

# **CLEAN ENERGY** PRODUCTS + SERVICES

NOTICE OF ANNUAL MEETING, MANAGEMENT PROXY CIRCULAR & 2016 ANNUAL REPORT

BALLARD°

# BALLARD POWER SYSTEMS

PUTTING FUEL CELLS TO WORK The Power of Fuel Cells, Simply Delivered

WWW.BALLARD.COM

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#### **ABOUT BALLARD POWER SYSTEMS**

Ballard Power Systems (NASDAQ: BLDP)(TSX: BLD) 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 <u>www.ballard.com</u>.

#### 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 forwardlooking 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 our corporate head office facilities at 9000 Glenlyon Parkway, Burnaby, British Columbia, on Wednesday, June 7, 2017 at 1:00 p.m. (Pacific Daylight Time) for the following purposes:

- 1. To receive our audited financial statements for the financial year ended December 31, 2016 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; and
- 5. 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 2016 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 1:00 p.m. (Pacific Daylight Time) on Monday, June 5, 2017.

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 18, 2017.

#### **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:

On behalf of the directors, I am pleased to provide an assessment of the Company and a report on your board's activities.

Your company made solid progress in 2016, including improved strategic positioning and financial performance. On the strategic front, we secured transactions in China laying the foundation for the local manufacture and sale of fuel cell engines and stacks into China's large mass transportation sector. We reduced annualized operating expenses through a repositioning of our exposure to the Backup Power market. We increased our Technology Solutions business, underpinned by solid progress under the long-term program with Volkswagen Group. We also fortified our balance sheet, including a strategic investment by Zhongshan Broad-Ocean Motor Company Limited ("Broad-Ocean").

As a result, your company is well positioned at a time when the macroeconomic trends support our long-term business prospects. The landmark Paris Agreement on climate change entered into force in October 2016. There is a growing call for action to address air quality issues in major cities around the globe. Indeed, certain jurisdictions are now considering banning diesel vehicles. There is a clear trend on the electrification of propulsion systems. Fuel cells are increasingly being viewed as a complementary technology to address the limitation of batteries, including range and recharge time.

As a board we have continued to concentrate on strategy, oversight of operating activities and Ballard's future.

Over the past year, we continued our work on board renewal and increased diversity. In February and April 2017, we announced the appointments of Duy-Loan Le and Janet Woodruff, respectively, to our board as independent directors. Duy-Loan and Janet bring exceptional strengths and important attributes that will complement and deepen the board's existing capabilities and experience, including technology, financial and international business expertise. At our upcoming shareholders' meeting in June, Carol Stephenson will retire from the board after having served for the past five years. We thank Carol for her valued contributions and sound judgment during a dynamic period, including as Chair of the Corporate Governance and Compensation Committee. She has added tremendous value and has been an outstanding colleague.

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 6, who received special recognition as 2016 Ballard Impact Award winners.

On behalf of the board of directors, we thank you, our shareholders, for your continued support.

"Ian A. Bourne"

IAN A. BOURNE Chair of the Board of Directors



#### Letter from R. RANDALL MACEWEN President and Chief Executive Officer

Fellow Shareholders,

2016 was an important and exciting year for Ballard. We had two main objectives: (1) to improve our strategic positioning to support long-term sustainability and profitability; and (2) to improve our financial performance and position, including revenue growth, gross margin expansion, cost discipline and balance sheet strength. We delivered measured progress against each of these objectives.

Our strategy is based on a portfolio of market opportunities, enabled by substantially the same core competencies, technology, products and intellectual property. Our customer-centric business model features two cross-leveraging growth platforms – Power Products and Technology Solutions. These platforms provide opportunity for near-term commercialization, revenue and profitability, while also embedding opportunity for future value in longer-term market opportunities.

In 2016 we pruned Power Products to focus on strategic markets that offer relatively high growth and high gross margins. We invested in our Heavy-Duty Motive business, completed our first full year with our Portable Power business (Protonex), and divested our methanol Backup Power business – a market opportunity that had not evolved at the pace originally envisioned.

In 2016 we made important progress on our China strategy. China is the largest global market for buses and commercial vehicles. Key themes include a mandate to address climate change, serious air quality issues, continued urbanization, continued build-out of mass urban transportation, the rapid adoption of electric vehicles, and strong government subsidies supporting the adoption of fuel cell vehicles.

Our China strategy is risk adjusted, capital light and intellectual property protected. Our business model includes the development of a local fuel cell supply chain and related ecosystem to address the fast-growing clean energy bus and commercial vehicle markets. Key highlights in 2016 included:

- Our strategic collaboration with Broad-Ocean, a leading global manufacturer of motors for electric vehicles, for the manufacture of Ballard-designed fuel cell engines in China. Broad-Ocean also became Ballard's largest shareholder. This represents a strong vote of confidence in the market opportunity for fuel cells in China and Ballard's technology and products. Broad-Ocean also intends to be a leading purchaser of fuel cell buses and commercial trucks in China, already ordering unprecedented volumes for delivery over the coming years.
- The creation of a joint venture ("JV") with our partner Guangdong Nation Synergy Hydrogen Power Technology Co. Ltd. ("Synergy") to localize the manufacture of fuel cell stacks for use in engines to power buses and commercial vehicles in China. We also secured a \$150 million contract to be the exclusive supplier to the JV of membrane electrode assemblies the core technology component used in those stacks. We expect the JV operation to be commissioned during 2017.
- Synergy made good progress on its 300 fuel cell bus program in the cities of Foshan and Yunfu, marked by the initial deployment of 24 fuel cell buses in 2016. We expect scaling in 2017 and 2018.

- Solid progress under two fuel cell development programs for light rail train applications in China with partners CRRC Sifang and CRRC Tangshan.
- We continued to build out our China platform including account management, application engineering, after-sales service, quality, supply chain and oversight of our JV. We increased our supply chain activities in China and established our first office in Guangzhou.

We also made important progress in our other key geographic markets. We are now well positioned for future deployments of fuel cell buses in Europe and the U.S. We took important steps in the Japanese market in 2016 with key partners, including with Toyota Tsusho Corporation, a member company of the Toyota Group.

In our Portable Power business, Protonex received the largest order in its history, valued at \$5.8 million, to supply Squad Power Managers ("SPM") to the U.S. Special Operations Command. Complex procurement processes in the U.S. military delayed the expected achievement of Milestone C in the Program of Record for our SPM products from 2016 into 2017. We also supplied prototype fuel cell propulsion modules to two global aerospace players for flight testing in their unmanned aerial vehicles ("UAVs").

Our Technology Solutions platform grew by 31% in 2016. In addition to excellent progress under our longterm HyMotion program with Volkswagen Group, we are also collaborating with other global automotive partners to support their programs and the launch of next generation fuel cell passenger vehicles. We see growth opportunities in train, UAV, military and material handling applications.

Overall, we delivered significantly improved financial performance in 2016, including revenue growth of 51% and a 10-point increase in gross margin. We were particularly pleased with our adjusted EBITDA performance of positive \$1.8 million in Q4. We ended 2016 with \$72.6 million of cash, up 81%.

We started 2017 with a strong set-up for continued progress. In early-2017 we had committed orders expected for 2017 delivery of \$87 million, already exceeding last year's revenue. In addition to continued revenue growth, we expect gross margin expansion and improved bottom line financial performance in 2017. Our strong balance sheet enables us to continue to invest in long-term competitiveness, including talent and next generation technology and products. We continue to make critical progress on improved product performance and product cost reduction.

While 2016 was highlighted by measured progress, we know there remains much to do to. We believe in our business, including the merits of our customer-focused strategy, the strength and depth of our talent, our market and technology leadership, the enduring power of the Ballard brand and the relative strength of our financial position. We believe we are taking the right steps to continue to win in selected markets and position Ballard for future profitability. Our plan is to grow our business, deliver on our customer promises, create rewarding opportunities for our team, and provide extraordinary value to our shareholders.

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

Finally, we thank our shareholders for your confidence. We intend to continue earning your trust by delivering against our strategy, growing our business, improving performance, effectively managing risk, and driving to sustainable profitability. We look forward to reporting our progress over the coming year.

"R. Randall MacEwen"

R. RANDALL MACEWEN *President & CEO* 

Ballard Power Systems Inc.

# BALLARD Sustainability Report 2016

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

#### Ballard's **GREEN INITIATIVE** is focused on three pillars:



OUR PRODUCTS We will maximize the environmental benefits of our products compared to incumbent technologies.

# PRODUCTS

# OPERATIONS PEOPL

#### OUR OPERATIONS



We will improve the way we operate our business to minimize environmental impact.



We will promote participation in relevant events, and provide information about green choices for our daily lives.

#### **OUR PRODUCTS IN ACTION**

Clean urban transportation is a high priority in China and Ballard has been actively working with leading Chinese companies to make this a reality. Many cities around the world – including those in China – are looking seriously at banning diesel vehicles in the next several years. China's growing urban populations, expanding urban center car use, and increasing number of 'Red Alerts' due to poor air quality are important trends underlying this move. Fuel cells will play a role, in addition to battery power, in the electrification of propulsion systems for buses, trams and other commercial vehicles in China, as well as in Europe and the U.S.

During 2016 Ballard worked to implement an effective supply chain and related ecosystem in China to begin meeting the growing demand for fuel cell engines to power Heavy Duty Motive applications. Localizing production capability is a key to meeting the needs of a bus market that is 50-times the size of the North American bus market! We have established a joint venture that will manufacture fuel cell stacks for vehicles in China, using MEAs produced at our British Columbia HQ facility. We have also licensed a number of Chinese firms to assemble engines using those stacks. At the same time, we have seen tremendous growth in demand and related commitments to use fuel cells for buses in the cities of Beijing, Foshan and Yunfu. And, our strategic partner – Broad-Ocean – has committed to deploy an initial 10,000 fuel cell vehicles, such as delivery vans, in its China-based vehicle leasing business.

We have also been working with two partners, both part of CRRC – the largest train OEM in the world – on using fuel cells to power trams in urban centers. This has included a successful demonstration of the world's first hydrogen fuel cell powered fixed rail electric tram at the production and testing facility of CSR Qingdao Sifang Company (CSR Sifang), a Chinese rolling stock manufacturer based in Qingdao, Shandong province.

#### **About Ballard Power Systems**

- Employees Approximately 500
- 2016 Revenue US \$85.3 million
- Offices 5 worldwide

#### **Investment Thesis**

- 1) Global leader in fuel cells
- 2) Positioned to leverage macro trends, including electrification of propulsion systems
- 3) Diversified business model, in terms of growth platforms, applications and geographic reach
- 4) High growth trajectory 51% revenue growth in 2016; record \$87M in committed orders for 2017 delivery
- 5) Capital efficiency, supporting gross margin expansion and strong liquidity
- 6) Embedded optionality, through long-term exposure to automotive, UAV and military applications

#### Ballard Power Systems is the global leader in fuel cells.

Ours is the most recognized fuel cell brand and we have unrivalled field experience in both development and deployment of fuel cell solutions.

As we deploy an expanding volume of fuel cell solutions into zero-emission applications around the globe, Ballard is building an important legacy through our contribution to sustainability.

#### Ballard-powered Tangshan Railway Vehicle tram during its demonstration in Hebei Province, China



### 2016 Ballard Impact Awards Recipients

#### **Innovation Award**

HyMotion Carbon Plate Development Team Brian Dickson, Sebastian Voigt, Andrew Desouza, Millie Kwan, Katie Green

#### **Safety Award**

Nanomaterial & Chemical Safety Best Practices Erin Rogers

China Fire Suppression Standards Team Max Schwager, Tim Lennox, Mark Moran, Scott Richardson, Don Lines, Mitchell Pozar, Jake Devaal, Brian Breiddal

#### Listen & Deliver Award

China Bus Commissioning Donald Guan

#### **Quality. Always Award**

Financial Reporting Sindy Mundy

#### **Inspire Excellence Award**

Product Quality Dashboard Jeff Glandt

#### **Own it Award**

Continuous Improvement Emil Cretu

#### **Row Together Award**

#### **Enterprise Resource Planning (ERP) Team**

Jinsong Zhang, Bruce Leavitt, Sandra Matsuyama, Dayna Sandher, Renee Kuchynski, Sindy Mundy, Jesse Chahal, Joel Orum, Janet Lee, Brendan Burns, Zakia Ghani, Lotus Huang, Sarah Stevens, Karm Layegh, Segun Farinu, Phong Tang, Candice Burgers

#### **Stack Efficiency Team**

Sonia Cheung, Mary Flynn, Brenda Chen, Laura, Stolar, Ron Mah, Milena Cabral, Michael Liou, Kailyn Domican, Warren Williams, Esmaeil Alvar

#### THE POWER OF FUEL CELLS, SIMPLY DELIVERED

#### MANAGEMENT PROXY CIRCULAR

dated as of April 18, 2017

#### 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; 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 7, 2017 at 1:00 p.m. Pacific Daylight Time in Burnaby, British Columbia, Canada, 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 May 1, 2017.

# OBTAINING A PAPER COPY OF MANAGFMENT 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, 2016, 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 1-855-887-2243, 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 19, 2017 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. All costs of deliveries to beneficial shareholders will be borne by Ballard.

#### **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 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 18, 2017, we had 175,400,559 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 on the register of shareholders, which is available for inspection during normal business hours at Computershare and will be available at the Meeting.

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, 2017, 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.

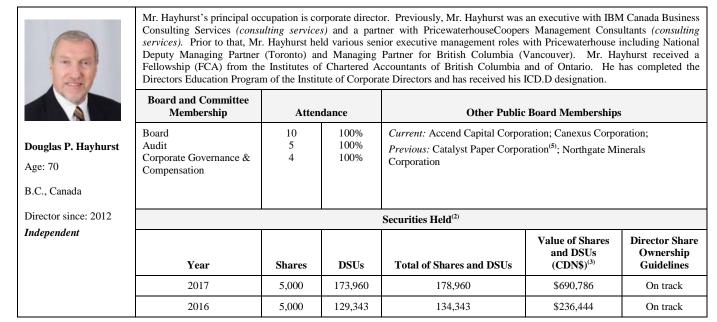
#### **ELECTION OF DIRECTORS**

At the Meeting you will be asked to elect eight directors. All of our nominees are currently members of the Board; two nominees were appointed in early 2017 and are standing for election for the first time. 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.

The following information pertains to our nominees for election as directors at the Meeting, as of April 18, 2017.

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.

	Bourne was also our lead d Inc. (engineering services) TransAlta Corporation (elec	lirector from ( in 2012. Prev ctricity genera- ucation Progr	October 2005 riously, Mr. B ation and man am of the Inst	r, and he has been the Chair of the to February 2006. Mr. Bourne v ourne was the Executive Vice Pre <i>keting</i> ) from 1998 to 2006 and fr itute of Corporate Directors and h	vas interim CEO of SI sident and the Chief F rom 1998 to 2005, res	NC-Lavalin Group inancial Officer of pectively. He has		
	Board and Committee Membership <sup>(1)</sup>	Atten	dance	Other Public	Board Memberships	5		
Ian A. BourneBoard (Chair) Audit Corporate Governan CompensationAge: 69Alberta, Canada		10 5 4	100% 100% 100%	<i>Current:</i> Wajax Corporation;; Hydro One Inc. <i>Previous:</i> SNC-Lavalin Group Inc.; Canadian Oil Sands Limited; TransAlta Power LP; TransAlta CoGen LP				
Director since: 2003	Securities Held <sup>(2)</sup>							
Independent	Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) <sup>(3)</sup>	Director Share Ownership Guidelines		
	2017	26,824	278,274	305,098	\$1,177,678	Met		
	2016	26,824	245,297	272,121	\$478,933	Met		



	Ms. Le is President of DLE Management Consulting LLC ( <i>management consulting services</i> ), a position she has held since 2016. Previously, Ms. Le was a Senior Fellow at Texas Instruments Incorporated ( <i>semiconductor design and manufacturing</i> ) from 2002 to 2015; Program Manager and Fellow from 1998 to 2002; and Design Engineer and Manager from 1982 to 1998.							
	Board and Committee Membership	Attendance <sup>(4)</sup> Other Public Board Memberships						
	Board Audit Corporate Governance & Compensation	-	n/a n/a n/a	<i>Current:</i> National Instruments I <i>Previous:</i> none	nc.			
Duy-Loan Le								
Age: 54				Securities Held <sup>(2)</sup>				
Texas, USA Director since: 2017	Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) <sup>(3)</sup>	Director Share Ownership Guidelines		
Independent	2017	20,000	3,378	23,378	\$90,239	On track		
Inacpenaent	2016	-	-	-	-	-		

	MacEwen was the founder & CEO and Executive Vice and 2005 to 2006, respecti	and Managing e President, C vely. Prior to	g Partner at No orporate Deve o that, Mr. M	er of Ballard, a position he has he extCleanTech LLC ( <i>consulting sei</i> elopment at Solar Integrated Tech acEwen was Executive Vice Pres <i>ion systems</i> ) from 2001 to 2005; a	<i>vvices</i> ) from 2010 to 2 nologies, Inc. ( <i>solar</i> ) f ident, Corporate Deve	014; and President from 2006 to 2009 elopment at Stuart		
	Other Public	Other Public Board Memberships						
R. Randall MacEwen	R. Randall MacEwen		Current: none					
Age: 48				Previous: Solar Integrated Technologies Corp.				
B.C., Canada								
Director since: 2014	Securities Held <sup>(2)</sup>							
Non-Independent	Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) <sup>(3)</sup>	Director Share Ownership Guidelines		
	2017	96,063	116,667	212,730	\$821,138	On track		
	2016	30,312	116,667	146,979	\$258,683	On track		



Mr. Neese is Chief Operating Officer of Velodyne LiDAR, Inc. (autonomous vehicles). Previously, he was Chief Operating Officer of SunPower Corporation (*solar power equipment and services*) from 2008 to 2017. Prior to that, Mr. Neese was 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		Other Public Board Memberships			
	Board	9	90%	Current: none			
	Audit Corporate Governance &	5 4	n/a n/a	Previous: none			
Marty Neese	Compensation						
Age: 54							
California, USA	Securities Held <sup>(2)</sup>						
Director since: 2015					Value of Shares and DSUs	Director Share Ownership	
Independent	Year	Shares	DSUs	Total of Shares and DSUs	$(CDN\$)^{(3)}$	Guidelines	
	2017	0	34,010	34,010	\$131,279	On track	
	2016	0	8,035	8,035	\$14,142	On track	

0	

James Roche Age: 54 Ontario, Canada

Director since: 201 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	e Board Memberships	;	
	Board Audit Corporate Governance & Compensation	10 5 4	100% 100% 100%	<i>Current:</i> none <i>Previous:</i> Wi-LAN Inc.; Tundra Semiconductor Corporation; Azteo Innovations Inc			
Ī				Securities Held <sup>(2)</sup>			
	Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) <sup>(3)</sup>	Director Share Ownership Guidelines	
	2017	50,000	40,638	90,638	\$349,863	On track	
Ī	2016	0	18,330	18,330	\$32,261	On track	

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	Attendance Other Public Board Memberships					
<b>Ian Sutcliffe</b> Age: 64	Board Audit Corporate Governance & Compensation	10 4 4	100% 80% 100%	<i>Current:</i> none <i>Previous:</i> BluePoint Data Inc. <sup>(5)</sup>			
Ontario, Canada	Securities Held <sup>(2)</sup>						
Director since: 2013 <i>Independent</i>	Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) <sup>(3)</sup>	Director Share Ownership Guidelines	
_	2017	10,000	69,061	79,061	\$305,175	On track	
	2016	10,000	47,762	57,762	\$101,661	On track	



Ms. Woodruff's principal occupation is corporate director. Previously, Ms. Woodruff served as acting CEO to the Transport 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 (207-2008) 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.

	Board and Committee Membership	Attend	ance <sup>(4)</sup>	Other Public	Board Memberships		
	Board Audit		n/a n/a	<i>Current</i> <sup>(6)</sup> : Keyera Corporation; Altus Group Limited; Capstone Infrastructure Corporation; FortisBC Energy Inc. and FortisBC Inc.			
Janet Woodruff	Corporate Governance &	-	n/a	Transportation Investment Corp	oration		
Age: 60	Compensation			Previous: Mutual Funds Dealers (formerly MDS Inc.); Pacific No.	a; Nordion Inc.		
B.C., Canada	Securities Held <sup>(2)</sup>						
Director since: 2017					Value of Shares	Director Share	
Independent	Year	Shares	DSUs	Total of Shares and DSUs	and DSUs (CDN\$) <sup>(3)</sup>	Ownership Guidelines	
	2017	0	0	0	\$0	On track	
	2016	-	-	-	-	On track	

- <sup>(1)</sup> Mr. Bourne is an *ex officio* member of each of the committees and is entitled to vote at meetings.
- <sup>(2)</sup> As of April 18, 2017 and April 15, 2016, respectively.
- <sup>(3)</sup> Based on a CDN\$3.86 and CDN\$1.76 closing Share price on the TSX as of April 18, 2017 and April 15, 2016, respectively.
- <sup>(4)</sup> Ms. Le and Ms. Woodruff were appointed to the board as of February 1, 2017 and April 1, 2017, respectively, and have attended all board and committee meetings from those dates.
- <sup>(5)</sup> 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.
- <sup>(6)</sup> 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 2016 and 2015 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 2016.

Type of Audit Fees	2016 (CDN\$)	2015 (CDN\$)
Audit Fees	\$448,000	\$534,000
Audit-Related Fees	Nil	\$7,500
Tax Fees	Nil	Nil
All Other Fees <sup>(1)</sup>	\$20,000	Nil

The following table shows the fees we incurred with KPMG LLP in 2016 and 2015:

<sup>(1)</sup> All Other Fees related to valuation advisory services.

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 March 1, 2017, 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 nonbinding 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 2017 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.

#### 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 corporate boards on which a director should sit. This guideline has been set at five corporate boards (not including non-profit boards) for independent directors and one corporate board for the CEO. 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 25%. 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 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.

	Ian A. Bourne	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			~		✓			

#### MAJORITY VOTING POLICY

Our director voting policy complies with the applicable TSX corporate governance rules and guidelines. At any meeting of Ballard's Shareholders where directors are to be elected, Shareholders will be able to either: (a) vote in favor; or (b) withhold their Shares from being voted in respect of each nominee separately. If, with respect to any nominee, the total number of Shares withheld exceeds the total number of Shares voted in favor, then the nominee will immediately submit his or her resignation to the Board to take effect immediately upon acceptance by the Board. Upon receipt of such conditional resignation, the CGCC will consider the matter and, as soon as possible, make a recommendation to the full Board regarding whether or not such resignation should be accepted. After considering the recommendation of the CGCC, the Board will decide whether or not to accept the tendered resignation and will, not later than 90 days after the annual Shareholders' meeting, issue a press release which either confirms that it has accepted the resignation or provides an explanation for why it has refused to accept the resignation. The director tendering his or her resignation will not participate in any meeting of the Board or the CGCC at which the resignation is considered. Subject to any restrictions or requirements contained in applicable corporate law or Ballard's constating documents, the Board may: (a) leave a resulting vacancy unfilled until the next annual Shareholders' meeting; (b) appoint a replacement director whom the Board considers merits the confidence of the Shareholders; or (c) call a special meeting of Shareholders to elect a replacement director who may be a person nominated by management. The policy does not apply in respect of any contested Shareholders' meeting, which is any meeting of Shareholders where the number of nominees for director is greater than the number of directors to be elected.

In addition to the majority voting policy, the Board has established additional guidelines that set out the circumstances under which a director would be compelled to submit a resignation or be asked to resign.

#### 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. The guidelines were revised by the Board effective October 27, 2015.

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 31<sup>st</sup> 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 2016, *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 70%. 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. In the past, we have invited guest speakers to speak to our Board about the fuel cell industry, government regulation, 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. 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.

#### 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	$\checkmark^1$	$\checkmark^1$
Douglas P. Hayhurst	✓ (Chair)	✓
Duy-Loan Le <sup>2</sup>	✓	✓
Marty Neese	✓	✓
James Roche	✓	✓ (Chair)
Carol M. Stephenson	✓	✓
Ian Sutcliffe	✓	✓
Janet Woodruff <sup>3</sup>	✓	$\checkmark$

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.

2 Ms. Le joined the board on February 1, 2017.

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

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 2016.

#### 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 five (5) times during 2016. 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 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 March 1, 2017, which section is incorporated by reference into this Management Proxy Circular.

#### **Corporate Governance & Compensation Committee**

The CGCC met four (4) times during 2016. Collectively, the CCGC members have extensive compensationrelated 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 Board-led 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 2016 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 2016. 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, 2016:

Randall MacEwen	Tony Guglielmin	Kevin Colbow	Karim Kassam	Paul Osenar
President and Chief Executive Officer	Vice President and Chief Financial Officer	Vice President, Technology & Product Development	Vice President Commercial	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 Company 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.

#### **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 Company's strategy and to reward executives appropriately for high performance. 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 and the realizable value of PSUs partly 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;
- **Restricted Stock Units (RSUs)** stock RSUs are only issued for limited purposes, such as at the time of hire, and typically vest over three years; RSUs are aligned with shareholder interests as the realizable value depends on our share price after vesting.

With these compensation elements, a significant proportion of compensation is put "at risk" (for NEOs, from 38% to 70% 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 hold between 1.0X to 3.0X of their individual salary in Common Shares or Deferred Share Units, depending on their level within the Company. They have 5 years in which to meet this requirement.

In setting, monitoring and managing executive compensation the Company 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 new CEO in October 2014, we were mindful to adopt best practices, including clawbacks, 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 2016

#### 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 has committed to better understand the relatively modest 'For' vote on Say on Pay (72.5%), 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) have made it difficult to solicit feedback from Shareholders. Nonetheless, the re-shaping of this CD&A into a clearer, more communicative format is one example of our commitment to improve our compensation disclosure for Shareholders.

#### **Executive Claw-Back Provisions**

During 2016, all Named Executive Officers agreed to the following clawback 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.

## Enhancements to our Executive LTIP program – specifically re-visiting and revising the Performance Share Unit Program to better align to market trends and best practice

During 2015 the CGCC engaged with Towers Watson (now Willis Towers Watson) and management to re-evaluate and update our overall LTI approach for executives, to ensure that our compensation principles and program is closely aligned with our corporate strategy and long-term shareholder interests.

The re-evaluation:

- Confirmed the importance of stock options in allowing us to compete for talent in our high technology industry while aligning executives with the interests of Shareholders over the longer-term, and
- Re-designed the PSU element of Executive Compensation to:
  - 1. Introduce clearly measurable performance metrics that are closely aligned with our corporate strategy and achieving long-term success; and
  - 2. Continue to measure performance and determine vesting for a third of the award annually, but pay out the vested portion of the award at the end of the three year performance period (rather than paying the vested portion annually during the 3-year period) so that executives continue to be aligned with shareholder experience through the entire three-year term of PSUs.

This new approach became effective January 1, 2016. PSUs awarded in February 2016, have a twostage vesting condition: the first provides 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 PSU Scorecard, discussed below); and a 3-year time vesting requirement. In conjunction with the introduction of these performance metrics, the level of potential vesting was increased from a maximum of 100% to a maximum of 150%. The Board also amended the vesting criteria for outstanding awards made in 2014 and 2015 to make them subject to the PSU Scorecard and increased the maximum level of vesting from 100% to 150%.

#### **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, Mexico and Denmark, 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 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 staff 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.

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, 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 50<sup>th</sup> 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	<ul> <li>Directly linking bonuses to annual performance measures that are tied to our corporate strategy to motivate short term performance</li> <li>Delivering a majority of long-term incentives contingent on achieving sustained performance consistent with our corporate strategy</li> </ul>	
Align	<ul> <li>Delivering a significant portion of total compensation in long-term incentives that are tied to our creation of shareholder value, including share price performance</li> <li>Requiring executive officers to maintain a meaningful equity ownership in Ballard</li> </ul>	

#### The Use of Benchmarking

Our overall compensation objective is to pay executives, on average, around the 50<sup>th</sup> 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 2011, 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 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 (5)	United States (6)
EXFO Inc.	AeroVironment Inc.
Hydrogenics Corp.	Allied Motion Technologies Inc.
New Flyer Industries Inc.	American Superconductor Corporation
Sierra Wireless Inc.	Fuel Cell Energy Inc.
Westport Innovations Inc. (now Westport Fuel Systems)	Plug Power Inc.
	Maxwell Technologies, Inc.
	Sunpower 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.

#### **Compensation Framework for 2016**

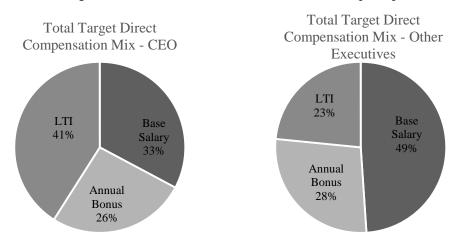
The compensation program for our executive officers has five primary components that deliver pay over the short- and long-term:

Element	Features	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

Element Features		Performance Measures	
Annual Bonus	<ul> <li>Paid annually in cash or DSUs</li> <li>Each executive has a specified target bonus expressed as a percentage of his or her base salary</li> <li>Actual bonuses based on Corporate and Individual performance multipliers that range from 0% - 150% of target based on Corporate and Individual performance</li> <li>Outcomes are formula-driven subject to the Board's overarching discretion</li> </ul>	<ul> <li>Corporate <u>Quantitative (60%)</u></li> <li>Gross margin</li> <li>Revenue</li> <li>Cash flow from operations</li> <li><u>Qualitative (40%)</u></li> <li>Achieving HD Motive Milestones in China</li> <li>Building a sustainable business platform</li> </ul>	
Long-Term Incentive: Performance Share Units (PSUs)	<ul> <li>Each executive has a specified target long-term incentive expressed as a percentage of base salary</li> <li>75% of each executive's target long-term incentive is awarded in the form of PSUs</li> <li>Annual grants with three year term</li> <li>Awards vest over three years based on annual achievement of Corporate objectives</li> <li>Payout can range from 0% - 150% of target award</li> </ul>	<ul><li>Annual Revenue</li><li>Gross Margin</li></ul>	
Long-Term Incentive: Stock Options	<ul> <li>Annual grants</li> <li>Exercise price equal to market price at grant</li> <li>Awards vest in equal amounts annually over three years</li> <li>Seven-year term</li> </ul>	• Option value contingent on share price growth	
Long-Term Incentive: Restricted Share Units (RSUs)	<ul> <li>For special purposes (e.g. on-hire award)</li> <li>Typically vests in equal thirds over three year period</li> </ul>	• Value based on share price at time of vesting	

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

We emphasise performance by linking a significant proportion of our executive officers' total annual compensation to corporate and individual performance. For 2016, an average of 51% 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 2016, a salary increase was awarded to Dr. Colbow; no other Named Executive Officers received a salary increase. A retention bonus of \$30,000 was paid to Karim Kassam in December 2016 in connection with his appointment to his new position as Vice President, Commercial.

#### **Annual Bonus for Executive Officers**

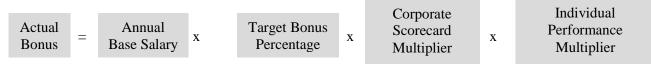
In 2016, the annual target bonus for was set at 80% of base salary for Mr. MacEwen and 60% of salary for Mr. Guglielmin, and 55% of base salary for Dr. Colbow, Mr. Kassam and Dr. Osenar.

Payments relative to the annual bonus target are determined by performance against Corporate Scorecard goals and the achievement of individual objectives. The Corporate Scorecard typically includes financial objectives which contain a "stretch" achievement component whereby 100% achievement of annual plan goals equates to 50% payout of Corporate Scorecard goals. This means that in order to achieve 100% payout against the financial targets, performance needs to be higher than the annual operating plan.

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

#### Methodology for Determining Annual Incentives

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 scorecard is assigned a relative weighting in terms of importance to annual performance of the Corporation. The corporate 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.

For 2016, the Corporate Performance Scorecard reflected a balance of Quantitative annual goals focused on delivery of the 2016 operating plan (60% of the scorecard) and Qualitative goals focused on key strategic

outcomes to be achieved during 2016 to better position the Corporation for longer term success (40% of the scorecard).

Component Weight	Performance Areas	Performance Highlights
Quantitative (60%)	Annual gross margin dollar contribution	Over achieved
	Annual revenue	Over achieved
	Annual cash flow from operations	Over achieved
Qualitative (40%)	Achieve HD milestones in China	Substantially achieved
	Building a sustainable business platform	Over achieved

In aggregate, the Corporate Scorecard Multiplier achievement for 2016 was 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 2016, individual multipliers for each Executive Officer ranged from 70% to 132.5%. A summary of the Executive Officers' annual bonus payments for 2016 is as follows:

Name	Target Bonus (% of salary)	Corporate Score/Multiplier	Individual Score/Multiplier	Bonus paid as a % of Salary
CEO	80%	110%	120.5%	132.5%
Other NEOs	55% - 60%	110%	70 to 150%	38.5% to 165%

#### Long Term Incentives

We provide our Executive Officers with equity-based long-term incentives through the Consolidated Share Option Plan, Market Purchase RSU Plan and the SDP (Consolidated Share Distribution Plan). 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 target value of long-term incentives granted to Named Executive Officers in 2016, and the composition of long-term incentives is set out in the table below.

Name	Target LTI (\$)	PSUs <sup>2</sup>	Stock Options <sup>1</sup>
Mr. MacEwen	625,000	75%	25%
Mr. Guglielmin	192,000	75%	25%
Dr. Colbow	100,000	75%	25%
Mr. Kassam	100,000	75%	25%
Dr. Osenar	US \$100,000	75%	25%

#### Total LTI Mix (%)

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.

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.

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 2016 the awards to our Named Executive Officers were as follows:

		Numbe	r Granted
Name	Total LTI Granted (\$)	PSUs	Stock Options
Mr. MacEwen	625,000	260,417	154,702
Mr. Guglielmin	192,000	80,000	47,524
Dr. Colbow	100,000	41,667	24,752
Mr. Kassam	100,000	41,667	24,752
Dr. Osenar	US\$100,000	56,391	33,333

#### Performance Share Units

Performance Share Units (PSUs) comprise the other 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 RSU 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.

<b>PSU Scorecard</b>	PSU Vesting
< 25%	0%
$\geq$ 25% and <50%	50%
${\geq}50\%$ and ${\leq}100\%$	100%
>100%	Up to 150%

The PSU Scorecard achievement for 2016 was 133%.

#### 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").

#### Units Granted

On February 25, 2016, 480,142 PSUs were issued to the Named Executive Officers, including the President and CEO using the methodology described above.

#### Vesting Awards

In 2016, there was no vesting of PSUs to Shares for the Named Executive Officers, based on zero vesting of annual awards granted in 2013, 2014 and 2015, given that performance goals were not met.

In March 2017, the Board determined, based on the 2016 PSU Scorecard achievement, that 133% of PSU awards granted in 2016 met the performance vesting requirement. However, these awards are subject to a 3-year vesting period, per the terms of the PSU awards.

#### Restricted Share Units

The Corporation also operates a Restricted Share Unit (RSU) Plan which is ordinarily used to provide new employees and executive officers with one-time RSU awards, for example, as new hire awards. RSUs provide for vesting over periods of up to three years. Vesting of these share units may be satisfied either with Shares bought under the Market Purchase RSU Plan or by treasury based shares reserved under the SDP.

#### **CEO** Compensation

Mr. MacEwen was appointed President & CEO on October 6, 2014 with a base salary set at CDN\$500,000 per year. Mr. MacEwen has not received an increase since his appointment.

Mr. MacEwen's target bonus for 2016 was CDN\$400,000 based on an amount equal to 80% of his annual base salary. His actual bonus for 2016 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 2016, as approved by the Board.

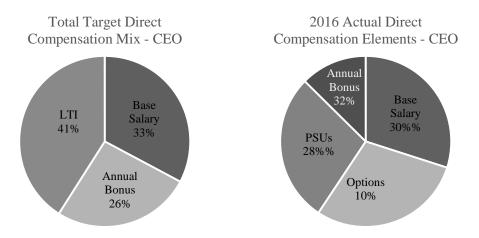
Annual Bonus Performance Areas	Outcome		
Corporate	Specific corporate quantitative and qualitative results are described in detail under "Corporate Scorecard Multiplier"		
	In 2016, the corporat	te score was 110%	of target
Individual	<ul> <li>Building Balla</li> <li>Achieve Pro acquisition – 1</li> </ul>	stainable Business l ard's China Strateg otonex results cons Under achieved	2016 were based on: Platform – Over Achieved y – Over Achieved istent with economic case supporting the <b>performance multiplier was 120.5% of</b>
Overall Outcome		sed on a corporat	as CDN\$530,000 representing 132.5% of e multiplier of 110% and an individual
Long-term Incentives	Туре	Value	Features
Annual Award (\$625,000)	Stock Option	\$156,250	7-year term, with one-third of the options vesting at the end of each of the first three years

For the CEO, 67% of his target compensation is 'at-risk' (via the annual bonus plan and long term incentive awards). 57% of his target compensation is linked directly to performance goals (via annual bonus plan and PSUs). 41% of his target compensation is linked to the performance of the Ballard common shares (via PSUs and Stock Option grants).

3-year vesting with performance criteria

\$468,750

PSU



#### **CEO Realized Pay**

In 2016, 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\$1,201,375 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 2016, Mr. MacEwen, Mr. Guglielmin, Dr. Colbow and Mr. Kassam 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:
  - total compensation levels are set relative to median of a peer group of companies that are broadly comparable to the Corporation
  - base salary is set relative to median and at levels which the CGCC considers unlikely to create inappropriate risks;
  - 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;
  - 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. In 2015, Willis Towers Watson provided significant input into the review of the new LTI approach, including the new PSU principles outlined earlier.

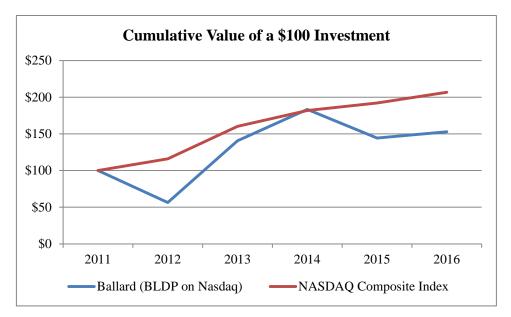
The following table sets out the fees paid to Willis Towers Watson during each of the two most recently completed financial years:

	Compensation-Related Fees	All Other Fees
2016	Nil	Nil
2015	\$56,062	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>2011</u> (\$)	<u>2012</u> (\$)	<u>2013</u> (\$)	<u>2014</u> <u>(\$)</u>	<u>2015</u> (\$)	<u>2016</u> (\$)
Ballard	100	56	141	183	144	153
NASDAQ Composite Index	100	116	160	182	192	207



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, 2014, December 31, 2015 and December 31, 2016 to our Named Executive Officers.

Summary Compensation Table							
				Long-Tern	Incentives		
Name and Principal Position	Year	Salary <sup>(3)</sup> (CDN\$)	Bonus <sup>(4)(5)</sup> (CDN\$)	Share-Based Awards <sup>(6)</sup> (CDN\$)	Option-Based Awards <sup>(7)</sup> (CDN\$)	All Other Compensation <sup>(8)</sup> (CDN\$)	Total Compensation (CDN\$)
R. Randall MacEwen <sup>(1)</sup>	2016	500,000	530,000	468,750	156,250	58,971	1,713,971
President and Chief	2015	500,000	210,000	968,750	490,250	98,069	2,267,069
Executive Officer	2014	117,808	0	0	0	108,958	226,766
Tony Guglielmin	2016	318,000	314,820	144,000	48,000	37,159	861,979
Vice President and Chief	2015	318,000	104,177	144,000	48,000	33,326	647,503
Financial Officer	2014	316,663	43,909	222,500	57,500	36,010	676,582
Kevin Colbow	2016	194,118	146,801	75,000	25,000	19,278	460,197
Vice President,	2015	162,696	39,462	50,000	66,800	17,540	336,498
Technology and Product Development	2014	160,224	19,869	50,000	76,800	17,321	324,214
Karim Kassam	2016	220,000	196,375	75,000	25,000	20,723	537,098
Vice President,	2015	220,000	68,607	50,000	66,800	20,572	425,979
Commercial	2014	220,000	25,293	50,000	76,800	20,300	392,393
Paul Osenar <sup>(2)</sup>	2016	362,529	90,724	100,703	33,567	17,974	605,497
Vice President and	2015	80,891	130,972	100,703	71,499	5,107	389,172
President, Protonex Technology Corporation	2014	0	0	0	0	0	0

<sup>(1)</sup> 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.

<sup>(2)</sup> 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 noon rate of exchange on December 30, 2016.

- (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\$60,245, and US\$0 for 2016, 2015, and 2014, respectively). The United States dollar amounts for 2016 were US\$372,384, US\$236,836, US\$144,573, and US\$163,849 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2015 were US\$372,384, US\$236,836, US\$121,171, and US\$163,849 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2015 were US\$372,384, US\$236,836, US\$121,171, and US\$163,849 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2014 were US\$87,740, US\$235,840, US\$119,330, and US\$163,849 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada noon rate of exchange on December 30, 2016. In 2016 Messrs. Cass, Guzy and Karaffa departed their respective positions. In connection with the departure, the total of salary, salary continuance, lump sum and accrual for benefits and employment counselling for each of Messrs, Cass, Guzy and Karaffa was \$853,895, \$1,089,274 and \$684,501 respectively.
- <sup>(4)</sup> Bonus 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\$67,568, US\$97,544, and US\$0 for 2016, 2015, and 2014, respectively), and the exception of Messrs. MacEwen and Guglielmin, whose bonuses were issued as DSUs in 2015 (see footnote 5 below). The United States dollar amounts for 2016 were US\$394,727, US\$234,468, US\$109,333, and US\$146,254 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. A transition bonus of \$30,000 (US\$22,343) was awarded to Mr. Kassam upon his appointment to the Executive Team and is included in his bonus amount for 2016. The United States dollar amounts for 2015 were US\$29,390 and US\$51,096 for Messrs. Colbow and Kassam, respectively. The United States dollar amounts for 2014 were US\$0, US\$32,702, US\$14,798, and US\$18,837 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2014 were US\$0, US\$32,702, US\$14,798, and US\$18,837 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada noon rate of exchange on December 30, 2016.
- <sup>(5)</sup> In 2015, the bonus for Messrs. MacEwen and Guglielmin was issued as DSUs. 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. The number of DSUs 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 on the date of issuance). The number of DSUs issued to Messrs. MacEwen and Guglielmin for the fiscal year ended December 31, 2015 is as follows:

Bonus					
Named Executive Officer	Year	DSUs (#)	Fair Market Value of a Share (CDN\$) <sup>(A)</sup>	Total (CDN\$) <sup>(B)</sup>	
R. Randall MacEwen	2015	116,667	1.80	210,000	
Tony Guglielmin	2015	57,876	1.80	104,177	

- <sup>(A)</sup> 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.
- <sup>(B)</sup> The United States dollar amounts for 2015 were US\$156,401 and US\$77,588 for Messrs. MacEwen and Guglielmin, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada noon rate of exchange on December 30, 2016.
- <sup>6)</sup> Represents the total fair market value of PSUs/RSUs issued to each Named Executive Officer during the 2016, 2015, and 2014 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 2016. 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. In 2014, approximately 39-80% of this amount is awarded in the form of PSUs with the remaining 20-61% 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/RSUs issued to each Named Executive Officer in respect of the fiscal years ended December 31, 2016, December 31, 2015 and December 31, 2014 is as follows:

	Share-Based Awards					
Named Executive Officer	Year	PSUs/RSUs (#)	Fair Market Value of a Share (CDN\$) <sup>(C)</sup>	Total (CDN\$) <sup>(D)</sup>		
R. Randall MacEwen	2016	260,417	1.80	468,750		
	2015 <sup>(A)</sup>	325,084	2.98	968,750		
	2014	0	0	0		
Tony Guglielmin	2016	80,000	1.80	144,000		
	2015	48,322	2.98	144,000		
	2014	59,651	3.73	222,500		
Kevin Colbow	2016	41,667	1.80	75,000		
	2015	16,779	2.98	50,000		
	2014	13,405	3.73	50,000		
Karim Kassam	2016	41,667	1.80	75,000		
	2015	16,779	2.98	50,000		
	2014	13,405	3.73	50,000		
Paul Osenar <sup>(C)</sup>	2016	56,391	1.79	100,703		
	2015 <sup>(B)</sup>	60,976	1.65	100,703		
	2014	0	0	0		

(A) Included in the PSUs/RSUs issued to Mr. MacEwen in 2015 was a \$500,000 grant of 167,785 RSUs (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 RSUs were not issued until February 26, 2015.

- (B) The PSUs/RSUs issued to Dr. Osenar in 2015 was a \$100,703 grant of 60,976 RSUs (time vested only), which represented a new hire grant upon the acquisition of Protonex Technology Corporation on October 1, 2015.
- (C) The fair market value of a Share has been calculated using the Canadian dollar closing price of the Shares underlying the PSUs/RSUs on the TSX on the date of issuance with the exception of PSUs/RSUs issued to Dr. Osenar, which have been calculated using the United States dollar closing price of the Shares underlying the PSUs/RSUs on the NASDAQ on the date of issuance (US\$1.33, US\$1.23, and US\$0 for 2016, 2015, and 2014, respectively). The total value of PSUs/RSUs issued to Dr. Osenar in United States dollars were US\$75,000, US\$75,000, and US\$0 for 2016, 2015, and 2014, 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 30, 2016.
- <sup>(D)</sup> The United States dollar amounts for 2016 were US\$349,110, US\$107,247, US\$55,858, and US\$55,858 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2015 were US\$721,494, US\$107,247, US\$37,238, and US\$37,238 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2014 were US\$0, US\$165,711, US\$37,238, and US\$37,238 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada noon rate of exchange on December 30, 2016.
- (7) 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 77% and risk free interest rate of 1% for 2016; expected life of 4 years, expected volatility of 78% and risk free interest rate of 1% for 2015; and expected life of 4 years, expected volatility of 68% and risk free interest rate of 1% for 2014. 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 2016. 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. In 2013, approximately 39-80% of this amount is awarded in the form of PSUs with the remaining 20-61% 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, 2016, December 31, 2015 and December 31, 2014 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) <sup>(B)</sup>	Fair Market Value (CDN\$)) <sup>(C)</sup>	
R. Randall MacEwen	2016	154,702	1.01	156,250	
	2015 <sup>(A)</sup>	293,563	1.67	490,250	
	2014	0	0	0	
Tony Guglielmin	2016	47,524	1.01	48,000	
	2015	28,743	1.67	48,000	
	2014	29,947	1.92	57,500	
Kevin Colbow	2016	24,752	1.01	25,000	
	2015	40,000	1.67	66,800	
	2014	40,000	1.92	76,800	
Karim Kassam	2016	24,752	1.01	25,000	
	2015	40,000	1.67	66,800	
	2014	40,000	1.92	76,800	
Paul Osenar <sup>(B)</sup>	2016	33,333	1.01	33,567	
	2015	75,000	0.95	71,499	
	2014	0	0	0	

(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) 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\$0.75, US\$0.71, and US\$0 for 2016, 2015, and 2014, respectively, and the total option-based awards issued to Dr. Osenar were US\$25,000, US\$53,250, and US\$0 for 2016, 2015, and 2014, 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 30, 2016.
- <sup>(C)</sup> The United States dollar amounts for 2016 were US\$116,370, US\$35,748, US\$18,619, and US\$18,619 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2015 were US\$365,123, US\$35,749, US\$49,751, and US\$49,751 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2014 were US\$0, US\$42,823, US\$57,198, and US\$57,198 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada noon rate of exchange on December 30, 2016.
- <sup>(8)</sup> 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\$13,387, US\$3,803, and US\$0 for 2016, 2015, and 2014, respectively). The United States dollar amounts for 2016 were US\$43,920, US\$27,674, US\$14,359, and US\$15,435 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2015 were US\$73,038, US\$24,819, US\$13,063, and US\$15,322 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The United States dollar amounts for 2014 were US\$81,148, US\$26,820, US\$12,900, and US\$15,118 for Messrs. MacEwen, Guglielmin, Colbow, and Kassam, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of the table above using the Bank of Canada noon rate of exchange on December 30, 2016.

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 <sup>(A)</sup> (CDN\$)	Total (CDN\$)		
R. Randall MacEwen	2016	12,685	1,314	44,972	58,971		
	2015	12,465	1,188	84,416	98,069		
	2014	5,354	198	103,406	108,958		
Tony Guglielmin	2016	12,685	1,203	23,271	37,159		
	2015	12,465	1,077	19,784	33,326		
	2014	12,135	1,059	22,816	36,010		
Kevin Colbow	2016	9,641	637	9,000	19,278		
	2015	8,135	477	8,928	17,540		
	2014	7,993	466	8,862	17,321		
Karim Kassam	2016	11,000	723	9,000	20,723		
	2015	11,000	644	8,928	20,572		
	2014	10,808	630	8,862	20,300		
Paul Osenar	2016	0	38	17,936	17,974		
	2015	0	73	5,034	5,107		
	2014	0	0	0	0		

(A) Includes automobile allowances, temporary living and travel allowances, financial planning services and medical and health benefits. For Mr. MacEwen, other compensation in 2014 also includes a \$100,000 payment in lieu of bonus.

## **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, 2016.

#### Outstanding Share-Based Awards and Option-Based Awards (as of December 31, 2016)

		<b>Option-Bas</b>	ed Awards		Share-Ba	sed Awards
Named Executive Officer	Number of Securities Underlying Unexercised Options (#)	Option Exercise Price <sup>(1)</sup> (CDN\$)	Option Expiration Date	Value of Unexercised In- The-Money Options <sup>(2)</sup> (CDN\$)	Number of PSUs/RSUs That Have Not Vested (#)	Market or Payout Value of PSUs/RSUs That Have Not Vested <sup>(3)</sup> (CDN\$)
R. Randall MacEwen	200,000 <sup>(5)</sup> 93,563 <sup>(6)</sup> 154,702 <sup>(4)</sup>	2.98 2.98 1.80	Feb. 27, 2022 Feb. 27, 2022 Feb. 26, 2023	0 0 0	421,211	935,087
Tony Guglielmin	103,44860,67475,00029,947(7)28,743(8)47,524(4)	2.10 1.69 1.22 3.73 2.98 1.80	Mar. 9, 2018 Feb. 24, 2019 Mar. 8, 2020 Feb. 27, 2021 Feb. 27, 2022 Feb. 26, 2023	$\begin{array}{c} 12,415\\ 32,157\\ 75,000\\ 0\\ 0\\ 0\\ 0\\ 0\end{array}$	132,100	293,261
Kevin Colbow	$\begin{array}{c} 40,000\\ 7,500\\ 25,000\\ 40,000^{(9)}\\ 40,000^{(10)}\\ 24,752^{(4)}\end{array}$	2.10 1.69 1.22 3.73 2.98 1.80	Mar. 9, 2018 Feb. 24, 2019 Mar. 8, 2020 Feb. 27, 2021 Feb. 27, 2022 Feb. 26, 2023	4,800 3,975 25,000 0 0 0	57,321	127,253
Karim Kassam	$11,66740,000^{(9)}40,000^{(10)}24,752^{(4)}$	1.22 3.73 2.98 1.80	Mar. 8, 2020 Feb. 27, 2021 Feb. 27, 2022 Feb. 26, 2023	11,667 0 0 0	57,321	127,253
Paul Osenar	75,000 <sup>(11)</sup> 33,333 <sup>(4)</sup>	1.65 1.79	Oct. 2, 2022 Feb. 26, 2023	14,098 0	97,042	214,991

<sup>(1)</sup> 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 noon rate of exchange on December 30, 2016.

(2) 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 30, 2016, 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 noon rate of exchange on December 30, 2016. Where the difference is a negative number, the value is deemed to be 0. The United States dollar amount was US\$10,500 for Dr. Osenar.

(3) This amount is calculated by multiplying the number of PSUs/RSUs that have not vested by the closing price of the Shares underlying the PSUs/RSUs on the TSX or NASDAQ as at December 30, 2016, with the exception of Dr. Osenar, whose unvested PSUs/RSUs were multiplied by the closing price of the Shares underlying the PSUs/RSUs on the NASDAQ as at December 30, 2016 and then converted to Canadian dollars

for the purpose of this disclosure using the Bank of Canada noon rate of exchange on December 30, 2016. The United States dollar amount was US\$160,119 for Dr. Osenar.

Such amounts may not represent the actual value of the PSUs/RSUs which ultimately vest, as the value of the Shares underlying the PSUs/RSUs 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.
- <sup>(5)</sup> Comprising 133,333 vested and 66,667 unvested options.
- <sup>(6)</sup> Comprising 31,187 vested and 62,376 unvested options.
- <sup>(7)</sup> Comprising 19,964 vested and 9,983 unvested options.
- <sup>(8)</sup> Comprising 9,581 vested and 19,162 unvested options.
- <sup>(9)</sup> Comprising 26,666 vested and 13,334 unvested options.
- <sup>(10)</sup> Comprising 13,333 vested and 26,667 unvested options.
- <sup>(11)</sup> Comprising 25,000 vested and 50,000 unvested options.

The following table sets forth the value of the incentive plan awards vested or earned during the year ended December 31, 2016 by our Named Executive Officers.

## Incentive Plan Awards – Value Vested or Earned During the Year (2016)

Named Executive Officer	Option-Based Awards – Value Vested During the Year <sup>(1)</sup> (CDN\$)	Share-Based Awards – Value Vested During the Year <sup>(2)</sup> (CDN\$)	Non-equity incentive plan compensation – Value earned during the year (CDN\$)
R. Randall MacEwen	15,333	156,042	0
Tony Guglielmin	19,000	0	0
Kevin Colbow	6,334	0	0
Karim Kassam	8,867	0	0
Paul Osenar	32,896	57,037	0

<sup>(1)</sup> 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.

(2) 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.

The number of options vesting to Named Executive Officers under the Option Plan during the most recently completed financial year is 240,750.

Summaries of the Corporations' Option Plan and SDP are provided in Appendix "B" and "C", respectively.

As noted in the Outstanding Share-Based Awards and Option-Based Awards table, as at December 31, 2016, there were 764,995 PSUs/RSUs awarded to Named Executive Officers that were still unvested. The performance criteria for each of these RSUs 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 RSU Plan) as follows:

Named Executive Officer	Number of PSUs/RSUs That Have Not Vested	Vesting Date
R. Randall MacEwen	52,433 55,928 52,433 260,417	February 26, 2017 October 5, 2017 February 25, 2018 February 25, 2019
Tony Guglielmin	19,884 16,108 16,108 80,000	February 25, 2017 February 26, 2017 February 25, 2018 February 25, 2019
Kevin Colbow	4,469 5,592 5,593 41,667	February 25, 2017 February 26, 2017 February 25, 2018 February 25, 2019

Named Executive Officer	Number of PSUs/RSUs That Have Not Vested	Vesting Date
Karim Kassam	4,469 5,592 5,593 41,667	February 25, 2017 February 26, 2017 February 25, 2018 February 25, 2019
Paul Osenar	20,325 20,326 56,391	October 1, 2017 September 30, 2018 February 25, 2019

## 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 2016 was as follows: Mr. MacEwen received CDN\$500,000 Mr. Guglielmin received CDN\$318,000; Dr. Colbow received CDN\$194,118; Mr. Kassam received CDN\$220,000; and Dr. Osenar received CDN\$362,529.

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, upon the death of the executive. In every other circumstance for Mr. MacEwen, Mr. Guglielmin, Dr. Colbow, Dr. Osenar & Mr. Kassam, 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.

The employment contracts for the Mr. MacEwen, Mr. Guglielmin & Mr. Kassam 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/RSUs awarded under either the SDP or the Market Purchase RSU 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  $60^{\text{th}}$  day after such event.

Under the SDP and the Market Purchase RSU 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/RSUs such that holders will become immediately entitled to receive Shares in respect of their PSUs/RSUs (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, 2016: their employment was terminated without just cause; a change of control occurred; or, their employment was terminated without just cause and that termination occurred following a change in control.

	Triggering Event (as of December 31, 2016)						
Named Executive Officer	Termination of Employment <sup>(2)</sup> (CDN\$) <sup>(1)</sup>	Change of Control <sup>(3)</sup> (CDN\$) <sup>(1)</sup>	Termination of Employment following Change of Control (CDN\$) <sup>(1)</sup>				
R. Randall MacEwen							
Severance	\$1,050,000		\$1,800,000				
Other benefits	\$57,904		\$124,264				
Accelerated vesting	\$0	\$935,087	\$0				
Total	\$1,107,904	\$935,087	\$1,899,834				
Tony Guglielmin							
Severance	\$763,200		1,017,600				
Other benefits	\$102,020		\$165,842				
Accelerated vesting	\$0	\$412,833	\$0				
Total	\$865,220	\$412,833	\$1,183,442				
Kevin Colbow	· · ·						
Severance	\$366,038		\$366,038				
Other benefits	\$29,914		\$29,914				
Accelerated vesting	\$0	\$161,028	\$0				
Total	\$395,952	\$161,028	\$395,952				
Karim Kassam							
Severance	\$397,833		\$682,000				
Other benefits	\$29,638		\$75,808				
Accelerated vesting	\$0	\$138,920	\$0				
Total	\$427,471	\$138,920	\$395,952				
Paul Osenar							
Severance	US\$313,875		\$313,875				
Other benefits	US\$9,999		\$9,999				
Accelerated vesting	\$0	US\$170,618	\$0				
Total	US\$323,874	US\$170,618	\$323,874				

<sup>(1)</sup> All values are in Canadian dollars, unless otherwise stated

<sup>(2)</sup> Based on accrued service to December 31, 2016.

(3) All options and PSUs/RSUs vest immediately upon a change of control. Value shown equals, in the case of PSUs/RSUs, the price of the underlying Shares on December 31, 2016 multiplied by the number of PSUs/RSUs. Value shown in the case of Options is the difference between the market price on December 31, 2016 and the exercise price for options, for those options where the market price on that date is greater than the exercise price.

## **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 50<sup>th</sup> 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.

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 2016:

2016 Compensation Elements	CDN\$
Annual Retainer (Non-Executive Chair of the Board)	\$150,000
Annual Retainer (Director)	\$90,000
Annual Retainer (Committee Chairs)	\$15,000

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 2016, the following compensation was paid to the directors:

Director	Board Retainer (CDN\$)	Committee Retainer (CDN\$)	Total Compensation (CDN\$) <sup>(1)</sup>	
Ian A. Bourne	150,000	N/A	150,000	
Douglas P. Hayhurst <sup>(1)</sup>	90,000	8,750	98,750	
Edwin J. Kilroy <sup>(2)</sup>	37,500	6,250	43,750	
Marty Neese	90,000	0	90,000	
Jim Roche <sup>(3)</sup>	90,000	8,750	98,750	
Carol M. Stephenson <sup>(4)</sup>	90,000	6,250	96,250	
David B. Sutcliffe <sup>(5)</sup>	37,500	0	37,500	
Ian Sutcliffe	90,000	0	90,000	

1. Mr. Hayhurst was appointed Chair of the Audit Committee effective June 1, 2016 and received a pro rata portion of his committee retainer.

2. Mr. Kilroy was Chair of the Audit Committee until he left the board effective June 1, 2016 and received a pro rata portion of his board and committee retainers.

- 3. Mr. Roche was appointed Chair of the CGCC effective June 1, 2016 and received a pro rata portion of his committee retainer.
- 4. Ms. Stephenson was Chair of the CGCC until June 1, 2016 and received a pro rata portion of her committee retainer.
- 5. Mr. David Sutcliffe left the board effective June 1, 2016 and received a pro rata portion of his board retainer.

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 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, 2016.

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

		Option-Based Awards						
Name	Number of Securities Underlying Unexercised Options	Option Exercise Price <sup>(1)</sup> (CDN\$)	Option Expiration Date	Value of Unexercised In-The-Money Options <sup>(2)</sup> (CDN\$)				
Ian A. Bourne	0	-	_	-				
Doug Hayhurst	0	-	_	-				
Edwin J. Kilroy	0	-	_	-				
Marty Neese	0	-	_	-				
Jim Roche	0	-	_	-				
Carol Stephenson	0	—	_	—				
David B. Sutcliffe	0	-	_	-				
Ian Sutcliffe	0	_	_	—				

Outstanding Share-Based Awards and Option-Based Awards (as of December 31, 2016)

<sup>(1)</sup> All figures are in Canadian dollars.

<sup>(2)</sup> This amount is based on the difference between the closing price of the Shares underlying the options on the TSX as at December 30, 2016, and the exercise price of the option. Where the difference is a negative number the value is deemed to be 0.

No incentive plan awards vested for, or were earned by, our Directors during the year ended December 31, 2016.

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

### SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table sets out, as of December 31, 2016, 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	6,921,848 <sup>(1)</sup>	1.98	10,553,115	
Equity-based compensation plans not approved by security holders	Nil	N/A	N/A	
Total	6,921,848 <sup>(1)</sup>	1.98	10,553,115	

<sup>(1)</sup> 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 18, 2017, 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\$238,000 for 2016 and US\$235,000 for 2015. 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 March 1, 2017;
- Audited Annual Financial Statements for the year ended December 31, 2016 together with the auditors' report thereon; and
- Management's Discussion and Analysis for the year ended December 31, 2016.

Copies of the Incorporated Documents and all our other public filings providing additional information relating to us may be obtained at <u>www.sedar.com</u> or <u>www.sec.gov</u>, 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 2018 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 7, 2018; 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 2018 annual Shareholders' meeting if the proposal is received after the March 7, 2018 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 18, 2017

## **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 2017 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 18, 2017.

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

"RSU" means restricted share unit subject to time vesting only.

"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 18, 2017, the total number of Shares issued and reserved and authorized for issue under the Option Plan was 6,421,374 Shares, representing 3.7% of the issued and outstanding Shares as 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 60<sup>th</sup> 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 nonemployee 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 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 18, 2017, the total number of Shares issued and reserved and authorized for issue under the SDP was 1,543,265 Shares, representing 0.9% of the issued and outstanding Shares as of April 10, 2015.

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:

- (c) amendments to the definitions and other amendments of a clerical nature;
- (d) 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;
- (e) 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;
- (f) 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
- (g) 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.

## FINANCIAL INFORMATION

Management's Discussion and Analysis Consolidated Financial Statements



#### MANAGEMENT'S DISCUSSION AND ANALYSIS

This discussion and analysis of financial condition and results of operations of Ballard Power Systems Inc. ("Ballard", "the Company", "we", "us" or "our") is prepared as at March 1, 2017 and should be read in conjunction with our audited consolidated financial statements and accompanying notes for the year ended December 31, 2016. The results reported herein are presented in U.S. dollars unless otherwise stated and have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board. Additional information relating to the Company, including our Annual Information Form, is filed with Canadian (www.sedar.com) and U.S. securities regulatory authorities (www.sec.gov) and is also available on our website at www.ballard.com.

#### **BUSINESS OVERVIEW**

At Ballard, we are building a clean energy growth company. We are recognized as a world leader in proton exchange membrane ("PEM") fuel cell power system development and commercialization. Our principal business is the design, development, manufacture, sale and service of PEM fuel cell products for a variety of applications, focusing on our power product markets of Heavy-Duty Motive (consisting of bus and tram applications), Portable Power, Material Handling and Backup Power, as well as the delivery of Technology Solutions, including engineering services, technology transfer and the license and sale of our extensive intellectual property portfolio and fundamental knowledge for a variety of fuel cell applications.

A fuel cell is an environmentally clean electrochemical device that combines hydrogen fuel with oxygen (from the air) to produce electricity. The hydrogen fuel can be obtained from natural gas, kerosene, methanol or other hydrocarbon fuels, or from water through electrolysis. Ballard's clean-energy fuel cell products feature high fuel efficiency, relatively low operating temperature, low noise and vibration, compact size, quick response to changes in electrical demand, and modular design. Embedded in each Ballard fuel cell product lies a stack of unit cells designed with our proprietary PEM technology which draws on intellectual property from our patent portfolio together with our extensive experience and know-how in key areas of fuel cell stack design, operation, production processes and systems integration.

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

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

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



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

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

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

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



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

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

#### **RECENT DEVELOPMENTS**

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



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

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

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

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



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

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

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

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

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

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



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

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

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

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

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



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

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

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

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



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

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

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

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

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



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

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

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

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

On July 22, 2015, we announced the signing of an agreement to provide a 1 megawatt (1MW) ClearGen<sup>™</sup> 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

# BALLARD®

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

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

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

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



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

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

#### **OPERATING SEGMENTS**

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

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



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

#### SELECTED ANNUAL FINANCIAL INFORMATION

Cash Operating Costs, Adjusted EBITDA, Adjusted Net Loss and Adjusted Net Loss per share are non-GAAP measures. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. See reconciliation to GAAP in the Supplemental Non-GAAP Measures section.

#### 2016 Performance compared to 2016 Business Outlook

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

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

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

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



operating expense savings in excess of \$6 million.

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

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

## RESULTS OF OPERATIONS – Fourth Quarter of 2016

## Revenue and gross margin

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

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

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

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



due to product mix.

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

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

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

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

## Cash Operating Costs

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

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

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



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

## Adjusted EBITDA

(Expressed in thousands of U.S. dollars)	Three months ended December 31,						
		2016		2015		\$ Change	% Change
Adjusted EBITDA	\$	1,763	\$	(2,936)	\$	4,699	160%

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

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

## Net income (loss) attributable to Ballard

(Expressed in thousands of U.S. dollars)	Three months ended December 31,						
		2016		2015		\$ Change	% Change
Net income (loss) attributable to Ballard	\$	(1,121)	\$	(1,355)	\$	234	17%
from continuing operations							

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

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

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



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

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

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

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

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

## **RESULTS OF OPERATIONS – Year ended December 31, 2016**

#### Revenue and gross margin

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

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

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

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

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

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



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

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

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

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

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

## Cash Operating Costs

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

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



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

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

As noted above, operating costs in 2016 benefited from the positive impact of a weaker Canadian dollar, relative to the U.S. dollar. As a significant amount of our net operating costs (primarily labour) are denominated in Canadian dollars, operating expenses and Adjusted EBITDA are impacted by changes in the Canadian dollar relative to the U.S. dollar. As the Canadian dollar relative to the U.S. dollar was approximately (4%), or (5) basis points, lower in 2016 as compared to 2015, positive foreign exchange impacts on our Canadian operating cost base and Adjusted EBITDA were approximately \$1.8 million. A \$0.01 decrease in the Canadian dollar, relative to the U.S. dollar, positively impacts annual Cash Operating Costs and Adjusted EBITDA by approximately \$0.3 million to \$0.4 million.

## Adjusted EBITDA

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

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

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



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

## Net income (loss) attributable to Ballard

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

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

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



### Cash used in operating activities

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

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

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

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



## **OPERATING EXPENSES AND OTHER ITEMS**

(Expressed in thousands of U.S. dollars)			Т	hree months er	nded Dece	ember 31,	
Research and product development		2016		2015	:	\$ Change	% Change
Research and product development expense	\$	4,316	\$	3,461	\$	855	25%
Less: Depreciation and amortization expense	\$	(512)	\$	(321)	\$	(191)	60%
Less: Stock-based compensation expense	\$	(260)	\$	(74)	\$	(186)	251%
Research and Product Development (cash	\$	3,544	\$	3,066	\$	478	16%
operating cost)							
(Expressed in thousands of U.S. dollars)				Year ended	Decembe	er 31,	
Research and product development		2016		2015	:	\$ Change	% Change
	\$	19,827	\$	16,206	\$	3,621	22%
Research and product development expense	-						
Research and product development expense Less: Depreciation and amortization expense	\$	(2,214)	\$	(1,947)	\$	(267)	14%
		(2,214) (1,067)	\$ \$	(1,947) (957)	\$ \$	(267) (110)	

#### Research and product development expenses

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

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

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

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



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

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

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

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

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



(Expressed in thousands of U.S. dollars)		Three months	ended E	December 31,	
General and administrative	2016	2015		\$ Change	% Change
General and administrative expense	\$ 3,514	\$ 3,028	\$	486	16%
Less: Depreciation and amortization expense	\$ (92)	\$ (140)	\$	48	(34%)
Less: Stock-based compensation expense	\$ (493)	\$ (82)	\$	(411)	501%
General and Administrative (cash operating	\$ 2,929	\$ 2,806	\$	123	4%
cost)					
(Expressed in thousands of U.S. dollars)		Year ende	ed Decer	mber 31,	
General and administrative	2016	2015		\$ Change	% Change
General and administrative expense	\$ 12,938	\$ 10,594	\$	2,344	22%
Less: Depreciation and amortization expense	\$ (375)	\$ (280)	\$	(95)	34%
Less: Stock-based compensation expense	\$ (1,666)	\$ (1,292)	\$	(374)	29%
General and Administrative (cash operating	\$ 10,897	\$ 9,022	\$	1,875	21%

#### General and administrative expenses

cost)

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

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

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

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

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



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

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

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

(Expressed in thousands of U.S. dollars)		Т	hree months	ended D	ecember 31,	
Sales and marketing	2016		2015	\$	Change	% Change
Sales and marketing expense	\$ 1,495	\$	1,951	\$	(456)	(23%)
Less: Depreciation and amortization expense	\$ -	\$	(2)	\$	2	(100%)
Less: Stock-based compensation (expense)	\$ 172	\$	(91)	\$	263	(289%)
recovery						
Sales and Marketing (cash operating cost)	\$ 1,667	\$	1,858	\$	(191)	(10%)
			Year ende		bor 21	
(Expressed in thousands of U.S. dollars) Sales and marketing						
Sales and marketing	2016		2015	9	5 Change	% Change
Sales and marketing expense	\$ 7,190	\$	7,428	\$	(238)	(3%)
Less: Depreciation and amortization expense	\$ (4)	\$	(2)	\$	(2)	(100%)
Less: Stock-based compensation expense	\$ (291)	\$	(699)	\$	408	58%
Sales and Marketing (cash operating cost)	\$ 6,895	\$	6,727	\$	168	2%

### Sales and marketing expenses

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

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

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



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

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

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

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

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



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

Net impairment loss (recovery) on trade receivables of for the three months and year ended December 31, 2016 was (\$0.1) million in each of the periods, compared to (\$0.9) million for the year ended December 31, 2015. Net Impairment (loss) recovery on trade receivables of (\$0.9) million for 2015 consist of a (\$1.5) million impairment recovery as we collected on certain accounts in 2015 principally in Asia that were considered impaired and written down in 2014, less impairment charges in 2015 of (\$0.6) million related to non-collection of certain other accounts primarily in Asia. In the event that we are able to recover on an impaired trade receivable through legal or other means, the recovered amount is recognized in the period of recovery as a reversal of the impairment loss.

Restructuring expenses of \$2.3 million for the year ended December 31, 2016 relate primarily to cost reduction initiatives that included the elimination of approximately 50 positions including the elimination of three executive level positions. These cost reduction initiatives were primarily focused on reducing our operating cost base associated with methanol Telecom Backup Power activities as we reviewed strategic alternatives for these assets prior to the CHEM Transaction.

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

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

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



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

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

Foreign exchange gains (losses) for the three months and year ended December 31, 2016 were (\$0.7) million and (\$0.6) million, respectively, compared to (\$0.9) million and (\$0.1) million, respectively, for the corresponding periods of 2015. Foreign exchange gains and losses are attributable primarily to the effect of the changes in the value of the Canadian dollar, relative to the U.S. dollar, on our Canadian dollar-denominated net monetary position and on any outstanding foreign exchange currency contracts that are marked to market each reporting period if not qualified for hedge accounting treatment. Foreign exchange gains and losses are also impacted by the conversion of Ballard Power Systems Europe A/S' assets and liabilities from the Danish Kroner to the U.S. dollar at exchange rates in effect at each reporting date.

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

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

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

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



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

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

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

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



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

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

SUMMARY OF QUARTERLY RESULTS FROM CONTINUING OPERATIONS

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

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

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

• **Revenues**: Variations in fuel cell product and service revenues reflect the demand and timing of our customers' fuel cell vehicle, bus and fuel cell product deployments as well as the demand and timing of their engineering services projects. Variations in fuel cell product and service revenues also reflect the timing of work performed and the achievements of milestones under long-term fixed price contracts. Revenues were positively impacted as of the fourth quarter of 2015 by the acquisition of Protonex on October 1, 2015. Revenues were negatively impacted as of the second quarter of 2016 by the CHEM transaction whereby we disposed certain assets related to our methanol



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

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

### **CASH FLOWS**

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

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



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

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

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

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

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



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

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

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

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



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

## LIQUIDITY AND CAPITAL RESOURCES

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

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

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

Failure to achieve or maintain this Liquidity objective could have a material adverse effect on our financial condition and results of operations including our ability to continue as a going concern. There are also various risks and uncertainties affecting our ability to achieve this Liquidity objective including, but not limited to, the market acceptance and rate of commercialization of our products, the ability to successfully execute our business plan, and general global economic conditions, certain of which are beyond our control. While we continue to make significant investments in product development and market development activities necessary to commercialize our products, and make increased investments in working capital as we grow our business, our actual liquidity requirements will also vary and will be impacted by our relationships with our lead customers and strategic partners, our success in developing new channels to market and relationships with customers, our success in generating revenue growth from near-term product, service and licensing opportunities, our success in managing our operating expense and working capital requirements, foreign exchange fluctuations, and the progress and results of our research, development and demonstration programs.

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



fixed price of \$1.50 per common share, and 1.7 million warrants outstanding (expire on October 9, 2018) from the October 2013 underwritten offering each of which enable the holder to purchase one common share at a fixed price of \$2.00 per common share. If any of these warrants are exercised, our liquidity position would be further augmented. We may also choose to pursue additional liquidity through the issuance of debt or equity in private or public market financings. To enable such an action and to allow the exercise of warrants, we filed a new short form base shelf prospectus ("Prospectus") in June 2016 ahead of the expiry of our existing short form base shelf prospectus in each of the provinces and territories of Canada, except Quebec, and a corresponding shelf registration statement on Form F-10 ("Registration Statement") with the United States Securities and Exchange Commission. These filings enable offerings of equity securities during the effective period (to July 2018) of the Prospectus and Registration Statements. However, no assurance can be given that any such additional liquidity will be available or that, if available, it can be obtained on terms favorable to the Company.

### 2017 BUSINESS OUTLOOK

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

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

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

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



could adversely impact our Heavy-Duty market, potential disruptions in the Material Handling market as a result of our reliance on a single customer in this market and that customer's internal stack development and commercialization plans, and fluctuations in the Canadian dollar, relative to the U.S. dollar, as a significant portion of our Technology Solutions revenues (including the technology development and engineering services agreement with Volkswagen) are priced in Canadian dollars.

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

## **OFF-BALANCE SHEET ARRANGEMENTS & CONTRACTUAL OBLIGATIONS**

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

At December 31, 2016, we did not have any other material obligations under guarantee contracts, retained or contingent interests in transferred assets, outstanding derivative instruments or non-consolidated variable interests.

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

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

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



related primarily to the ongoing implementation of an ERP management reporting software system and for purchases of capital assets. Capital expenditures and expenditures on other intangible assets pertain to our regular operations and are expected to be funded through cash on hand.

In connection with the acquisition of intellectual property from UTC on April 24, 2014, we retain a royalty obligation to pay UTC a portion (typically 25%) of any future intellectual property sale and licensing income generated from our intellectual property portfolio for a period of 15-years expiring in April 2029.

As at December 31, 2016, we retain a previous funding obligation to pay royalties of 2% of revenues (to a maximum of Canadian \$5.4 million) on sales of certain fuel cell products for commercial distributed utility applications. No royalties have been incurred to date as a result of this agreement. We also retain a previous funding obligation to pay royalties of 2% of revenues (to a maximum of Canadian \$2.2 million) on sales of certain fuel cell products for commercial transit applications. No royalties have been incurred to date as a result of this agreement.

In the ordinary course of business or as required by certain acquisition or disposition agreements, we are periodically required to provide certain indemnities to other parties.

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

## RELATED PARTY TRANSACTIONS

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

(Expressed in thousands of U.S. dollars)	Dec	Three Mor cember 31,	nths and Year	Ended
Transactions with related parties		2016		2015
Revenues	\$	4,389	\$	-
Purchases	\$	-	\$	-
(Expressed in thousands of U.S. dollars)			As at Decem	bor 21
(		2016	As at Decem	2015
Balances with related parties		2010		
Balances with related parties Investments	\$	1,185	\$	-
•	\$		\$ \$	-

We also provide key management personnel, being board directors and executive officers, certain benefits, in addition to their salaries. Key management personnel also participate in



the Company's share-based compensation plans. Key management personnel compensation is summarized in note 30 to our annual consolidated financial statements for the year ended December 31, 2016.

## OUTSTANDING SHARE DATA

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

# CRITICAL ACCOUNTING POLICIES AND KEY SOURCES OF ESTIMATION UNCERTAINTY

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

## Critical Judgments in Applying Accounting Policies:

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

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

## Key Sources of Estimation Uncertainty:

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

## REVENUE RECOGNITION

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

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



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

On standard licensing and sale and technology transfer agreements, revenues are recognized on the transfer of the rights to the licensee if (i) the rights to the assets are assigned to the licensee in return for a fixed fee or a non-refundable guarantee; (ii) the contract is non-cancellable; (iii) the licensee is able to exploit its rights to the asset freely; and (iv) the Company has no remaining obligations to perform. Otherwise, the proceeds are considered to relate to the right to use the asset over the license period and the revenue is recognized over that period. Revenue recognition for license and sale agreements does not usually involve significant estimates.

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

On long-term fixed price contracts, revenues are recorded on the percentage-of-completion basis over the duration of the contract, which consists of recognizing revenue on a given contract proportionately with its percentage of completion at any given time. The percentage of completion is determined by dividing the cumulative costs incurred as at the balance sheet date by the sum of incurred and anticipated costs for completing a contract.

- The determination of anticipated costs for completing a contract is based on estimates that can be affected by a variety of factors such as variances in the timeline to completion, the cost of materials, the availability and cost of labour, as well as productivity.
- The determination of potential revenues includes the contractually agreed amount and may be adjusted based on the estimate of our attainment on achieving certain defined contractual milestones. Management's estimation is required in determining the probability that the revenue will be received and in determining the measurement of that amount.

Estimates used to determine revenues and costs of long-term fixed price contracts involve uncertainties that ultimately depend on the outcome of future events and are periodically revised as projects progress. There is a risk that a customer may ultimately disagree with our assessment of the progress achieved against milestones, or that our estimates of the work required to complete a contract may change. The cumulative effect of changes to anticipated revenues and anticipated costs for completing a contract are recognized in the period in which the revisions are identified. If the anticipated costs exceed the anticipated revenues on a contract, such loss is recognized in its entirety in the period it becomes known.



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

## ASSET IMPAIRMENT

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

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

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

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

We perform the annual review of goodwill as at December 31 of each year, more often if events or changes in circumstances indicate that it might be impaired. Under IFRS, the annual review of goodwill requires a comparison of the carrying value of the asset to the higher of (i) value in use; and (ii) fair value less costs to sell. Value in use is defined as the present value of future cash flows expected to be derived from the asset in its current state.



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

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

In addition to the above goodwill impairment test, we perform a quarterly assessment of the carrying amounts of our non-financial assets (other than inventories) to determine whether there is any indication of impairment. During the year ended December 31, 2016, we recorded impairment losses on intangible assets of (\$0.8) million and impairment losses on property, plant and equipment of (\$0.4) million as we wrote-down certain methanol Telecom Backup Power assets to their estimated net realizable value of \$nil. The impairment charges were incurred during the first quarter of 2016 while we continued to review strategic alternatives for our methanol Telecom Backup Power assets prior to concluding the transaction with CHEM in the second quarter of 2016.

#### WARRANTY PROVISION

A provision for warranty costs is recorded on product sales at the time of shipment. In establishing the accrued warranty liabilities, we estimate the likelihood that products sold



will experience warranty claims and the cost to resolve claims received.

In making such determinations, we use estimates based on the nature of the contract and past and projected experience with the products. Should these estimates prove to be incorrect, we may incur costs different from those provided for in our warranty provisions. During the three months and year ended December 31, 2016, we recorded provisions to accrued warranty liabilities of \$0.4 million and \$1.1 million, respectively, for new product sales, compared to \$0.3 million and \$0.9 million, respectively, for the three months and year ended December 31, 2015.

We review our warranty assumptions and make adjustments to accrued warranty liabilities quarterly based on the latest information available and to reflect the expiry of contractual obligations. Adjustments to accrued warranty liabilities are recorded in cost of product and service revenues. As a result of these reviews and the resulting adjustments, our warranty provision and cost of revenues for the three months and year ended December 31, 2016 were adjusted downwards by a net amount of \$0.4 million and \$0.5 million, respectively, compared to a net adjustment downwards of \$0.5 million and \$1.3 million for the three months and year ended December 31, 2016. The positive adjustments to the accrued warranty liability provisions in 2016 were due primarily to contractual expirations and improved lifetimes of our Backup Power products, whereas the positive adjustments to the accrued warranty liability provision in 2015 were due primarily due to contractual warranty expirations and improved lifetimes and reliability of our Heavy-Duty Motive products.

#### INVENTORY PROVISION

In determining the lower of cost and net realizable value of our inventory and establishing the appropriate provision for inventory obsolescence, we estimate the likelihood that inventory carrying values will be affected by changes in market pricing or demand for our products and by changes in technology or design which could make inventory on hand obsolete or recoverable at less than cost. We perform regular reviews to assess the impact of changes in technology and design, sales trends and other changes on the carrying value of inventory. Where we determine that such changes have occurred and will have a negative impact on the value of inventory on hand, appropriate provisions are made. If there is a subsequent increase in the value of inventory on hand, reversals of previous write-downs to net realizable value are made. Unforeseen changes in these factors could result in additional inventory provisions, or reversals of previous provisions, being required. During the three months and year ended December 31, 2016, negative inventory adjustments of (\$0.6) million were recorded as a charge to cost of product and service revenues, compared to negative inventory adjustments of (\$0.4) million and (\$0.6) million, respectively, for the three months and year ended December 31, 2015.

### IMPAIRMENT (LOSSES) RECOVERIES ON TRADE RECEIVABLES

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



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

## EMPLOYEE FUTURE BENEFITS

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

### INCOME TAXES

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

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

## NEW AND FUTURE IFRS ACCOUNTING POLICIES Recently Adopted Accounting Policy Changes:

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

### Future Accounting Policy Changes:

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



## IFRS 2 – SHARE-BASED PAYMENTS

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

The amendments provide requirements on the accounting for:

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

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

## IFRS 15 – REVENUE FROM CONTRACTS WITH CUSTOMERS

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

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

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

### IFRS 9 – FINANCIAL INSTRUMENTS

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



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

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

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

### IFRS 16 – LEASES

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

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

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

### SUPPLEMENTAL NON-GAAP MEASURES

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



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

## **Cash Operating Costs**

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

We also believe Cash Operating Costs is frequently used by securities analysts and investors when comparing our results with those of other companies. Cash Operating Costs differs from the most comparable GAAP measure, operating expenses, primarily because it does not include stock-based compensation expense, depreciation and amortization, impairment losses or recoveries on trade receivables, restructuring charges, acquisition costs, and financing charges. The following tables show a reconciliation of operating expenses to Cash Operating Costs for the three months and year ended December 31, 2016 and 2015:

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

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

The components of Cash Operating Costs of research and product development (operating cost), general and administrative (operating cost), and sales and marketing (operating cost) differ from their respective most comparable GAAP measure of research and product development expense, general and administrative expense, and sales and marketing expense, primarily because they do not include stock-based compensation expense and depreciation and amortization expense. A reconciliation of these respective operating expenses to the respective components of Cash Operating Costs for the three months and year ended December 31, 2016 and 2015 is included in Operating Expense and Other Items.

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

(Expressed in thousands of U.S. dollars)	Three months ended December 31,					
Stock-based compensation expense	<b>ense 2016</b> 2015		\$ Change			
Total stock-based compensation expense						
recorded as follows:						
Cost of goods sold	\$	-	\$	-	\$	-
Research and product development expense		260		74		186
General and administrative expense		493		82		411
Sales and marketing expense (recovery)		(172)		92		(264)
Stock-based compensation expense	\$	581	\$	248	\$	333
(Expressed in thousands of U.S. dollars) Stock-based compensation expense		Year ended December 31,				¢ Change
· ·		2016		2015		\$ Change
Total stock-based compensation expense recorded as follows:						
Cost of goods sold	\$	-	\$	-	\$	-
Research and product development expense		1,067		957		110
General and administrative expense		1,666		1,292		374
Sales and marketing expense		291		700		(409)
Stock-based compensation expense	\$	3,024	\$	2,949	\$	75

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

(Expressed in thousands of U.S. dollars)	Three months ended December 31,						
Depreciation and amortization expense		<b>2016</b> 2015			\$ Change		
Total depreciation and amortization expense							
recorded as follows:							
Cost of goods sold	\$	451	\$	1,073	\$	(622)	
Research and product development expense		512		321		191	
General and administrative expense		92		140		(48)	
Sales and marketing expense		1		2		(1)	
Depreciation and amortization expense	\$	1,056	\$	1,536	\$	(480)	
(Expressed in thousands of U.S. dollars)			Year ended December 31,				
Depreciation and amortization expense		2016	<b>6</b> 2015			\$ Change	
Total depreciation and amortization expense							
recorded as follows:							
Cost of goods sold	\$	1,951	\$	2,146	\$	(195)	
Research and product development expense		2,214		1,947		267	
General and administrative expense		375		280		95	
Sales and marketing expense		4		2		2	
Depreciation and amortization expense	\$	4,544	\$	4,375	\$	169	

## EBITDA and Adjusted EBITDA

These supplemental non-GAAP measures are provided to assist readers in determining our operating performance. We believe this measure is useful in assessing performance and highlighting trends on an overall basis. We also believe EBITDA and Adjusted EBITDA are



frequently used by securities analysts and investors when comparing our results with those of other companies. EBITDA differs from the most comparable GAAP measure, net loss attributable to Ballard, primarily because it does not include finance expense, income taxes, depreciation of property, plant and equipment, amortization of intangible assets, and goodwill impairment charges. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, asset impairment charges, finance and other income, and acquisition costs. The following tables show a reconciliation of net loss attributable to Ballard to EBITDA and Adjusted EBITDA for the three months and year ended December 31, 2016 and 2015:

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

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

### **Adjusted Net Loss**

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



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

(Expressed in thousands of U.S. dollars)	Th	ree months	ended Septembe	er 30,			
Adjusted Net Loss	2016		2015		\$ Change		
Net (loss) attributable to Ballard	\$ (1,121)	\$	(1,355)	\$	234		
Impairment loss (recovery) on trade receivables	(132)		(39)		(93)		
Acquisition and integration costs	-		902		(902)		
Gain on sale of intellectual property	-		(5,424)		5,424		
Loss on sale of assets	260		-		260		
Adjusted Net Loss	\$ (993)	\$	(5,916)	\$	4,923		
Adjusted Net Loss per share	\$ (0.01)	\$	(0.04)	\$	0.03		
(Expressed in thousands of U.S. dollars)		Year ende	ed December 31,				
Adjusted Net Loss	<b>2016</b> 2015				\$ Change		
Net (loss) attributable to Ballard	\$ (21,112)	\$	(5,815)	\$	(15,297)		
Impairment loss (recovery) on trade receivables	(63)		(899)		836		
Acquisition and integration costs	43		1,542		(1,499)		
Gain on sale of intellectual property	-		(19,619)		19,619		
Loss on sale of assets	632		-		632		
Impairment charges on intangible assets and property, plant and equipment	1,151		-		1,151		

# MANAGEMENT'S REPORT ON DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING

(19, 349)

(0.12)

\$

\$

(24,791)

(0.18)

\$

\$

5.442

0.06

\$

\$

# Disclosure controls and procedures

Adjusted Net Loss

Adjusted Net Loss per share

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

As of the end of the period covered by this report, we evaluated, under the supervision and with the participation of management, including the CEO and the CFO, the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a–15(e) and 15d-15(e) of the Securities Exchange Act of 1934 ("Exchange Act"). The CEO and CFO have concluded that as of December 31, 2016, our disclosure controls and procedures were effective to ensure that information required to be disclosed in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified therein, and accumulated and reported to management to allow timely discussions regarding required disclosure.

# Internal control over financial reporting

The CEO and CFO, together with other members of management, are responsible for



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

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

Management, including the CEO and CFO, have evaluated the effectiveness of internal control over financial reporting, as defined in Rules 13a–15(f) of the Exchange Act, in relation to criteria described in *Internal Control–Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on this evaluation, Management has determined that internal control over financial reporting was effective as of December 31, 2016.

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

# Changes in internal control over financial reporting

During the year ended December 31, 2016, we updated the design of our disclosure controls and procedures and internal controls over financial reporting to include the controls, policies and procedures of Protonex, which was acquired on October 1, 2015. During the year ended December 31, 2016, there were no other changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting. Our design of disclosure controls and procedures and internal controls over financial reporting now includes controls, policies and procedures covering both Protonex and Ballard Power Systems Europe A/S (formerly Dantherm Power A/S).

# **RISKS & UNCERTAINTIES**

An investment in our common shares involves risk. Investors should carefully consider the risks and uncertainties described below and in our Annual Information Form which remain substantively unchanged. The risks and uncertainties described in our Annual Information Form are not the only ones we face. Additional risks and uncertainties, including those that we do not know about now or that we currently deem immaterial, may also adversely affect our business. For a more complete discussion of the risks and uncertainties which apply to our business and our operating results, please see our Annual Information Form and other filings with Canadian (www.sedar.com) and U.S. securities regulatory authorities (www.sec.gov).

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

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



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



- We could lose or fail to attract the personnel necessary to run our business;
- Public Policy and regulatory changes could hurt the market for our products;
- We are dependent on third party suppliers for the supply of key materials and components for our products and services;
- Exchange rate fluctuations are beyond our control and may have a material adverse effect on our business, operating results, financial condition and profitability;
- Commodity price fluctuations are beyond our control and may have a material adverse effect on our business, operating results, financial condition and profitability;
- We could be liable for environmental damages resulting from our research, development or manufacturing operations; and
- Our products use flammable fuels and some generate high voltages, which could subject our business to product liability claims.

# FORWARD-LOOKING STATEMENTS DISCLAIMER

This document contains forward-looking statements that are based on the beliefs of management and reflect our current expectations as contemplated under the safe harbor provisions of Section 21E of the United States Securities Exchange Act of 1934, as amended. Such statements include, but are not limited to, statements with respect to our objectives, goals, liquidity, sources of capital and our outlook including our estimated revenue and gross margins, cash flow from operations, Cash Operating Costs, EBITDA and Adjusted EBITDA (see Non-GAAP Measures) as well as statements with respect to our beliefs, plans, objectives, expectations, anticipations, estimates and intentions. Words such as "estimate", "project", "believe", "anticipate", "intend", "expect", "plan", "predict", "may", "should", "will", the negatives of these words or other variations thereof and comparable terminology are intended to identify forward-looking statements. These statements are not guarantees of future performance and involve assumptions, risks and uncertainties that are difficult to predict.

In particular, these forward-looking statements are based on certain factors and assumptions relating to our expectations with respect to the generation of new sales, producing, delivering and selling the expected product and service volumes at the expected prices, controlling our costs, and obtaining the expected benefits arising from the Protonex acquisition. They are also based on a variety of general factors and assumptions including, but not limited to, our expectations regarding product development efforts, manufacturing capacity, product and service pricing, market demand, and the availability and prices of raw materials, labour and supplies. These assumptions have been derived from information available to the Company including information obtained by the Company from third parties. These assumptions may prove to be incorrect in whole or in part. In addition, actual results may differ materially from those expressed, implied, or forecasted in such forward-looking statements. Factors that could cause our actual results or outcomes to differ materially from the results expressed, implied or forecasted in such forward-looking statements include, but are not limited to: the condition of the global economy; the rate of mass adoption of our products; changes in product or service pricing; changes in our customers' requirements, the competitive environment and related market conditions; product development delays; changes in the availability or price of raw materials, labour and supplies; our ability to



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

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

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

# BALLARD POWER SYSTEMS INC.

Years ended December 31, 2016 and 2015

# 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, 2016. 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, 2016. 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"

RANDALL MACEWEN President and Chief Executive Officer March 1, 2017 "TONY GUGLIELMIN"

TONY GUGLIELMIN Vice President and Chief Financial Officer March 1, 2017



#### KPMG LLP

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# REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Directors of Ballard Power Systems Inc.

We have audited the accompanying consolidated statements of financial position of Ballard Power Systems Inc. as of December 31, 2016 and December 31, 2015 and the related consolidated statements of loss and comprehensive loss, changes in equity and cash flows for the years then ended. These consolidated financial statements are the responsibility of Ballard Power Systems Inc.'s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Ballard Power Systems Inc.as of December 31, 2016 and December 31, 2015, and its consolidated financial performance and its consolidated cash flows for the years then ended in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Ballard Power Systems Inc.'s internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 1, 2017 expressed an unqualified opinion on the effectiveness of Ballard Power Systems Inc.'s internal control over financial reporting.

# **KPMG LLP (Signed)**

**Chartered Professional Accountants** 

March 1, 2017 Vancouver, Canada



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# **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Shareholders and Directors of Ballard Power Systems Inc.

We have audited Ballard Power Systems Inc.'s (the "Company") internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Ballard Power Systems Inc.'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 section titled "Management's Report on Disclosure Controls and Procedures and Internal Controls over Financial Reporting" under the heading "Internal Control over Financial Reporting" included in the Company's Management's Discussion and Analysis. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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 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.

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.



In our opinion, Ballard Power Systems Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based "criteria established in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States), the consolidated statements of financial position of Ballard Power Systems Inc. as of December 31, 2016 and December 31, 2015, and the related consolidated statements of loss and comprehensive loss, changes in equity, and cash flows for the years then ended, and our report dated March 1, 2017 expressed an unqualified opinion on those consolidated financial statements.

# KPMG LLP (Signed)

**Chartered Professional Accountants** 

March 1, 2017 Vancouver, Canada

Consolidated Statement of Financial Position

(Expressed in thousands of U.S. dollars)

	Note	Dec	ember 31, 2016	December 31, 2015		
• .	Note		2010		2013	
Assets						
Current assets:						
Cash and cash equivalents	_	\$	72,628	\$	40,049	
Trade and other receivables	8		14,924		25,484	
Inventories	9		17,228		20,369	
Prepaid expenses and other current assets			2,973		1,672	
Total current assets			107,753		87,574	
Non-current assets:						
Property, plant and equipment	10		15,701		16,72	
Intangible assets	11		18,083		16,32	
Goodwill	12		40,562		40,56	
Investments	13		1,191			
Other long-term assets			156		13!	
Total assets		\$	183,446	\$	161,337	
Liabilities and Equity						
Current liabilities:						
Trade and other payables	15	\$	17,767	\$	17,220	
Deferred revenue			20,621		6,08	
Provisions	16		3,568		5,36	
Finance lease liability	14 & 17		569		1,01	
Debt to Ballard Power Systems Europe A/S non-controlling interest	18		521		504	
Total current liabilities			43,046		30,188	
Non-current liabilities:						
Finance lease liability	14 & 17		6,428		6,723	
Deferred gain on finance lease	17		3,398		3,829	
Provisions	16		3,864		3,640	
Employee future benefits	19		5,167		5,33	
Total liabilities			61,903		49,71	
Equity:						
Share capital	20		977,707		948,21	
Contributed surplus	20		295,547		293,33	
Accumulated deficit		(	1,149,128)		(1,127,65	
Foreign currency reserve			718		56	
Total equity attributable to equity holders			124,844		114,45	
Ballard Power Systems Europe A/S non-controlling interest			(3,301)		(2,84	
Total equity			121,543		111,61	
Total liabilities and equity		\$	183,446	\$	161,33	

See accompanying notes to consolidated financial statements.

Approved on behalf of the Board:

"Doug Hayhurst" Director "Ian Bourne" Director

Dir

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	2016	2015
Revenues:			
Product and service revenues	\$	85,270 \$	56,463
Cost of product and service revenues		61,086	46,489
Gross margin		24,184	9,974
Operating expenses:			
Research and product development		19,827	16,206
General and administrative		12,938	10,594
Sales and marketing		7,190	7,428
Other expense	25	2,298	630
Total operating expenses		42,253	34,858
Results from operating activities		(18,069)	(24,884)
Finance income (loss) and other	26	(777)	(305)
Finance expense	26	(686)	(794)
Net finance expense		(1,463)	(1,099)
Gain (loss) on sale of assets	27	(623)	1
Gain on sale of intellectual property	11	-	19,619
Impairment charges on intangible assets and property, plant and equipment	28	(1,151)	-
Loss before income taxes		(21,306)	(6,363)
Income tax expense	29	(381)	(211)
Net loss		(21,687)	(6,574)
Other comprehensive income (loss):			
Items that will not be reclassified to profit or loss:			
Actuarial gain (loss) on defined benefit plans	19	(361)	168
		(361)	168
Items that may be reclassified subsequently to profit or loss:			
Foreign currency translation differences		268	560
		268	560
Other comprehensive income (loss), net of tax		(93)	728
Total comprehensive loss	\$	(21,780) \$	5 (5,846)

See accompanying notes to consolidated financial statements.

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)

		2016	2015
Net loss attributable to:			
Ballard Power Systems Inc.	\$	(21,112)	\$ (5,815)
Ballard Power Systems Europe A/S non-controlling interest		(575)	(759)
Net loss	\$	(21,687)	\$ (6,574)
Total comprehensive loss attributable to:			
Ballard Power Systems Inc.	\$	(21,322)	\$ (5,351)
Ballard Power Systems Europe A/S non-controlling interest		(458)	(495)
Total comprehensive loss	\$	(21,780)	\$ (5,846)
Basic and diluted loss per share attributable to Ballard Power Systems Inc.			
Loss per share	\$	(\$0.13)	\$ (0.04)
Weighted average number of common shares outstanding	10	53,449,737	140,393,579

See accompanying notes to consolidated financial statements.

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

	Ballard Power	Syste	ems Inc. Ec	quity	1				Ballard Power Systems Europe A/S	
	Number of shares		Share capital	C	Contributed surplus	Accumulated deficit	С	Foreign urrency reserve	Non- controlling interests	To equi
Balance, December 31, 2014	132,104,116	\$	914,786	\$	288,533	\$ (1,121,671)	\$	280	\$ (2,694)	\$ 79,2
Net loss	-		-		-	(5,815)		-	(759)	(6,5
Non-dilutive financing (note 21)	-		-		3,347	-		-	-	3,3
Net Offering proceeds (note 20)	9,343,750		13,389		-	-		-	-	13,3
Acquisition (note 7)	11,415,704		13,699		-	-		-	-	13,6
Private placement (note 20)	3,322,479		4,987		-	-		-	-	4,9
DSUs redeemed (note 20)	83,619		354		(520)	-		-	-	(1
RSUs redeemed (note 20)	119,627		203		(345)	-		-	-	(1-
Options exercised (note 20)	322,892		627		(239)	-		-	-	3
Warrants exercised (note 20)	125,000		168		-	-		-	-	1
Share distribution plan	-		-		2,556	-		-	-	2,5
Ballard Power Systems Europe NCI adjustment for cancellation of Azure shares	-		-		-	(337)		-	337	
Other comprehensive income (loss):										
Defined benefit plan actuarial loss	-		-		-	168		-	-	1
Foreign currency translation for foreign operations	-		-		-	-		287	273	5
Balance, December 31, 2015	156,837,187	\$	948,213	\$	293,332	\$ (1,127,655)	\$	567	\$ (2,843)	\$ 111,6
Net loss	-		-		-	(21,112)			(575)	(21,68
Net Offering proceeds (note 20)	17,250,000		28,199		-	-		-	-	28,19
DSUs redeemed (note 20)	146,211		299		(565)	-		-	-	(20
RSUs redeemed (note 20)	80,945		161		(283)	-		-	-	(12
Options exercised (note 20)	435,287		835		(339)	-		-	-	49
Share distribution plan	-		-		3,402	-		-	-	3,40
Other comprehensive income:										
Defined benefit plan actuarial loss	-		-		-	(361)		-	-	(36
Foreign currency translation for foreign operations	-		-		-	-		151	117	20
Balance, December 31, 2016	174,749,630	\$	977,707	\$	295,547	\$ (1,149,128)	\$	718	\$ (3,301)	\$ 121,54

See accompanying notes to consolidated financial statements.

Consolidated Statement of Cash Flows For the year ended December 31 (Expressed in thousands of U.S. dollars)

	Note	2016	2015
Cash provided by (used in):			
Operating activities:			
Net loss for the year		\$ (21,687)	\$ (6,574)
Adjustments for: Share-based compensation	20	3,024	2,950
Employee future benefits		235	278
Employee future benefits plan contributions		(760)	(740)
Depreciation and amortization		4,544	4,375
(Gain)/loss on decommissioning liabilities		218	(602)
(Gain)/loss on sale of assets	27 11	623	(1)
Gain on sale of intellectual property Impairment charges on intangible assets and property, plant and equipment	28	- 1,151	(19,619)
Impairment loss on trade receivables	25	390	456
Unrealized (gain)/loss on forward contracts		(151)	162
	-	(12,413)	(19,315)
Changes in non-cash working capital:	-		
Trade and other receivables		(771)	410
Inventories		(2,339)	(5,550)
Prepaid expenses and other current assets		(1,322)	(166)
Trade and other payables Deferred revenue		1,010 14,536	(1,344) 4,213
Warranty provision		(2,605)	(3,612)
	-	8,509	(6,049)
Cash used in operating activities	-	(3,904)	(25,364)
Investing activities:			
Additions to property, plant and equipment	10	(2,778)	(2,282)
Net proceeds on sale of property, plant and equipment and other	27	3,009	1
Additions to intangible assets	11	(4,103)	(1,604)
Net proceeds on sale of intangible assets	11 7	9,244	29,475 1,464
Cash and cash equivalents acquired on acquisition of Protonex Acquisition of Protonex	, 7	-	(3,772)
Investment in associated companies	4(a)&13	(180)	(0,772)
Cash provided by (used in) investing activities	· · ·	5,192	23,282
Financing activities:	-		
Non-dilutive equity financing	21	3,347	-
Net payment of finance lease liabilities		(1,042)	(845)
Net proceeds on issuance of share capital from underwritten Offering	20	-	13,389
Net proceeds on issuance of share capital from private placement	20	28,199	4,987
Net proceeds on issuance of share capital from stock option exercises	20	496	388
Net proceeds on issuance of share capital from warrant exercises	20	-	168
Cash provided by financing activities	-	31,000	18,087
Effect of exchange rate fluctuations on cash and cash equivalents held		291	373
Increase (decrease) in cash and cash equivalents		32,579	16,378
Cash and cash equivalents, beginning of year	-	40,049	23,671
		72,628	40,049

Supplemental disclosure of cash flow information (note 31). See accompanying notes to consolidated financial statements.

# 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 and tram applications), Portable Power, Material Handling and Backup Power, as well as the delivery of Technology Solutions, including engineering services, technology transfer and the license and sale of 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, 2016 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 March 1, 2017.

(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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 2. Basis of preparation (cont'd):

(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.

(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, 2016 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:

	Percent	Percentage ownership		
	2016	2015		
Ballard Fuel Cell Systems Inc.	100%	100%		
Ballard Power Corporation	100%	100%		
Ballard Services Inc.	100%	100%		
Ballard Hong Kong Ltd.	100%	N/A		
Ballard Power Systems Europe A/S	57%	57%		
Protonex Technology Corporation	100%	100%		

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 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 (and subsequent definitive signed agreements) to establish Mk9 SSL fuel cell stack manufacturing capabilities in China.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 4. Significant accounting policies (cont'd):

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

In setting up the joint venture, as specified in the Equity Joint Venture Agreement ("EJV") dated September 26, 2016, Synergy will contribute RMB 60,300,000 (approximately \$9,000,000) and the Corporation will contribute RMB 6,700,000, (approximately \$1,000,000) by March 25, 2017 which represents 90% and 10% of the registered capital in Synergy JVCo, respectively. The parties will make their contributions in cash and are 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 will instead be accounted for using the equity method of accounting. Although the Corporation is not obligated to pay for its 10% investment in Synergy JVCo until March 25, 2017, it obtained ownership of the 10% investment as of the date of the EJV. This RMB 6,700,000 payable has been accrued by the Corporation as of December 31, 2016.

On October 1, 2015, the Corporation acquired Protonex Technology Corporation (note 7), a leading designer and manufacturer of advanced power management products and portable fuel cell solutions.

On January 18, 2010, the Corporation acquired a controlling 45% interest in Ballard Power Systems Europe A/S ("BPSE"). BPSE has been consolidated since acquisition. Acquisitions of noncontrolling interest are accounted as transactions with equity holders in their capacity as equity holders; therefore no gain or loss is recognized as a result of such transactions. In August 2010, the Corporation acquired an additional 7% interest in BPSE and a further 5% interest in December 2012. On March 31, 2013, Azure Hydrogen Energy Science and Technology Corporation ("Azure") acquired a 10% ownership interest in BPSE, which reduced the Corporation's interest from 57% to 51.3%. On June 8, 2015, the Corporation agreed to a mutual release with Azure whereby each party mutually released and forever discharged each other from any and all liability arising from the prior year's licensing agreements. Pursuant to the Azure Mutual Release Agreement, Azure returned its 10% ownership position in BPSE for \$nil proceeds, upon which the shares were cancelled by BPSE on June 17, 2015. Following the Azure Mutual Release Agreement, the Corporation's controlling ownership position in BPSE was increased from 52% to 57%. The remaining 43% interest was held by Dansk Industri Invest A/S (previously Dantherm 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 \$43,000 (note 34).

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

- (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.

- (c) Financial instruments:
  - (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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

## (c) Financial instruments (cont'd):

## (i) Financial assets (cont'd)

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 interestbearing 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, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number 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 and debt to BPSE noncontrolling shareholders. 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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number 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

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.

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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

#### (d) Inventories (cont'd):

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.

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	e 5 years

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

(e) Property, plant and equipment (cont'd):

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 expense and the 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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

- (g) Goodwill and intangible assets (cont'd):
  - (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.

(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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

- (h) Impairment (cont'd):
  - (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.

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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

#### (i) Provisions (cont'd):

## 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.

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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 4. Significant accounting policies (cont'd):

(j) Revenue recognition (cont'd):

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 availablefor-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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

(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.

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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

## 4. Significant accounting policies (cont'd):

(m) Employee benefits (cont'd):

## 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.

#### 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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 4. Significant accounting policies (cont'd):

(n) Share-based compensation plans (cont'd):

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 20. 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.

# 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.

# 5. Critical judgments in applying accounting policies and key sources of estimation uncertainty (cont'd):

(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.

(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.

# 5. Critical judgments in applying accounting policies and key sources of estimation uncertainty (cont'd):

(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 writedowns 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.

(f) 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.

# 5. Critical judgments in applying accounting policies and key sources of estimation uncertainty (cont'd):

(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.

# 6. Recent accounting pronouncements and future accounting policy changes:

The Corporation did not adopt any new accounting standard changes or amendments in 2016 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 sharebased payments;
- share-based payment transactions with a net settlement feature for withholding tax obligations; and
- a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled.

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

# (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.

#### **BALLARD POWER SYSTEMS INC.** Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 6. Recent accounting pronouncements and future accounting policy changes (cont'd):

(b) IFRS 15 – Revenue from Contracts with Customers (cont'd)

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 fivestep analysis of transactions to determine whether, how much, and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized. The new standard applies to contracts with customers. It does not apply to insurance contracts, financial instruments or lease contracts, which fall in the scope of other IFRSs. The clarifications to IFRS 15 provide additional guidance with respect to the five-step analysis, transition, and the application of the Standard to licenses of intellectual property.

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

(c) IFRS 9 – Financial Instruments

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

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

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

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

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 6. Recent accounting pronouncements and future accounting policy changes (cont'd):

#### (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.

#### 7. Acquisition:

On October 1, 2015, the Corporation completed the acquisition of Protonex, a leading designer and manufacturer of advanced power management products and portable fuel cell solutions. As consideration for the transaction, the Corporation assumed and paid certain of Protonex' debt obligations and transaction costs on closing of \$3,772,000, and issued 11,415,704 of Ballard shares at fair value of \$1.20 per share at a total value of \$13,699,000, for total purchase consideration of \$17,471,000. The fair value of the Corporation's 11,415,704 common shares has been measured for accounting purposes using the closing price of the Ballard common shares on the day immediately preceding the acquisition date.

The acquisition has been accounted for as a business combination using the acquisition method of accounting in accordance with IFRS 3 *Business Combinations*. As such, consideration given by the Corporation to acquire Protonex has been allocated to the assets acquired, and the liabilities assumed, based on their fair values as of the acquisition date of October 1, 2015.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 7. Acquisition (cont'd):

The fair value of purchase consideration is as follows:

Total Ballard shares issued on closing	1	1,415,704
Ballard Share Price pre-closing		\$1.20
Fair value of Ballard shares	\$	13,699
Cash paid to Protonex for transaction costs assumed		1,397
Cash paid direct to lender to settle Protonex debt obligations		2,375
Total cash paid		3,772
Total purchase consideration	\$	17,471

In accordance with IFRS 3, the identifiable assets acquired and liabilities assumed as part of a business combination are recognized separately from goodwill at the acquisition date if they meet the definition of an asset or liability and are exchanged as part of the business combination. The identifiable assets acquired and liabilities assumed are then measured at their acquisition date fair values based on the contractual terms, economic conditions, the Corporation's operating and accounting policies and other pertinent conditions as of the acquisition date. The fair value review of Protonex' assets and liabilities commenced with a review of the carrying amount of each respective asset and liability. The carrying amounts of all assets and liabilities were audited as of September 30, 2015 (the former fiscal year-end of Protonex) and included confirmation of existence and a review of potential impairment of all significant assets and a review for completeness of all liabilities. Each asset and liability was then reviewed and measured for potential fair value adjustments from carrying cost to arrive at each asset and liability's preliminary fair value as of the acquisition date of October 1, 2015.

The fair values of assets acquired and liabilities assumed are as follows	5:
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Net assets acquired:	
Cash and cash equivalents	\$ 1,464
Accounts receivable	558
Inventory	2,330
Other current assets	167
Property, plant and equipment	1,223
Intangible assets	11,138
Goodwill	4,272
Other long-term assets	22
Accounts payable and accrued liabilities	(2,676)
Deferred revenue	(275)
Accrued warranty obligations	(47)
Payable to Ballard Power	(703)
Other long-term liabilities	(2)
Total purchase consideration	\$ 17,471

#### 7. Acquisition (cont'd):

The goodwill of \$4,272,000 resulting from the acquisition consists largely of the expectation that the acquisition will complement the Corporation's Fuel Cell Products and Services growth platform by delivering strategic benefits in diversification, growth, scale, and profitability.

Identified intangible assets of \$11,138,000 consist of the following and are being amortized based on the following useful lives:

		Estimated
Fair value of Identified Intangible Assets		Useful Life
Patents, know-how and in-process research & development	\$ 8,973	20 years
Customer base and relationships	986	10 years
Trademarks and service marks	1,135	15 years
Domain names	17	15 years
Non-compete agreements	27	1 year
	\$ 11,138	

Acquisition and integration costs of \$43,000 (2015 - \$1,542,000) were incurred in 2016 as a result of the transaction, and are recognized in other operating expense (note 25).

#### 8. Trade and other receivables:

	Dece	ember 31,	Dece	ember 31,
		2016		2015
Trade receivables	\$	11,026	\$	23,664
Other		3,898		1,820
	\$	14,924	\$	25,484

#### 9. Inventories:

	Dec	ember 31,	December 3		
		2016		2015	
Raw materials and consumables	\$	13,039	\$	15,289	
Work-in-progress		1,879		739	
Finished goods		654		3,388	
Service inventory		1,656		953	
	\$	17,228	\$	20,369	

In 2016, changes in raw materials and consumables, finished goods and work-in-progress recognized as cost of product and service revenues amounted to \$40,172,000 (2015 - \$17,905,000).

#### 9. Inventories (cont'd):

In 2016, the write-down of inventories to net realizable value amounted to \$879,000 (2015 - \$855,000) and the reversal of previously recorded write-downs amounted to \$273,000 (2015 - \$239,000), resulting in a net write-down of \$606,000 (2015 - \$616,000). 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.

#### 10. Property, plant and equipment:

	De	cember 31,	Dec	cember 31,
Net carrying amounts		2016		2015
Building under finance lease	\$	6,631	\$	7,443
Computer equipment		1,049		826
Furniture and fixtures		185		229
Furniture and fixtures under finance lease		-		26
Leasehold improvements		2,188		2,741
Production and test equipment		5,013		4,506
Production and test equipment under finance lease		635		954
	\$	15,701	\$	16,725

Cost		ember 31, 2015	Additions		Disposals			Transfers	Effect of movements in exchange rates		December 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 finance lease		317		-		-		(317)		-		-
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 under finance lease		3,667		-		(196)		(1,393)		-		2,078
	\$	62,449	\$	2,778	\$	(3,338)	\$	-	\$	(14)	\$	61,875

Accumulated depreciation and impairment loss	Dece	mber 31, 2015	Don	reciation	Im	pairment loss	Disposals	Transfers		Effect of rements in ange rates	Dece	mber 31, 2016
		2015	Dep	reciation		1055	Dispusais	TI di ISICI S	EXCIT	angerates		2010
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 under finance lease		2,713		319		-	(196)	(1,393)		-		1,443
	\$	45,724	\$	3,396	\$	381	\$ (3,313)	\$ -	\$	(14)	\$	46,174

Transfers in 2016 relate to the buy-out of certain leased production and test equipment which were transferred back into property, plant, and equipment.

#### Notes to Consolidated Financial Statements

Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

# 10. Property, plant and equipment (cont'd):

				Additions						Effect of		
	Dec	ember 31,		through					move	ments in	Dece	ember 31
Cost		2014	A	cquisition	ŀ	Additions	Di	sposals	exchar	nge rates		2015
Building under finance lease	\$	12,180	\$	-	\$	-	\$	-	\$	-	\$	12,180
Computer equipment		4,600		165		428		(49)		(11)		5,133
Furniture and fixtures		685		83		137		(3)		(11)		891
Furniture and fixtures under finance lease		317		-		-		-		-		317
Leasehold improvements		8,779		350		95		(105)		(40)		9,079
Production and test equipment		29,308		625		1,622		(364)		(9)		31,182
Production and test equipment under finance lease		3,667		-		-		-		-		3,667
	\$	59,536	\$	1,223	\$	2,282	\$	(521)	\$	(71)	\$	62,449

During 2015, additions through acquisition of property, plant and equipment relate to the acquisition of Protonex on October 1, 2015 (note 7).

							Effect of		
Accumulated depreciation and	Dec	ember 31,				movements in		Dece	mber 31,
impairment loss		2014	Dep	reciation	Disposals	exchar	nge rates		2015
Building under finance lease	\$	3,925	\$	812	\$ -	\$	-	\$	4,737
Computer equipment		4,157		210	(49)		(11)		4,307
Furniture and fixtures		654		21	(3)		(10)		662
Furniture and fixtures under finance lease		227		64	-		-		291
Leasehold improvements		5,785		589	-		(36)		6,338
Production and test equipment		25,927		1,123	(365)		(9)		26,676
Production and test equipment under		2,176		537	-		-		2,713
finance lease									
	\$	42,851	\$	3,356	\$ (417)	\$	(66)	\$	45,724

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 17).

# Impairment loss

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 28).

There were no impairment losses or reversals of previously recorded impairment losses recognized against property, plant and equipment in 2015.

Notes to Consolidated Financial Statements

Years ended December 31, 2016, and 2015

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

#### 11. Intangible assets:

	Dece	ember 31,	Dece	ember 31,
		2016		2015
Intellectual property acquired from UTC	\$	2,311	\$	2,757
Intellectual property acquired from Idatech, LLC		-		914
Intellectual property acquired from H2 Logic A/S		215		301
Intellectual property acquired from Protonex (note 7)		10,331		10,975
Internally generated fuel cell intangible assets		2,182		1,382
ERP management reporting software system		3,015		-
Intellectual property acquired by Ballard Power Systems Europe		29		-
	\$	18,083	\$	16,329

Intangible assets Balance		Cost	 umulated ortization	Ne	et carrying amount
At January 1, 2015	\$	69,528	\$ 45,377	\$	24,151
Additions to and acquisition of intangible assets		12,742	-		12,742
Amortization expense		-	1,464		(1,464)
Disposals		(20,202)	(1,102)		(19,100)
At December 31, 2015		62,068	45,739		16,329
Additions to and acquisition of intangible assets		4,103	-		4,103
Amortization expense		-	1,579		(1,579)
Impairment (note 27)		-	770		(770)
At December 31, 2016	\$	66,171	\$ 48,088	\$	18,083

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 2016, amortization of \$1,579,000 (2015 - \$1,464,000) was recorded. During the year ended December 31, 2016, impairment charges of \$770,000 were recorded (note 28).

#### ERP Management Reporting Software System

In 2016, the Corporation commenced the process to replace 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 expected to provide the Corporation with enhanced reporting capabilities. The Corporation has assessed its expenditure on the ERP implementation to be internally generated intangible assets. During 2016, total development expenditures of \$3,015,000 have been capitalized at cost. The estimated useful life has been assessed as seven years. Amortization of the expenditures related to the first phase will commence upon the initial Go Live date of January 3, 2017.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 11. Intangible assets (cont'd):

#### Internally Generated Fuel Cell Intangible Assets

In 2015, the Corporation commenced development of two new configurations of its fuel cell module for heavy-duty motive applications. The Corporation's initial 85kW configuration is typically used to power large urban transit buses. The two new product configurations are expected to deliver net power of 30kW and 60kW, respectively, with sales launched in 2016 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 2016, total development expenditures of \$1,053,000 (2015 - \$1,395,000) have been capitalized at cost. The estimated useful life has been assessed as five years. In 2016, amortization of \$253,000 (2015 - \$13,000) was recorded on these assets.

#### Sale of Intellectual Property to Volkswagen

On February 11, 2015, the Corporation entered into a transaction ("Volkswagen IP Agreement") with Volkswagen Group ("Volkswagen") to transfer to Volkswagen in two separate transactions the automotive-related portion of the UTC Portfolio, in exchange for total payments of \$50,000,000:

- (i) On the closing of the initial transaction on February 23, 2015, the Corporation transferred ownership of the automotive-related patents and patent applications of United Technologies Corporation (the "UTC Portfolio") in exchange for \$40,000,000. This receipt triggered a 25%, or \$10,000,000, license fee payment to UTC. Although ownership of the patents and patent applications was transferred to Volkswagen, the Corporation received a royalty-free backlicense to all the transferred patents and patent applications for use in all of the Corporation's non-automotive applications, in bus applications, and in certain limited pre-commercial automotive applications.
- (ii) On December 2, 2015, the Corporation sold a copy of the automotive-related know-how of the UTC Portfolio for consideration receivable of \$10,000,000 which was collected in the three months ended March 31, 2016. This receipt triggered a 9%, or \$900,000 license fee payment to UTC in 2016. On the closing of the sale of a copy of the know-how, the Corporation retained full ownership of the know-how, including the right to sell additional copies of the know-how to third parties as well as retaining the right to use the know-how in all of the Corporation's applications.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 11. Intangible assets (cont'd):

On the closing of the sale of the automotive-related patents and patent applications of the UTC Portfolio on February 23, 2015, the Corporation recognized a gain on sale of intellectual property of \$14,195,000 on net proceeds of \$29,475,000.

Gross proceeds	\$ 40,000
Less: License fee	(10,000)
Disposition costs	(525)
Net proceeds received in the first three months of 2015	29,475
Less: Net book value of disposed intellectual property	(15,280)
Gain on sale of intellectual property in the first three months of 2015	\$ 14,195

On the closing of the sale of a copy of the automotive-related know-how on December 2, 2015, the Corporation recognized a gain on sale of intellectual property of \$5,424,000 on net proceeds receivable of \$9,244,000. The net proceeds on sale of \$9,244,000 were collected during the three months ended March 31, 2016.

Gross proceeds	\$	10,000			
Less: License fee					
Disposition recovery (costs)		144			
Net proceeds received in the first three months of 2016		9,244			
Less: Net book value of disposed intellectual property		(3,820)			
Gain on sale of intellectual property in the last three months of 2015	\$	5,424			

After the conclusion of the Volkswagen Agreement, the net carrying amount of the remaining intangible assets of the UTC Portfolio of \$2,311,000 as of December 31, 2016 (2015 - \$2,757,000) consists of certain stationary related fuel cell intellectual property assets and the royalty-free back-license from Volkswagen to utilize the entire UTC Portfolio in the Corporation's bus and non-automotive applications and in certain limited re-commercial purposes for automotive applications. The estimated useful life of the remaining UTC Portfolio has been reassessed from approximately fourteen years to seven years, and is being amortized over seven years from the date of the Volkswagen IP Agreement.

#### UTC Intellectual Property Acquisition

On April 24, 2014, the Corporation acquired the UTC Portfolio for total consideration of \$22,307,000. The acquired UTC Portfolio assets consist of approximately 800 patents and patent applications, as well as patent licenses, invention disclosures and know-how primarily related to PEM fuel cell technology.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 11. Intangible assets (cont'd):

As consideration for the UTC Portfolio, UTC received 5,121,507 of the Corporation's common shares valued at \$20,307,000, \$2,000,000 in cash, a grant back license to use the patent portfolio in UTC's existing businesses, and a portion of royalties, typically 25%, on the Corporation's future intellectual property sale or licensing income generated from the combined intellectual property portfolio for a period of 15 years to April 2029.

#### 12. 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, 2016, the aggregate carrying amount of the Corporation's goodwill is \$40,562,000 (2015 - \$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 in effect 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, 2016 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, 2016.

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 25% from 2017 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 that determined under the fair value, less costs to sell, assessment.

#### 12. Goodwill (cont'd):

As the recoverable amount of the Fuel Cell Products and Services segment was determined to be greater than its carrying amount, no impairment loss was recorded in 2016 or 2015.

#### 13. Investments:

	Dece	mber 31,	Decer	mber 31,
		2016		2015
Investment in Synergy JVCo (note 4)	\$	1,185	\$	-
Other		6		6
	\$	1,191	\$	6

#### 14. 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 2016, and there were no outstanding amounts payable on the Bank Operating Line as of December 31, 2016 and 2015.

#### 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 (notes 10 & 17). 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, 2016, a nominal amount (2015 - \$510,000) was outstanding on the Leasing Facility which is included in the finance lease liability (note 17. The remaining \$6,997,000 finance lease liability primarily relates to the lease of the Corporation's head office building and machinery leased by its subsidiary, Protonex.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 14. Bank facilities (cont'd):

#### Forward Contract Facility

The Corporation also has a CDN \$5,000,000 demand revolving line ("Forward Contract Facility") and a CDN \$15,000,000 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, 2016, the Corporation had outstanding foreign exchange currency contracts to purchase a total of CDN \$10,750,000 (2015 – CDN \$10,750,000) at an average rate of 1.32 CDN per U.S. dollar, resulting in an unrealized gain of CDN \$220,000 at December 31, 2016 (2015 – unrealized loss of CDN \$392,000). The outstanding foreign exchange currency contracts are not qualified under hedge accounting.

#### 15. Trade and other payables:

	Dece	December 31,		ember 31,
		2016		2015
Trade accounts payable	\$	5,970	\$	9,030
Compensation payable		8,056		4,137
Other liabilities		3,464		3,641
Taxes payable		277		412
	\$	17,767	\$	17,220

Notes to Consolidated Financial Statements

Years ended December 31, 2016, and 2015

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

#### 16. Provisions:

	Restr	ructuring	Warranty	Decomr	nissioning	
Balance		provision	provision		liabilities	Total
At January 1, 2015	\$	78	\$ 8,932	\$	4,353	\$ 13,363
Provisions acquired through acquisition		-	47		-	47
Provisions made during the year		-	1,171		110	1,281
Provisions used/paid during the year		(47)	(2,473)		-	(2,520)
Provisions reversed during the year		(24)	(1,620)		(104)	(1,748)
Effect of movements in exchange rates		-	(696)		(713)	(1,409)
At December 31, 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
Current	\$	813	\$ 2,755	\$	-	\$ 3,568
Non-current		-	-		3,864	3,864
	\$	813	\$ 2,755	\$	3,864	\$ 7,432

#### Restructuring Provision

Restructuring charges relate 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 as the Corporation continued to review strategic alternatives for these assets prior to the transaction with Chung-Hsin Electric & Machinery Manufacturing Corporation ("CHEM") (note 26).

#### Warranty provision

The Corporation recorded \$2,109,000 of warranty provisions (2015 - \$1,171,000) of which \$1,132,000 related to new product sales (2015 - \$890,000) and \$977,000 related to upward warranty adjustments (2015 - \$281,000). This was offset by warranty expenditures of \$3,246,000 (2015 - \$2,473,000) and downward warranty adjustments of \$1,533,000 (2015 - \$1,620,000), due primarily to contractual expirations and changes in estimated and actual costs to repair. The remaining \$64,000 reduction to the warranty provision related to the effect of movements in exchange rates (2015 – \$696,000).

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 16. Provisions (cont'd):

#### 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 2.31% per annum (2015 - 2.15%).

The Corporation performed an assessment of the estimated cash flows required to settle the obligations for the two buildings as of December 31, 2016. 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 2016 was due to accretion costs of \$106,000 (2015 - \$110,000). The total undiscounted amount of the estimated cash flows required to settle the obligation for one of the buildings is \$1,655,000 (2015 - \$1,606,000) which is expected to be settled at the end of the lease term in 2025. The total undiscounted amount of the estimated cash flows required to settle the obligation for the second building is \$2,720,000 (2015 - \$2,639,000), which is expected to be settled at the end of the operating lease term of 2019. The net discounted amount of estimated cash flows required to settle the obligations for both buildings is \$3,864,000 as at December 31, 2016 (2015 - \$3,646,000).

#### 17. Finance lease liability:

The Corporation leases certain assets under finance lease agreements (note 14). The finance leases have imputed interest rates ranging from 4.2% to 7.35% per annum and expire between May 2021 and February 2025.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 17. Finance lease liability (cont'd):

Finance lease liabilities are payable as follows:

					Present	value of
	Future n		minimu	ım lease		
At December 31, 2016	lease pa		Interest	p	ayments	
Less than one year	\$	1,055	\$	486	\$	569
Between one and five years		4,524		1,468		3,056
More than five years		3,783		411		3,372
	\$	9,362	\$	2,365	\$	6,997
Current					\$	569
Non-current						6,428
					\$	6,997

				Present	value of
	Future i	minimum		minimu	ım lease
At December 31, 2015	lease p	ayments	Interest	р	ayments
Less than one year	\$	1,524	\$ 513	\$	1,011
Between one and five years		4,181	1,617		2,564
More than five years		4,830	671		4,159
	\$	10,535	\$ 2,801	\$	7,734
Current				\$	1,011
Non-current					6,723
				\$	7,734

At December 31, 2016, a nominal amount (2015 - \$510,000) was outstanding on the Leasing Facility which is included in the finance lease liability. The remaining \$6,997,000 (2015-\$7,224,000) finance lease liability primarily relates to the lease of the Corporation's head office building, and machinery leased by its subsidiary, Protonex.

Deferred gains were also recorded on closing of the finance lease agreements and are amortized over the finance lease term. At December 31, 2016, the outstanding deferred gain was \$3,398,000 (2015 – \$3,829,000).

#### 18. Debt to Ballard Power Systems Europe A/S non-controlling interests:

BPSE has received financing from its non-controlling shareholder in the form of a revolving credit facility. The revolving credit facility makes available a revolving facility to BPSE of a maximum aggregate amount of DKK 2,977,975 (\$423,000) from the non-controlling shareholder, Dansk Industri Invest A/S (previously Dantherm A/S). Interest is accrued at 6% and the facility matures on December 31, 2018. At December 31, 2016, the total principal and interest outstanding on the revolving credit facility was \$521,000 (2015 – \$504,000) (note 33).

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015

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

#### 19. Employee future benefits:

	Dece	December 31,		mber 31,
		2016		2015
Net defined benefit pension plan liability	\$	4,971	\$	5,116
Net other post-retirement benefit plan liability		196		215
Employee future benefits	\$	5,167	\$	5,331

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.

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 \$750,000 to be paid to its defined benefit plans in 2017.

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.

Notes to Consolidated Financial Statements

Years ended December 31, 2016, and 2015

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

#### 19. Employee future benefits (cont'd):

	Defined b	enefit o	bligation	Fair value	of plan assets	Net defined b	enefit liability
Defined benefit pension plan	2016		2015	2016	2015	2016	2015
Balance at January 1	\$ 15,579	\$	16,167	\$ (10,463)	\$ (10,466)	\$ 5,116	\$ 5,701
Included in profit or loss							
Current service cost	42		58	-	-	42	58
Interest cost (income)	678		663	(465)	(438)	213	225
Benefits payable	-		-	-	-	-	-
	720		721	(465)	(438)	255	283
Included in other comprehensive income							
Remeasurements loss (gain):							
Actuarial loss (gain) arising from:							
Demographic assumptions	(186)	)	(212)	-	-	(186)	(212
Financial assumptions	715		(620)	-	-	715	(620
Experience adjustment	13		116	-	-	13	116
Return on plan assets excluding interest income	-		-	(182)	588	(182)	588
Plan expenses	(30)	)	(40)	30	40	-	-
	512		(756)	(152)	628	360	(128
Other							
Contributions paid by the employer	-		-	(760)	(740)	(760)	(740
Benefits paid	(558)	)	(553)	558	553	-	-
	(558)	)	(553)	(202)	(187)	(760)	(740
Balance at December 31	\$ 16,253	\$	15,579	\$ (11,282)	\$ (10,463)	\$ 4,971	\$ 5,116

	D	efined bei	nefit ol	oligation	Fair value of plan assets				Net defined benefit liability			
Other post-retirement benefit plan		2016		2015		2016		2015		2016		2015
Balance at January 1	\$	215	\$	260	\$	-	\$	-	\$	215	\$	260
Included in profit or loss												
Interest cost (income)		8		8		-		-		8		8
		8		8		-		-		8		8
Included in other comprehensive income Remeasurements loss (gain): Actuarial loss (gain) arising from:												
Financial assumptions		1		(25)		-		-		1		(25)
Experience adjustment		-		(15)		-		-		-		(15)
		1		(40)		-		-	\$	1	\$	(40)
Other												
Contributions paid by the employer		-		-		(28)		(13)		(28)		(13
Benefits paid		(28)		(13)		28		13		-		
		(28)		(13)		-		-		(28)		(13
Balance at December 31	\$	196	\$	215	\$	-	\$	-	\$	196	\$	215

#### Pension plan assets comprise:

	2016	2015
Cash and cash equivalents	2%	1%
Equity securities	61%	62%
Debt securities	37%	37%
Total	100%	100%

#### 19. Employee future benefits (cont'd):

The significant actuarial assumptions adopted in measuring the fair value of benefit obligations at December 31 were as follows:

		2016		2015
	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 significant actuarial assumptions adopted in determining net expense for the years ended December 31 were as follows:

		2016		2015
	Pension plan	Other benefit plan	Pension plan	Other benefit plan
Discount rate	4.44%	3.89%	4.18%	3.53%
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:

	2016	2015
Initial medical/dental health care cost trend rate	8.0%	7.5%
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	2021	2020
Year that the dental rate reaches the rate it is assumed to remain at	2016	2015

A one-percentage-point change in assumed health care cost trend rates would not have a material impact on the Corporation's financial statements.

#### 20. Equity:

(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

(a) Share capital (cont'd):

#### Offering:

On July 7, 2015, the Corporation closed an underwritten offering ("Offering") of 9,343,750 common shares at a price of \$1.60 per share for gross proceeds of \$14,950,000. Net cash proceeds to Ballard were \$13,389,000, after deducting underwriting discounts, commissions and other offering expenses.

Gross July Offering proceeds (9,343,750 shares at \$1.60 per share)	\$ 14,950
Less: Underwriting expenses	(1,047)
Less: Other financing expenses	(514)
Net July Offering proceeds	\$ 13,389

#### (b) Share purchase warrants:

	Exercise price of	Exercise price of	Total
Warrants Outstanding	\$1.50	\$2.00	Warrants
At January 1, 2015	247,563	1,675,000	1,922,563
Warrants exercised in 2015	(125,000)	-	(125,000)
At December 31, 2015	122,563	1,675,000	1,797,563
Warrants exercised in 2016	-	-	-
At December 31, 2016	122,563	1,675,000	1,797,563

During 2016, nil warrants were exercised. During 2015, 125,000 warrants were exercised for an equal amount of common shares for net proceeds of \$168,000.

At December 31, 2016, 1,797,563 share purchase warrants were issued and outstanding (2015 – 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.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 20. Equity (cont'd):

#### (c) Share options:

As at December 31, options outstanding from the consolidated share option plan were as follows:

Balance	Options for common shares	Weighted average exercise price	
At January 1, 2015	4,316,427	\$	2.65
Options granted	2,306,635		2.02
Options exercised	(322,892)		1.13
Options forfeited	(349,336)		2.46
Options expired	(445,334)		4.11
At December 31, 2015	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

The following table summarizes information about the Corporation's share options outstanding as at December 31, 2016:

	0	Options outstanding			Options ex	kercisab	le
Range of exercise price	Number outstanding	Weighted average remaining contractual life (years)	а	eighted verage xercise price	Number exercisable		Veighted average ise price
\$0.60 - \$1.00	519,007	3.0	\$	0.90	519,007	\$	0.90
\$1.19 - \$1.42	1,791,984	5.7		1.31	294,322		1.24
\$1.56 – \$2.22	2,181,231	4.1		2.08	1,187,909		1.96
\$2.36 - \$3.45	1,045,507	1.9		2.74	709,043		2.73
	5,537,729	4.1	\$	1.84	2,710,281	\$	1.88

During 2016, 443,589 options were exercised for an equal amount of common shares for proceeds of \$508,000. During 2015, 322,892 options were exercised for an equal amount of common shares for proceeds of \$388,000.

During 2016, options to purchase 1,363,315 common shares were granted with a weighted average fair value of \$0.75 (2015 – 2,306,635 options and \$1.23 fair value). The granted options vest annually over three years.

#### (c) Share options (cont'd):

The fair values of the options granted were determined using the Black-Scholes valuation model under the following weighted average assumptions:

	2016	2015
Expected life	4 years	4 years
Expected dividends	Nil	Nil
Expected volatility	77%	78%
Risk-free interest rate	1%	1%

As at December 31, 2016, options to purchase 5,537,729 common shares were outstanding (2015 – 5,505,500). During 2016, compensation expense of \$1,414,000 (2015 – \$2,048,000) 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, 2016, there were 10,553,115 (2015 – 8,748,294) shares available to be issued under this plan.

During 2015 and 2016, no shares were issued under this plan and therefore no compensation expense was recorded against income.

(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, 2015	911,843
DSUs granted	160,062
DSUs exercised	(154,280)
At December 31, 2015	917,625
DSUs granted	481,095
DSUs exercised	(273,469)
At December 31, 2016	1,125,250

(e) Deferred share units (cont'd):

During 2016, \$300,000 of compensation expense was recorded in net loss relating to DSUs granted during the year.

During 2015, \$659,000 of compensation expense was recorded in net loss, of which \$265,000 related to DSUs granted during the year. The remaining \$394,000 related to compensation expense expected to be earned for DSUs not yet issued.

During 2016, 273,469 DSUs (2015 – 154,280) were exercised which resulted in the issuance of 146,211 common shares (2015 – 83,619).

As at December 31, 2016, 1,125,250 deferred share units were outstanding (2015 – 917,625).

(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.

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 2016 and 2015.

	RSU	RSUs for common shares		
Balance	Share Distribution Plan	Market Purchase Plan	Total RSUs	
At January 1, 2015	1,923,983	-	1,923,983	
RSUs granted	1,036,417	-	1,036,417	
RSUs exercised	(206,333)	-	(206,333)	
RSUs forfeited	(1,045,441)	-	(1,045,441)	
At December 31, 2015	1,708,626	-	1,708,626	
RSUs granted	820,247	-	820,247	
RSUs exercised	(143,126)	-	(143,126)	
RSUs forfeited	(912,339)	-	(912,339)	
At December 31, 2016	1,473,408	-	1,473,408	

During 2016, 820,247 RSUs were issued (2015 - 1,036,417). 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 2016, compensation expense of \$1,310,000 (2015 - \$243,000) was recorded against income.

(f) Restricted share units (cont'd):

During 2016, 143,126 RSUs (2015 – 206,333) were exercised which resulted in the issuance of 80,945 common shares (2015 – 119,627).

As at December 31, 2065, 1,473,408 RSUs were outstanding (2015 – 1,708,626).

#### 21. 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 a non-dilutive financing in the 2016 statement of cash flows.

#### 22. Operating leases:

The Corporation leases a facility at its Burnaby, Canada location, which has been assessed as an operating lease. The facility has a lease term expiring in 2019, with renewal options after that date. During 2016, lease payments of \$2,063,000 relating to the building were expensed (2015 - \$2,139,000).

At December 31, 2016, the Corporation is committed to payments under operating leases as follows:

Less than 1 year	\$ 2,617
1-3 years	4,382
4-5 years	1,227
Thereafter	1,480
Total minimum lease payments	\$ 9,706

#### 23. 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, 2016, no royalties have been incurred to date for this agreement.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 23. Commitments and contingencies (cont'd):

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, 2016, no royalties have been incurred to date for this agreement.

On December 31, 2008, the Corporation completed a restructuring agreement ("Arrangement") with Superior Plus Income Fund ("Superior Plus"), whereby the Corporation caused its entire business and operations, including all assets and liabilities, to be transferred to a new corporate entity, such that the new corporate entity held all of the same assets, liabilities, directors, management and employees as the Corporation formerly had under its old corporate entity, except for its tax attributes. The Arrangement included an indemnification agreement (the "Indemnity Agreement") which set out each party's continuing obligations to the other including a provision for adjustments to be paid by the Corporation, or to the Corporation, depending on the final determination of the amount of the Corporation's Canadian non-capital losses, scientific research and development expenditures and investment tax credits generated to December 31, 2008, to the extent that such amounts are more or less than the amounts estimated at the time the Arrangement was executed. In 2015, an agreement was reached and the Corporation signed mutual releases with Superior Plus as to the full and final amount payable to the Corporation under the Indemnity Agreement and received additional cash proceeds of \$3,347,000 in February 2016 (note 20). The cash proceeds receivable have been recorded as a credit to shareholders' equity as of December 31, 2015 consistent with the accounting for the original transaction in 2008.

At December 31, 2016, the Corporation has outstanding commitments aggregating up to a maximum of \$3,863,000 (2015 - \$432,000) relating primarily to the ongoing implementation of an ERP management reporting software system and for purchases of property, plant and equipment.

#### 24. 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.

	Dec	ember 31,	Dee	cember 31,
		2016		2015
Salaries and employee benefits	\$	57,735	\$	47,762
Share-based compensation (note 20)		3,024		2,950
	\$	60,759	\$	50,712

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 25. Other operating expense:

	December 31,		December 3	
		2016		2015
Net impairment loss (recovery) on trade receivables	\$	(63)	\$	(899)
Restructuring costs (recovery)		2,318		(13)
Acquisition costs (note 7)		43		1,542
	\$	2,298	\$	630

In 2016, the Corporation recorded net impairment recoveries of (\$63,000) consisting of new impairment charges of \$390,000 primarily due to impairment of certain individually insignificant past due receivables from a variety of customers as a result of continued non-payment, offset by cash collected of \$453,000 on previously impaired accounts. 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.

In 2015, net impairment recoveries on trade receivables of (\$899,000) consists of recoveries of (\$1,355,000) as the Corporation collected on certain trade receivables principally in Asia that were previously impaired, partially offset by new impairment charges of \$456,000.

Restructuring charges of \$2,318,000 incurred during 2016 relate 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 as the Corporation continued to review strategic alternatives for these assets prior to the transaction with Chung-Hsin Electric & Machinery Manufacturing Corporation (note 27).

Further acquisition integration costs of \$43,000 were incurred in 2016 related to the 2015 acquisition of Protonex.

	2016	2015
Employee future benefit plan expense (note 19)	\$ (263) \$	(291)
Pension administration expense	(103)	(103)
Investment and other income	164	143
Unrealized gain (loss) on forward foreign exchange contracts	151	(287)
Other income (loss)	(52)	-
Foreign exchange gain (loss)	(674)	233
Finance (loss) and other	\$ (777) \$	(305)
Finance expense	\$ (686) \$	(794)

#### 26. Finance income and expense:

#### Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 27. Loss on sale of assets:

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 consists 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. The final gain (loss) on sale arising from the CHEM transaction is subject to change depending upon the final earn-out amount actually received by the Corporation through November 2017. 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.

Cash proceeds received	\$ 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	\$ (632)

Various miscellaneous disposals also occurred in the year ended December 31, 2016, resulting in a gain on sale of property, plant, and equipment of \$9,000.

#### 28. Impairment charges on intangible assets and property, plant and equipment:

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 27).

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 29. 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:

	2016	2015
Current tax expense		
Current period income tax	\$ 3	\$ 5
Withholding tax	378	206
Adjustment for prior periods	-	-
Total current tax expense	\$ 381	\$ 211
Deferred tax expense		
Origination and reversal of temporary differences	\$ (10,002)	\$ 14,144
Adjustments for prior periods	395	2,874
Change in unrecognized deductible temporary differences	9,607	(17,018)
Total deferred tax expense	\$ -	\$ -
Total income tax expense	\$ 381	\$ 211

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:

	2016	2015
Net loss before income taxes	\$ (21,306)	\$ (6,363)
Expected tax recovery at 26.00% (2015 – 26.00%)	\$ (5,540)	\$ (1,654)
Increase (reduction) in income taxes resulting from:		
Non-taxable portion of capital gain	11	(2,213)
Non-deductible expenses	926	1,875
Expiry of losses and investment tax credits	86	1,181
Investment tax credits earned	(3,153)	(2,883)
Foreign tax rate differences	(633)	(304)
Change in unrecognized deductible temporary differences	8,684	4,209
Income taxes	\$ 381	\$ 211

#### (b) Unrecognized deferred tax liabilities:

At December 31, 2016, the Corporation has not recognized any deferred tax liabilities resulting from taxable temporary differences for financial statement and income tax purposes.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 29. Income taxes (cont'd):

#### (c) Unrecognized deferred tax asset:

At December 31, 2016, the Corporation did not have any deferred tax assets resulting from the following deductible temporary differences for financial statement and income tax purposes.

	2016	2015
Scientific research expenditures	\$ 69,157	\$ 58,385
Accrued warranty provision	14,064	17,079
Share issuance costs	2,000	2,605
Losses from operations carried forward	101,129	89,872
Investment tax credits	27,586	23,757
Property, plant and equipment and intangible assets	154,485	149,892
	\$ 368,421	\$ 341,590

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:

	2016	2015
Canadian scientific research expenditures	\$ 69,157	\$ 58,385
Canadian losses from operations	39,634	31,990
Canadian investment tax credits	27,586	23,749
German losses from operations for corporate tax purposes	555	303
U.S. federal losses from operations	34,329	30,320
Denmark losses from operations	26,603	27,259
Hong Kong losses from operations	7	0

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 2028 to 2036.

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 2019 to 2036.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 29. Income taxes (cont'd):

(c) Unrecognized deferred tax asset (cont'd):

The Canadian investment tax credits may be used to offset future Canadian income taxes otherwise payable and expire as follows:

2019	\$ 1,756
2020	1,426
2021	1,344
2022	1,078
2023	762
2024	940
2025	1,349
2026	1,578
2029	3,529
2030	2,417
2031	2,246
2032	1,954
2033	1,714
2034	1,619
2035	1,746
2036	2,128
	\$ 27,586

#### 30. 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, 2016 and 2015, related party transactions and balances were limited to transactions with our 10% equity accounted investee, Synergy JVCo as follows:

Balances with related parties:	2016	201
Investments	\$ 1,185	\$ -
Trade and other payables	1,005	-
Deferred revenue	15,501	-
Transactions during the year with related parties:	2016	2015
Devenues	\$ 4,389	\$ -
Revenues		

#### 30. Related party transactions (cont'd):

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:

	2016	2015
Salaries and employee benefits	\$ 3,026	\$ 2,164
Post-employment retirement benefits	74	49
Termination benefits	1,982	-
Share-based compensation (note 20)	1,184	1,006
	\$ 6,266	\$ 3,219

#### 31. Supplemental disclosure of cash flow information:

Non-cash financing and investing activities:	2016	2015
Compensatory shares	\$ 459	\$ 557
Shares issued for acquisition of intangible assets (note 11)	\$ -	\$ 13,698
Earn-out receivable on sale of assets	\$ 1,838	\$ -

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 32. 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 and tram applications), Portable Power, Material Handling and Backup Power, as well as the delivery of Technology Solutions, including engineering services, technology transfer and the licensing and sale of the Corporation's extensive intellectual property portfolio and fundamental knowledge for a variety of fuel cell applications.

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.

In 2015, revenues included sales to three individual customers of \$14,517,000, \$12,674,000 and \$8,605,000, 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, is as follows:

Revenues	2016	2015
China	\$ 33,440	\$ 12,777
U.S.	27,547	19,643
Germany	14,318	15,046
India	-	2,195
Taiwan	1,777	1,061
Japan	1,508	993
France	1,201	844
Denmark	1,005	656
Nepal	918	-
Belgium	812	58
Canada	680	917
Other countries	2,064	2,273
	\$ 85,270	\$ 56,463

Non-current assets by geographic area are as follows:

	Dec	December 31,		December 31,	
Non-current assets		2016		2015	
Canada	\$	58,649	\$	57,096	
U.S.		15,698		16,299	
China		180		-	
Denmark		82		26	
Mexico		-		336	
	\$	74,609	\$	73,757	

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 33. 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, debt to non-controlling interests, 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, 2016, the Corporation held Canadian dollar denominated cash and cash equivalents of CDN \$16,132,000 and outstanding forward foreign exchange contracts to sell a total of CDN \$ 10,750,000 in 2017 at an average rate of CDN \$1.32 to US \$1.00.

#### 33. Financial instruments (cont'd):

(b) Financial risk management (contd'):

The following exchange rates applied during the year ended December 31, 2016:

	\$U.S. to \$1.00 CDN	\$CDN to \$1.00 U.S.
January 1, 2016 Opening rate	\$ 0.723	\$ 1.384
December 31, 2016 Closing rate	\$ 0.745	\$ 1.3427
Fiscal 2016 Average rate	\$ 0.754	\$ 1.326

Based on cash and cash equivalents and forward foreign exchange contracts held at December 31, 2016, 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 \$2,002,000 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.

#### 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, 2016, 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, 2016, a 0.25% decline in interest rates, with all other variables held constant, would result in a decrease in investment income of \$182,000. If interest rates had been 0.25% higher, there would be an equal and opposite impact on net income.

Notes to Consolidated Financial Statements Years ended December 31, 2016, and 2015 (Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and number of shares)

#### 33. Financial instruments (cont'd):

(b) Financial risk management (contd'):

#### 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.

#### 34. Subsequent events:

#### Change in ownership in Ballard Power Systems Europe

On January 5, 2017, the Corporation purchased all of the shares in its European subsidiary held by Dansk Industri Invest A/S (previously Dantherm A/S). As a result, the Corporation now owns 100% of its subsidiary in Europe, BPSE (formerly Dantherm Power A/S) effective as of 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.

For a nominal payment of \$43,000, the Corporation acquired the remaining shares and obtained the cancellation of debt owed by BPSE to Dansk Industri Invest A/S of \$521,000.

# BALLARD

# **CORPORATE INFORMATION**

## **CORPORATE OFFICES**

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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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## **EXECUTIVE MANAGEMENT**

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**Tony Guglielmin** Vice President & Chief Financial Officer

**Kevin Colbow** Vice President, Technology & Product Development

Karim Kassam Vice President, Commercial

David Whyte Vice President, Operations

Paul Osenar Vice President & President, Protonex Technology Corporation

# **INDEPENDENT AUDITORS**

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# **BOARD OF DIRECTORS**

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