:	22,563	1,675,00	0 1,797,563
Warrants exercised in 2017		_	(1,012,50	0) (1,012,500)
At December 31, 2017	1:	22,563	662,50	0 785,063

During 2017, 1,012,500 warrants were exercised for an equal amount of common shares for net proceeds of \$2,025,000. During 2016, nil warrants were exercised.

At December 31, 2017, 785,063 share purchase warrants were issued and outstanding (2016 – 1,797,563).

(c) Share options:

The Corporation has options outstanding under a consolidated share option plan. All directors, officers and employees of the Corporation, and its subsidiaries, are eligible to participate in the share option plans although as a matter of policy, options are currently not issued to directors. Option exercise prices are denominated in either Canadian or U.S. dollars, depending on the residency of the recipient. Canadian dollar denominated options have been converted to U.S. dollars using the year-end exchange rate for presentation purposes.

All options have a term of seven years from the date of grant unless otherwise determined by the board of directors. One-third of the options vest and may be exercised, at the beginning of each of the second, third, and fourth years after granting.

As at December 31, options outstanding from the consolidated share option plan were as follows:

Balance		ghted average exercise price	
At January 1, 2016	5,505,500 \$	2.10	
Options granted	1,363,315	1.34	
Options exercised	(443,589)	1.12	
Options forfeited	(583,827)	2.63	
Options expired	(303,670)	4.77	
At December 31, 2016	5,537,729	1.84	
Options granted	1,498,776	2.21	
Options exercised	(1,820,193)	1.99	
Options forfeited	(277,839)	1.91	
Options expired	(110,300)	2.31	
At December 31, 2017	4,828,173 \$	2.01	

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Years ended December 31, 2017, and 2016

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19. Equity (cont'd):

(c) Share options (cont'd):

The following table summarizes information about the Corporation's share options outstanding as at December 31, 2017:

	(Options outstanding			Options exercisable		
	Number	Weighted average remaining contractual life		Weighted average exercise	Number		Weighted average
Range of exercise price	outstanding	(years)		price	exercisable	ex	ercise price
\$0.83 - \$1.00	270,835	2.1	\$	0.97	270,835	\$	0.97
\$1.19 – \$1.68	1,454,715	4.4		1.40	609,291		1.41
\$2.00 - \$2.38	2,532,600	5.2		2.24	785,869		2.37
\$2.97 – \$3.45	570,023	3.9		3.09	441,947		3.00
	4,828,173	4.6	\$	2.01	2,107,942	\$	2.04

During 2017, 1,820,193 options were exercised for an equal amount of common shares for proceeds of \$3,598,000. During 2016, net 435,287 options were exercised for an equal amount of common shares for net proceeds of \$496,000, comprised of gross proceeds from 443,589 share option exercises of \$508,000 partially offset by payment for 8,302 cancelled shares of \$12,000.

During 2017, options to purchase 1,498,776 common shares were granted with a weighted average fair value of \$1.09 (2016 – 1,363,315 options and \$0.75 fair value). The granted options vest annually over three years.

The fair values of the options granted were determined using the Black-Scholes valuation model under the following weighted average assumptions:

	2017	2016
Expected life	4 years	4 years
Expected dividends	Nil	Nil
Expected volatility	70%	77%
Risk-free interest rate	1%	1%

As at December 31, 2017, options to purchase 4,828,173 common shares were outstanding (2016 - 5,537,729). During 2017, compensation expense of 1,245,000 (2016 - 1,414,000) was recorded in net loss based on the grant date fair value of the awards recognized over the vesting period.

(d) Share distribution plan:

The Corporation has a consolidated share distribution plan that permits the issuance of common shares for no cash consideration to employees of the Corporation to recognize their past contribution and to encourage future contribution to the Corporation. At December 31, 2017, there were 11,617,902 (2016 – 10,553,115) shares available to be issued under this plan.

During 2016 and 2017, no shares were issued under this plan and therefore no compensation expense was recorded against income.

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19. Equity (cont'd):

(e) Deferred share units:

Deferred share units ("DSUs") are granted to the board of directors and executives. Eligible directors may elect to receive all or part of their annual retainers and executives may elect to receive all or part of their annual bonuses in DSUs. Each DSU is redeemable for one common share in the capital of the Corporation after the director or executive ceases to provide services to the Corporation. Shares will be issued from the Corporation's share distribution plan.

Balance	DSUs for common shares
At January 1, 2016	917,625
DSUs granted	481,095
DSUs exercised	(273,470)
At December 31, 2016	1,125,250
DSUs granted	87,682
DSUs exercised	(347,588)
At December 31, 2017	865,344

During 2017, \$679,000 (2016 - \$300,000) of compensation expense was recorded in net loss, of which \$299,000 (2016 - \$300,000) related to DSUs granted during the year. The remaining \$380,000 (2016 - \$nil) related to compensation expense expected to be earned for DSUs not yet issued.

During 2017, 347,588 DSUs (2016 - 273,470) were exercised which resulted in the issuance of 181,788 common shares (2016 - 146,211).

As at December 31, 2017, 865,344 deferred share units were outstanding (2016 – 1,125,250).

(f) Restricted share units:

Restricted share units ("RSUs") are granted to employees and executives. Each RSU is convertible into one common share. The RSUs vest after a specified number of years from the date of issuance, and under certain circumstances, are contingent on achieving specified performance criteria. A performance factor adjustment is made if there is an over-achievement of specified performance criteria, resulting in additional RSUs being converted.

The Corporation has two plans under which RSUs may be granted, the consolidated share distribution plan and the market purchase RSU plan. Awards under the consolidated share distribution plan (note 20(d)) are satisfied by the issuance of treasury shares on maturity. Awards granted under the market purchase RSU Plan are satisfied by shares purchased on the open market by a trust established for that purpose. No common shares were repurchased in 2017 and 2016.

	RSUs for common shares
At January 1, 2016	1,708,626
RSUs granted	820,247
RSUs exercised	(143,126)
RSUs forfeited	(912,339)
At December 31, 2016	1,473,408
RSUs granted	735,978
RSU performance factor adjustment	186,083
RSUs exercised	(560,677)
RSUs forfeited	(160,155)
At December 31, 2017	1,674,637

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

19. Equity (cont'd):

(f) Restricted share units (cont'd):

During 2017, 735,978 RSUs were issued (2016 – 820,247). The fair value of RSU grants is measured based on the stock price of the shares underlying the RSU on the date of grant. During 2017, compensation expense of \$1,201,000 (2016 - \$1,310,000) was recorded in net loss.

During 2017, 560,677 RSUs (2016 - 143,126) were exercised which resulted in the issuance of 298,556 common shares (2016 - 80,945).

As at December 31, 2017, 1,674,637 RSUs were outstanding (2016 – 1,473,408).

20. Non-dilutive equity financing:

In 2015, an agreement was reached and the Corporation signed mutual releases with Superior Plus Income Fund ("Superior Plus") as to the full and final amount payable to the Corporation under the indemnification agreement ("the Indemnity Agreement"), originally signed in 2008, and received additional cash proceeds of \$3,347,000 in February 2016. The cash proceeds receivable were recorded as a credit to shareholders' equity as of December 31, 2015 consistent with the accounting for the original transaction in 2008. The cash proceeds collected in February 2016 are presented as non-dilutive financing in the 2016 statement of cash flows. An over-accrual of legal fees related to this transaction was reversed in December 2017, resulting in a nominal credit of \$12,000 to shareholders' equity.

21. Operating leases:

In addition to other minor operating leases, the Corporation leases a facility at its Burnaby, Canada location (which has been assessed as an operating lease). This facility had a lease term expiring in 2019 which was extended to 2027 under a lease extension and modification agreement signed in December 2017. During 2017, lease payments of \$2,107,000 relating to this lease were expensed (2016 - \$2,063,000).

At December 31, 2017, the Corporation is committed to payments under all operating leases as follows:

Less than 1 year	\$ 2,459
1-3 years	4,698
4-5 years	4,236
Thereafter	10,624
Total minimum lease payments	\$ 22,017

22. Commitments and contingencies:

In connection with the acquisition of intellectual property from UTC in April 2014, the Corporation retains a royalty obligation to pay UTC a portion (typically 25%) of any future intellectual property sale and licensing income generated from the intellectual property portfolio acquired from UTC for a period of 15 years expiring in April 2029.

The Corporation retains a previous funding obligation to pay royalties of 2% of revenues, to a maximum of \$4,613,000 (CDN \$5,351,000), on sales of certain fuel cell products for commercial distributed utility applications. As of December 31, 2017, no royalties have been incurred to date for this agreement.

The Corporation also retains a previous funding obligation to pay royalties of 2% of revenues, to a maximum of \$1,896,000 (CDN \$2,200,000), on sales of certain fuel cell products for commercial transit applications. As of December 31, 2017, no royalties have been incurred to date for this agreement.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

22. Commitments and contingencies (cont'd):

At December 31, 2017, the Corporation has outstanding commitments aggregating up to a maximum of \$3,049,000 (2016 - \$3,863,000) relating primarily to purchases of property, plant and equipment.

In January and February 2018, certain related class action complaints were filed in U.S. Federal Court alleging violations of U.S. federal securities laws. Neither complaint has been served on the Corporation. The Corporation will vigorously contest, and defend against, the complaints and believes the complaints are without merit.

23. Personnel expenses:

Personnel expenses are included in cost of product and service revenues, research and product development expense, general and administrative expense, sales and marketing expense, and other expense.

	December 31, 2017	December 31, 2016
Salaries and employee benefits	\$ 63,991	\$ 57,735
Share-based compensation (note 19)	3,125	3,024
	\$ 67,116	\$ 60,759

24. Other operating expense:

	December 31 201		December 31, 2016
Net impairment loss (recovery) on trade receivables	\$ 10	3 \$	(63)
Restructuring costs	79	9	2,318
Acquisition costs	_	_	43
	\$ 90.	2 \$	2,298

In 2017, the Corporation recorded net impairment losses of \$103,000 (2016 - net impairment recoveries of \$63,000) primarily due to impairment of a holdback amount on a 2016 shipment that remained uncollected.

In the event that the Corporation recovers any amounts previously recorded as impairment losses, the recovered amount will be recognized as a reversal of the impairment loss in the period of recovery.

During 2017, restructuring charges of \$799,000 relate primarily to a leadership change in sales and marketing, combined with cost reduction initiatives in the general and administrative function and by cost reduction initiatives at Protonex.

Restructuring charges of \$2,318,000 incurred during 2016 related to cost reduction initiatives that included the elimination of approximately 50 positions including the elimination of three executive level positions and costs associated with the closure of the contract manufacturing facility in Tijuana, Mexico. These cost reduction initiatives were primarily focused on reducing the operating cost base associated with methanol Telecom Backup Power activities while the Corporation reviewed strategic alternatives for these assets prior to the sale of certain of is methanol Telecom Backup Power business assets to CHEM in June 2016 (note 26).

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

25. Finance income and expense:

	2017	2016
Employee future benefit plan expense (note 18)	\$ (230)	\$ (263)
Pension administration expense	(118)	(103)
Investment and other income	417	164
Other income (loss)	19	(52)
Foreign exchange gain (loss)	1,692	(523)
Finance income (loss) and other	\$ 1,780	\$ (777)
Finance expense	\$ (732)	\$ (686)

26. Loss on sale of assets:

		2017	2016
Loss on sale of assets to Upstart Power	\$	(508)	\$ _
Loss on sale of assets to CHEM		(866)	(632)
Gain on miscellaneous disposals		9	9
	\$	(1,365)	\$ (623)
	1	2017	2016
Proceeds received on sale of assets to CHEM	\$	972	\$ 3,000
Proceeds from miscellaneous disposals		9	9
	\$	981	\$ 3,009

During the year ended December 31, 2017, the Corporation performed a strategic review of its subsidiary, Protonex, specifically its Solid Oxide Fuel Cells ("SOFC") business. It was determined that these assets were not core to Ballard's proton exchange membrane (PEM) fuel cell business, and the Corporation decided to divest these noncore assets. As a result, certain SOFC assets were transferred to a private start-up company, Upstart Power Inc. ("Upstart"), effective December 31, 2017 for nominal consideration, resulting in a loss on sale of assets of \$508,000.

During the year ended December 31, 2016, the Corporation completed the sale of certain of its methanol Telecom Backup Power business assets to CHEM, a Taiwanese power equipment company, for a purchase price of up to \$6,100,000 of which \$3,000,000 was received on closing. The remaining potential purchase price of up to \$3,100,000 consisted of an earn-out arising from sales of methanol Telecom Backup Power systems by CHEM during the 18-month earn-out period to November 2017 derived from the sales pipeline transferred to CHEM on closing. During the year ended December 31, 2016, the Corporation recorded a loss on sale of these assets of \$632,000 based on the estimated fair value of the earn-out payments of approximately \$1,838,000. On the closing of this transaction, CHEM received assets related to the methanol Telecom Backup Power line of the business including intellectual property rights and physical assets such as inventory and related product brands.

Of the original potential proceeds receivable of \$1,838,000, \$972,000 was collected in cash by the Corporation from CHEM in 2017. During the year ended December 31, 2017, the Corporation recorded an additional loss on sale of assets of \$866,000 as the remaining potential purchase price was written down to its revised estimated fair value of \$nil. The final loss on sale arising from the CHEM transaction totaled \$1,498,000.

Notes to Consolidated Financial Statements

Years ended December 31, 2017, and 2016

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26. Loss on sale of assets (cont'd):

Cash proceeds received in 2016	\$ 3,000
Proceeds receivable (fair value of earn-out payments)	1,838
Total proceeds	4,838
Less: Disposition costs	(88)
Net proceeds	4,750
Less: Net book value of disposed assets	(5,382)
Loss on sale of assets in 2016	\$ (632)
Cash proceeds received in 2017	\$ 972
Less: Fair value of earn-out payments receivable	(1,838)
Loss on sale of assets in 2017	\$ (866)

27. Impairment charges on intangible assets and property, plant and equipment:

During the year ended December 31, 2017, the Corporation recorded total impairment losses of \$1,484,000 consisting of a \$1,200,000 impairment charge on intangible assets and a \$284,000 impairment charge on property, plant, and equipment as the Corporation wrote-off certain SOFC assets to their estimated net realizable value of \$50,000. The impairment charges were incurred as a result of the Corporation's divestiture of its SOFC assets to Upstart Power (note 26).

During the year ended December 31, 2016, the Corporation recorded total impairment losses of \$1,151,000, consisting of a \$770,000 impairment charge on intangible assets and a \$381,000 impairment charge on property, plant and equipment as the Corporation wrote-off certain methanol Telecom Backup Power assets to their estimated net realizable value of \$nil. The impairment charges were incurred while the Corporation was reviewing strategic alternatives for the Corporation's methanol Telecom Backup Power assets prior to concluding the transaction with CHEM (note 26).

28. Income taxes:

(a) Current tax expense:

The components of income tax benefit / (expense) included in the determination of the profit (loss) from continuing operations comprise of:

	'	2017	2016
Current tax expense			
Current period income tax	\$	34	\$ 3
Withholding tax		1,537	378
Adjustment for prior periods		_	_
Total current tax expense	\$	1,571	\$ 381
Deferred tax expense			
Origination and reversal of temporary differences	\$	(13,227)	\$ (10,002)
Adjustments for prior periods		(1,922)	395
Change in unrecognized deductible temporary differences		15,149	9,607
Total deferred tax expense	\$	_	\$ _
Total income tax expense	\$	1,571	\$ 381

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Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

28. Income taxes (cont'd):

(a) Current tax expense (cont'd):

The Corporation's effective income tax rate differs from the combined Canadian federal and provincial statutory income tax rate for companies. The principal factors causing the difference are as follows:

	2017	2016
Net loss before income taxes	\$ (6,477)	\$ (21,306)
Expected tax recovery at 26.00% (2015 – 26.00%)	\$ (1,684)	\$ (5,540)
Increase (reduction) in income taxes resulting from:		
Non-taxable portion of capital gain	_	11
Non-deductible expenses	362	926
Expiry of losses and investment tax credits	_	86
Investment tax credits earned	(1,300)	(3,153)
Foreign tax rate differences	(1,341)	(633)
Change in unrecognized deductible temporary differences	3,997	8,306
Other	1,537	378
Income taxes	\$ 1,571	\$ 381

(b) Unrecognized deferred tax liabilities:

At December 31, 2017, the Corporation has not recognized any deferred tax liabilities resulting from taxable temporary differences for financial statement and income tax purposes.

(c) Unrecognized deferred tax asset:

At December 31, 2017, the Corporation did not have any deferred tax assets resulting from the following deductible temporary differences for financial statement and income tax purposes.

	20	7	2016
Scientific research expenditures	\$ 81,4	59 \$	69,157
Accrued warranty provision	14,2	9	14,064
Share issuance costs	96	32	2,000
Losses from operations carried forward	110,8	51	101,129
Investment tax credits	29,4	73	27,586
Property, plant and equipment and intangible assets	173,9	28	154,485
	\$ 410,9)2 \$	368,421

Deferred tax assets have not been recognized in respect of these deductible temporary differences because it is not currently probable that future taxable profit will be available against which the Corporation can utilize the benefits.

The Corporation has available to carry forward the following as at December 31:

	1	2017	2046
		2017	 2016
Canadian scientific research expenditures	\$	81,459	\$ 69,157
Canadian losses from operations		38,840	39,634
Canadian investment tax credits		29,473	27,586
German losses from operations for corporate tax purposes		624	555
U.S. federal losses from operations		43,074	34,329
Denmark losses from operations		27,068	26,603
Hong Kong losses from operations		6	7

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

28. Income taxes (cont'd):

(c) Unrecognized deferred tax asset (cont'd):

The Canadian scientific research expenditures may be carried forward indefinitely. The Canadian losses from operations may be used to offset future Canadian taxable income and expire over the period from 2029 to 2037.

The German and Denmark losses from operations may be used to offset future taxable income in Germany and Denmark for corporate tax and trade tax purposes and may be carried forward indefinitely.

The U.S. federal losses from operations may be used to offset future U.S. taxable income and expire over the period from 2021 to 2037.

The Canadian investment tax credits may be used to offset future Canadian income taxes otherwise payable and expire as follows:

2019	\$ 1,880
2020	1,527
2021	1,439
2022	1,155
2023	816
2024	1,006
2025	1,444
2026	400
2027	419
2029	3,779
2030	2,588
2031	2,406
2032	2,092
2033	1,836
2034	1,734
2035	1,869
2036	1,892
2037	1,191
	\$ 29,473

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29. Related party transactions:

Related parties include shareholders with a significant ownership interest in the Corporation, including its subsidiaries and affiliates, and the Corporation's equity accounted investee. The revenue 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. For the year ended December 31, 2017 and 2016, related party transactions and balances were limited to transactions with the Corporation's 10% owned equity accounted investee, Synergy JVCo as follows:

Balances with related parties:	2017	2016
Trade and other receivables	\$ 1,415	\$ _
Investments	676	1,185
Trade and other payables	_	1,005
Deferred revenue	2,973	15,501
Transactions during the year with related parties:	2017	2016
Revenues	\$ 30,916	\$ 4,389
Purchases	_	_

The Corporation provides key management personnel, being board directors and executive officers, certain benefits, in addition to their salaries. Key management personnel also participate in the Corporation's share-based compensation plans (note 19).

In addition to cash and equity compensation, the Corporation provides the executive officers with certain personal benefits, including car allowance, medical benefit program, long and short-term disability coverage, life insurance and an annual medical, financial planning allowance and relocation allowances and services as necessary.

The employment agreements for the executive officers vary by individual. The maximum obligation that is required to be provided in the event of termination is notice of 12 months plus one month for every year of employment completed with the Corporation, to a maximum of 24 months, or payment in lieu of such notice, consisting of the salary, bonus and other benefits that would have been earned during such notice period. If there is a change of control, and if the executive officer's employment is terminated, including a constructive dismissal, within 2 years following the date of a change of control, the executive officer is entitled to a payment equivalent to payment in lieu of a 24 month notice period. The minimum obligation that is required is limited to that required by employment standards legislation plus one day for every full month of employment since hire date, with no distinction made for a change of control situation.

Key management personnel compensation is comprised of:

	-	2017	2016
Salaries and employee benefits	\$	3,420	\$ 3,026
Post-employment retirement benefits		52	74
Termination benefits		516	1,982
Share-based compensation (note 19)		1,749	1,184
	\$	5,737	\$ 6,266

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

30. Supplemental disclosure of cash flow information:

Non-cash financing and investing activities:	2017	2016
Compensatory shares	\$ 1,003	\$ 459
Earn-out receivable on sale of assets	_	1,838

31. Operating segments:

The Corporation operates in a single segment, Fuel Cell Products and Services, which consists of the design, development, manufacture, sale and service of PEM fuel cell products for a variety of applications, focusing on the power product markets of Heavy-Duty Motive (consisting of bus, truck, rail and marine applications), Portable Power, Material Handling and Backup Power, as well as the delivery of Technology Solutions, including engineering services, technology transfer and the licensing and sale of the Corporation's extensive intellectual property portfolio and fundamental knowledge for a variety of fuel cell applications.

In 2017, revenues included sales to three individual customers of \$31,080,000, \$30,555,000, and \$17,989,000 respectively, which each exceeded 10% of total revenue.

In 2016, revenues included sales to three individual customers of \$27,785,000, \$13,916,000 and \$12,775,000, respectively, which each exceeded 10% of total revenue.

Revenues from continuing operations by geographic area, which are attributed to countries based on customer location for the years ended December 31, are as follows:

Revenues	2017	20	16
China	\$ 76,558	\$ 33,4	40
Germany	18,984	14,3	18
U.S.	14,881	27,5	47
Japan	2,579	1,5	808
Poland	2,455	2	255
France	1,755	1,2	01
Taiwan	483	1,7	77
UK	943	7	20
Denmark	808	1,0	05
Canada	551	6	088
Finland	379	2	90
Netherlands	374		22
Belgium	308	8	12
Nepal	_	9	18
Other countries	230	7	77
	\$ 121,288	\$ 85,2	70

Non-current assets by geographic area are as follows:

	December 31,	[December 31,
Non-current assets	2017		2016
Canada	\$ 60,481	\$	58,649
U.S.	13,622		15,698
China	692		180
Denmark	60		82
	\$ 74,855	\$	74,609

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(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

32. Financial instruments:

(a) Fair value:

The Corporation's financial instruments consist of cash and cash equivalents, trade and other receivables, investments, trade and other payables, and finance lease liability. The fair values of cash and cash equivalents, trade and other receivables, and trade and other payables approximate their carrying values because of the short-term nature of these instruments. The interest rates applied to the finance lease liability are not considered to be materially different from market rates, thus the carrying value of the finance lease liability approximates fair value.

Fair value measurements recognized in the statement of financial position must be categorized in accordance with the following levels:

- (i) Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities;
- (ii) Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices);
- (iii) Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

(b) Financial risk management:

The Corporation primarily has exposure to foreign currency exchange rate risk, commodity risk, interest rate risk, and credit risk.

Foreign currency exchange rate risk

Foreign currency exchange rate risk is the risk that the fair value of deferred cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Corporation is exposed to currency risks primarily due to its holdings of Canadian dollar denominated cash equivalents and its Canadian dollar denominated purchases and accounts payable. Substantially all receivables are denominated in U.S. dollars.

The Corporation limits its exposure to foreign currency risk by holding Canadian denominated cash and cash equivalents in amounts up to 100% of forecasted twelve month Canadian dollar net expenditures and up to 50% of the following twelve months of forecasted Canadian dollar net expenditures, thereby creating an economic hedge. Periodically, the Corporation also enters into forward foreign exchange contracts to further limit its exposure. At December 31, 2017, the Corporation held Canadian dollar denominated cash and cash equivalents of CDN \$13,031,000 and outstanding forward foreign exchange contracts to sell a total of CDN \$12,000,000 in 2018 at an average rate of CDN \$1.28 to US \$1.00.

The following exchange rates applied during the year ended December 31, 2017:

	\$U.S. to \$1.00 CDN	\$CDN to \$1.00 U.S.
January 1, 2017 Opening rate	\$0.745	\$1.343
December 31, 2017 Closing rate	\$0.798	\$1.254
Fiscal 2017 Average rate	\$0.771	\$1.298

Based on cash and cash equivalents and forward foreign exchange contracts held at December 31, 2017, a 10% increase in the Canadian dollar against the U.S. dollar, with all other variables held constant, would result in an increase in foreign exchange gains of approximately \$1,996,000 recorded against net income.

If the Canadian dollar weakened 10% against the U.S. dollar, there would be an equal, and opposite impact, on net income. This sensitivity analysis includes foreign currency denominated monetary items, and adjusts their translation at year-end, for a 10% change in foreign currency rates.

Notes to Consolidated Financial Statements Years ended December 31, 2017, and 2016

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers of shares)

32. Financial instruments (cont'd):

(b) Financial risk management (cont'd):

Commodity risk

Commodity risk is the risk of financial loss due to fluctuations in commodity prices, in particular, for the price of platinum and palladium, which are key components of the Corporation's fuel cell products. Platinum and palladium are scarce natural resources and therefore the Corporation is dependent upon a sufficient supply of these commodities. To manage its exposure to commodity price fluctuations, the Corporation may include platinum and or palladium pricing adjustments directly into certain significant customer contracts, and may also periodically enter into platinum and or palladium forward contracts. At December 31, 2017, there were no outstanding forward platinum contracts under the Forward Contract Facility.

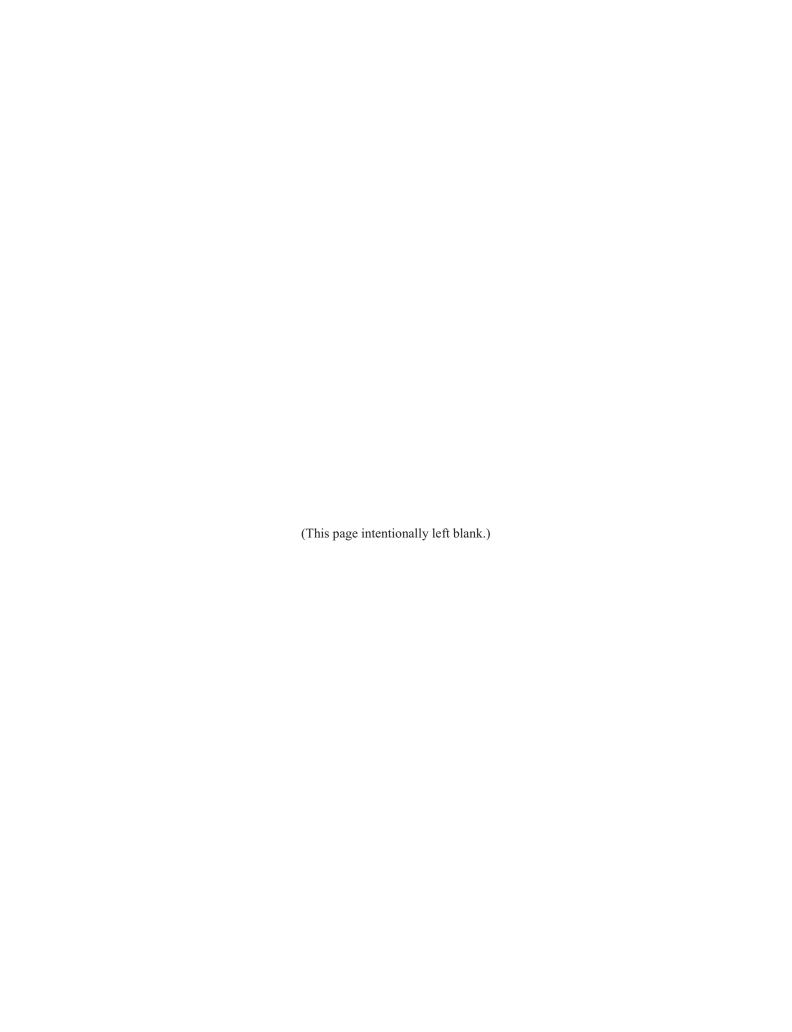
Interest rate risk

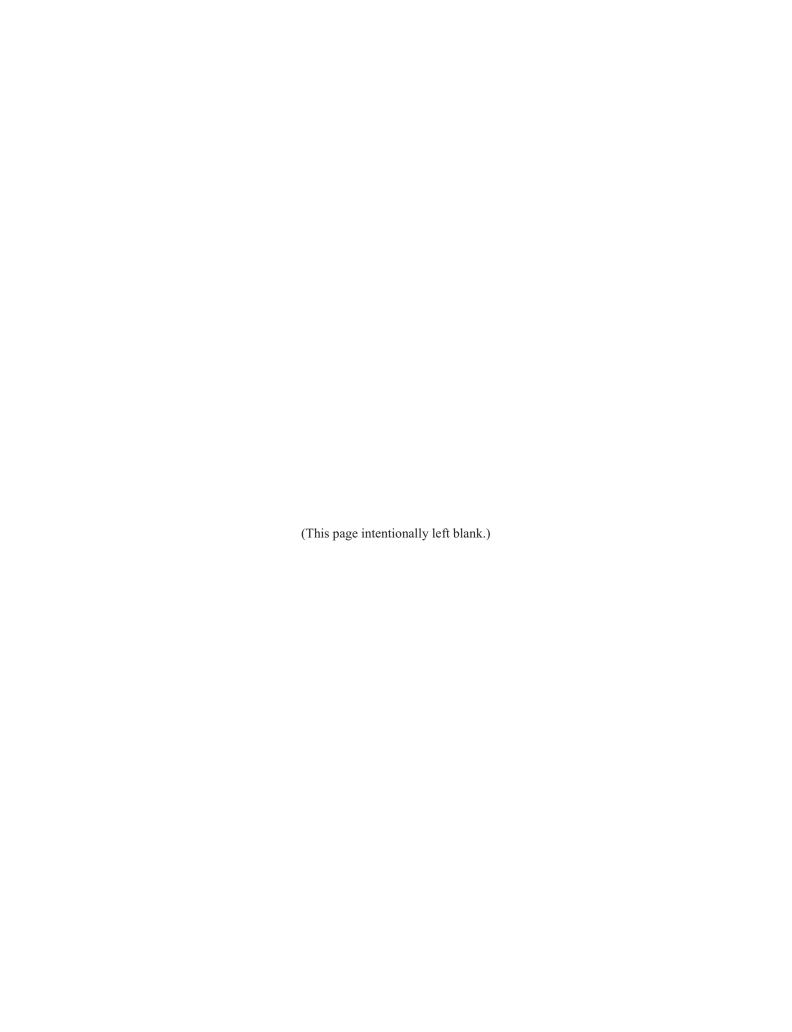
Interest rate risk is the risk that the fair value of deferred cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Corporation is exposed to interest rate risk arising primarily from fluctuations in interest rates on its cash and cash equivalents. The Corporation limits its exposure to interest rate risk by continually monitoring and adjusting portfolio duration to align to forecasted cash requirements and anticipated changes in interest rates.

Based on cash and cash equivalents at December 31, 2017, a 0.25% decline in interest rates, with all other variables held constant, would result in a decrease in investment income of \$151,000. If interest rates had been 0.25% higher, there would be an equal and opposite impact on net income.

Credit risk

Credit risk is the risk of financial loss to the Corporation if a counterparty to a financial instrument fails to meet its contractual obligations and arises principally from the Corporation's accounts receivable. The Corporation manages its exposure to credit risk on accounts receivable by assessing the ability of counterparties to fulfill their obligations under the related contracts prior to entering into such contracts, and continuously monitors these exposures.







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STOCK LISTING

Ballard's common shares are listed on the Toronto Stock Exchange and on the NASDAQ Global Market under the trading symbol BLDP.

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