

The background of the entire page is a photograph of a hydrogen fuel cell vehicle, likely a truck or bus, with a license plate that reads "HYDROGEN". The image is overlaid with a blue-to-green gradient. The Ballard logo is prominently displayed in the upper center, and the slogan "Here for life" is centered below it.

# BALLARD™

*Here for life™*

## **Fuel Cell Power for a Sustainable Planet**

Notice of Annual Meeting, Management  
Proxy Circular, and 2021 Annual Report

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

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## ABOUT BALLARD POWER SYSTEMS

Ballard Power Systems’ (TSX and NASDAQ: BLDP) vision is to deliver fuel cell power for a sustainable planet. Ballard zero-emission PEM fuel cells are enabling electrification of mobility, including buses, commercial trucks, trains, marine vessels, passenger cars and forklift trucks. To learn more about Ballard, please visit [www.ballard.com](http://www.ballard.com).

### CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements concerning anticipated markets for our products, implementation of government policy initiatives, planned manufacturing capacity expansion, product cost reduction activities and planned investments. 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 statements are based on Ballard’s assumptions relating to its financial forecasts and expectations regarding its product development efforts, manufacturing capacity, and market demand. For a detailed discussion of the factors and assumptions that these statements are based upon, and factors that could cause our actual results or outcomes to differ materially, please refer to Ballard’s most recent management’s discussion & analysis.

Other risks and uncertainties that may cause Ballard’s actual results to be materially different include 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. These forward-looking statements are provided to enable external stakeholders to understand Ballard’s expectations as at the date of this document and may not be appropriate for other purposes. Readers should not place undue reliance on these statements and Ballard assumes no obligation to update or release any revisions to them, 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 2022 Annual Meeting (the "Meeting") will be held on Wednesday, June 8, 2022 at 1:00 p.m. (Pacific Daylight Time). As last year, this year's Annual Meeting will be a virtual meeting of shareholders. You will be able to attend the Annual Meeting, vote and submit your questions during the Annual Meeting via live webcast by visiting [www.virtualshareholdermeeting.com/BLDP2022](http://www.virtualshareholdermeeting.com/BLDP2022). The Meeting will be held for the following purposes:

1. To receive our audited financial statements for the financial year ended December 31, 2021 and the report of our auditors thereon;
2. To elect our directors for the ensuing year;
3. To appoint our auditors for the ensuing year and to authorize our Audit Committee to fix the remuneration of the auditors;
4. To consider and, if thought appropriate, to approve a resolution, on an advisory basis, accepting the Corporation's approach to executive compensation;
5. To consider and, if thought appropriate, to approve resolutions to revise the quorum requirements in the Corporation's Articles as described in the information circular for the Meeting, which accompanies this Notice; and
6. To transact such other business as may properly be brought before the Meeting or any adjournment thereof.

A detailed description of the matters to be dealt with at the Meeting and our 2021 Annual Report are included with this Notice.

To participate in the Meeting, shareholders will need to visit [www.virtualshareholdermeeting.com/BLDP2022](http://www.virtualshareholdermeeting.com/BLDP2022) and log-in using the 16-digit control number included either on your proxy form or voting instruction form, as applicable. The Meeting platform is fully supported across browsers and devices running the most updated version of applicable software plug-ins. You should ensure you have a strong, preferably high-speed, internet connection wherever you intend to participate in the Meeting. The Meeting will begin promptly at 1:00 p.m. (Pacific Daylight Time) on Wednesday, June 8, 2022. Online check-in will begin starting 15 minutes prior, at 12:45 p.m. (PDT). You should allow ample time for online check-in procedures. The webcast Meeting allows you to attend the Meeting live, submit questions and submit your vote while the Meeting is being held if you have not done so in advance of the Meeting. For any technical difficulties experienced during the check-in process or during the Meeting, please call the number located on the virtual meeting page. Guests will be able to attend the Meeting through the live webcast only, by joining the webcast as a guest at [www.virtualshareholdermeeting.com/BLDP2022](http://www.virtualshareholdermeeting.com/BLDP2022). They will not be able to submit questions or vote.

**DATED** at Burnaby, British Columbia, April 11, 2022.

**BY ORDER OF THE BOARD**

*"Kerry Hillier"*

Kerry Hillier  
Corporate Secretary  
Ballard Power Systems Inc.

***Letter from JAMES ROCHE***  
***Chair of the Board***

Fellow Shareholders:

Throughout 2021 I remained impressed with Ballard's ability to continue to navigate the global pandemic while providing a safe place for our employees to work every day. Ballard's staff is collectively driven by an inspiring purpose: to create a more sustainable planet by advancing the decarbonization of our society through hydrogen power.



This past year, we saw a global acceleration toward addressing our climate crisis. Across leading companies and governments, we are seeing growing momentum in policy support, impactful emissions reduction targets, and allocation of capital to combat climate change. There are now 93 countries, including the United States and India, with established net-zero targets which together account for approximately 90% of global emissions and 70% of the world's GDP. These nations will have a significant impact on global emissions reduction upon achieving their goals, and Ballard is well positioned to be a part of the solution. Hydrogen is increasingly seen as a critical pathway for decarbonization and 2021 saw a significant growth in hydrogen projects worldwide. There are now over 520 large-scale hydrogen projects announced globally, including production, distribution and end-use.

As a customer-focused business, we were excited to announce our growing list of customer relationships and partnerships through the year. Some of these include Talgo, CP Rail, HDF, Quantron, Hexagon Purus, Tata Motors, Linamar, Sierra Northern, Caterpillar and Microsoft. We look forward to working with our broad customer base across key geographic regions and diverse applications to make a significant impact helping our customers achieve their emissions reduction goals.

2021 was a busy year for the board as we continued to prepare the company for substantial growth driven by the increasing demand for hydrogen zero-emission solutions. We were pleased to welcome two new board members in the year. Kathleen Bayless, who joined last December, brings impressive and complementary financial management experience with high growth, global organizations. Hubertus Muehlhaeuser, who joined last August, has a strong background in industrial manufacturing, including of commercial vehicles, construction and agricultural machinery, and powertrain technologies. We believe in the importance of having a diverse board composed of directors who offer different perspectives based on their experiences and learnings throughout their careers. We are fortunate to have the counsel and valuable insight from our additional board members.

Last year we announced a target of a minimum 30% gender diversity on our board by 2022. I am pleased that we achieved this objective late last year. Diversity in every sense remains a core value of Ballard's and is something we will continue to focus on across the organization and at the leadership and board level. While targets help facilitate diversity, they are one of many tools we are deploying as we strive to create a welcoming and inclusive environment for all our employees.

Looking toward 2022, Ballard remains focused on continuing to invest in technology and capabilities to provide the best zero-emission solution for our customers. With a strong balance sheet, we are confident we can strategically position the company for future scalability, continue to innovate and improve our technology, and meet the evolving needs of our customers.

On behalf of the board, I would like to commend Ballard staff for their continued hard work and innovation towards creating products that support the global fight against climate change. I would also like to thank our shareholders for your continued shared vision in Ballard and confidence in our ability to make a difference.

*"James Roche"*

JAMES ROCHE  
*Chair of the Board of Directors*

***Letter from RANDY MACEWEN  
President and Chief Executive Officer***



Fellow Shareholders,

There was a strong – and irreversible – alignment of views in 2021 on the need to address our climate crisis. In a context of record incidents of extreme weather and bolstered by green recovery initiatives to “build back better” in a post-COVID world, views of all stakeholders – including policymakers, corporates, consumers, and investors – galvanized globally around the imperative to decarbonize. And now, since the heart-breaking invasion of Ukraine, energy security has urgently moved to the top of the geopolitical agenda. We believe both converging macro-drivers of energy security and our global climate crisis have forever shifted the calculus on the need to accelerate the energy transition. We must accelerate the decarbonization of our electric grids with renewable power and the electrification of light duty mobility. We must also accelerate the adoption of low cost, green hydrogen for long-term energy storage, decarbonization of industry, and decarbonization of medium- and heavy-duty mobility. Both green electrons and green molecules are required to achieve the scale of decarbonization needed if we are to realize our dual goals of energy security and sustainability.

At Ballard, our vision is to deliver fuel cell power for a sustainable planet. We are well positioned to support the decarbonization of medium- and heavy-duty mobility. Indeed, we believe we are in pole position to be the long-term, leading global supplier of PEM fuel cells for the hard-to-abate markets of buses, commercial trucks, trains, and marine vessels. Our business model is to serve these large markets where the fuel cell value proposition – zero emissions, long range, light weight, and fast refueling – is expressed most strongly, and where vehicles typically return to base for centralized refueling. Importantly, we can win in these markets with the same competencies, technologies, and products. This means our flexible business model enables multiple market opportunities while also permitting a long-term scaling and cost advantage for our customers.

We had mixed results in 2021. While we modestly under-performed against our internal financial plan, we had strong progress against our long-term growth strategy.

2021 revenue was \$104.5 million and gross margin was 13%, impacted by revenue mix and increased labor, supply, and freight expenses. As we continued to increase investments in our business, net loss was (\$114) million and adjusted EBITDA was (\$82.2) million. We ended the year with \$1.1 billion in cash reserves.

We fully achieved or over-performed against key 2021 strategic objectives, including on the development program for our next-generation fuel cell engine for the European commercial truck market, our “3 by 3” stack cost reduction program, and our strategy to embed ESG across our business.

We also grew and strengthened our team and capabilities across the entire organization, including engineering, project management, operations, commercial, people & culture, strategy execution, corporate development, and investor relations.

We made measured progress with existing and new customers and partners across our verticals and geographic markets. During this phase of early market development, we view customer and partner acquisitions as critical to embed our fuel cell engines – with stickiness – into customer vehicle platforms. It is also important to ensure we are delivering a valuable customer experience during demonstration programs and initial field trials.

On this front, Ballard reached an exciting industry milestone in 2021. Our PEM fuel cell technology has now powered fuel cell electric medium- and heavy-duty vehicles for an industry-leading cumulative total of more than 100 million kilometers. Our proven in-service experience and durability are part of our unique value proposition for our customers.

We announced our 8<sup>th</sup> generation fuel cell engine – the FCmove™-HD+. This product is smaller, lighter, more efficient, and lower cost than previous generations, while also simplifying vehicle integration.

We grew our European and US bus business in 2021. We secured additional business from several existing customers, while also signing new customers. We believe transit bus operators are increasingly understanding the value proposition of fuel cell buses, which offer a similar fleet user experience as diesel buses in terms of long range, fast refueling, performance in all weather conditions, and scalable fueling infrastructure, but with zero tailpipe emissions.

In the truck market, we executed against our development programs with Mahle and our Weichai-Ballard joint venture, while announcing new collaborations with Hexagon Purus, Linamar, and Quantron. We have parallel go-to-market strategies of partnering with Tier 1 suppliers and vehicle integrators. This enables us to serve different market demands and stages of market development. The Tier 1 suppliers serve as a long-term channel to global truck OEMs while the vehicle integrators accelerate near-term demand of fuel cell trucks by bringing early-stage fleets to market.

We are excited with the growing opportunity set we see in rail, marine, and stationary. We signed new rail projects with customers in Europe and North America, while transitioning our Siemens development program to initial product sale for a hydrogen train deployment. We also delivered our first FCwave modules to customers for several promising marine applications, including Norled's liquid hydrogen ferry program. In stationary power, we signed a new partnership with Caterpillar and Microsoft for the data center market, while HDF progressed its multi-megawatt baseload hydrogen power plant deploying Ballard large format fuel cells.

As we review our geographic markets in 2021, we saw significant growth in Europe and North America, bolstered by growing policy support for zero-emission mobility. By contrast, the protracted policy uncertainty in China continued to stall this market in 2021. There were recent encouraging policy announcements in China, including the announcement of the second batch of cluster regions, as well as certain adoption targets for 2025 and 2030, including 50,000 fuel cell vehicles by 2025. We remain well positioned in China, inclusive of our Weichai-Ballard joint venture. We continue to assess our China platform and routes to market as additional clarity on the subsidy frameworks becomes available.

We had a busy 2021 in corporate development. We acquired Arcola Energy (subsequently renamed Ballard Motive Solutions), a UK-based fuel cell powertrain and vehicle integrator. This acquisition allows us to reduce customer adoption friction points while strategically expanding our value chain opportunities. We also made a strategic equity investment in Forsee Power, a French-based manufacturer of smart battery packs for buses, trucks, and trains. We are collaborating with Forsee Power to develop hybrid fuel cell-battery architectures for optimized performance and cost.

We enjoy strong macro-drivers, a resilient and diversified business model, outstanding talent, committed customers and partners, leading technology and field experience, and a solid balance sheet. We are confident in our prospects. As a result, in 2022, we will deepen our investments ahead of the hydrogen growth curve to further position your company for long-term success.

On a personal note, I would like to thank our entire global team who – once again – inspired me with their caring, resilience, and commitment to Ballard's purpose and culture during another challenging year in a pandemic. I would also like to thank Rob Campbell who will be retiring this year as our Chief Commercial Officer. Rob has brought significant value to the company over the past five years. We wish him well in retirement.

Finally, a note of thanks to our shareholders for your continued confidence in Ballard. We look forward to another important year as we continue our journey and position your company for long-term growth, profitability, and shareholder value creation.

*"Randy MacEwen"*

RANDY MACEWEN  
*President & CEO*

Ballard Power Systems Inc.

# 2021 Ballard Impact Awards Recipients

## Listen & Deliver

### Caterpillar

*Daljit Bawa, Byron Somerville, Martin Arendt, Andrew Desouze, Terry Howe*

## Quality Always

### 1020ACS Process Improvement

*Neil Lui, Derek Cheng, Greg Iuzzolino, David Lo, Ryan Chahal, Michael Hammer, Jerin Issac, Manan Dosi, Garth Currier, Simarpreet Aujila, Adam Canizares, Hassan Hosseinpour, Ryan McKay, Kevin Dahl, Abhijeet Kamble, Maria Matos, Alberto Garcia, Otilia Kollar, Leonardo Estrada, Placido Zinampan, Luis Abiog, Daimler Sarmiento, Jane Calinisan, RJ Calinisan, Alin Antonescu, Christian Bourque, Peter Owens, Howard Tseng, Dexin Yang, Emil Cretu, Vesna Colbow*

## Inspire Excellence

### Mission Carbon Zero Project

*Brendan Dills, Alan O'Brien, Jordan Polischuk, Roozbeh Yousefnejad, Charles Lockhart, Ryan Allison, Neil Black, Teddy Bouvet, Candice Burgers, Brendan Burns, Sandy Cai, John Catton, Alicia Chan, Sophia Chan, Jason Chen, Patricia Chong, Luke Damron, Manan Dosi, Renato Felix, Victor Groot, Mohammed Hussain, Daniela Ioana Larsen, Shanna Knights, Joanna Kolodziej, Daniel Lincoln, Marisa Menard, David Myers, Nicolas Pocard, Darby Ponich, Mark Reimer, George Skinner, Shen Stephen Ian Stewart, Christian Tuazon, Jason Wang, Megan Wang, Mustafa Zaidi, Carsten Møller Jensen, Nina Hjorth*

### Strategic Management Office Leadership

*Nina Hjorth*

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# 2021 Ballard Impact Awards Recipients

## Row Together

### FC Wave™

*Rasmus Gyldenøhr, Daniel Blom-Hansen, Peter Blach, Jesper Knudsen, Jakob Ilsøe, Abhiket Ketsayep, Jesper Davidsen, Jess Vestergaard, Kristina Fløche Juelsgaard and Søren Moesgaard*

## Plates Production Growth and Program Support

*Leonardo Tobias, Meredith Huber, Fernando Franco, Alin Antonescu, RJ Calinisan, Bahar Akbari, Janelle, Faul, Natashia Consebido, Paul Sobeyko, Jason Zhao, Alyssa Tam, Amarnath Mohanan, Carina Fernandez, Dhruvil Pathak, Dhruvil Pathak, Dulcisimo Domingo, Helen Cobban, Lalit Kumar, Mehraban (Maz) Farhoodi, Sherwin Savinkoff, Wai Phyoo Maung, Dulguun Amarkhuu, Farshid Jadidian, Hossein Mansouri, Khaldoun Petro, Mahan Mehregan, Mahkameh Rezaei, P-Wee Santos, Vahid Moazami, Ahmad Zia Zia, Amahl Ross, Farooq Wazir, Hashem (Vahid) Mahsouli, Katherine (Kate) Castillo, Kullachart (Gong) Sripradit, Nithin Ranganatha, Peiman (Peter) Kalarestaghi, Randell Marco, Karanvir Singh, Ranjeet Arikattla, Ujash Vachhani*

## Own It Award

### Continuity of Supply during a Global Supply Shortage

*Alex Eric Xie, Erika Philco, Iman Hatamian, Vahid Modares, Amin Zarei, Andy Chen, Gihan Wickremasuriya, TJ Banerjee, Emilio Urmaza, Brian Chen, Mandy Tam, Stephen Shen, Jack Fang, Carsten Moller Jensen, Cheryl Easingwood, Victor Groot, Jason Birdsall*

## Innovation

### FCmoveXD Module

*Patricia Chong, Tegan Harrower, Martin Arendt, Scott Richardson, Clint Beliveau, James Kirker, Michael Ages, Aren Mardikian, Leo Li, Marisa Menard, Smriti Tripathi, John Catton, Kean Andruski, Tarun Bedi, Steven Leslie, Chris Strohacker, Marina Kim, Manuel Casem, Daragh O’Ceallaigh, Himanshu Chugh, Odette LeGrange, Rhea Orbon, Asila Ashrafi, Iman Hatamian, Eric Xie, Vahid Modares*

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# 2021 Ballard Impact Awards Recipients

## Safety

### **Glenlyon Hydrogen Safety Assessment**

*George Skinner, Colin Redekop, Kevin Kochi, Ed Peters, Myles Bos, Harsimran Singh, Garth Currier, Ryan Alison, Samuel Cortez, Erin Rogers, Jake Devall, Neal Fink, Cam Marshall, Sumit Kundu, Renato Felix, Charles Lockhart, Darby Ponich*

### **ISO 45001 Certification**

*Sentayehu Kebede, Komal Sidhu, Ryan Paddon, Byron Somerville, Erin Rogers, Myles Bos, James Kirker, Sumit Kundu, Kevin Hutton, Juna Becerra, Baljit Dhesi, Mark Reimer, Parvez Grewal, Ales Horky, Yanani Radhakrishnan, Kaki Chan, Renee Gable, Colin Redekop, Kevin Kochi, Otilia Kollar, Leonardo Estrada, Charles Coyle, Hilary Statton, Evelyn Lai, Alan Li, Lynette McHugh, Jason Birdsall, Maria Matos, Noosha Mirzalou, Neil Black, Cheryl Easingwood, Marvio Longuinho, Ryan Chahal, Darby Ponich*

## Challenge the Status Quo

### **Hydrogen Recirculation Blower (HRB) Development**

*Renato Felix, Jason Birdsall, Victor Groot, Gaspar Sanchez, Tim Perterson, Travis Cramb, Wade Popham, TJ Lawy, Silvano Pozzi*

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## MANAGEMENT PROXY CIRCULAR

dated as of April 11, 2022

### 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;
- revisions to the quorum requirements in the Corporation's Articles, as described in this Circular; and
- such other business as may properly be brought before the meeting.

As of the date of this 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 Circular is furnished in connection with the solicitation of proxies by our management in connection with the Meeting to be held on Wednesday, June 8, 2022 at 1:00 p.m. (Pacific Daylight Time), 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 Circular and the related materials are first being sent to Registered Shareholders is April 25, 2022.

#### OBTAINING A PAPER COPY OF THE CIRCULAR AND FINANCIAL STATEMENTS

In lieu of mailing the Notice of Meeting, Circular and our audited financial statements and management's discussion and analysis for the year ended December 31, 2021, the Corporation is using notice-and-access to provide an electronic copy of these documents to Registered Shareholders and Beneficial Shareholders by posting them on [www.ballard.com](http://www.ballard.com) and on the Corporation's profile on [www.SEDAR.com](http://www.SEDAR.com). For more information regarding notice-and-access, you may call toll free at 1-844-916-0609 (English) or 1-844-973-0593 (French), 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 and enter the 16-digit control number located on your form of proxy or voting instruction form.

If you do not have a control number, please call toll free at

- 1-844-916-0609 (English) or 1-844-973-0593 (French) within North America or
- 1-303-562-9305 (English) or 1-303-562-9306 (French) if dialing from outside North America.

You must call to request a paper copy by May 25, 2022 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 Circular on [www.SEDAR.com](http://www.SEDAR.com).

**If you have standing instructions to receive paper copies of these documents and would like to revoke them, please call the individual who services your account.**

## **Distribution of Meeting Materials to Beneficial Shareholders**

The Corporation has distributed copies of the notice-and-access notice and voting instruction form 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, Circular, financial statements and related management's 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.

## **HOW TO VOTE**

Shareholders are encouraged to vote in advance of the Meeting at [www.proxyvote.com](http://www.proxyvote.com).

Even if you currently plan to participate in the Meeting, you should consider voting your Shares by proxy in advance so that your vote will be counted if you later decide not to attend the Meeting or in the event that you are unable to access the Meeting for any reason.

### **Vote Options**

#### **VOTE BY INTERNET:**

To vote by Internet, visit [www.proxyvote.com](http://www.proxyvote.com) or scan the QR Code to access the website. You will need your 16-digit control number located on the form of proxy/voting instruction form. Vote cut-off is 5:00 p.m. (PDT) on Monday, June 6, 2022.

#### **VOTE BY MAIL:**

Return the completed, signed and dated form of proxy/voting instruction form by mail in the business reply envelope to: Data Processing Centre, P.O. Box 3700 STN Industrial Park, Markham, ON L3R 9Z9.

#### **VOTE BY TELEPHONE:**

As an alternative, you may enter your vote instruction by telephone at 1-800-474-7493 (English) or 1-800-474-7501 (French). You will need your 16-digit control number located on the form of proxy/voting instruction form.

### **Appointee Instructions**

You are encouraged to appoint yourself or such other person (other than the named proxyholders) online at [www.proxyvote.com](http://www.proxyvote.com) as this will reduce the risk of any mail disruptions in the current environment and will allow you to share the Appointee Information you have created with any other person you have appointed to represent you at the Meeting more easily. If you do not designate the Appointee Information when completing your form of proxy or voting information form or if you do not provide the exact Appointee Identification Number and Appointee Name to any other person (other than the named proxyholders) who has been appointed to access and vote at the Meeting on your behalf, that other person will not be able to access the Meeting and vote on your behalf.

You must provide your Appointee the **exact name and eight-character Appointee Identification Number** to access the Meeting. Appointees can only be validated at the Meeting using the **exact name and eight-character Appointee Identification Number** you enter.

**If you do not create an eight-character Appointee Identification Number, your appointee will not be able to access the Meeting.**

### **Proxy Cut-off**

You are encouraged to provide your voting instructions or appoint your proxyholder online at [www.proxyvote.com](http://www.proxyvote.com) in accordance with the instructions on the form of proxy by no later than 5:00 p.m. (PDT) on Monday, June 6, 2022, or if the Meeting is adjourned, at least 48 hours (not including Saturdays, Sundays

or statutory holidays in B.C.) prior to the reconvened meeting (the proxy cutoff). If you prefer, you may also complete and return your form of proxy to Broadridge at Data Processing Centre, P.O. Box 3700 STN Industrial Park, Markham, ON, L3R 9Z9. Broadridge must receive your completed form of proxy or voting instruction form prior to the proxy deadline.

Providing your voting instructions or voting by proxy cutoff will ensure your vote is counted at the Meeting even if you later decide not to attend the Meeting or are unable to access it in the event of technical difficulties. If you attend and vote at the Meeting during the live webcast, any proxy you have previously given will be revoked.

### **Changing your Voting Instructions**

If you change your mind about how you want to vote your Shares, you can revoke your proxy form or voting instruction form by voting again on the internet or by phone.

Registered Shareholders can revoke their instructions by delivering a signed 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:

- Broadridge Investor Communications Corporation at 2601 14th Avenue, Markham, Ontario L3R 0H9, 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.

Beneficial Shareholders who are unable to vote on the internet or by phone should consult their intermediary if they wish to revoke their instructions.

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 submit 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 11, 2022, we had 298,155,753 Shares issued and outstanding, each carrying the right to one vote. 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 for each Share recorded in the Registered Shareholder's name in the Corporation's central securities register.


As of the Record Date, Weichai Power Co., Ltd. (“**Weichai**”) beneficially owns 46,131,712 Shares, representing 15.5% of all issued and outstanding Shares, each carrying the right to one vote. As of the Record Date, to the knowledge of our directors and executive officers, no other 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.


## ELECTION OF DIRECTORS


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


As part of the strategic transaction with Weichai announced on November 13, 2018, Weichai has the right to nominate two directors to Ballard's Board so long as Weichai holds at least 15% of Ballard's outstanding Shares.


The following information pertains to our director nominees as of April 11, 2022.


 <p><b>Kathy Bayless</b> Age: 65 California, USA Director since: 2021 <i>Independent</i></p>	<p>Ms. Bayless' principal occupation is corporate director. Ms. Bayless is a member of the Board and Audit Committee Chair of Veeco Instruments Inc. (<i>electronics manufacturing equipment</i>), and a member of the Board and Audit Committee Chair of Energos Corporation (<i>wireless power and charging</i>). Previously Ms. Bayless held various executive roles at public technology companies including SVP Chief Financial Officer and Treasurer at Synaptics, Incorporated as well as Komag, Incorporated. Ms. Bayless is a Certified Public Accountant in California.</p>					
	<b>Board and Committee Membership</b>		<b>Attendance<sup>(1)</sup></b>		<b>Other Public Board Memberships</b>	
	Board	1	100%	<i>Current:</i> Veeco Instruments Inc; Energos Corporation <i>Previous:</i> none		
	Audit	1	100%			
	<b>Securities Held<sup>(2)</sup></b>					
	<b>Year</b>	<b>Shares</b>	<b>DSUs</b>	<b>Total of Shares and DSUs</b>	<b>Value of Shares and DSUs (CDN\$)<sup>(3)</sup></b>	<b>Director Share Ownership Guidelines</b>
2022	0	1,690	1,690	\$23,001	On track	
2021	0	0	0	0	n/a	


 <p><b>Douglas P. Hayhurst</b> Age: 75 B.C., Canada Director since: 2012 <i>Independent</i></p>	<p>Mr. Hayhurst's principal occupation is corporate director. Previously, Mr. Hayhurst was executive Global Industry Leader with IBM Canada Business Consulting Services (<i>consulting services</i>) and with PricewaterhouseCoopers Management Consultants (<i>consulting services</i>). Prior to that, Mr. Hayhurst held various senior executive management roles with Price Waterhouse Canada including National Deputy Managing Partner (Toronto) and Managing Partner for British Columbia (Vancouver). Mr. Hayhurst received a Fellowship (FCA) from the Institutes of Chartered Accountants of British Columbia and of Ontario. He has completed the Directors Education Program of the Institute of Corporate Directors and has received his ICD.D designation.</p>					
	<b>Board and Committee Membership</b>		<b>Attendance</b>		<b>Other Public Board Memberships</b>	
	Board	12	100%	<i>Current:</i> none <i>Previous:</i> Accend Capital Corporation; Canexus Corporation; Catalyst Paper Corporation; Northgate Minerals Corporation		
	Audit (Chair)	7	100%			
	PCGC	6	100%			
	<b>Securities Held<sup>(2)</sup></b>					
<b>Year</b>	<b>Shares</b>	<b>DSUs</b>	<b>Total of Shares and DSUs</b>	<b>Value of Shares and DSUs (CDN\$)<sup>(3)</sup></b>	<b>Director Share Ownership Guidelines</b>	
2022	5,000	216,089	221,089	\$3,009,021	Achieved	
2021	5,000	211,037	216,037	\$6,053,357	Achieved	


 <b>Kui (Kevin) Jiang</b> Age: 58 Shandong, China Director since: 2019 <i>Independent</i> <sup>(4)</sup> <i>(Weichai nominee)</i>	<p>Mr. Jiang is President of Shandong Heavy Industry Group Co., Ltd. (<i>heavy machinery manufacturing</i>). He is also a non-executive director of Weichai Power Co., Ltd. (<i>diesel engine, powertrain and hydraulic products manufacturing</i>), a non-executive director of Sinotruk (Hong Kong) Limited, (<i>heavy-duty truck manufacturing</i>), a supervisor of KION Group AG (<i>intralogistics, warehouse solutions and industrial trucks</i>), and a director of the Power Solutions International Inc. (<i>cleantech engine and powertrain manufacturing</i>). Previously, Mr. Jiang was deputy general manager of Shandong Bulldozer General Factory (<i>heavy machinery manufacturing</i>); deputy general manager of Shantui Construction Machinery Import and Export Company (<i>heavy machinery</i>); a director and senior officer of Shantui Engineering Machinery Co., Ltd. (<i>heavy machinery</i>); deputy general manager of Shandong Engineering Machinery Group Co., Ltd. (<i>heavy machinery</i>); executive deputy general manager and vice chairman of Weichai Group Holdings Limited, (<i>diesel engine, powertrain and hydraulic products manufacturing</i>); and chairman of Shanzhong Jianji Co., Ltd. (<i>heavy machinery</i>). He is a senior engineer and holds an MBA degree.</p>					
	Board and Committee Membership		Attendance		Other Public Board Memberships	
	Board		11	92%	<i>Current:</i> Weichai Power Co., Ltd.; Sinotruk (Hong Kong) Limited; KION Group AG (supervisor); Power Solutions International Inc.; Shantui Engineering Machinery Co., Ltd. <i>Previous:</i> none	
	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 <sup>(5)</sup>
	2022	0	0	0	0	N/A
2021	0	0	0	0	N/A	


 <b>Duy-Loan Le</b> Age: 59 Texas, USA Director since: 2017 <i>Independent</i>	<p>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 an advanced technology ramp manager and 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. Ms. Le is an inventor on 24 U.S. patents.</p>					
	Board and Committee Membership		Attendance		Other Public Board Memberships	
	Board		12	100%	<i>Current:</i> National Instruments Inc.; Wolfspeed, Inc. ( <i>formerly Cree, Inc.</i> ); Atomera Incorporated <i>Previous:</i> none	
	PCGC		6	100%		
	Commercial		3	100%		
	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	
2022	50,000	44,753	94,753	\$1,289,588	Achieved	
2021	50,000	37,203	87,203	\$2,443,428	Achieved	


 <b>Randy MacEwen</b> Age: 53 B.C., Canada Director since: 2014 <i>Non-Independent</i>	<p>Mr. MacEwen is President and Chief Executive Officer of Ballard, a position he has held since October 2014. Previously, Mr. MacEwen was the founder and Managing Partner at NextCleanTech LLC (<i>consulting services</i>) from 2010 to 2014; and President &amp; CEO and Executive Vice President, Corporate Development at Solar Integrated Technologies, Inc. (<i>solar</i>) from 2006 to 2009 and 2005 to 2006, respectively. Prior to that, Mr. MacEwen was Executive Vice President, Corporate Development at Stuart Energy Systems Corporation (<i>onsite hydrogen generation systems</i>) from 2001 to 2005; and an associate at Torys LLP (<i>law firm</i>) from 1997 to 2001.</p>					
	Board and Committee Membership		Attendance		Other Public Board Memberships	
	Board		12	100%	<i>Current:</i> Brookfield Renewable Corporation <i>Previous:</i> Solar Integrated Technologies Inc.	
	Securities Held <sup>(2, 6)</sup>					
	Year	Shares	DSUs	Total of Shares and DSUs	Value of Shares and DSUs (CDN\$) <sup>(3)</sup>	Director Share Ownership Guidelines <sup>(5)</sup>
	2022	312,680	148,046	460,726	\$6,270,481	N/A
2021	248,979	148,046	397,025	\$11,124,641	N/A	

 <p><b>Hubertus M. Muehlhaeuser</b> Age: 53 Schwyz, Switzerland Director since: 2021 <i>Independent</i></p>	<p>Mr. Muehlhaeuser is Chairman &amp; CEO of Pontem Corporation (<i>special purpose acquisition company</i>) and Chairman of Kelvion Ltd. (<i>heat exchangers</i>). Previously Mr. Muehlhaeuser was CEO and Executive Director at CNH Industrial N.V. (<i>agricultural equipment</i>), CEO and Executive Director at Welbilt Inc. (<i>food and beverage equipment</i>) and Sr. Vice President and General Manager at AGCO Corporation (<i>agricultural equipment</i>).</p>					
	<b>Board and Committee Membership</b>		<b>Attendance<sup>(1)</sup></b>		<b>Other Public Board Memberships</b>	
	Board	5	100%	<i>Current:</i> Pontem Corporation <i>Previous:</i> CNH Industrial NV; Welbilt Inc.		
	PCGC	1	100%			
	Commercial	0	N/A			
	<b>Securities Held<sup>(2)</sup></b>					
		<b>Year</b>	<b>Shares</b>	<b>DSUs</b>	<b>Total of Shares and DSUs</b>	<b>Value of Shares and DSUs (CDN\$)<sup>(3)</sup></b>
	2022	0	3,187	3,187	\$43,375	On track
	2021	0	0	0	0	n/a

 <p><b>Marty Neese</b> Age: 59 California, USA Director since: 2015 <i>Independent</i></p>	<p>Mr. Neese is CEO of Verdagy Inc. (<i>electrolysis and hydrogen production</i>). He is also co-founder of Nuvosil AS (<i>silicon recycling</i>). Previously, he was Chief Operating Officer of Velodyne LiDAR, Inc. (<i>autonomous vehicles</i>) from February 2017 to October 2017. Prior to that, Mr. Neese was Chief Operating Officer of SunPower Corporation (<i>solar power equipment and services</i>) from 2008 to 2017; responsible for Global Operations at Flextronics (<i>electronics manufacturing services</i>) from 2007 to 2008 following its acquisition of Solectron Corporation (<i>electronics manufacturing services</i>) where he was Executive Vice President from 2004 to 2007.</p>						
	<b>Board and Committee Membership</b>		<b>Attendance</b>		<b>Other Public Board Memberships</b>		
	Board	12	100%	<i>Current:</i> none <i>Previous:</i> none			
	Commercial	3	100%				
	<b>Securities Held<sup>(2)</sup></b>						
		<b>Year</b>	<b>Shares</b>	<b>DSUs</b>	<b>Total of Shares and DSUs</b>	<b>Value of Shares and DSUs (CDN\$)<sup>(3)</sup></b>	<b>Director Share Ownership Guidelines</b>
		2022	0	75,211	75,211	\$1,023,622	On track
	2021	0	69,588	69,588	\$1,949,856	On track	

 <p><b>James Roche</b> Age: 59 Ontario, Canada Director since: 2015 <i>Independent</i></p>	<p>Mr. Roche is founder, President and CEO of Stratford Group Ltd. (<i>management consulting services</i>), a position he has held since 2008, and Chair, President &amp; CEO of ThinkRF Corp. (<i>communications equipment manufacturer</i>), a position he has held since 2016. Prior to that, Mr. Roche was co-founder, President and CEO of Tundra Semiconductor (<i>semiconductor component manufacturer</i>) from 1995 to 2006 and founding member and executive at Newbridge Networks Corporation (<i>communications equipment manufacturer</i>) from 1986 to 1995.</p>					
	<b>Board and Committee Membership</b>		<b>Attendance</b>		<b>Other Public Board Memberships<sup>(7)</sup></b>	
	Board (Chair)	12	100%	<i>Current:</i> Information Services Corporation <i>Previous:</i> Wi-LAN Inc.; Tundra Semiconductor Corporation; Aztech Innovations Inc..		
	Audit	7	100%			
	PCGC	6	100%			
	Commercial	3	100%			
	<b>Securities Held<sup>(2)</sup></b>					
	<b>Year</b>	<b>Shares</b>	<b>DSUs</b>	<b>Total of Shares and DSUs</b>	<b>Value of Shares and DSUs (CDN\$)<sup>(3)</sup></b>	<b>Director Share Ownership Guidelines</b>
	2022	50,000	88,442	138,442	\$1,884,196	On track
	2021	50,000	82,649	132,649	\$3,716,825	On track

 <p><b>Shaojun (Sherman) Sun</b> Age: 57 Shandong, China Director since: 2019 <i>Independent</i><sup>(4)</sup> <i>(Weichai nominee)</i></p>	<p>Mr. Sun is an Executive Director and Executive President of Weichai Power Co., Ltd. (<i>diesel engine, powertrain and hydraulic products manufacturing</i>), a director of Weichai Group Holdings Limited and chairman of Power Solutions International Inc. (<i>cleantech engine and powertrain manufacturing</i>). Previously, Mr. Sun was supervisor and chief engineer at Weifang Diesel Engine Factory (<i>diesel engine manufacturing</i>) and director of Torch Automobile Group Co., Ltd. (<i>heavy machinery and automotive manufacturing</i>). He holds doctorate degree in engineering.</p>						
	<b>Board and Committee Membership</b>		<b>Attendance</b>		<b>Other Public Board Memberships</b>		
	Board	9	75%	<i>Current:</i> Weichai Power Co., Ltd.; Power Solutions International Inc. <i>Previous:</i> none			
	PCGC	4	67%				
	<b>Securities Held<sup>(2)</sup></b>						
		<b>Year</b>	<b>Shares</b>	<b>DSUs</b>	<b>Total of Shares and DSUs</b>	<b>Value of Shares and DSUs (CDN\$)<sup>(3)</sup></b>	<b>Director Share Ownership Guidelines<sup>(5)</sup></b>
		2022	0	0	0	0	N/A
	2021	0	0	0	0	N/A	

 <p><b>Janet Woodruff</b> Age: 65 B.C., Canada Director since: 2017 <i>Independent</i></p>	<p>Ms. Woodruff's principal occupation is corporate director. Previously, Ms. Woodruff served as acting CEO to the Transportation Investment Corporation (<i>transportation infrastructure management</i>) from 2014 to 2015, 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 (<i>public utility</i>) from 2010 to 2011; Interim President (2009-2010) and Vice President, Corporate Services and Chief Financial Officer (2007-2008) of BC Transmission Corporation (<i>electricity transmission infrastructure</i>); and Chief Financial Officer and Vice President, Systems Development and Performance of Vancouver Coastal Health from 2003 to 2007.</p>					
	<b>Board and Committee Membership</b>		<b>Attendance</b>		<b>Other Public Board Memberships</b>	
	Board	12	100%	<i>Current:</i> Keyera Corporation; Altus Group Limited; Capstone Infrastructure Corporation <sup>(8)</sup> ; <i>Previous:</i> FortisBC Energy Inc. and FortisBC Inc.; Nordion Inc. (formerly MDS Inc.); Pacific Northern Gas		
	Audit	7	100%			
	PCGC	6	100%			
	<b>Securities Held<sup>(2)</sup></b>					
		<b>Year</b>	<b>Shares</b>	<b>DSUs</b>	<b>Total of Shares and DSUs</b>	<b>Value of Shares and DSUs (CDN\$)<sup>(3)</sup></b>
	2022	0	39,028	39,028	\$531,171	On track
	2021	0	33,976	33,976	\$952,008	On track

- (1) Ms. Bayless was appointed as of December 9, 2021 and attended all meetings from that date. Mr. Muehlhaeuser was appointed to the board on August 16, and to the PCGCC and Commercial Committees on October 25, 2021, and attended all meetings from those dates.
- (2) As of April 11, 2022 and April 12, 2021, respectively. 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.
- (3) Based on a CDN\$13.61 and CDN\$28.02 closing Share price on the TSX as of April 11, 2022 and April 12, 2021, respectively.
- (4) Mr. Jiang and Mr. Sun, as Weichai nominees, are not considered independent under NASDAQ rules for the purposes of serving on the Audit Committee.
- (5) Directors who are shareholder nominees appointed pursuant to agreements with the Corporation are not subject to director share ownership guidelines. As President and CEO, Mr. MacEwen is subject to executive share ownership guidelines: see "Share Ownership Guidelines and Share Trading Policy" on page 56 and following for more details.
- (6) As President and CEO, Mr. MacEwen also holds PSUs and Options. See the Executive Compensation Tables on page 67 and following for more details.
- (7) Canadian securities legislation requires disclosure if, as at the date of the Circular, or within 10 years before the date of the Circular, a director or executive officer was a director or officer of any company that became insolvent while that person was acting in that capacity, or within one year from ceasing to act in that capacity. In this regard, Mr. Roche was Chair of Aonix Advanced Materials Corp. (a private company) when a bankruptcy order was issued against it under the *Bankruptcy and Insolvency Act (Canada)* on October 13, 2017.
- (8) Capstone Infrastructure Corporation is a wholly owned subsidiary of Irving Infrastructure Corp., but which has preferred shares that 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. We comply with the requirement regarding the rotation of our audit engagement partner every five years. A new audit engagement partner was appointed in 2020.

The following table shows the total fees we incurred with KPMG LLP in 2021 and 2020:

Type of Audit Fees	2021 (CDN\$)	2020 (CDN\$)
Audit Fees	\$792,692	\$846,132
Audit-Related Fees	Nil	Nil
Tax Fees	Nil	Nil
All Other Fees	Nil	\$10,812

### ADVISORY VOTE ON APPROACH TO EXECUTIVE COMPENSATION

The People, Corporate Governance & Compensation Committee (“PCGC”) 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 PCGCC 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 PCGCC also recommended that adoption by the Board of a formal “say-on-pay” policy should continue to be deferred until applicable Canadian securities regulatory authorities have set out the regulatory requirements applicable to the Corporation.

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

**“RESOLVED**, on an advisory basis and not to diminish the role and responsibilities of the Board of Directors of the Corporation, that the Shareholders accept the approach to executive compensation disclosed in the Corporation’s Circular dated April 11, 2022.”

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 Circular.

Approval of the above advisory 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 PCGC. However, the Board and the PCGCC 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.

## QUORUM REQUIREMENTS

The Board proposes that the articles of the Corporation be amended to provide that at least two persons holding or representing by proxy at least twenty-five per cent (25%) of the Shares entitled to vote be present to establish quorum for a shareholder meeting (the “**Quorum Amendment**”).

The current articles, adopted under the *Business Corporations Act (British Columbia)* in 2016, do not require at least two persons to be present to establish quorum, although the shareholding threshold of twenty-five per cent (25%) of the Shares entitled to vote is the same. A copy of the existing articles can be found on our website (<https://www.ballard.com/investors/governance>).

The purpose of the Quorum Amendment is to encourage participation from all shareholders. Shareholder meeting quorum requirements that allow only one shareholder to constitute quorum, as is currently the case in the Corporation’s articles, could allow a single significant or controlling shareholder to dominate meetings at the expense of minority shareholders. The Quorum Amendment is consistent with proxy advisory firm guidelines for TSX-listed companies and reflects best practices within the Canadian market.

The language of Section 11.3 of the current articles is proposed to be replaced by the Quorum Amendment as follows:

### **Section 11.3 Quorum**

A quorum for the transaction of business at a meeting of the shareholders is present if two (2) shareholders who, in the aggregate, hold at least twenty-five (25%) of the issued shares entitled to be voted at the meeting are present in person or represented by proxy, irrespective of the number of persons actually present at the meeting.

Notwithstanding the foregoing, if the Company has only one shareholder, or represented by proxy, constitutes a quorum for such meeting.

If approved by shareholders at the Meeting, the Quorum Amendment will alter the Corporation’s articles and will be effective upon deposit by the Board of this resolution and the Quorum Amendment at the Corporation’s records office.

Shareholders will be asked at the Meeting to consider and, if deemed appropriate, to approve, by a simple majority of votes cast at the Meeting, an ordinary resolution, in the form below, to approve the Quorum Amendment.

“**RESOLVED**, as an ordinary resolution, that the articles of the Corporation be altered by deleting Section 11.3 of the existing Articles of the Corporation in its entirety and creating and adding to the Articles of the Corporation new Section 11.3 in the form set out in the Corporation’s Circular dated April 11, 2022, such alteration to be effective upon the deposit at the records office of the Corporation by the Board of this resolution and the text of such new Section 11.3.”

Approval of the above ordinary 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.

**The Board recommends that shareholders vote “FOR” the foregoing resolutions. The representatives of management named in the enclosed form of proxy, if named as proxyholders, intend to vote for the resolution, unless the shareholder has specified in the form of proxy that their Shares are to be voted against the resolution.**

## 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, 2022, 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.

## 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 complying with applicable corporate governance rules.

Our corporate governance practices are reflected in our Corporate Governance Policies, which provide 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.

The Board operates under a formal mandate (a copy of which is attached as Appendix “A”), 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, cybersecurity, external communications and board effectiveness. The Board has also established terms of reference for the Board Chair and for individual directors that set out the directors’ individual responsibilities and duties. Terms of reference are also established for the CEO. These terms of reference and our Corporate Governance Policies 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. This document is reviewed annually and updated or revised as necessary. Annually, all our regular full/part time and temporary employees of Ballard and our subsidiaries globally, and the Board, 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.

Copies of our Corporate Governance Policies, the Board mandate, Chair and director terms of reference and our Code of Ethics can be found on our website (<https://www.ballard.com/investors/governance>).

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.

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 the SEC.

## SHAREHOLDER FEEDBACK AND COMMUNICATION

We have an e-mail process for Shareholders to communicate with the Board. Shareholders who wish to can send a message to the Board Chair at [boardofdirectors@ballard.com](mailto:boardofdirectors@ballard.com). The email address is also available on our website (<http://ballard.com/contact-us>). A summary of shareholder feedback that is received by us is provided to the Board through a quarterly report.

## BOARD COMPOSITION AND NOMINATION PROCESS

All of our directors are independent except for Randy 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. Mr. Jiang and Mr. Sun, as Weichai nominees, are not considered independent under NASDAQ rules for the purposes of serving on the Audit Committee. We conduct an annual review of the other corporate boards on which our directors sit and have determined that currently there are no board interlocks with respect to our directors. The Board has also established a guideline for the maximum number of public company boards on which a director should sit. In 2019, this guideline was set at no more than five public company boards, including the Corporation's Board; and for directors who are CEOs (or hold similar positions), no more than two public company boards in addition to his/her own company's board. In calculating service on public company boards, service on a board of a company affiliated with the director's employer is not included. 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 and complementary backgrounds, skills sets and experience bases and who demonstrate integrity and suitability for overseeing management. Our PCGCC 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 PCGCC 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.

In 2021, the PCGCC conducted a search, with the assistance of independent external advisors, for two new board members to enhance the board's skill sets and diversity. The search concluded with the appointment of Mr. Muehlhaeuser and Ms. Bayless in 2021.

## **BOARD COMPETENCIES**

The PCGCC defines director competency as skill, knowledge, education, experience or expertise that can be measured and contributes to director effectiveness. It is not necessary for directors to be expert in most or even many competencies. What is important is that the Board has the collective knowledge and experience to provide oversight and strategic advice to management. The PCGCC and the Board have determined that the following competencies are the most relevant for the Board at this time:

- a) Direct experience in leading a business as a CEO or other senior executive
- b) Strategy development experience
- c) Financial literacy
- d) M&A and capital markets experience
- e) Corporate governance experience & education
- f) People and compensation experience, including succession planning, talent management, leadership development and executive compensation
- g) Experience with technology research and development, application, product development, and early stage commercialization
- h) Knowledge and understanding of the hydrogen value chain including production, storage, infrastructure and fueling
- i) Executive or board experience in the transportation mobility sector
- j) Executive or board experience operating in multiple jurisdictions with diverse political, cultural, regulatory and business environments
- k) Sales/Marketing experience

Each director completed a self-assessment their knowledge, skills and experience for each of the competencies, and this information is used to assess the Board’s overall strengths and to assist in the Board’s ongoing renewal process, which balances the need for experience and knowledge of the Corporation’s business with the benefit of board renewal and diversity. Although the directors have a breadth of experience in many areas, the skills matrix set out below lists the key competencies determined by each director. The matrix is not intended to be an exhaustive list of each director’s skills and experience.

<b>Competencies</b>	<b>Kathy Bayless</b>	<b>Douglas P. Hayhurst</b>	<b>Kevin Jiang</b>	<b>Duy-Loan Le</b>	<b>Randy MacEwen</b>	<b>Hubertus M. Muehlhaeuser</b>	<b>Marty Neese</b>	<b>James Roche</b>	<b>Sherman Sun</b>	<b>Janet Woodruff</b>
<b>CEO/Executive Leadership</b>	✓		✓		✓	✓	✓	✓		✓
<b>Strategy</b>	✓	✓	✓	✓	✓	✓	✓	✓		✓
<b>Financial Literacy</b>	✓	✓			✓			✓		✓
<b>M&amp;A and Capital Markets</b>	✓	✓	✓		✓	✓				
<b>Corporate Governance</b>	✓	✓	✓	✓		✓		✓		✓
<b>People and Compensation</b>		✓	✓	✓		✓				✓
<b>Technology</b>				✓			✓	✓	✓	
<b>Hydrogen Economy</b>					✓				✓	
<b>Transportation and Mobility</b>			✓			✓			✓	
<b>Global Markets</b>		✓	✓		✓	✓	✓	✓		
<b>Sales/Marketing</b>			✓					✓		

## DIVERSITY

The PCGCC considers diversity as one of the important criteria relative to the composition of the Board and management. To this end, the Corporation has adopted a Diversity & Inclusion Policy, a copy of which can be found on our website (<https://www.ballard.com/investors/governance>). The policy recognizes the importance of diversity and that it will result in enhanced decision making and increased shareholder value. Further, the Board recognizes its obligation to promote diversity and inclusion as part of the corporate culture – it is a social and workforce imperative.

Board Diversity Matrix (As of April 11, 2022)				
Country of Principal Executive Offices:	Canada			
Foreign Private Issuer	Yes			
Disclosure Prohibited Under Home Country Law	No			
Total Number of Directors	10			
	Female	Male	Non-Binary	Did Not Disclose
<b>Part I: Gender Identity</b>				
Directors	3	7	0	0
<b>Part II: Demographic Background</b>				
Underrepresented Individual in Home Country Jurisdiction	3			
LGBTQ+	0			
Did Not Disclose	0			

	2022		Target	Target Date	Status
	Number	%			
Women on Board	3	30%	30%	2022	Achieved
Women in executive officer positions	2	33%	NA	N/A	N/A

The Corporation does not have a target number of women executive officers. Given the small size of its executive team, the Corporation believes that implementing targets would not be appropriate. However, in its hiring practices, the Corporation considers the number of women in executive officer positions and the desirability of achieving an appropriate level of representation. The PCGCC 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. The Corporation is also a member of the Canadian chapter of the 30% Club, a group whose aspirational goal is for 30% of board seats and C-Suites to be held by women by 2022.

The PCGCC assesses the effectiveness of the Corporation’s approach to diversity annually and recommends changes to the Board, including the possible adoption of measurable diversity objectives for executive positions, as appropriate.

## 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 access to digital resources that contain various reference documents and information. Continuing education is offered by way of ongoing circulation of information regarding material industry developments and other topical subject matters; management presentations at Board meetings; and guest speakers who are invited to speak to our Board on various topics. From time to time we have invited guest speakers to speak to our Board about the fuel cell industry, government regulation, regional markets, capital markets, ESG, 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.

The board prepares an annual education calendar with input from management. With COVID-19 travel restrictions, directors did not physically attend any industry conferences or make any site visits in 2021. Board meetings included regular management presentations on business and operations, including briefings on COVID-19 impacts, and the Board also received educational presentations from management on market and policy developments in China, ESG and the rail market. Directors also participated in online conferences and education programs provided by NACD, ICD and other providers.

## 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 PCGCC 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 PCGCC presents the summary results to the full Board, which then determines appropriate actions and changes to improve Board effectiveness.

In 2021, the process included completion of a confidential survey by each director. The survey included questions relating to Board organization and function; committee organization and function; board relationships; director responsibilities and Board impact; Board succession; and also included peer reviews. A written summary of the survey results was presented to the PCGCC. The Board Chair provided one-on-one feedback to each Board member, and the PCGCC Chair provided one-on-one feedback to the Board Chair.

The Board also identifies a list of focus priorities each year. The PCGCC and the Board regularly monitor progress against these priorities throughout the year.

## TENURE AND TERM LIMITS

Director Term Limits*		Other Mechanisms for Board Renewal
Age Limit	Tenure Limit	
No	15 years	No other mechanisms for board renewal adopted

\* These provisions do not apply to the President & Chief Executive Officer in his/her role as a Board member.

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 PCGCC 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.

## **DIRECTOR SHARE OWNERSHIP GUIDELINES**

We have minimum share ownership guidelines that apply to our directors, other than management directors (Mr. MacEwen, who is subject to similar guidelines for our executive officers) and directors who are shareholder nominees appointed pursuant to agreements with the Corporation (Mr. Jiang and Mr. Sun, who are Weichai nominees).

All other 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. 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 and DSUs held by directors is 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.

Any director who fails to comply with the minimum share ownership guidelines will not be eligible to stand for re-election. 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 business and operations at meetings of the Board and its committees, and through reports by and discussions with management. The Board met twelve (12) times during 2021. The independent directors held *in camera* sessions during each meeting, without the management present.

The Board has set a minimum meeting attendance guideline of 75%. Non-compliance with this guideline by a director is one of the factors considered in his or her individual performance evaluation at the end of the year.

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.

## **COMMITTEES OF THE BOARD**

The Board currently has three standing committees: (1) the Audit Committee; (2) the People, Corporate Governance & Compensation Committee (PCGC); and (3) the Commercial Committee.

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.

Starting in 2022, Directors who are appointed by shareholders pursuant to agreements with the Corporation are not eligible to serve on board committees.



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

	Audit Committee	People, Corporate Governance & Compensation Committee	Commercial Committee
Kathy Bayless	✓		
Douglas P. Hayhurst	✓ (Chair)	✓	
Kevin Jiang			
Duy-Loan Le		✓	✓
Hubertus M. Muehlhaeuser		✓	✓
Marty Neese			✓ (Chair)
James Roche	✓ <sup>1</sup>	✓ <sup>1</sup>	✓ <sup>1</sup>
Sherman Sun			
Janet Woodruff	✓	✓ (Chair)	

<sup>1</sup> As Chair of the Board, Mr. Roche is an *ex officio* member of each of the committees and is entitled to vote at meetings.

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

### Audit Committee

The Audit Committee met seven (7) times during 2021. The Audit Committee is constituted in accordance with SEC rules, applicable Canadian securities laws and applicable NASDAQ rules. The Audit Committee has at least three members, Kathy Bayless, Douglas P. Hayhurst and Janet Woodruff, who qualify as audit committee financial experts under applicable securities regulations. 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 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 cybersecurity risk program and monitoring cybersecurity policies and procedures;
- the Corporation’s whistleblower reporting processes;
- the Corporation’s financial policies; and
- the review and approval of related party transactions.

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 annually conducts a formal audit effectiveness assessment to drive continuous improvement in the external audit. The Audit Committee, in coordination with management and KPMG, continues to participate in the Canadian Public Accountability Board’s audit quality indicators project. The project is aimed at improving audit quality using quantitative measures to evaluate audit quality. Using the

year-end audit quality indicators report, the Audit Committee will evaluate how to best integrate the indicators into its regular processes and into the external audit.

The Audit Committee is also responsible for the appointment of our internal auditors, 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 reviews and approves, in advance, related party transactions on a case-by-case basis. Related party transactions are defined in the Audit Committee mandate consistent with SEC requirements.

For a more detailed description of the Audit Committee or to see the Audit Committee's mandate, see the section entitled "Audit Committee Matters" in our Annual Information Form dated March 14, 2022, which section is incorporated by reference into this Circular. The Audit Committee's mandate is also posted on our website (<https://www.ballard.com/investors/governance>).

### **People, Corporate Governance & Compensation Committee**

The PCGCC met six (6) times during 2021. Collectively, the PCGCC members have extensive compensation-related experience as senior executives (past and present) and members of the board of directors and committees of other public and private corporations. Members of the PCGCC are independent directors in accordance with the applicable Canadian and United States securities laws and exchange requirements.

The PCGCC is responsible for assisting the Board in fulfilling its oversight responsibilities regarding certain talent, corporate governance and compensation matters, including:

- key talent management strategies and practices;
- director nominations, Board and committee membership, Board performance evaluation, policies and practices relating to directors, and director compensation;
- matters relating to the Corporation's executive officers, including CEO and leadership succession, the appointment of the Corporation's executive officers and the Corporation's compensation plans, policies and practices; and
- other corporate governance matters.

In carrying out its duties, the PCGCC:

- in consultation with the CEO, provides oversight to the organization's talent management and employee engagement practices;
- provides oversight of ESG matters, including health, safety, environmental, social, and sustainability;
- recommends the size of the Board and the formation and membership of committees of the Board;
- ensures a formal process exists to evaluate the performance of the 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;
- reviews equity-based compensation plans and issuance of awards pursuant to these plans;
- determines director compensation;
- conducts succession planning for the Board;
- sets and reviews executive officer's terms of employment, recommends candidates for executive officer positions, and reviews and approves performance and compensation for executive officers;
- in respect of the CEO, recommends to the Board the terms and conditions of employment and CEO performance goals; and
- monitors corporate governance practice and makes recommendations to the Board.

Annually, the PCGCC also reviews the Corporation's compensation approach and alignment with long-term goals; approves corporate performance and bonus and long term incentive awards to employees.

The PCGCC has the authority to appoint compensation consultants, determine their level of remuneration, and oversee and terminate their services. Such consultants report directly to the PCGC.

The PCGC's mandate is posted on our website (<https://www.ballard.com/investors/governance>). The mandate is reviewed annually and the PCGC's performance is assessed annually through a process overseen by the Board.

### **Commercial Committee**

Following the investment in the Corporation by Weichai in late 2018, and the appointment of two Weichai nominees to the Board in early 2019, the Board established the Commercial Committee to oversee the management of the Corporation's business and affairs relating to certain existing or prospective key partners (which may include customers, suppliers, contract manufacturers, joint venture or other strategic partners) and commercially sensitive and/or proprietary information.

Members of the Commercial Committee must not, in the opinion of the Board: (i) have a direct or indirect material relationship with any key partner of the Corporation; or (ii) have a relationship with a key partner that could reasonably be expected to compromise any commercially sensitive and/or proprietary information of any other key partners or of the Corporation.

The Commercial Committee met three (3) times in 2021. The Commercial Committee's mandate is posted on our website (<https://www.ballard.com/investors/governance>).

## EXECUTIVE COMPENSATION

### COMPENSATION DISCUSSION AND ANALYSIS

This section discusses the elements of compensation earned by our “Named Executive Officers” (or “NEOs”) as of December 31, 2021:

<b>Randy MacEwen</b>	<b>Anthony Guglielmin<sup>1</sup></b>	<b>Paul Dobson<sup>2</sup></b>	<b>Robert Campbell</b>	<b>Kevin Colbow</b>	<b>Jesper Thomsen</b>
President and Chief Executive Officer	Senior Vice President and Chief Financial Officer	Senior Vice President and Chief Financial Officer	Senior Vice President and Chief Commercial Officer	Senior Vice President and Chief Technology Officer	President and Chief Executive Officer, Europe

<sup>1</sup> Resigned as CFO on March 29, 2021 and retired on May 31, 2021

<sup>2</sup> Appointed March 29, 2021

<sup>3</sup> In March 2021, Mr. Thomsen was promoted to CEO Europe. At this time, he reported to the CEO and compensation review process was managed by the CEO, in accordance with local Danish market conditions, not by the PCGCC.

### INTRODUCTION

The Corporation puts a considerable amount of effort into the development, and ongoing monitoring and management, of our executive compensation plan. This includes monitoring of industry best-practices, benchmarking against relevant comparators inside and outside the fuel cell industry sector, and the involvement of expert third parties to provide independent advice. We also solicit investor feedback on our executive compensation approach by providing an advisory “say-on-pay” vote.

#### Context of Ballard’s Executive Compensation Practices

The PCGCC recognizes there are a number of industry and business factors that present challenges to creating and implementing an effective executive compensation program.

Despite our lengthy history, we are a pre-profit company developing and commercializing new technology, products and services that are highly disruptive in our markets and disruptive to incumbent markets.

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. In 2021, we completed the acquisition of Ballard Motive Systems (formerly Arcola Energy) in England and Scotland. We now have operations and offices in Canada, the United States, Europe, the UK, and China (and joint venture interests in China that require active oversight); and an international sales and service team supporting commercial operations outside of our operational sites. As the demand for hydrogen-based motive and stationary solutions continues to grow and our operations expand, so too has our need for experienced global executive talent.

Setting longer-term performance targets in an early-stage business with significant volatility and market risks is particularly challenging. The PCGCC seeks to balance setting concrete, challenging performance targets that reflect genuine progress in the business consistent with our strategy, which are also reasonably achievable and capable of dealing with the volatility and complexity of our business.

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

## Executive Compensation Review

In 2021, the PCGCC engaged Willis Towers Watson to conduct our annual review of compensation for the executive team, excluding Jesper Thomsen, President and CEO Europe. This includes base salary, performance bonus incentive, target total cash (salary and target bonus) and long-term incentive awards. Data were sourced by Willis Towers Watson from a comparator group (list disclosed below) and Willis Towers Watson's General Industry Executive Compensation Survey. The PCGCC considered the results of this review and the recommendations of Willis Towers Watson in its determination of executive compensation adjustments.

## 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 and relative experience.

Objectives	How We Achieve It
<b>Attract and retain</b>	<ul style="list-style-type: none"><li>• Paying compensation, including salaries, which are competitive in the markets in which we compete for executive talent</li></ul>
<b>Motivate</b>	<ul style="list-style-type: none"><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>
<b>Align</b>	<ul style="list-style-type: none"><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.

The PCGCC reviews the composition of the comparator group annually and updates it as required. Benchmarking for a company of Ballard's size and stage of business is particularly challenging as our industry is nascent and there are few companies directly comparable. Many of the direct competitors in our industry are private or smaller fuel cell companies that are publicly traded. By contrast, companies in broader comparator groups, such as industrials and technology companies, are often significantly larger revenue companies that provide similarly inappropriate benchmarks. In determining the appropriate comparator group, the PCGCC utilizes benchmarking as a key input and considers several factors detailed below, including the labor markets in which we compete for executive talent.

In 2021, the PCGC, working with Willis Towers Watson, conducted the annual review of the comparator group, resulting in two changes to the comparator group: removing one company that de-listed and adding a new comparator. The comparator group represents a suitable mix of Canadian and US companies exhibiting

key characteristics that align with Ballard, including: a growth orientation, market capitalization, revenue, employee base, asset base and market focus.

Our current comparator group is:

<b>Canada (8)</b>	<b>United States (7)</b>
ATS Automation Tooling Systems Inc.	Allied Motion Technologies Inc.
Calian Group Ltd.	American Superconductor Corporation
Enghouse Systems Limited	Bloom Energy Corporation
	Enphase Energy Inc.
Kinaxis Inc.	Fuel Cell Energy, Inc.
Magellan Aerospace Corporation	nLIGHT, Inc.
Sierra Wireless, Inc.	Plug Power Inc.
Westport Fuel Systems Inc.	Ultralife Corporation

The PCGCC 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 to the extent possible.

### Market Analysis

In 2021, Willis Towers Watson assessed the market competitiveness of the compensation arrangements for Ballard’s executive team against the comparator group of companies, for target total direct compensation (salary + target bonus + long-term incentives). Based on this assessment, no changes were made to the compensation structure for 2021 as outlined below.

### Compensation Framework for 2021

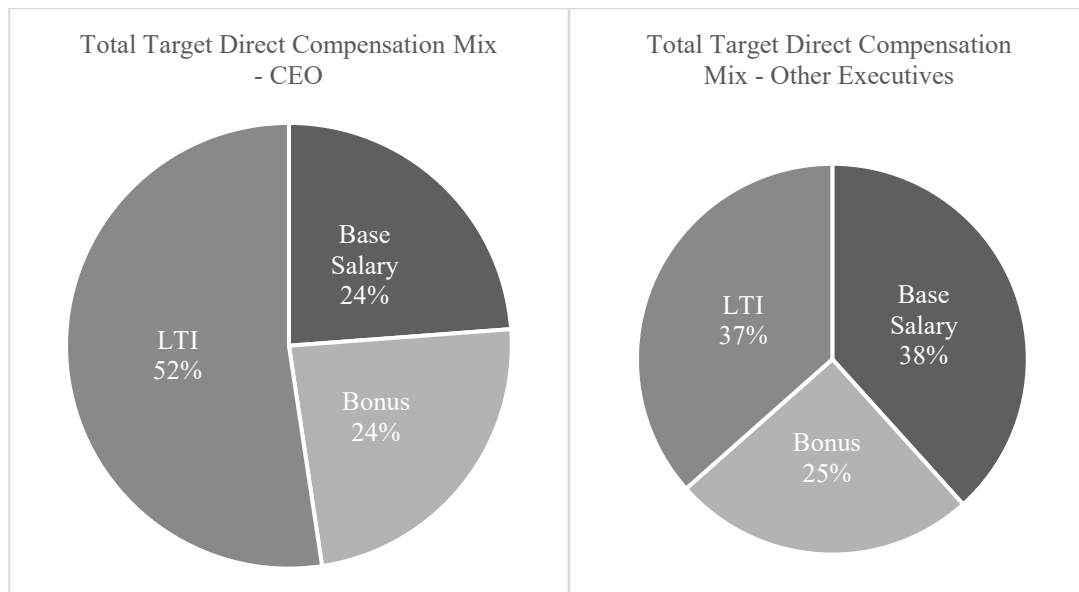
The compensation program for our executive officers has four primary components that deliver pay over the short- and long-term:

<b>Element</b>	<b>Features</b>	<b>2021 Performance Measures</b>
<b>Base Salary</b>	<ul style="list-style-type: none"> <li>Set to reflect market conditions and the size and scope of the role, internal alignment, as well as individual experience and performance</li> </ul>	N/A
<b>Annual Bonus</b>	<ul style="list-style-type: none"> <li>Paid annually in cash or DSUs</li> <li>Each executive has a specified target bonus expressed as a percentage of 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>	<p>Corporate</p> <p><u>Quantitative (30%)</u></p> <ul style="list-style-type: none"> <li>Revenue</li> <li>Gross Margin</li> </ul> <p><u>Qualitative (70%)</u></p> <ul style="list-style-type: none"> <li>Achieve cost reduction in stack series M</li> <li>Deliver against Truck Development Program</li> <li>Signing Significant Strategic Agreement</li> </ul>

Element	Features	2021 Performance Measures
<b>Long-Term Incentive:</b> <b>Performance Share Units (PSUs)</b>	<ul style="list-style-type: none"> <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>Each annual award is earned based on performance against Corporate objectives measured over three discrete annual performance periods (applying equally), with PSUs vesting and paying out only after completion of the third performance period (i.e., three-year cliff vesting)</li> <li>Payout can range from 0% - 150% of target award</li> <li>For special purposes (e.g. on-hire award), one-time awards vest in equal thirds over three-year period</li> </ul>	<ul style="list-style-type: none"> <li>Annual Revenue</li> <li>Gross Margin \$</li> </ul>
<b>Long-Term Incentive:</b> <b>Stock Options</b>	<ul style="list-style-type: none"> <li>Annual grants (25% of each executive’s target long-term incentive is awarded in the form of Stock Options)</li> <li>Exercise price equal to market price at grant</li> <li>Awards vest in three equal annual tranches</li> <li>Seven-year term</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> <li>Option value contingent on share price growth</li> </ul>

### Executive Pay Mix and the Emphasis on “At Risk” Pay

We emphasize performance by linking a significant proportion of our executive officers’ total annual compensation to corporate and individual performance. For 2021, the amount of target annual compensation earned that was “at risk” was 76% for the CEO and 62% for our other Named Executive Officers, in the form of variable and/or performance-related compensation as shown below (including annual bonus, PSUs and stock options). 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 are also aligned with 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 certain strategic objectives, 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** – PSUs deliver compensation value to executives by tying the earning of PSUs (i.e. ability to receive value from units) to the extent that performance measures related to key business objectives are met. In addition, the value of each vested unit changes in line with movements in the Corporation’s Share price. Stock Options align pay with future Share price performance as the compensation realised is based solely on Share price appreciation in excess of the fair market value at the time of grant.

## COMPENSATION GOVERNANCE

### Share Ownership Guidelines and Share Trading Policy

Our minimum share ownership guidelines require each executive officer to own a minimum value of our Shares expressed as a multiple of base salary as set out below.

<b>Position</b>	<b>Multiple of Base Salary</b>
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 Shares, or DSUs were allocated to them. The CEO has met his minimum share ownership requirements: all other executive officers have met or are on track to meet the applicable guidelines. Executives have 5 years in which to meet these requirements.

### Anti-Hedging Policy

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 PCGCC 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 PCGCC and Board continue to monitor this issue closely.

The PCGCC 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 comparator group of companies that are broadly comparable to the Corporation;
  - base salary is set relative to median and at levels which the PCGCC 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 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 PCGCC 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 independent external consultants to stress test each compensation component, to ensure boundary conditions are reasonable and do not produce unexpected or unintended financial windfalls.

The PCGCC 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 People Corporate Governance & Compensation Committee**

Willis Towers Watson has been retained by the PCGCC since 2008 to provide executive compensation benchmarking and general executive compensation, equity plan and Board compensation advisory services. In 2021, Willis Towers Watson provided input into the market competitiveness of the compensation arrangements for our executives and Board.

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

	<b>Compensation-Related Fees</b>	<b>All Other Fees</b>
2021	\$89,427	Nil
2020	\$138,176	Nil

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

Since 2017, Named Executive Officers have agreed to the following claw-back provision:

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

## How Executive Compensation is Determined

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

- 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 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 PCGCC and does not participate in the portions of the PCGCC 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 all PCGCC meetings include an in-camera session, and our PCGCC is advised by independent compensation advisors.

## Annual Salary

The PCGCC approves the annual salary of our executive officers (excluding Jesper Thomsen in 2021, as noted above). 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.

The following table outlines the base salaries in 2020 and the increases approved by the PCGCC (excluding Jesper Thomsen) for 2021 base salaries.

	<b>2021 Salary</b>	<b>2020 Salary</b>
Randy MacEwen, President & CEO	\$600,000	\$600,000
Anthony Guglielmin, Senior Vice President & CFO	\$370,000	\$370,000
Paul Dobson, Senior Vice President & CFO	\$500,000	n/a
Robert Campbell, Senior Vice President & COO	\$380,000	\$370,000
Kevin Colbow, Senior Vice President & CTO	\$300,000	\$290,000
Jesper Thomsen, President & Chief Officer Europe	\$333,788	\$310,786

## Annual Target Bonus for Executive Officers

In 2021, based on the analysis and recommendations from Willis Towers Watson, there were no changes made to short-term incentive structure or target bonus.

	2021 Annual Target Bonus	2020 Annual Target Bonus	Change
Randy MacEwen	100%	100%	nil
Anthony Guglielmin	70%	70%	nil
Paul Dobson	70%	n/a	n/a
Rob Campbell	70%	70%	nil
Kevin Colbow	70%	70%	nil
Jesper Themsen	50%	50%	nil

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

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

### Methodology for Determining Annual Incentives

For 2021, the actual annual bonus for each executive officer is determined by the PCGCC based on the following formula:

$$\text{Actual Bonus} = \text{Annual Base Salary} \times \text{Target Bonus \%} \times \left( 70\% \times \text{Corporate Scorecard Multiplier} + 30\% \times \text{Ind. Performance Multiplier} \right)$$

### Corporate Scorecard Multiplier

The Corporate Scorecard Multiplier is determined on completion of each fiscal year by the PCGCC and approved by the Board with reference to achievement against the goals set out in a Corporate Performance Scorecard approved by the PCGCC and the Board at the start of the year. Each goal on the Corporate Performance Scorecard is assigned a relative weighting in terms of importance to the performance of the Corporation. The Corporate Performance Scorecard typically includes a mix of quantitative financial metrics and qualitative goals. The quantitative financial metrics typically include a threshold level of performance below which the contribution of that goal to the overall corporate scorecard multiplier is zero, and a maximum beyond which no further contribution to the corporate scorecard multiplier accrues. The financial targets in the Corporate Scorecard reflect the annual operating plan goals and if met receive a 100% payout for the metric.

For 2021, the Corporate Performance Scorecard reflected a balance of quantitative annual goals focused on delivery of the 2021 operating plan (30% of the scorecard) and qualitative goals focused on key strategic outcomes to be achieved during 2021 to better position the Corporation for longer term success (70% of the scorecard).

The quantitative annual goals related to annual revenue and gross margin weighted 15% each, representing a total of 30% of the 2021 Corporate Scorecard. The range of possible scoring against each of these quantitative goals was between 0% and 150% of achievement, with a 100% rating being achieved at the Corporation’s annual operating plan for 2021.

The three qualitative goals were weighted at 70% in total. The first qualitative goal, weighted at 25%, was focused on the Corporation’s cost reduction of our high-power density M series stack. The second qualitative goal, weighted at 25%, was focused on executing our Truck Development Program Milestones. The third

qualitative goal, weighted at 20%, was signing an agreement relating to a significant strategic transaction, major customer program or major commercial contract that supports future scaling and profitability.

Based on the Corporation's actual performance in 2021, the Board assessed the Corporate Performance Scorecard as follows:

<b>Component Weight</b>	<b>Performance Areas</b>	<b>Performance Highlights</b>
Quantitative (30%)	Annual revenue	Partly Achieved
	Gross Margin	Partly Achieved
Qualitative (70%)	Achieve cost reduction for M stack series	Fully Achieved
	Executing our Truck Develop Program Milestones	Fully Achieved
	Sign a strategic agreement, major customer program or major commercial contract	Over-Achieved

#### Individual Performance Multiplier

The individual performance multiplier is determined with reference to achievement against the individual goals set for each executive officer, and demonstration of the Corporation's cultural values. Individual goals are set for individual executive officers by the CEO and reviewed by the PCGC, 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 2021, Named Executive Officers had an individual multiplier of 85% - 133%. Our executive officers received their 2021 bonus in cash.

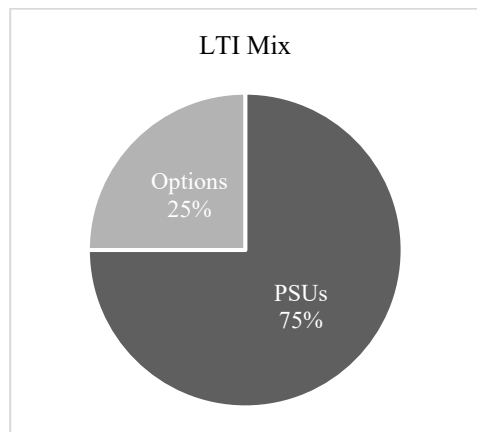
A summary of the Named Executive Officers' annual bonus payments for 2021 is as follows:

<b>Name</b>	<b>Target Bonus (% Salary)</b>	<b>Corporate Multiplier</b>	<b>Individual Multiplier</b>	<b>Performance Bonus</b>	<b>Bonus Paid as % Salary</b>
<b>Randy MacEwen</b>	100%	100%	1.05	\$609,000	102%
<b>Anthony Guglielmin<sup>1</sup></b>	70%	100%	1.00	\$107,916	68%
<b>Paul Dobson<sup>2</sup></b>	70%	100%	1.33	\$292,566	77%
<b>Rob Campbell</b>	70%	100%	0.93	\$260,414	69%
<b>Kevin Colbow</b>	70%	100%	1.08	\$214,725	72%
<b>Jesper Themsen<sup>3</sup></b>	50%	100%	0.85	\$154,378	46%

1. Mr. Guglielmin resigned as Senior Vice President and Chief Financial Officer on March 29, 2021. He continued to serve as an employee in an advisory capacity until his retirement on May 31, 2021.
2. Mr. Dobson was appointed Senior Vice President and Chief Financial Officer on March 29, 2021 and received a pro rata portion of his annual bonus.
3. Mr. Themsen's bonus was calculated based on a 50:50 weighting of the Corporate Multiplier and his individual multiplier.

## Long Term Incentives

We provide our executive officers with equity-based long-term incentives through the Consolidated Share Option Plan (“**Option Plan**”) and the Consolidated Share Distribution Plan (“**SDP**”). Our equity-based long-term incentives typically take the form of Stock Options or PSUs. 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.



### Performance Share Units

Performance Share Units (PSUs) typically comprise 75% of the long-term incentive compensation provided to an executive. The number of PSUs granted to each executive officer is usually determined in the first quarter of each financial year, as a percentage of base salary. The PSUs provide for earning of one third of the grant each year over a period of three years, subject to achievement of certain performance criteria (the “**PSU Scorecard**”) in each year. The amount of potential earned PSUs is based on performance against the PSU Scorecard in each year. Below a threshold PSU Scorecard performance, no PSUs are earned. Up to 150% of PSUs can be earned for PSU Scorecard performance in excess of 100%.

Although PSUs are earned during each of the three years based on performance, they are also subject to a vesting time period. For example, for PSUs granted in 2021, one third are eligible to be earned in each of 2022, 2023 and 2024; all earned PSUs will then vest in early 2024. Redemption of vested PSUs may be satisfied either with Shares bought under the Market Purchase PSU Plan or by treasury Shares reserved under the SDP.

One-time new hire PSU grants that are subject to a three year vesting period and are not subject to the PSU Scorecard.

### Stock Options

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

Under our Option Plan:

- a) the exercise price of each option is determined by the Board, but must not be less than the closing price per Share on the TSX or NASDAQ on the last trading day before the date the option is granted;
- b) on each of the first, second and third anniversaries of the grant date, one-third of the award will vest and become exercisable; and
- c) vested options may normally be exercised for a period of seven years from the grant date (the option “term”).

### Target Value of LTI

The target value of long-term incentives granted to Named Executive Officers in 2021, and the composition of long-term incentives is set out in the table below.

Name	Total LTI Mix (%)		
	Target LTI (% Salary)	PSUs/DSUs <sup>1</sup>	Stock Options
Randy MacEwen	220%	75%	25%
Anthony Guglielmin	70%	75%	25%
Paul Dobson	100%	0%	0%
Rob Campbell	70%	75%	25%
Kevin Colbow	70%	75%	25%
Jesper Thomsen	50%	75%	25%

<sup>1</sup> Converted to a number of PSUs dividing the dollar value by the closing Share price on the TSX on the award date. All Named Executive Officers received PSUs except as follows: Mr. Dobson received a new hire PSU grant that is subject to a 3-year vesting period; and Mr. Guglielmin, who retired from the Corporation on May 31, 2021, who received DSUs

<sup>2</sup> Converted to a number of options by dividing the dollar value by the Black-Scholes value of the option on the award date. The exercise price of these options was determined based on the closing Share price on the day prior to the award date.

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

For 2021, the awards to our Named Executive Officers were as follows:

Name	Number Granted		
	Total LTI Granted (\$)	PSUs/DSUs <sup>1</sup>	Stock Options
Randy MacEwen	1,320,000	30,312	20,308
Paul Dobson	800,000	29,862	0
Anthony Guglielmin	325,000	9,951	0
Rob Campbell	266,000	6,108	4,092
Kevin Colbow	210,000	4,822	3,231
Jesper Thomsen	172,069	6,234	4,032
<b>Total</b>	<b>3,093,069</b>	<b>87,289</b>	<b>31,663</b>

<sup>1</sup> All Named Executive Officers received PSUs except as follows: Mr. Dobson received a new hire PSU grant that is subject to a 3-year vesting period; and Mr. Guglielmin, who retired from the Corporation on May 31, 2021, who received DSUs.

### Vesting Awards

In 2021, the following PSUs vested and were redeemed into Shares for the Named Executive Officers:

On March 12, 2021, 191,048 PSUs vested and after statutory withholdings, 88,836 PSUs were redeemed into Shares, representing the 2018 annual PSU awards granted to Messrs. MacEwen, Guglielmin, Campbell, and Colbow, a third of which were earned subject to the 2018, 2019, and 2020 PSU Scorecard achievements, which were 61%, 123%, and 96%, respectively.

## Earned Awards

In 2021, the performance criteria for the PSU Scorecard were scaled targets for annual revenue and gross margin dollars that were linked to the 2021 Annual Operating Plan but lower than the corresponding Corporate Scorecard targets. Revenue and gross margin performance were weighted equally under the PSU Scorecard.

Annual PSU Scorecard Performance						
	2019	2020	2021	2022		2023
<b>2019 Grant</b>	123%	96%	100%	93.34% Redeemed to shares on March 12, 2021		N/A
<b>2020 Grant</b>	-	96%	100%	TBD		TBD
<b>2021 Grant</b>			100%	TBD		TBD

## CEO Compensation

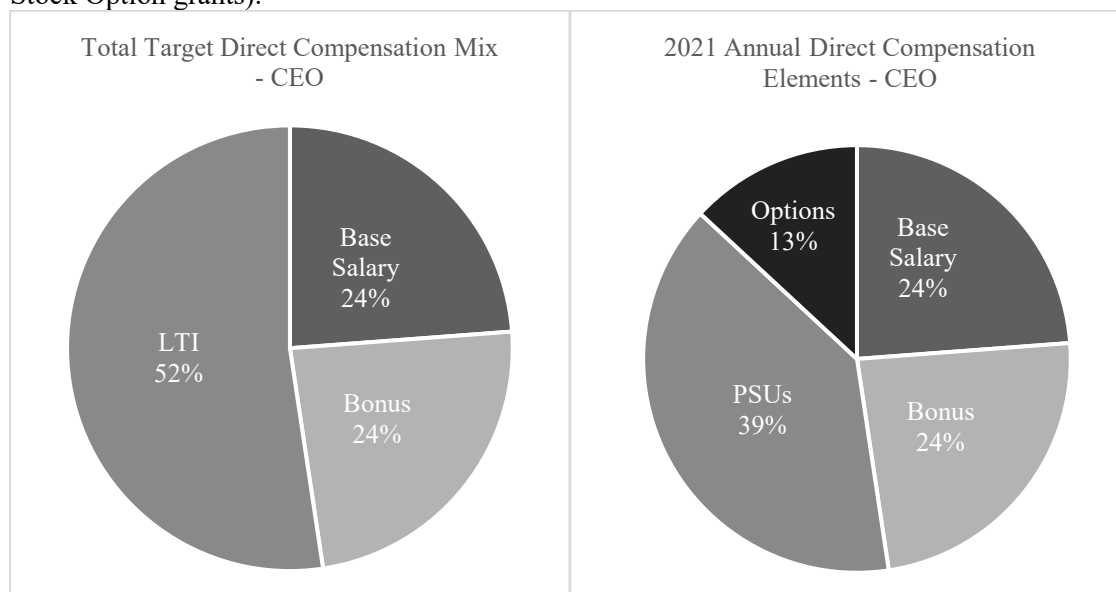
Mr. MacEwen's target bonus for 2021 was CDN\$600,000, which was 100% of his annual base salary. His actual bonus for 2021 was determined by the PCGCC on the basis of corporate financial and operational performance reflected in the Corporate Performance Scorecard rating (70% weighting), plus performance relative to his individual goals for 2021 (30% weighting), as approved by the Board.

Performance	Outcome
Corporate	<p>Specific corporate quantitative and qualitative results are described in detail under "Corporate Scorecard Multiplier"</p> <p><b>In 2021, the Corporate Scorecard Multiplier was 100% of target</b></p>
Individual	<p>Mr. MacEwen's individual objectives for 2021 were:</p> <ol style="list-style-type: none"> <li><u>Strategy Execution</u> –Achieved This objective focused on improving the Corporation's positioning against priority strategy goals including completing an acquisition, and developing a capital allocation strategy and roadmap.</li> <li><u>Talent</u> –Achieved This objective focused on developing and strengthening the Company's talent.</li> </ol> <p><b>In 2021, Mr. MacEwen's individual performance multiplier was 105% of target.</b></p>
Overall Outcome	<p>Mr. MacEwen's annual bonus award was CDN\$609,000 representing 102% of his target bonus, based on a corporate multiplier of 100% (weighted 70%) and an individual performance multiplier of 105% (weighted 30%).</p>

Long-term Incentives	Type	Value	Features
Annual Award (\$)	Stock Option	\$330,000	7-year term, with one-third of the options vesting at the end of each of the first three years
	PSU	\$990,000	3-year vesting with performance criteria

76% of the CEO's target compensation is 'at-risk' (via the annual bonus plan and long term incentive awards): 63% of his target compensation is linked directly to performance goals (via annual bonus plan and

PSUs); and 52% of his target compensation is linked to the performance of the Ballard Shares (via PSUs and Stock Option grants).



### CEO Realized Pay

In 2021, 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\$6,354,545 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. All executives receive an RRSP contribution up to 50% of the maximum amount allowable under the *Income Tax Act* (Canada). Annual contributions are pro-rated for any partial year of employment.

#### In 2021

Mr. MacEwen, Mr. Campbell, and Dr. Colbow 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. Also, as part of Mr. Campbell's annual benefits enrollment, he elected to allocate his unused benefits credit of \$650 as an RRSP contribution from the Corporation.

Mr. Dobson and Mr. Guglielmin received an RRSP contribution from the Corporation equal to 50% of the maximum amount allowable under the *Income Tax Act* (Canada), on a pro-rata basis for the time worked, as they made an equivalent personal matching contribution.

Mr. Themsen received a pension contribution from the company of 10% of his annual base salary as a pension contribution, consistent with local Danish pension, as he made the required personal matching contribution of 5%.

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



## 2021 Program Changes

The PCGC, with the assistance of Willis Towers Watson, made two changes to our executive compensation program effective in 2021.

### Long-Term Incentive

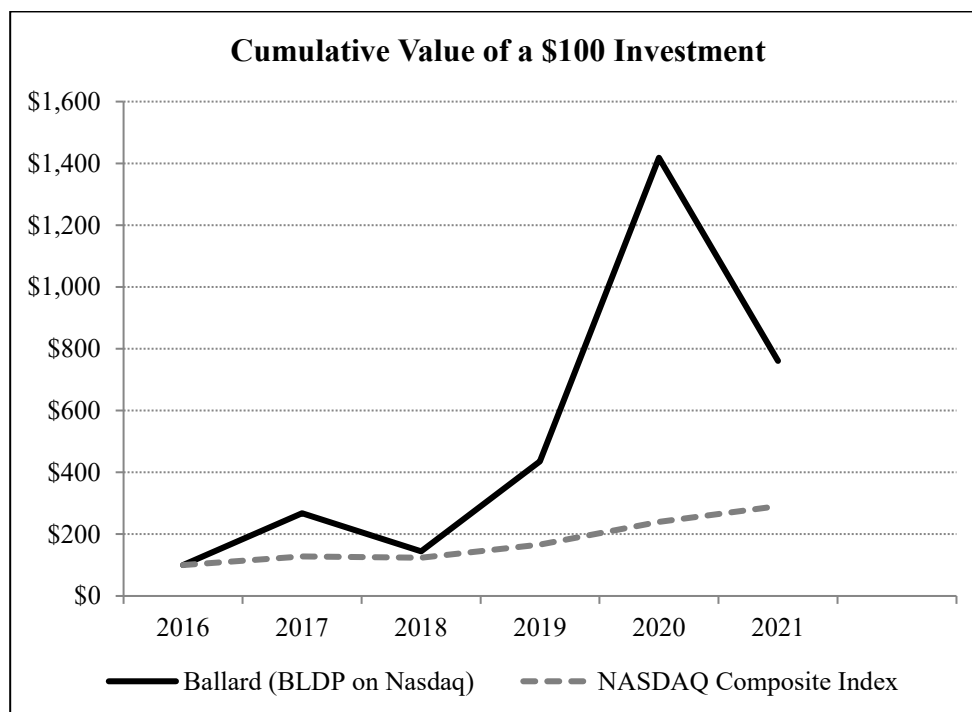
For 2021, we increased the target value of the CEO's annual-long term incentive grant from 175% of base salary to 220% of base salary. The PCGCC determined that this target value for the CEO's long-term incentive more closely aligned with market conditions as determined by reviewing CEO long-term incentive grants by our comparator companies and is consistent with our principle of ensuring pay for performance that is aligned with shareholders' interests.

We increased the maximum PSU vesting cap from the current 150% to 200% to better align with market conditions and to provide further performance incentive.

### Performance Graph

The following graph compares the total cumulative return to a Shareholder who invested \$100 in our Shares on December 31, 2016, 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)	2016	2017	2018	2019	2020	2021
	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Ballard	100	267	145	435	1418	761
NASDAQ Composite Index	100	128	123	167	239	291



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, 2019, December 31, 2020 and December 31, 2021 to our Named Executive Officers.

Summary Compensation Table							
Name and Principal Position	Year	Salary <sup>(6)</sup> (CDN\$)	Bonus <sup>(7)</sup> (CDN\$)	Long-Term Incentives		All Other Compensation <sup>(10)</sup> (CDN\$)	Total Compensation (CDN\$)
				Share-Based Awards <sup>(8)</sup> (CDN\$)	Option-Based Awards <sup>(9)</sup> (CDN\$)		
Randy MacEwen <sup>(1,2)</sup> President and Chief Executive Officer	2021	600,000	609,000	990,000	330,000	42,684	2,571,684
	2020	619,448	598,800	787,500	262,500	54,836	2,323,084
	2019	553,380	626,640	521,042	173,618	36,765	1,911,445
Paul Dobson <sup>(3)</sup> Senior Vice President and Chief Financial Officer	2021	394,231	292,5660	800,000	0	70,350	1,557,147
	2020	0	0	0	0	0	0
	2019	0	0	0	0	0	0
Anthony Guglielmin <sup>(4)</sup> Senior Vice President and Chief Financial Officer	2021	159,147	107,916	325,000	0	60,180	652,243
	2020	382,500	258,482	194,250	64,750	50,904	950,886
	2019	357,404	283,143	188,344	62,781	38,727	930,399
Robert Campbell Senior Vice President and Chief Commercial Officer	2021	377,385	260,414	199,500	66,500	34,309	938,108
	2020	382,500	242,942	194,250	64,750	35,009	919,451
	2019	357,404	283,143	188,344	62,781	31,071	922,743
Kevin Colbow <sup>(5)</sup> Senior Vice President and Chief Technology Officer	2021	298,846	298,846	157,500	52,500	31,888	759,459
	2020	294,000	187,369	152,250	50,750	31,855	716,224
	2019	270,385	217,044	144,375	48,125	29,929	709,858
Jesper Thomsen President and Chief Executive Officer, Europe	2021	333,788	154,378	129,052	43,017	81,512	741,747
	2020	310,786	94,331	0	0	69,051	474,168
	2019	304,994	108,844	0	0	71,341	485,179

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

(2) In April 2018, Mr. MacEwen transitioned onto Ballard's United States payroll system and from that date, Mr. MacEwen's compensation was paid in United States dollars. In 2019, his compensation was increased from CDN \$550,000 to CDN \$577,500 effective February 25, 2019. The portion of his compensation paid before that date was converted to United States dollars based on the prevailing exchange rate effective April 1, 2018; for the remainder of 2019, his compensation was converted to United States dollars based on the prevailing exchange rate effective February 25, 2019. On January 1, 2020, Mr. MacEwen transitioned onto Ballard's Canadian payroll system with a base salary of CDN \$577,500. In 2020, Mr. MacEwen's base salary was increased to CDN \$600,000 as part of the annual compensation review. The United States dollar amounts were converted into Canadian dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 31, 2021.

(3) Mr. Dobson was appointed Senior Vice President and Chief Financial Officer on March 29, 2021.

(4) Mr. Guglielmin resigned as Senior Vice President and Chief Financial Officer on March 29, 2021. He continued to serve as an employee in an advisory capacity until his retirement on May 31, 2021.

(5) Dr. Colbow was appointed Vice President and Chief Technology Officer on March 7, 2019. He previously served as Vice President, Technology & Product Development.

(6) Salary of each of the Named Executive Officers was paid in Canadian dollars, with the exception of Mr. MacEwen, who was paid in United States dollars between April 2018 to January 2020 (US\$3,372 for 2020 and US\$436,488 for 2019), and Mr. Thomsen, who is paid in Danish krone (kr. 1,725,000 for 2021, kr. 1,606,127.26 for 2020 and kr. 1,576,194 for 2019). The United States dollar amounts for 2021 were US\$473,261, US\$310,957, US\$125,530, US\$297,669, US\$235,720, and US\$263,281 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Thomsen, respectively. The United States dollar amounts for 2020 were US\$488,601, US\$0, US\$301,704, US\$301,704, US\$231,898, and US\$245,138 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Thomsen, respectively. The United States dollar amounts for 2019 were US\$436,488, US\$0, US\$281,909, US\$281,909, US\$213,271, and US\$240,569 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Thomsen, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 31, 2021. The Danish krone amounts were converted into Canadian dollars for the purpose of this disclosure using the European Central Bank rate of exchange on December 31, 2021.

(7) Bonus of each of the Named Executive Officers was paid in cash. Cash bonus was paid in Canadian dollars with the exception of Mr. MacEwen's 2019 bonus, which was paid in United States dollars (US\$494,273 for 2019), and Mr. Thomsen's bonus, which was paid in Danish krone (kr. 797,820 for 2021, kr. 487,500 for 2020, and kr. 562,500 for 2019).

The United States dollar amounts for 2021 were US\$480,360, US\$230,767, US\$85,121, US\$205,406, US\$169,368, and US\$121,768 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2020 were US\$472,314, US\$0, US\$203,882, US\$191,625, US\$147,791, and US\$74,405 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2019 were US\$494,273, US\$0, US\$223,334, US\$223,334, US\$171,197, and US\$85,853 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 31, 2021. The Danish krone amounts were converted into Canadian dollars for the purpose of this disclosure using the European Central Bank rate of exchange on December 31, 2021.

- (8) Represents the total fair market value of PSUs issued to each Named Executive Officer during the 2021, 2020, and 2019 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 2021, 2020, and 2019. 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). Except as noted in the table below, all Named Executive Officers received PSUs. The number of PSUs issued to each Named Executive Officer in respect of the fiscal years ended December 31, 2021, December 31, 2020, and December 31, 2019 is as follows:

Share-Based Awards				
Named Executive Officer	Year	PSUs (#)	Fair Market Value of a Share (CDNS) <sup>(A)</sup>	Total (CDNS) <sup>(B)</sup>
Randy MacEwen	2021	30,312	32.66	990,000
	2020	55,380	14.22	787,500
	2019	134,308	3.88	521,042
Paul Dobson	2021	29,862 <sup>(C)</sup>	26.79	800,000
	2020	0	n/a	0
	2019	0	n/a	0
Anthony Guglielmin	2021	9,951 <sup>(D)</sup>	32.66	325,000
	2020	13,660	14.22	194,250
	2019	46,163	4.08	188,344
Robert Campbell	2021	6,108	32.66	199,500
	2020	13,660	14.22	194,250
	2019	46,163	4.08	188,344
Kevin Colbow	2021	4,822	32.66	157,500
	2020	10,707	14.22	152,250
	2019	35,386	4.08	144,375
Jesper Themsen	2021	6,234	20.70	129,052
	2020	0	n/a	0
	2019	0	n/a	0

- (A) The fair market value of a Share has been calculated using the closing price of the Shares underlying the PSUs on the TSX or NASDAQ on the date of issuance. United States dollar amounts were converted to Canadian dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 31, 2021.

- (B) The United States dollar amounts for 2021 were US\$780,880, US\$631,014, US\$256,350, US\$157,359, US\$124,231, and US\$101,792 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2020 were US\$621,155, US\$0, US\$153,218, US\$153,218, US\$120,090, and US\$0 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2019 were US\$410,981, US\$0, US\$148,560, US\$148,560, US\$113,878, and US\$0 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 31, 2021.

- (C) The PSUs granted to Mr. Dobson represents a new hire grant upon his appointment in March 2021, and are subject to a 3-year vesting period only.

- (D) Mr. Guglielmin retired from the Corporation on May 31, 2021 and received DSUs instead of PSUs.

- (9) 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 67% and risk free interest rate of 1% for 2021; expected life of 4 years, expected volatility of 61% and risk free interest rate of 1% for 2020; and expected life of 4 years, expected volatility of 57% and risk free interest rate of 2% for 2019. 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 2021, 2020, and 2019. 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, 2021, December 31, 2020 and December 31, 2019 is as follows:

Option-Based Awards				
Named Executive Officer	Year	Shares Under Options (#)	Black-Scholes Value of Shares on Date of Grant (CDNS/Share) <sup>(A)</sup>	Fair Market Value (CDNS) <sup>(B)</sup>
Randy MacEwen	2021	20,308	16.25	330,000
	2020	39,833	6.59	262,500
	2019	99,235	1.75	173,618
Paul Dobson	2021	0	n/a	0
	2020	0	n/a	0
	2019	0	n/a	0
Anthony Guglielmin	2021	0	n/a	0
	2020	9,825	6.59	64,750
	2019	34,120	1.84	62,781
Robert Campbell	2021	4,092	16.25	66,500
	2020	9,825	6.59	64,750
	2019	34,120	1.84	62,781
Kevin Colbow	2021	3,231	16.25	52,500
	2020	7,701	6.59	50,750
	2019	26,155	1.84	48,125
Jesper Themsen	2021	4,032	10.67	43,017
	2020	0	n/a	0
	2019	0	n/a	0

<sup>(A)</sup> 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.

<sup>(B)</sup> The United States dollar amounts for 2021 were US\$260,297, US\$0, US\$0, US\$52,449, US\$41,413, and US\$33,934 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2020 were US\$207,051, US\$0, US\$51,070, US\$51,070, US\$40,030, and US\$0 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2019 were US\$136,944, US\$0, US\$49,519, US\$49,519, US\$37,960, and US\$0 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of this disclosure using the Bank of Canada rate of exchange on December 31, 2021.

<sup>(10)</sup> All Other Compensation was paid in Canadian dollars with the exception of Other Compensation for Mr. MacEwen, which was paid in part in United States dollars (US\$3,951 for 2021, US\$12,304 for 2020, and US\$28,999 for 2019), and Mr. Themsen's Other Compensation, which was paid in Danish krone (kr. 421,247 for 2021, kr. 356,852 for 2020, and kr. 368,688 for 2019). The United States dollar amounts for 2021 were US\$33,669, US\$55,490, US\$47,468, US\$27,062, US\$25,151, and US\$64,293 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2020 were US\$43,252, US\$0, US\$40,151, US\$27,613, US\$25,125, and US\$54,465 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The United States dollar amounts for 2019 were US\$28,999, US\$0, US\$30,547, US\$24,508, US\$23,607, and US\$56,272 for Messrs. MacEwen, Dobson, Guglielmin, Campbell, Colbow, and Themsen, respectively. The Canadian dollar amounts were converted into United States dollars for the purpose of the table above using the Bank of Canada rate of exchange on December 31, 2021. The Danish krone amounts were converted into Canadian dollars for the purpose of this disclosure using the European Central Bank rate of exchange on December 31, 2021.

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 (CDNS)	Insurance Premiums (CDNS)	Other <sup>(A)</sup> (CDNS)	Total (CDNS)
Randy MacEwen	2021	13,915	3,361	25,408	42,684
	2020	14,150	4,303	36,383	54,836
	2019	10,666	837	25,262	36,765
Paul Dobson	2021	10,971	1,163	58,216	70,350
	2020	0	0	0	0
	2019	0	0	0	0

All Other Compensation					
Named Executive Officer	Year	Retirement Benefits (CDNS)	Insurance Premiums (CDNS)	Other <sup>(A)</sup> (CDNS)	Total (CDNS)
Anthony Guglielmin	2021	5,405	523	54,252	60,180
	2020	13,627	1,604	35,673	50,904
	2019	13,264	1,449	24,014	38,727
Robert Campbell	2021	14,565	2,078	17,666	34,309
	2020	14,304	2,316	18,389	35,009
	2019	13,264	1,449	16,358	31,071
Kevin Colbow	2021	13,915	1,630	16,343	31,888
	2020	13,627	1,885	16,343	31,855
	2019	13,264	1,440	15,225	29,929
Jesper Thomsen	2021	43,603	0	37,909	81,512
	2020	41,812	0	27,239	69,051
	2019	40,053	0	31,288	71,341

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

## INCENTIVE PLAN AWARDS

The following table sets forth all option-based and share-based awards granted to our Named Executive Officers that are outstanding as of December 31, 2021.

### Outstanding Share-Based Awards and Option-Based Awards (as of December 31, 2021)

Named Executive Officer	Option-Based Awards				Share-Based Awards	
	Number of Securities Underlying Unexercised Options (#)	Option Exercise Price <sup>(1)</sup> (CDNS)	Option Expiration Date	Value of Unexercised In-The-Money Options <sup>(2)</sup> (CDNS)	Number of PSUs That Have Not Vested (#)	Market or Payout Value of PSUs That Have Not Vested <sup>(3)</sup> (CDNS)
Randy MacEwen	33,079 <sup>(4)</sup>	3.88	Mar. 18, 2026	0	227,767	3,624,017
	26,556 <sup>(4)</sup>	14.22	Mar. 6, 2027	0		
	20,308 <sup>(4)</sup>	32.66	Mar. 12, 2028	0		
Paul Dobson	0	n/a	n/a	0	29,862	474,505
Anthony Guglielmin	27,524	1.80	Feb. 26, 2023	387,813	62,564	994,150
	34,317	2.67	Mar. 3, 2024	453,671		
	6,400	4.02	Jun. 9, 2024	75,968		
	25,310	4.82	Mar. 1, 2025	280,182		
	34,120 <sup>(5)</sup>	4.08	Mar. 18, 2026	268,630		
Robert Campbell	8,437	4.82	Mar. 1, 2025	93,398	68,672	1,091,212
	22,747 <sup>(7)</sup>	4.08	Mar. 18, 2026	134,315		
	9,825 <sup>(6)</sup>	14.22	Mar. 6, 2027	5,469		
	4,092 <sup>(4)</sup>	32.66	Mar. 12, 2028	0		
Kevin Colbow	24,752	1.80	Feb. 26, 2023	348,756	53,013	842,385
	17,873	2.67	Mar. 3, 2024	236,281		
	4,528	4.02	Jun. 9, 2024	53,747		
	14,256	4.82	Mar. 1, 2025	157,814		
	26,155 <sup>(8)</sup>	4.08	Mar. 18, 2026	205,919		
	7,701 <sup>(9)</sup>	14.22	Mar. 6, 2027	4,287		
3,231 <sup>(4)</sup>	32.66	Mar. 12, 2028	0			
Jesper Thomsen	4,032 <sup>(4)</sup>	20.70	Jun. 3, 2028	0	6,234	99,064

(1) All figures are in Canadian dollars. Where options are exercisable in United States dollars, the exercise price has been converted to Canadian dollars using the Bank of Canada rate of exchange on December 31, 2021.

(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 31, 2021, and the exercise price of the option. Where the difference is a negative number, the value is deemed to be 0.

(3) This amount is calculated by multiplying the number of PSUs that have not vested by the closing price of the Shares underlying the PSUs on the TSX or NASDAQ as at December 31, 2021.

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

(4) Unvested options.

(5) Comprising 22,746 vested and 11,374 unvested options.

(6) Comprising 3,275 vested and 6,550 unvested options.

(7) Comprising 11,373 vested and 11,374 unvested options.

(8) Comprising 17,436 vested and 8,719 unvested options.

(9) Comprising 2,567 vested and 5,134 unvested options.

The following table sets forth the value of the incentive plan awards vested or earned during the year ended December 31, 2021 by our Named Executive Officers.

### Incentive Plan Awards – Value Vested or Earned During the Year (2021)

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\$)
Randy MacEwen	1,863,649	3,281,896	609,000
Paul Dobson	0	0	292,566
Anthony Guglielmin	625,891	1,169,546	107,916
Robert Campbell	625,891	1,169,546	260,414
Kevin Colbow	424,294	658,775	214,725
Jesper Thomsen	0	0	154,378

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

(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 132,237.

For a detailed description of the principal terms of our equity-based compensation plans, see “Equity-Based Compensation Plans”, below. As noted in the Outstanding Share-Based Awards and Option-Based Awards table, as at December 31, 2021, there were 448,112 PSUs awarded to Named Executive Officers that were still unvested. The performance criteria for each of these PSUs will be determined by the Board at the appropriate time, and they are set to vest (subject to the terms of the Consolidated Share Distribution Plan or Market Purchase PSU Plan) as follows:

Named Executive Officer	Number of PSUs That Have Not Vested	Vesting Date
Randy MacEwen	142,814	March 15, 2022
	54,641	March 5, 2023
	30,312	March 11, 2024
Paul Dobson	29,862	March 29, 2024
Anthony Guglielmin	49,086	March 15, 2022
	13,478	March 5, 2023
Robert Campbell	49,086	March 15, 2022
	13,478	March 5, 2023
	6,108	March 11, 2024
Kevin Colbow	37,627	March 15, 2022
	10,564	March 5, 2023
	4,822	March 11, 2024
Jesper Thomsen	6,234	June 2, 2024

### 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 typical 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 2021 was as follows: CDN\$600,000 for Mr. MacEwen; CDN\$500,000 (prorated for 2021) for Mr. Dobson; CDN\$159,147 for Mr. Guglielmin; CDN\$377,385 for Mr. Campbell; CDN\$298,846 for Dr. Colbow; and CDN\$333,788 for Mr. Themsen.

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

The employment contracts for Mr. MacEwen, Mr. Dobson, Mr. Guglielmin and Mr. Campbell contain change of control provisions that 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 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

	<b>Resignation</b>	<b>Involuntary Termination</b>	<b>Retirement</b>	<b>Change of Control</b>	<b>Termination for Cause</b>
<b>Stock Options<sup>1</sup></b>	Vesting stops on termination date.  Exercise of vested stock options within 30 days or otherwise forfeited.	Vesting stops on termination date.  Exercise of vested stock options within 90 days or otherwise forfeited.	Stock options continue to vest.	All stock options vest.	Vesting stops on termination date.  Exercise of vested stock options within 30 days or otherwise forfeited.
<b>Performance Share Units</b>	All PSUs expire on the last day of work.	All PSUs expire on the last day of work.	PSUs continue to vest.	All PSUs vest.	All PSUs expire on the last day of work.
<b>Deferred Share Units</b>	Redeemed to shares by no later than December 31 of the first calendar year commencing after employment is terminated; except in the case of US holders, whose DSUs will be redeemed for shares approximately 6 months after termination of employment.				

<sup>(1)</sup> 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).

The Option Plan provides for the vesting of options upon an accelerated vesting event, which is defined as:

- (a) a person making a take-over bid that could result in that person or persons acting in concert acquiring more than 50% of Ballard's Shares;
- (b) any person or persons acting in concert acquiring more than 50% of Ballard's 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 less than 50% of the voting shares of the combined entity; or
- (e) any other transaction is approved, a consequence of which is to privatize Ballard.

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.

Under the SDP, the occurrence of any of the accelerated vesting events described above triggers (subject to Board approval in the case of a take-over bid) the termination of the restriction period applicable to PSUs such that holders will become immediately entitled to receive Shares in respect of their PSUs (subject to applicable plan requirements).

The following table shows, for each Named Executive Officer, the amount such person would have been entitled to receive if on December 31, 2020: (1) their employment was terminated without just cause; (2) a change of control occurred; or, (3) their employment was terminated without just cause and that termination occurred following a change in control.



Named Executive Officer	Triggering Event (as of December 31, 2021)		
	Termination of Employment <sup>(2)</sup> (CDNS) <sup>(1)</sup>	Change of Control <sup>(3)</sup> (CDNS) <sup>(1)</sup>	Termination of Employment following Change of Control (CDNS) <sup>(1)</sup>
<b>Randy MacEwen</b>			
Severance	\$1,900,000	\$0	\$2,400,000
Other benefits	\$65,373	\$0	\$107,576
Accelerated vesting	\$0	\$3,624,017	\$0
<b>Total</b>	<b>\$1,965,373</b>	<b>\$3,624,017</b>	<b>\$2,507,576</b>
<b>Paul Dobson</b>			
Severance	\$850,000	\$0	\$1,700,000
Other benefits	\$51,177	\$0	\$127,353
Accelerated vesting	\$0	\$475,505	\$0
<b>Total</b>	<b>\$901,177</b>	<b>\$475,505</b>	<b>\$1,827,353</b>
<b>Robert Campbell</b>			
Severance	\$861,333	\$0	\$1,292,000
Other benefits	\$42,276	\$0	\$88,415
Accelerated vesting	\$0	\$1,324,394	\$0
<b>Total</b>	<b>\$903,610</b>	<b>\$1,324,394</b>	<b>\$1,380,415</b>
<b>Kevin Colbow</b>			
Severance	\$687,059	\$0	\$687,059
Other benefits	\$40,530	\$0	\$40,530
Accelerated vesting	\$0	\$1,849,189	\$0
<b>Total</b>	<b>\$727,590</b>	<b>\$1,849,189</b>	<b>\$727,590</b>
<b>Jesper Thomsen</b>			
Severance	\$500,682	\$0	\$500,682
Other benefits	\$89,813	\$0	\$89,813
Accelerated vesting	\$0	\$99,064	\$0
<b>Total</b>	<b>\$590,495</b>	<b>\$99,064</b>	<b>\$590,495</b>

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

<sup>(2)</sup> Based on accrued service to December 31, 2021.

<sup>(3)</sup> All options and PSUs vest immediately upon a change of control in accordance with the Stock Option Plan and SDP, as applicable. Value shown equals, in the case of PSUs, the price of the underlying Shares on December 31, 2021 multiplied by the number of PSUs. Value shown in the case of Options is the difference between the market price on December 31, 2021 and the exercise price for options, for those options where the market price on that date is greater than the exercise price.

## DIRECTOR COMPENSATION

The PCGCC is responsible for determining compensation for our directors.

The PCGCC ensures that the annual retainer paid to directors is sufficient to allow the Corporation to attract and retain candidates with appropriate and relevant levels of skill, experience and expertise. Consistent with past practice, the PCGCC seeks to provide compensation for directors at approximately the 50<sup>th</sup> percentile of its comparator group of North American companies. The PCGCC retains independent compensation consultants (Willis Towers Watson) for professional advice and as a source of competitive market information.

Management directors (the President & CEO) and directors who are shareholder nominees appointed pursuant to agreements with the Corporation are not compensated by the Corporation for their service as directors. However, all directors are entitled to reimbursement for travel and other reasonable expenses incurred in connection with fulfilling their duties.

We remunerate all other directors for services to the Board, committee participation and special assignments. The elements of director compensation have remain unchanged since 2016:

- 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 CDN\$, regardless of director's country of residence.

In 2020, the PCGCC engaged Willis Towers Watson to review 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. The review resulted in the following increases in annual retainers and proportion of director compensation paid in DSUs, effective starting in 2021.

	2021			2020			Difference		
	Cash	DSUs	Total	Cash	DSUs	Total	Cash	DSUs	Total
Annual Retainer (Non-Executive Board Chair)	\$75,000	\$100,000	\$175,000	\$75,000	\$75,000	\$150,000	\$0	\$25,000	\$25,000
Annual Retainer (Director)	\$55,000	\$75,000	\$130,000	\$55,000	\$55,000	\$110,000	\$0	\$20,000	\$20,000
Annual Retainer (Audit Committee & PCGC Chairs)	\$8,400	\$11,600	\$20,000	\$7,500	\$7,500	\$15,000	\$900	\$4,100	\$5,000
Annual Retainer (Commercial Committee Chair)	\$3,150	\$4,350	\$7,500	\$3,750	\$3,750	\$7,500	-\$600	\$600	\$0

If a meeting or group of meetings is held on a continent other than the continent on which a director (other than management or shareholder directors) 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.

In 2021, the following compensation was earned by the directors:

<b>Director</b>	<b>Board Retainer (CDNS)</b>	<b>Committee Chair Retainer (CDNS)</b>	<b>Meeting Fees (CDNS)</b>	<b>Total Compensation (CDNS)</b>
Kathy Bayless <sup>(1)</sup>	\$10,833	0	0	\$10,833
Douglas P. Hayhurst <sup>(2)</sup>	\$130,000	\$41,000	0	\$171,000
Duy-Loan Le	\$130,000	0	0	\$130,000
Hubertus M. Muehlhaeuser <sup>(2,3)</sup>	\$60,167	0	0	\$60,167
Marty Neese <sup>(2)</sup>	\$145,000	\$7,500	0	\$152,500
Jim Roche <sup>(2)</sup>	\$190,000	0	0	\$190,000
Janet Woodruff	\$130,000	\$20,000	0	\$150,000

1. Ms. Bayless was appointed to the board on December 9, 2021 and received a pro rata portion of her annual retainers.
2. Special Committee fees were paid to Mr. Hayhurst, Mr. Neese and Mr. Roche in the form of cash retainers for activities related to certain strategic transactions. Mr. Roche received \$15,000; Mr. Muehlhaeuser received \$6,000; and Mr. Hayhurst received \$21,000 as Committee Chair.
3. Mr. Muehlhaeuser was appointed to the board on August 16, 2021 and received a pro rata portion of his annual retainers.

DSUs are issued to directors under 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 cash value of the eligible remuneration by the fair market value per Share, being the closing sale price at which the Shares are traded on the TSX (in respect of a DSU issued to a person who is resident in any country other than the U.S.) or on NASDAQ (in respect of a DSU issued to a person who is resident in the U.S.) on the trading day before the relevant date. DSUs are credited to an account maintained by Ballard for each director. 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 a minimum shareholding requirement equivalent to three times the director’s board retainer. They may apply DSUs they receive as payment for all or part of their annual retainer towards the minimum share ownership requirements and can elect to take 100% of their fees in the form of DSUs annually. Directors have six years from the date that they are first elected to the Board to comply. In 2021, the increases in director compensation resulted in two directors being at risk to miss their target shareholdings due to the resulting increased target near the end of the six-year period. The board exercised its discretion to extend the deadline until December 31, 2022, for directors whose 6-year deadline to meet their minimum shareholding requirements expired in 2021.

## 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, 2021.

In 2003, we ceased the practice of annual grants of share options to our independent directors and there are no options grants outstanding to independent directors at this time. DSUs vest immediately as they are issued in respect of remuneration that would have otherwise been paid in cash. DSUs cannot be redeemed until such time as the director leaves the Board, and their value on redemption will be based on the value of Shares at that time.

### Outstanding Share-Based Awards and Option-Based Awards (as of December 31, 2021)

Name	Option-Based Awards	Share-based Awards	
	Number of Securities Underlying Unexercised Options	Number of DSUs	Market or payout value of vested DSUs not paid out or distributed <sup>(1)</sup> (CDNS)
Kathleen Bayless	0	395	\$6,277
Douglas P. Hayhurst	0	214,595	\$3,409,915
Kui (Kevin) Jiang	0	0	-
Duy-Loan Le	0	42,520	\$675,643
Hubertus M. Muehlhaeuser	0	1,892	\$30,064
Marty Neese	0	72,849	\$1,157,571
James Roche	0	86,729	\$1,378,124
Shaojun (Sherman) Sun	0	0	-
Janet Woodruff	0	37,534	\$596,415

<sup>(1)</sup> This amount is calculated by multiplying the number of DSUs that have not vested by the closing price of the Shares underlying the DSUs on the TSX as at December 31, 2021.

No incentive plan awards vested for, or were earned by, our Directors during the year ended December 31, 2021.

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

## EQUITY-BASED COMPENSATION PLANS

The Corporation adopted two equity-based compensation plans approved by our Shareholders at the 2009 Annual Meeting and most recently re-approved at the 2018 Annual Meeting<sup>(1)</sup>:

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

Copies of the Option Plan and SDP are posted on the Governance section of the Corporation’s website (<https://www.ballard.com/investors/governance>). For a detailed description of our equity-based compensation plans, see Appendix “B” and “C” of this Circular.

The following table sets out, as of December 31, 2021, 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.

<sup>(1)</sup> The Corporation also adopted a plan, administered by an independent trustee, for the purchase of Ballard Shares on the open market for the redemption of PSU awards (the “**Market Purchase PSU Plan**”). The independent trustee makes these open market purchases through the facilities of the TSX, and holds the purchased Shares in escrow until the restriction period is complete and any performance criteria have been satisfied. Shares purchased under this plan do not count against the rolling cap under the Option Plan or SDP.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (#)	Weighted -Average Exercise Price of Outstanding Options, Warrants and Rights (CDNS)
Equity-based compensation plans approved by security holders	5,764,011 <sup>(1)</sup>	8.22
Equity-based compensation plans not approved by security holders	Nil	N/A
<b>Total</b>	5,764,011 <sup>(1)</sup>	8.22

<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.

The Option Plan and SDP provide that the maximum number of the Corporation’s Shares available for issuance under them, in aggregate, cannot exceed 8.5% of the issued and outstanding Shares at the time of grant (prior to 2018, the cap was 10%). In addition, the maximum number of the Corporation’s Shares available for issuance under the SDP cannot exceed 5% of the issued and outstanding Shares at the time of grant.

The following table summarizes the aggregate plan maximum, the outstanding securities awarded under the Option Plan and SDP, and the remaining securities available for grant for the fiscal years ended on December 31, 2021, December 31, 2020, and December 31, 2019. The percentages are calculated based on the number of issued and outstanding Shares at the end of each fiscal year.

	December 31, 2021		December 31, 2020		December 31, 2019	
	#	%	#	%	#	%
Plan Maximum	25,304,525	8.50%	23,976,645	8.50%	19,933,718	8.50%
Securities Awarded under the Option Plan	4,041,567	1.36%	4,149,639	1.47%	4,116,149	1.76%
Securities Awarded under the SDP	1,722,444	0.58%	1,949,978	0.69%	2,116,645	0.90%
Remaining Securities Available for Grant	19,540,514	6.56%	17,877,028	6.34%	13,700,924	5.84%

#### Awards Subject to Multiplier

PSUs are earned one third of the grant each year over a period of three years, subject to achievement of certain performance criteria (the “**PSU Scorecard**”) in each year. The amount of potential earned PSUs is based on performance against the PSU Scorecard in each year. Below a threshold PSU Scorecard performance, no PSUs are earned. Up to 150% of PSUs can be earned for PSU Scorecard performance in excess of 100%.

In limited circumstances, such as new hire grants, PSUs may be awarded that are subject to time vesting only, typically over three years. Such one-time PSU grants are not subject to the PSU Scorecard.

Options and DSUs issued under the Option Plan and SDP, respectively, are not subject to a performance multiplier.

## Annual Burn Rate

The annual burn rate, representing the number of securities granted under the Option Plan and SDP, respectively, relative to the weighted average number of securities outstanding for the fiscal years ended on December 31, 2021, December 31, 2020, and December 31, 2019, are as follows:

Year	Annual Burn Rate	
	Option Plan	SDP
2021	0.18%	0.09%
2020	0.74%	0.14%
2019	0.57%	0.22%

## **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 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 12, 2020, 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\$1,792,850 for 2021 and US\$1,153,000 for 2020. The increase was primarily due to changes in the insurance market and the increase in the Corporation's market capitalization. The aggregate maximum coverage provided by the policy for all claims, for both directors and officers, in any single policy year is US\$60 million. In addition to the payment of the premiums, we are accountable for the payment of the policy deductible of US\$0 to US\$2,500,000 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 Circular:

- Annual Information Form dated March 14, 2022;
- Audited Annual Financial Statements for the year ended December 31, 2021 together with the auditors' report thereon; and
- Management's Discussion and Analysis for the year ended December 31, 2021.

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

## **PROPOSALS**

Any Shareholder who intends to present a proposal at our 2023 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 8, 2023; 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 2023 annual Shareholders' meeting if the proposal is received after the March 8, 2023 deadline.

## **APPROVAL BY THE BOARD**

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

BY ORDER OF THE BOARD

*“Kerry Hillier”*

Kerry Hillier  
Corporate Secretary  
Ballard Power Systems Inc.

Dated: April 11, 2022

## DEFINED TERMS

In this management information circular (the “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 2022 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 performance share unit subject to time and performance vesting criteria, unless otherwise noted.

“Record Date” means 5:00 p.m. Pacific Daylight Time on April 11, 2022.

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

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

“SEC” means the U.S. Securities and Exchange Commission.

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

“TSX” means the Toronto Stock Exchange.

“US\$” refers to United States currency.



## **APPENDIX “A” BOARD MANDATE**

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 member of the Corporation’s board of directors (the “Board”). A “senior officer” means VP-level employees and executive officers of the Corporation. The “CEO” means the President & Chief Executive Officer of the Corporation.

### **COMPOSITION**

- A. As stated in the Articles of the Corporation, the Board will be composed of no fewer than three directors.
- B. The Board will have a majority of independent directors. A director is considered “independent” if they do not have a material or pecuniary relationship with the Corporation or related entities (other than compensation received for their service as director) and otherwise meet the requirements for independence established by securities regulations and exchange requirements applicable to the Corporation from time to time.
- C. The Board will appoint its own Chair.

### **MEETINGS**

- A. Meetings of the Board will be held as required, but at least four times a year. Any director may request a meeting of the Board be called by notifying the Board Chair.
- B. Notice of the time and place of each meeting will be given to each director either by telephone or other electronic means not less than 1 week before the time of the meeting. Meetings may be held at any time if all directors have waived or are deemed to have waived notice of the meeting. A director participating in a meeting will be deemed to have waived notice of the meeting.
- C. The CEO will have direct access to the Board and may request a meeting of the Board be called by notifying the Board Chair. The CEO will receive notice of every Board meeting and will normally be requested to attend, other than in cases where the Board wishes to meet in-camera. Other executives or employees of the Corporation will attend meetings of the Board at the request of the Chair.
- D. Meetings will be chaired by the Chair of the Board; or if the Chair is absent, by the CEO, if a director; or if the Chair and the CEO are absent, by a member chosen by the Board from among themselves.
- E. A director may participate in meetings of the Board or any committee of the Board in person, by telephone, or with the consent of the other directors at the meeting, by another communications medium, and a director participating in such a meeting by any such means is deemed to be present at that meeting.
- F. A majority of directors constitute a quorum necessary for the transaction of business at Board meetings. A quorum once established is maintained even if directors leave the meeting prior to conclusion.
- G. The Corporate Secretary or his or her nominee will act as Secretary to the Board.

- H. 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.
- I. As part of every regularly-scheduled meeting, the Board will hold in-camera sessions with: (1) the CEO; (2) of the Board, without management or management directors present; and (3) of the independent directors of the Board, without non-independent directors present. The Board may also hold other in-camera sessions with such members of management present as the Board deems appropriate.

## **DUTIES AND RESPONSIBILITIES**

### **A. 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 other officers. The Board also ensures that adequate plans are in place for management development and succession and conducts an annual review of such plans.

### **B. 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 the progress made against these goals.

In addition, the Board approves key transactions that 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.

### **C. Fiscal Management and Reporting**

The Board, through the Audit Committee, 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 applicable 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. The Board also reviews and approves the Corporation’s Annual Information Form and management information circular each year.

### **D. Cybersecurity**

The Board, through the Audit Committee, has oversight responsibility with respect to the Company’s information technology use and data security, including, but not limited to, enterprise cybersecurity, privacy, data collection and protection and compliance with information security and data protection laws.

### **E. Legal Compliance**

The Board is responsible for overseeing compliance with all relevant policies and procedures by which the Corporation operates, including the Corporation’s environmental, social and governance (“ESG”) initiatives, 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.

### **F. Statutory Requirements**

The Board is responsible for approving all matters that 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.

G. 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 results of the evaluation and recommended improvements are discussed with the full Board. The Board also sets annual goals or focus priorities and tracks performance against them. In addition, each individual director's performance is evaluated and reviewed regularly.

H. 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.

I. 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.

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## **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 11, 2022, the total number of Shares issued and reserved and authorized for issue under the Option Plan was 4,845,187 Shares, representing 1.6% of the issued and outstanding Shares as of that date.

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

The aggregate number of Shares that may be reserved for issuance under the Option Plan, when aggregated with the number of Shares reserved for issuance under the Corporation’s Consolidated Share Distribution Plan, cannot not exceed 8.5% of the Shares then issued and outstanding (on a non-diluted basis). Any increase in the issued and outstanding Shares will result in an increase in the number of Shares available under the plans and any exercise, conversion, redemption, expiry, termination or surrender of an award made under the plans will make additional Shares available under them.

Notwithstanding any other provision of the Option Plan, the number of Shares (i) issued to insiders in any year under the Option Plan, when aggregated with the number of Shares issued to insiders within that same year period under all other share compensation arrangements of the Corporation may not exceed 10% of the issued and outstanding Shares of the Corporation at that time; and (ii) issuable to insiders, at any time, under the Option Plan, when aggregated with the number of Shares that may be issuable to insiders under all other share compensation arrangements of the Corporation may not exceed 10% of the issued and outstanding Shares of the Corporation at that time.

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 (in respect of options issued to persons resident in any country other than the U.S.), or NASDAQ (in respect of options issued to persons resident in the U.S.), 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 more than 50% of Ballard’s Shares; (b) any person or persons acting in concert acquire more than 50% of Ballard’s 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 anyone other than Ballard’s shareholders owning more than 50% of the voting shares of the combined entity; 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)(iii) 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 vesting period, acceleration of vesting, term, extension of term, termination or expiry, 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;
  - (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; or
- (vi) a change to the amendment provisions of the Option 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 regain participation rights under the plan at the discretion of the Board if their eligibility to participate had previously been removed or increase limits previously imposed on non-employee director participation;
- (e) such amendments as are necessary for the purpose of complying with any changes in any relevant law, rule, regulation, regulatory requirement or requirement of any applicable stock exchange or regulatory authority; or
- (f) amendments to correct or rectify any ambiguity, defective provision, error or omission in the plan or in any agreement to purchase options.

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

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## 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 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 to persons resident in any country other than the U.S.) or NASDAQ (in respect of a DSU issued to persons 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 performance share unit section (the “**PSU Plan**”). All employees (but not non-executive directors) are eligible to participate in the PSU Plan.

The vesting of PSUs 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 PSU 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 a PSU (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 PSUs 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 PSUs 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 PSUs will expire and the participant will no longer be entitled to receive any Shares upon conversion of those PSUs.

All PSUs 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 PSUs will, unless otherwise specified in the award, be deemed satisfied and the PSUs will be converted into Shares; and
- (b) if the participant is retired, the vesting of PSUs will continue on the same terms as they would have had the participant continued to be an officer or employee of Ballard.

PSUs 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 PSUs through Ballard Shares purchased on the open market.

As of April 11, 2022, the total number of Shares issued and reserved and authorized for issue under the SDP was 1,522,235 Shares, representing 0.5% of the issued and outstanding Shares as of that date.

The aggregate number of Shares that may be reserved for issuance under the SDP, when aggregated with the number of Shares reserved for issuance under the Option Plan, cannot not exceed 8.5% of the Shares then issued and outstanding (on a non-diluted basis). In addition, the maximum number of the Corporation's Shares available for issuance under the SDP cannot exceed 5% of the issued and outstanding Shares at the time of grant. Any increase in the issued and outstanding Shares will result in an increase in the number of Shares available under the plans and any exercise, conversion, redemption, expiry, termination or surrender of an award made under the plans will make additional Shares available under them.

Notwithstanding any other provision of the SDP, the number of Shares (i) issued to insiders in any year under the SDP, when aggregated with the number of Shares issued to insiders within that same year period under all other share compensation arrangements of the Corporation, may not exceed 10% of the issued and outstanding Shares of the Corporation at that time; and (ii) issuable to insiders, at any time, under the SDP, when aggregated with the number of Shares that may be issuable to insiders under all other share compensation arrangements of the Corporation may not exceed 10% of the issued and outstanding Shares of the Corporation at that time.

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 PSUs 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 PSU and/or DSU governed by it (whether outstanding or otherwise) (subject to any stock exchange or regulatory requirement at the time of any such amendment) including, without limitation, any of the following amendments:

- (a) amendments to the definitions and other amendments of a clerical nature;
- (b) amendments to any provisions relating to the issuance of Shares, granting or conversion of DSUs or PSUs, including but not limited to provisions relating to the term, termination, and number of DSUs or PSUs 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 PSU;
- (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 PSUs to be transferable or assignable other than for normal course estate settlement purposes; or
- (viii) a change to the amendment provisions of the plan;
- (c) any amendment in respect of the persons eligible to participate in the plan (or any part of it), provided that, without shareholder approval, such amendment does not permit non-employee directors to:
  - (i) participate as holders of PSUs at the discretion of the Board;
  - (ii) re-gain participation rights under any section of the plan at the discretion of the Board if their eligibility (as a class) to participate had previously been removed; or
  - (iii) increase limits previously imposed on non-employee director participation;
- (d) such amendments as are necessary for the purpose of complying with any changes in any relevant law, rule, regulation, regulatory requirement or requirement of any applicable stock exchange or regulatory authority; or
- (e) amendments to correct or rectify any ambiguity, defective provision, error or omission in the plan or in any option agreement, notice to redeem DSUs or PSU agreement.

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**BALLARD™**

**BALLARD POWER SYSTEMS INC.  
MANAGEMENT'S DISCUSSION AND ANALYSIS  
FOURTH QUARTER AND FISCAL YEAR 2021**



FUEL CELL  
POWER FOR A  
SUSTAINABLE  
PLANET

**BALLARD™**

## CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This document contains forward-looking statements about expected events and the financial and operating performance of Ballard Power Systems Inc. ("Ballard", "the Company", "we", "us" or "our"). Forward-looking statements include any statements that do not refer to historical facts. Forward-looking statements are based on the beliefs of management and reflect our current expectations as contemplated under the safe harbor provisions of Section 21E of the United States Securities Exchange Act of 1934, as amended. Such statements include, but are not limited to, statements related to the expected or potential impact of the novel coronavirus ("COVID-19") pandemic, and the related responses of the government, our customers and partners, joint venture operations and suppliers, on our business, financial condition and results of operations; and statements with respect to our objectives, goals, liquidity, sources of capital and our outlook including our estimated revenue and gross margins, cash flow from operations, Cash Operating Costs, EBITDA and Adjusted EBITDA (see Non-GAAP Measures), order backlog, order book of expected deliveries over the subsequent 12-months, future product costs and selling prices, future product sales and production volumes, expenses / costs, contributions and cash requirements to and from joint venture operations, our strategy, the markets for our products, and research and development activities, 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 new and existing customer and partner relationships, the generation of new sales, producing, delivering, and selling the expected product and service volumes at the expected prices and controlling our costs. They are also based on a variety of general factors and assumptions including, but not limited to, our expectations regarding technology and product development efforts, manufacturing capacity and cost, product and service pricing, market demand, and the availability and prices of raw materials, labour, and supplies. These assumptions have been derived from information available to the Company including information obtained by the Company from third parties. These assumptions may prove to be incorrect in whole or in part. In addition, actual results may differ materially from those expressed, implied, or forecasted in such forward-looking statements. Factors that could cause our actual results or outcomes to differ materially from the results expressed, implied or forecasted in such forward-looking statements include, but are not limited to: the severity, magnitude and duration of the COVID-19 pandemic, including impacts of the pandemic and of businesses' and governments' responses to the pandemic on our operations, personnel and joint venture operations, and on commercial activity and demand across our and our customers', partners' and joint venture businesses, and on global supply chains; global economic trends and geopolitical risks, including changes in the rates of investment, inflation or economic growth in our key markets, or an escalation of trade tensions such as those between the U.S. and China; market developments or customer actions (including developments and actions arising from the COVID-19 pandemic) that may affect levels of demand and/or the financial performance of the major industries and customers we serve, such as secular, cyclical and competitive pressures in the bus, truck, rail and marine sectors; the rate of mass adoption of our products or related ecosystem, including the availability of cost-effective hydrogen; changes in product or service pricing or cost; changes in our customers' requirements, the competitive environment and/or related market conditions; the relative strength of the value proposition that we offer our customers with our products or services; changes in competitive technologies, including battery and fuel cell technologies; product safety, liability or warranty issues; challenges or delays in our technology and product development activities; changes in the availability or price of raw materials, labour, supplies and shipping; our ability to attract and retain business partners, suppliers, employees and customers; changing government or environmental regulations, including subsidies or incentives associated with the adoption of clean energy products, including hydrogen and fuel cells; our access to funding and our ability to provide the capital required for product development, operations and marketing efforts, working capital requirements, and joint venture capital contributions; our ability to protect our intellectual property; our ability to extract value from joint venture operations; currency fluctuations, including the magnitude of the rate of change of the Canadian dollar versus the U.S. dollar; potential merger and acquisition activities, including risks related to integration, loss of key personnel, disruptions to operations, costs of integration, and the integration failing to achieve the expected benefits of the transaction; the general assumption that none of the risks identified in the Risks and Uncertainties section of this document or in our most recent Annual Information Form will materialize. Readers should not place undue reliance on Ballard's forward-looking statements. The forward-looking statements contained in this document speak only as of the date of this Management Discussion and Analysis ("MD&A"). Except as required by applicable legislation, Ballard does not undertake any obligation to release publicly any updates or revisions to these forward-looking statements to reflect events or circumstances after the date of this MD&A including the occurrence of unanticipated events.

## MANAGEMENT'S DISCUSSION AND ANALYSIS

March 11, 2022

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1. Introduction	1.1 Preparation of the MD&A 1.2 Management's Report on Disclosure Controls and Procedures and Internal Controls over Financial Reporting 1.3 Risks and Uncertainties
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3. Select Annual Financial Information and 2022 Business Outlook	3.1 Select Annual Financial Information 3.2 2021 Performance Compared to 2021 Business Outlook 3.3 2022 Business Outlook
4. Recent Developments (Including Contractual Updates)	4.1 Corporate 4.2 China 4.3 Europe 4.4 North America and Other
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6. Cash Flow, Liquidity and Capital Resources	6.1 Summary of Cash Flows 6.2 Cash Provided by (Used by) Operating Activities 6.3 Cash Provided by (Used by) Investing Activities 6.4 Cash Provided by (Used by) Financing Activities 6.5 Liquidity and Capital Resources
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## **1. INTRODUCTION**

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

This discussion and analysis of financial condition and results of operations of Ballard Power Systems Inc. ("Ballard", "the Company", "we", "us" or "our") is prepared as of March 11, 2022, and should be read in conjunction with our audited consolidated financial statements for the year ended December 31, 2021. 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](http://www.sedar.com)) and U.S. securities regulatory authorities ([www.sec.gov](http://www.sec.gov)) and is also available on our website at [www.ballard.com](http://www.ballard.com).

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

#### *Disclosure controls and procedures*

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

As of the end of the period covered by this report, we evaluated, under the supervision and with the participation of management, including the CEO and the CFO, the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934 ("Exchange Act"). The CEO and CFO have concluded that as of December 31, 2021, our disclosure controls and procedures were effective to ensure that information required to be disclosed in reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified therein, and accumulated and reported to management to allow timely discussions regarding required disclosure.

#### *Internal control over financial reporting*

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

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

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



management has determined that internal control over financial reporting was effective as of December 31, 2021.

KPMG LLP, our independent registered public accounting firm, has audited our consolidated financial statements and expressed an unqualified opinion thereon. KPMG LLP has also expressed an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2021.

Changes in internal control over financial reporting

During the year ended December 31, 2021, there were no changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting. Our design of disclosure controls and procedures and internal controls over financial reporting includes controls, policies and procedures covering our subsidiaries including Ballard Power Systems Europe A/S, Ballard Fuel Cell Systems Inc., and Guangzhou Ballard Power Systems Co., Ltd.

On November 11, 2021, we completed the acquisition of Arcola Energy Limited (“Arcola”), a UK-based systems engineering company (subsequently renamed Ballard Motive Solutions) specializing in hydrogen fuel cell powertrain and vehicle systems integration. As Arcola was acquired in the last 365 days, we have limited the scope of our design of disclosure controls and procedures and internal controls over financial reporting to exclude controls, policies and procedures of Arcola. Summary financial information of Arcola from the date of acquisition on November 11, 2021, to December 31, 2021, included in our consolidated financial statements for fiscal 2021, are as follows:

<b>Select Arcola financial information</b> (Expressed in thousands of U.S. dollars)	<b>2021</b>
Revenues	\$ <b>138</b>
Total Operating Expenses	\$ <b>1,385</b>
Cash Operating Costs (1)	\$ <b>1,152</b>
Adjusted EBITDA (1)	\$ <b>(1,205)</b>
Net loss	\$ <b>(1,114)</b>
Total assets	\$ <b>44,591</b>

<sup>1</sup> Cash Operating Costs and Adjusted EBITDA are non-GAAP measures. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. See reconciliation to GAAP in the Supplemental Non-GAAP Measures section.

**1.3 Risks and Uncertainties**

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

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

- We may not be able to successfully execute our business plan.
- In China, a significant amount of operations are conducted by joint ventures that we

cannot operate solely for our benefit.

- We are dependent on third party suppliers for the supply of key materials and components for our products and services.
- We are dependent upon Original Equipment Manufacturers and Systems Integrators to purchase certain of our products.
- In our Heavy-Duty Motive market, we depend on a limited number of customers for a majority of our revenues and are subject to risks associated with early stage market activities related to fuel cell bus, truck, rail and marine applications.
- We depend on Chinese customers for a significant portion of our revenues in our Heavy-Duty Motive market, and we are subject to risks associated with economic conditions and government policies and practices in China.
- In our Technology Solutions market, we depend on a limited number of customers for a majority of our revenues and are subject to risks related to the continued commitment of these customers to their fuel cell programs.
- We could be adversely affected by risks associated with mergers and acquisitions.
- We could be adversely affected by risks associated with capital investments and new business processes.
- We could lose or fail to attract the personnel necessary to operate our business.
- We currently face and will continue to face significant competition, and many current and future competitors may have significantly more resources.
- Emerging diseases, like COVID-19, may adversely affect our operations (including our joint ventures in China), our suppliers, our customers and/or partners.
- 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 fuel cell stack development and commercialization plans.
- Warranty claims, product performance guarantees, or indemnification claims could negatively impact our gross margins and financial performance.
- Our technology and products may not meet the market requirements, including requirements relating to performance, integration and / or cost.
- We may not be able to sell our products on a commercially viable basis on the timetable we anticipate, or at all.
- 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 and our experience has been limited to relatively low production volumes.
- We are subject to risks inherent in international operations, including restrictions on the conversion of currencies and restrictions on repatriation of funds, including out of China.
- We may experience cybersecurity threats to our information technology infrastructure and systems, and unauthorized attempts to gain access to our proprietary or confidential information, as may our customers, suppliers and/or partners.
- We depend on our intellectual property, and our failure to protect that intellectual property could adversely affect our expected future growth and success.

- Global macro-economic and political conditions are beyond our control and may have an adverse impact on our business, our joint ventures, our key suppliers, and/or customers.
- Climate change risks may adversely affect our operations, or the operations of our suppliers, customers and/or partners.
- Public policy and regulatory changes could hurt the market for our products and services.
- Regulatory agencies could require us to modify or terminate existing investments, acquisitions or joint ventures and could delay or prevent future opportunities.
- 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 expect our cash reserves will be reduced due to future operating losses, working capital requirements, capital expenditures, capital contributions to our joint venture(s) in China and potential acquisitions and other investments by our business, including in certain hydrogen infrastructure and growth equity funds, and we cannot provide certainty as to how long our cash reserves will last or that we will be able to access additional capital when necessary.
- Our products use flammable fuels and some generate high voltages, which could subject our business to product safety, product liability or other claims.
- Potential fluctuations in our financial and business results make forecasting difficult and may restrict our access to funding for our commercialization plan.
- We could be liable for environmental damages resulting from our research, development or manufacturing operations.

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

### **2.1 Core Business**

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

Our principal business is the design, development, manufacture, sale and service of PEM fuel cell products for a variety of applications, focusing on our power product markets of Heavy-Duty Motive (consisting of bus, truck, rail and marine applications), 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 PEM fuel cell applications. With the recent acquisition of Arcola (now Ballard Motive Solutions), we now also offer hydrogen fuel cell powertrain and vehicle systems integration solutions.

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

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

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

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

In addition, we have a non-controlling 10% interest in Guangdong Synergy Ballard Hydrogen Power Co., Ltd. ("Synergy Ballard JVCo"), located in Yunfu, Guangdong Province, China. Synergy Ballard JVCo's business is to manufacture fuel cell products utilizing our FCveloCity®-9SSL fuel cell stack technology for use primarily in fuel cell engines assembled in China to provide propulsion power for zero-emission fuel cell electric buses and commercial vehicles with certain exclusive rights in China.

In 2021, we acquired a non-controlling 9.77% equity interest in Forsee Power SA ("Forsee Power"), a French company specializing in the design, development, manufacture, commercialization and financing of smart battery systems for sustainable electric transport. In 2021, we also invested in two hydrogen infrastructure and growth equity funds. We acquired a 12% interest in the HyCap Fund I SCSP ("HyCap"), a special limited partnership registered in Luxembourg; and a 1% interest in the Clean H2 Infra Fund ("Clean H2"), a special limited partnership registered in France.

## **2.2 Strategic Imperatives**

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

Our strategy is built on 5 key themes:

- Double down in the fuel cell stack & module: invest in leading technology and products to provide leading customer value proposition to our customers;
- Selectively expand across value chain: extend across the value chain to capture control points, reduce technology adoption barriers and accelerate fuel cell deployments;
- Develop new routes to market: creatively explore partnerships to accelerate market adoption and grow volume for product sales;
- Win in key regions: build a competitive platform in North America, Europe and China; and
- Here for Life: deliver a compelling ESG proposition for all stakeholders.

Our strategy supports long-term commercialization, revenue and profitability, while also enabling future value based on longer-term market opportunities for our technology, products and intellectual property.

Our two-pronged approach is to build 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 PEM fuel cell products with competitive life cycle cost. Through technology solutions, our focus is on enabling our customers to address new business opportunities and accelerate the adoption of fuel cell technology by delivering specialized engineering services, including powertrain integration, and integrated energy systems.

As part of our strategy, we have been working to develop a local fuel cell supply chain and related ecosystem to address new-energy bus and commercial vehicle markets in China. We believe this strategy aligns with current and expected local content requirements for government subsidies supporting the adoption of fuel cell electric vehicles ("FCEVs"). Key elements of our strategy include adopting a business model in which we seek to mitigate market adoption risk and capital investment by engaging in partnerships with local companies that are well positioned in their respective market.

We have strengthened our financial position, thereby providing additional flexibility to fund our growth strategy, including through activities such as product innovation, investments in production capacity expansion and localization, future acquisitions and strategic partnerships and investments. This includes significant investment in next generation products and technology, including our proprietary membrane electrode assemblies ("MEAs"), bipolar plates, stacks, modules, and systems integration; advanced manufacturing processes, technologies, and equipment; and technology and product cost reduction.

### 3. SELECT ANNUAL FINANCIAL INFORMATION AND 2022 BUSINESS OUTLOOK

#### 3.1 Select Annual Financial Information

<b>Results of Operations</b>	<b>Year ended,</b>		
(Expressed in thousands of U.S. dollars, except per share amounts and gross margin %)	<b>2021</b>	2020	2019
Revenues	\$ <b>104,505</b>	\$ 103,877	\$ 105,723
Gross margin	\$ <b>14,013</b>	\$ 20,984	\$ 22,338
Gross margin %	<b>13%</b>	20%	21%
Total Operating Expenses	\$ <b>102,116</b>	\$ 60,745	\$ 47,784
Cash Operating Costs <sup>(1)</sup>	\$ <b>83,782</b>	\$ 50,029	\$ 38,801
Adjusted EBITDA <sup>(1)</sup>	\$ <b>(82,188)</b>	\$ (38,944)	\$ (26,608)
Net loss from continuing operations	\$ <b>(114,397)</b>	\$ (49,469)	\$ (35,291)
Net loss from continuing operations per share	\$ <b>(0.39)</b>	\$ (0.20)	\$ (0.15)
<b>Financial Position</b>	<b>At December 31,</b>		
(expressed in thousands of U.S. dollars)	<b>2021</b>	2020	2019
Total assets	\$ <b>1,440,943</b>	\$ 975,599	\$ 340,319
Total non-current liabilities	\$ <b>29,567</b>	\$ 22,621	\$ 25,540
Cash, cash equivalents and short-term investments	\$ <b>1,126,899</b>	\$ 765,430	\$ 147,792

<sup>1</sup> Cash Operating Costs and Adjusted EBITDA are non-GAAP measures. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. See reconciliation to GAAP in the Supplemental Non-GAAP Measures section.

### **3.2 2021 Performance compared to 2021 Business Outlook**

Consistent with the Company's past practice, and in view of the early stage of hydrogen fuel cell market development and adoption, and the ongoing uncertainties resulting from the COVID-19 pandemic, we did not provide specific financial performance guidance for 2021.

We did however provide certain qualitative outlook expectations for 2021 as we continued to maintain focus on Heavy- and Medium-Duty Motive applications – including bus, commercial truck, train, and marine markets – to increase penetration in the key markets of China, Europe, and California. In particular:

- In 2021, we invested significantly in additional technology and product innovation and development across bus, truck, rail, and marine applications, including next-generation MEAs, plates, stacks, and modules. This included collaboration with MAHLE Group ("MAHLE") on the design of fuel cell engines for large commercial trucks for Europe and North America and the formation of a strategic alliance with Linamar Corporation ("Linamar") for the co-development and sale of fuel cell powertrains and components for class 1 and 2 vehicles, weighing up to 5-tons, initially in North America and Europe. We also invested in improving our customer service capabilities in our key markets. We have expanded our MEA production capacity by 6-times at our Vancouver headquarter facility which is expected to enable production of approximately 6 million MEAs annually. We continue to review options for further localization of production capacity in China and Europe. Furthermore, corporate development work was an important priority in 2021, including the acquisition of Arcola and certain long-term strategic investments (Forsee Power, and certain hydrogen infrastructure and growth equity funds) in an effort to accelerate customer adoption, expand our capabilities, and simplify our customers' experience.
- During 2021, we fulfilled our commitment to make contributions towards our pro rata ownership share of Weichai Ballard JV in China of \$12.4 million. This is in addition to \$57.7 million contributed cumulatively through 2020, as part of Ballard's total capital commitment of approximately \$79.9 million.
- In Europe, we delivered a significant number of modules in 2021 to support deployments of fuel cell electric buses ("FCEBs") in a number of countries. We also increased market activity for FCEBs, which may result in additional module purchase orders for delivery in future years. In addition, we increased shipments of backup power systems in Europe in 2021. We also continued the execution of our automotive program in 2021 with Audi AG ("Audi") prior to its expected wind-down in August 2022.
- In North America, we increased market activity for FCEBs and fuel cell-powered trucks in 2021, which may result in additional module purchase orders for delivery in future years. In addition, we increased fuel cell stack shipments for material handling applications.

### **3.3 2022 Business Outlook**

Consistent with the Company's past practice, and in view of the early stage of hydrogen fuel cell market development and adoption, we are not providing specific overall financial performance guidance for 2022. In 2022, we plan to increase investments in the business ahead of the hydrogen growth curve, including expanding product offering and capabilities

across the value chain. Our 2022 outlook includes:

- Total Operating Expenses: \$140 million to \$160 million - We expect total Operating Expenses for fiscal 2022 to be between \$140 million and \$160 million (compared to \$102.1 million in fiscal 2021) as we continue to invest in research and product development ahead of the hydrogen growth curve by advancing new technology, product innovation, and development across bus, truck, rail, and marine markets, including next-generation MEAs, plates, stacks, and modules, and increasing sales and marketing expenditures.
- Capital Expenditures: \$40 million to \$60 million - We expect total Capital Expenditures (being additions to property, plant and equipment and investment in other intangible assets) for fiscal 2022 to be between \$40 million and \$60 million (compared to \$14.7 million in fiscal 2021) as we continue to invest in testing, advanced manufacturing and production. Capital allocation in 2022 includes increasing testing and prototyping capabilities, including new advanced test station equipment and refurbishments of existing testing equipment in Canada, advanced manufacturing equipment in Canada for next-generation bipolar plates, and testing and assembly equipment at Ballard Motive Systems in the U.K. to support powertrain and vehicle integration and assembly operations.
- Introduce plan to expand global footprint - We believe in the value of investing ahead of the hydrogen growth curve and positioning our manufacturing capabilities to support anticipated scale in key markets. We also continue to look at opportunities to expand our presence in growing markets.
- Develop roadmap to achieve corporate "Mission Carbon Zero" goal by 2030 - We continue to focus on decarbonizing difficult to abate emissions across medium- and heavy-duty applications of bus, commercial truck, rail, marine, and certain stationary and backup power applications. We plan to complete our roadmap on achieving our corporate "Mission Carbon Zero" goal by 2030 in 2022.

Our outlook expectations for 2022 are in part supported by our 12-month Order Book of approximately \$67.3 million which is derived from our Order Backlog of approximately \$93.1 million as of December 31, 2021. Our Order Backlog represents the estimated aggregate value of orders at a given time for which customers have made contractual commitments and our 12-month Order Book represents the aggregate expected value of that portion of the Order Backlog that the Company expects to deliver in the subsequent 12-month period.

Our outlook expectations are based on our internal forecast which reflects an assessment of overall business conditions and takes into account actual sales, operating expenses, capital expenditures, and financial results in the first two months of 2022; sales orders received for units and services expected to be delivered in the remainder of 2022; purchase and cost commitments currently in existence for fiscal 2022; an estimate with respect to the generation of new sales and the timing of deliveries in each of our markets for the balance of 2022; an estimate of purchase and cost commitments to be generated in each of our locations for the balance of 2022; and assumes an average U.S. dollar exchange rate in the high \$0.70's in relation to the Canadian dollar for 2022.

The primary risk factors to our business outlook expectations for 2022 are customer, production, or program delays or cancellations in delivering against existing power products and technology solutions orders and delays from forecast in terms of closing and delivering

expected sales primarily in our Heavy-Duty Motive market; adverse macro-economic and political conditions including trade, public health (including the ongoing impact of the COVID-19 pandemic), and other geopolitical risks; changes in government subsidy and incentive programs; inadequate investment in hydrogen infrastructure and / or excessive hydrogen fuel costs, all of which could negatively impact our customers' access to capital and the success of their program plans which could adversely impact our business including potential changes, delays or accelerations in our expected operating and capital equipment requirements; disruptions in our Heavy-Duty market due to delays of supply of key materials and components from third party suppliers; disruptions in our Technology Solutions market as a result of our significant reliance on a limited number of customers including Audi and Weichai Ballard JV, which are reliant on their internal commercialization plans and budget requirements; disruptions in our Technology Solutions market as a result of delays in achieving program milestones; 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 operating expense commitments, capital expenditure commitments, and Technology Solutions revenues (including the technology development and engineering services agreement with Audi) are priced in Canadian dollars.

Our Order Backlog and our 12-month Order Book are currently comprised of a relatively limited number of contracts and a relatively limited number of customers. Given the relative immaturity of our industry and customer deployment programs, our Order Backlog and 12-month Order Book are potentially vulnerable to risk of cancellation, deferral or non-performance by our customers for a variety of reasons, including: risks related to continued customer commitment to a fuel cell program; risks related to customer liquidity; credit risks; risks related to changes, reductions or eliminations in government policies, subsidies and incentives; risks related to macro-economic and political conditions including trade, public health (including the ongoing impact of the COVID-19 pandemic), and other geopolitical risks; risks related to slower market adoption; risks related to vehicle integration challenges; risks related to the development of effective hydrogen refueling infrastructure; risks related to the ability of our products to meet evolving market requirements; and supplier-related risks.

Furthermore, potential fluctuations in our financial results make financial forecasting difficult. In addition, due to the early stage of development of the market for hydrogen fuel cell products, it is difficult to accurately predict future revenues, operating expenses, cash flows, or results of operations on a quarterly basis. The Company's revenues, operating expenses, cash flows, and other operating results can vary significantly from quarter to quarter. As a result, quarter-to-quarter comparisons of revenues, operating expenses, cash flows, and other operating results may not be meaningful; instead, we believe our operating performance should be assessed over a number of quarters and years. It is likely that in one or more future quarters, financial results will fall below the expectations of securities analysts and investors and the trading price of the Company's shares may be materially and adversely affected as a result.



## 4. RECENT DEVELOPMENTS (Including Contractual Updates)

### 4.1 Corporate

#### Acquisition of Arcola to Help Customers Integrate Fuel Cell Engines into Heavy-Duty Mobility

On November 11, 2021, we announced the acquisition of Arcola, a UK-based systems engineering company specializing in hydrogen fuel cell powertrain and vehicle systems integration. With more than 10 years of experience integrating Ballard fuel cell engines into powertrains and heavy-duty vehicles, including buses, refuse trucks and trains, Arcola currently has approximately 90 employees based in the UK.

With the acquisition of Arcola, we intend to make it easier for existing and new OEM customers globally to offer FCEVs by providing stronger support for the integration of our fuel cell engines into their vehicle platforms, including powertrain integration, vehicle integration and application engineering.

Ballard acquired 100% of Arcola for total consideration of up to \$40 million, including 337,353 Ballard common shares that vest over two years, and up to \$34 million in upfront and earn-out cash consideration based on the achievement of certain performance conditions over an up to three-year period from the acquisition date.

#### Long-Term Strategic Partnership with Forsee Power to Develop and Commercialize Integrated Fuel Cell and Battery Solutions for Heavy-Duty Hydrogen Mobility

On October 17, 2021, we announced with Forsee Power, a leader in smart battery systems for sustainable electromobility, the signing of a Memorandum of Understanding (“MOU”) for a strategic partnership to develop fully integrated fuel cell and battery solutions, optimized for performance, cost and installation for heavy-duty hydrogen mobility applications. Key terms of the MOU include:

- A fully integrated solution for hydrogen mobility: The partnership of Ballard and Forsee Power brings together two industry leaders to develop a fully integrated solution combining a fuel cell and battery system, optimized to meet the needs of targeted medium and heavy-duty mobility markets of bus, truck, rail, marine, and off-road. This strategic partnership is expected to be the beginning of a long-term collaboration involving the co-design, co-development, production, marketing, and sales of integrated fuel cell-battery solutions.
- Combining technological know-how and experience: For the planned integrated solution, Ballard will supply the fuel cell system and related controls, and Forsee Power will supply the battery system and related battery management system, cooling system and high voltage DC/DC conversion system. The parties will jointly develop the energy management system to optimize the hybrid fuel cell and battery system architecture. Optimization of the fuel cell-battery powertrain, resulting in improved reliability, durability, efficiency, and cost, is a logical next step for value creation.
- Strategic investment by Ballard as part of Forsee IPO on Euronext Paris: As part of the strategic relationship, Ballard committed to participate as a lead investor in connection with the initial public offering on Euronext in Paris, France, of Forsee Power. Pursuant to this commitment, Ballard made a contribution of €37.7 million (\$43.8 million) in October 2021, resulting in an ownership interest of 9.77% in Forsee Power upon completion of the

IPO. Ballard also appointed a board member to the Forsee Power board of directors. This long-term strategic investment is fair valued at its current publicly held share price at each reporting period end date converted to its U.S. dollar equivalent with any mark to market gain (loss) recognized in Finance Income (loss) and Other. During the fourth quarter of 2021, we recognized mark to market and foreign exchange losses of (\$10.5) million on this long-term investment valued at \$33.3 million as of December 31, 2021.

#### Announcement of 100-million-Kilometer Milestone

On October 5, 2021, we announced that our PEM fuel cell technology and products have now powered FCEVs in commercial Heavy- and Medium-Duty Motive applications for an industry-leading cumulative total of more than 100 million kilometers on roads around the globe. In just twelve months, we have more than doubled our on-the-road kilometers in service.

## **4.2 China**

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

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

- Equity Investment – an equity investment in Ballard made by Weichai representing a 19.9% interest in the Company at that time. Weichai currently holds an approximate 15.5% interest in Ballard.

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

- China Joint Venture and Technology Transfer Agreement – Weichai and Ballard have established a joint venture company in Shandong Province to support China's Fuel Cell Electric Vehicle market, with Weichai holding a controlling ownership interest of 51% and Ballard holding a 49% ownership position. The Weichai Ballard JV, Weichai Ballard Hy-Energy Technologies Co., Ltd., was established in the fourth quarter of 2018 with Weichai making an initial capital contribution of RMB 102 million and Ballard making an initial capital contribution of \$14.3 million (RMB 98 million equivalent). During fiscal 2019 and fiscal 2020, Weichai made its planned second through seventh capital contributions totaling RMB 311.1 million, and Ballard made its planned second through seventh capital contributions totaling \$43.4 million (RMB 298.9 million equivalent). During fiscal 2021, Weichai made its planned eighth through eleventh capital contributions totaling RMB 82.9 million, and Ballard made its planned eighth through eleventh capital contributions totaling \$12.4 million (RMB 79.6 million equivalent). Weichai and Ballard will fund pro rata shares of the Weichai Ballard JV based on an agreed business plan. Weichai holds three of five

Weichai Ballard JV board seats and Ballard holds two, with Ballard having certain shareholder protection provisions.

The Weichai Ballard JV will manufacture Ballard's next-generation LCS fuel cell stack and FCgen®-LCS-based power modules for bus, commercial truck, and forklift applications with exclusive rights in China and will pay Ballard a total of \$90 million under a program to develop and transfer technology to the Weichai Ballard JV in order to enable these manufacturing activities. Revenue earned from the \$90 million Weichai Ballard JV technology transfer agreement (\$4.2 million in the fourth quarter of 2021; \$18.2 million in fiscal 2021; \$6.5 million in the fourth quarter of 2020; \$21.2 million in fiscal 2020; \$22.5 million in fiscal 2019; \$1.2 million in fiscal 2018) is recorded as Technology Solutions revenues. During the fourth quarter of 2018, we received an initial 10% or \$9.0 million prepayment from Weichai Ballard JV for this program with additional amounts paid to us as program milestones are successfully completed. We retain an exclusive right to the developed technologies outside China, subject to certain restrictions on sublicensing outside China. The Weichai Ballard JV will also purchase MEAs for FCgen®-LCS fuel cell stacks exclusively from Ballard under a long-term supply agreement.

- Fuel Cell Sales – On May 1, 2019, we announced that we reached agreement with Weichai Ballard JV for the supply of a mix of certain fuel cell products and components that will be used in the assembly of modules to power zero-emission FCEVs in China. The order has a total value of approximately \$44 million to Ballard. Once assembled by Weichai Ballard JV, final products will be used to support initial deployments against Weichai's above noted commitment to supply a minimum of 2,000 fuel cell modules for commercial FCEVs in China. All products and components to be supplied by Ballard are based on Ballard's next-generation LCS stack technology. Revenue earned from these now complete agreements (\$9.6 million in the fourth quarter of 2021; \$15.0 million in fiscal 2021; \$0.4 million in the fourth quarter of 2020; \$14.8 million in fiscal 2020; \$14.7 million in fiscal 2019) is recorded as Heavy-Duty Motive revenues.

Weichai has indicated that it intends to build and supply at least 2,000 fuel cell modules using Ballard and Weichai Ballard JV technology through 2022 for commercial vehicles in China. Specific terms related to the source and scope of supply, product mix, pricing and timing of shipments are subject to future agreement between Weichai and its customers.

On December 16, 2019, we announced the receipt of an additional purchase order from Weichai Ballard JV for the delivery of MEAs valued at approximately \$19 million under a long-term MEA supply agreement. Revenue earned from this agreement (\$1.1 million in the fourth quarter of 2021; \$2.1 million in fiscal 2021; \$4.6 million in the fourth quarter of 2020; \$8.8 million in fiscal 2020) is recorded as Heavy-Duty Motive revenues. As of December 31, 2021, an additional \$8.3 million of revenue associated with shipments on this order to Weichai Ballard JV remain unrecognized until these products are ultimately sold by Weichai Ballard JV.

The Weichai Ballard JV operation, located in Shandong Province, China, has commenced production activities and assembly of next-generation LCS fuel cell stacks and LCS-based modules to power FCEVs for the China market. The Weichai Ballard JV is expected to have initial annual production capacity of 20,000 fuel cell stacks, or approximately 10,000 modules, based on a two-shift operation.

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

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

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

Revenue earned from MEA and other agreements with Synergy Ballard JVCo (\$1.5 million in the fourth quarter of 2021; \$3.4 million in fiscal 2021; \$2.5 million in the fourth quarter of 2020; \$8.2 million in fiscal 2020) is primarily recorded as Heavy-Duty Motive revenues.

Ballard has the exclusive right to purchase FCveloCity®-9SSL fuel cell stacks and sub-components from Synergy Ballard JVCo for sale outside China. Ballard contributed approximately \$1.0 million for our 10% interest in Synergy Ballard JVCo in 2017, currently recognized at nil value. We have no obligation to provide future funding to Synergy Ballard JVCo.

### **4.3 Europe**

#### Approval in Principle for High-Power Fuel Cell Concept to Power Ships

On February 23, 2022, we announced with ABB – a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future – that they have received an approval in principle ("AiP") from leading classification society DNV for a jointly developed fuel cell concept capable of generating 3 megawatts, or 4,000 HP, of electrical power. DNV is an international accredited registrar and classification society headquartered in Norway.

The AiP represents an important milestone in developing new technology, as independent assessment of the concept confirms feasibility of the design and no significant obstacles exist to prevent the concept from being realized. With the AiP in place, the jointly developed solution can be initiated with confidence that it is eligible to receive final approval for application onboard a wide range of vessels.

The high-power fuel cell unit is a flexible solution that will support the energy needs of multi-megawatt scale vessels with diverse use cases. For example, a cruise vessel operating in coastal areas could either run entirely on zero-emission fuel cell power or switch to it when operating in environmentally sensitive areas or emission control zones, while a ferry with a regular schedule and frequent bunkering opportunities could operate solely on fuel cell power. For ocean going vessels, fuel cell power could support auxiliary needs. The concept of the solution also envisions the integration with an energy storage system. The successful development of this system concept builds on a three-year collaboration between ABB and Ballard.



### Delivery of Two Class Approved FCwave™ Modules to Norled A/S

On February 2, 2022, we announced the delivery of two, 200 kilowatt (kW) FCwave™ modules to Norled A/S, one of Norway's largest ferry and express boat operators. The fuel cell modules are intended to power the world's first liquid hydrogen-powered ferry, the MF Hydra, later in 2022.

### Orders for 40 Fuel Cell Modules in European Market

On November 4, 2021, we announced orders for a total of 40 FCmove™-HD (70kW) modules for planned deployment in FCEBs across Europe in 2022. These FCEBs are expected to be deployed in France, Germany, and the UK.

### Ballard to Power Talgo Fuel Cell Passenger Train in European Trial, Ahead of Planned 2023 Launch

On October 12, 2021, we announced an Equipment Supply Agreement to provide 8 of our 70-kilowatt FCmove™-HD fuel cell modules to Talgo S.A. ("Talgo"), a leader in the design, manufacture, and maintenance of high-speed light rail trains, headquartered in Madrid, Spain – for trials of its Talgo Vittal-One commuter and regional passenger train. Talgo plans to conduct their demonstration in early 2022 in Spain, with expected commercialization in 2023.

### Multi-Megawatt Scale Baseload Hydrogen Power Plant with HDF Energy

On October 7, 2021, we announced with our partner, Hydrogene de France ("HDF Energy"), an Independent Power Producer dedicated to renewable power generation, commenced construction of the CEOG Renewstable® Power Plant ("CEOG") in French Guiana. CEOG is the world's first multi-megawatt, baseload hydrogen power plant, and the largest green hydrogen storage of intermittent renewable electricity sources. Also, CEOG is the first order for a new generation of megawatt power fuel cell systems dedicated to stationary applications, which is expected to be mass produced in the HDF Energy facility in Bordeaux.

This project is part of a multi-staged development agreement between Ballard and HDF Energy, as initially announced in December 2019. CEOG is the first commercial project for HDF under this agreement. This is an important proof point for the use of hydrogen storage and electrical regeneration combined with renewable energy. The \$200 million French Guiana CEOG project will combine a solar park, long-term hydrogen and short-term battery storage and fuel cells specified by HDF Energy, based on Ballard's ClearGen® architecture. Revenue earned from this and other agreements with HDF Energy is recorded as Technology Solutions revenue.

### Siemens AG

On November 14, 2017, we announced the signing of a multi-year Development Agreement with Siemens AG ("Siemens") for the development of a zero-emission fuel cell engine to power Siemens' Mireo light rail train. The Development Agreement has a contemplated value of approximately \$9.0 million to Ballard. Under the terms of the Development Agreement, Ballard will develop a 200-kilowatt fuel cell engine for integration into Siemens' new Mireo train platform.

On July 15, 2021, we announced that the receipt of a purchase order for two of our 200-kilowatt (kW) fuel cell modules from Siemens to power a 2-car Mireo Plus H passenger train

through a trial operation in Bavaria, Germany. The 200kW fuel cell module has been developed and tested under the Development Agreement with Siemens discussed above, in order to provide primary propulsion power for the Mireo Plus H light rail train. Ballard plans to deliver the modules ordered by Siemens for the trial operation in Bavaria in 2022.

Revenue earned from this and other agreements with Siemens (\$0.7 million in the fourth quarter of 2021; \$2.2 million in fiscal 2021; nil million in the fourth quarter of 2020; \$0.9 million in fiscal 2020; \$3.2 million in fiscal 2019; \$1.8 million in fiscal 2018) is recorded as Technology Solutions revenue.

#### Audi AG

On June 11, 2018, we announced the signing of a 3.5-year extension to our technology solutions contract with Audi, part of the Volkswagen Group, extending the program to August 2022. The program, through a series of technical milestone awards, encompasses automotive fuel cell stack development as well as system design support activities for the benefit of Audi. Ballard engineers are leading critical areas of fuel cell product design – including the MEA, plate and stack components – along with certain testing and integration work.

Revenue earned from this and other agreements with Audi (\$2.6 million in the fourth quarter of 2021; \$9.8 million fiscal 2021; \$5.2 million in the fourth quarter of 2020; \$16.0 million in fiscal 2020) is recorded as Technology Solutions revenues.

#### **4.4 North America and Other**

##### Ballard Announces MOU with Adani for Hydrogen Fuel Cells in India

On February 22, 2022, we announced the signing of a non-binding Memorandum of Understanding (“MOU”) with the Adani Group (“Adani Group”) to evaluate a joint investment case for the commercialization of fuel cells in various mobility and industrial applications in India. Under the MOU, both parties will examine various options to cooperate, including potential collaboration for fuel cell manufacturing in India.

Adani Group, founded in 1988 with a current market capitalization of approximately \$150 billion, comprising of seven publicly listed companies with businesses spanning power generation and distribution, renewable energy, gas and infrastructure, logistics (seaport, airports, shipping, and rail), mining and resources, and other sectors. Hydrogen is increasingly viewed as a critical medium for the decarbonization of energy, industry, and mobility. Efforts under this MOU will be anchored by Adani New Industries Limited, the newly formed subsidiary of Adani Enterprises, focused on generation of green hydrogen, including downstream products, green electricity generation, manufacture of electrolyzers and wind turbines, among others.

##### Ballard and Chart Successfully Test a Fuel Cell Powered by Liquid Hydrogen

On February 1, 2022, we announced with Chart Industries, Inc. (“Chart”), the successful test of a fuel cell powered by liquid hydrogen under the heavy-duty hydrogen fuel system joint development MOU previously announced on February 10, 2021.

For the test, a Ballard FCmove™-HD fuel cell was paired with a Chart liquid onboard hydrogen (“HLH2”) vehicle fuel system conducted at Chart’s hydrogen test facility in Minnesota, USA. The demonstration confirmed that heavy-duty vehicles powered by Ballard fuel cells should

be able to employ Chart HLH2 vehicle fuel systems that utilize liquid hydrogen as a fuel. Liquid hydrogen has a significant space, weight and range advantage compared with gaseous hydrogen, allowing for up to double the range without space claim and payload impacts, and simplified fueling infrastructure for heavy-duty mobility applications such as class-8 trucks, buses, rail, and marine.

#### Orders for 31 fuel cell engines to a leading global construction, electric power & off-road equipment manufacturer

On January 13, 2022, we announced orders for 31 modules, totaling 3 MW of hydrogen fuel cell power, to a leading global construction, electric power, and off-road equipment manufacturer for testing and deployment in a variety of end-use applications. The modules are expected to be delivered in 2022 and 2023 to match planned integration, testing, and deployment schedules.

#### Ballard Fuel Cells to Power Expansion of Canadian Pacific Hydrogen Locomotive Program

On January 19, 2022, we announced the receipt of an order for eight additional 200 kW fuel cell modules to support the expansion of Canadian Pacific's ("CP Rail") Hydrogen Locomotive Program from one to three locomotives, with expected delivery in 2022. Inclusive of Ballard's announcement in March 2021, the Company will provide a total of 14 fuel cell modules, each module with a rated power output of 200 kW, to support this program.

CP Rail intends to refine the process of converting diesel-electric powertrains to hydrogen-electric powertrains over a series of three categories of locomotives which collectively represent the majority of locomotives in use throughout North America.

#### Ballard teams up with Caterpillar & Microsoft to demonstrate megawatt-scale hydrogen fuel cell backup generator system for datacenters

On November 22, 2021, we announced the launch of a three-year project through a collaboration with Caterpillar Inc. and Microsoft, to demonstrate a power system incorporating large-format hydrogen fuel cells to produce reliable and sustainable backup power for data centers. The project is supported and partially funded by the U.S. Department of Energy ("DOE") under the H2@Scale initiative and backed by the National Renewable Energy Lab ("NREL").

Ballard will provide an advanced, 1.5 MW ClearGen™-II hydrogen fuel cell power generator. As the prime contractor on the project, Caterpillar is providing the overall system integration, power electronics, and controls that form the central structure of the power solution, which will be fueled by low-carbon-intensity hydrogen. Microsoft is hosting the demonstration project at a company data center in Quincy, Washington. NREL is performing analyses on safety, techno-economics, and greenhouse gas impacts.

## **5. RESULTS OF OPERATIONS**

### **5.1 Operating Segments**

We report our results in the single operating segment of Fuel Cell Products and Services. Our Fuel Cell Products and Services segment consists of the sale and service of PEM fuel cell products for our power product markets of Heavy-Duty Motive (consisting of bus, truck, rail, and marine applications), Material Handling and Backup Power (to be renamed Stationary Power Generation in fiscal 2022), 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.

The results from Ballard Motive Systems (formerly Arcola) from the date of acquisition on November 11, 2021 to December 31, 2021, are included in our Technology Solutions market for fiscal 2021 and are expected to be recorded primarily in Heavy-Duty Motive and Technology Solutions in fiscal 2022.

## 5.2 Summary of Key Financial Metrics – Three Months Ended December 31, 2021 Revenue and Gross Margin

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,			
	2021	2020	\$ Change	% Change	
<b>Heavy-Duty Motive</b>	<b>\$ 22,537</b>	<b>\$ 11,918</b>	<b>\$ 10,619</b>	<b>89%</b>	
China	12,210	7,375	4,835	66%	
Europe	6,655	3,471	3,184	92%	
North America	3,408	926	2,482	268%	
Other	264	146	118	81%	
<b>Material Handling</b>	<b>1,289</b>	<b>945</b>	<b>344</b>	<b>36%</b>	
North America	1,268	945	323	34%	
Europe	21	-	21	100%	
<b>Backup Power</b>	<b>2,735</b>	<b>2,103</b>	<b>632</b>	<b>30%</b>	
Europe	2,690	2,100	590	28%	
North America	-	-	-	-%	
Other	45	3	42	1,025%	
<b>Technology Solutions</b>	<b>10,144</b>	<b>13,623</b>	<b>(3,479)</b>	<b>(26%)</b>	
China	4,175	6,822	(2,647)	(39%)	
Europe	4,731	5,469	(738)	(13%)	
North America	1,065	1,011	54	5%	
Other	173	321	(148)	(46%)	
<b>Revenues</b>	<b>36,705</b>	28,589	8,116	28%	
Cost of goods sold	<b>31,934</b>	22,949	8,985	39%	
<b>Gross Margin</b>	<b>\$ 4,771</b>	\$ 5,640	\$ (869)	(15%)	
Gross Margin %	<b>13%</b>	20%	n/a	(7 pts)	

Fuel Cell Products and Services Revenues of \$36.7 million for the fourth quarter of 2021 increased 28%, or \$8.1 million, compared to the fourth quarter of 2020. The 28% increase was driven by higher Heavy-Duty Motive, Backup Power, and Material Handling revenues which more than offset the decrease in Technology Solutions revenues.

Heavy-Duty Motive revenues of \$22.5 million increased \$10.6 million, or 89%, due primarily to higher shipments of fuel cell products to customers primarily in China, Europe and North America. Excluding sales to Weichai Ballard JV and Synergy Ballard JVCo in each of the respective periods, Heavy-Duty Motive revenues earned from other customers increased by \$5.8 million in the fourth quarter of 2021 compared to the fourth quarter of 2020. Heavy-Duty Motive revenues on a quarter to quarter basis are also impacted by product mix due to varying customer requirements and various fuel cell products, including numerous power configurations required by our customers (and the resulting impact on selling price) of our fuel cell modules, fuel cell stacks, MEAs, and related component and parts kits. Heavy-Duty Motive revenues of \$22.5 million in the fourth quarter of 2021 includes \$10.7 million to Weichai Ballard JV for the supply of a mix of certain fuel cell products and components that



will be used in the assembly of modules to power zero-emission FCEVs in China; \$1.5 million for shipments of MEAs to Synergy Ballard JVCo for use in their manufacture and assembly of FCveloCity® fuel cell stacks in China; and \$10.3 million to a variety of customers in North America and Europe including Solaris, Wrightbus, New Flyer, CP Rail, and others, primarily for shipments of FCveloCity®-HD7 and FCveloCity®-HDv8 fuel cell modules and related components for their respective bus and train programs. Heavy-Duty Motive revenues of \$11.9 million in the fourth quarter of 2020 include \$5.0 million of shipments to Weichai Ballard JV; \$2.4 million of MEA shipments to Synergy Ballard JVCo; and \$4.5 million to a variety of customers primarily in Europe.

Technology Solutions revenues of \$10.1 million decreased by (\$3.5) million, or (26%), due primarily to decreased amounts earned on the Audi and Weichai Ballard JV programs. Revenues of \$10.1 million in the fourth quarter of 2021 were from a variety of customer programs including revenue from the Weichai Ballard JV technology transfer program of \$4.2 million; the Audi program of \$2.6 million; the Siemens program of \$0.7 million; and \$2.6 million from a variety of other customer programs including HDF Energy. Revenues of \$13.6 million in the fourth quarter of 2020 were from a variety of customer programs including revenue from the Weichai Ballard JV technology transfer program of \$6.5 million; the Audi program of \$5.2 million; and \$1.9 million from a variety of other customer programs.

Material Handling revenues of \$1.3 million increased \$0.3 million, or 36%, primarily as a result of higher shipments to Plug Power.

Backup Power revenues of \$2.7 million increased \$0.6 million, or 30%, due primarily to an increase in sales of back-up power fuel cell stacks, products and service revenues in Europe.

Fuel Cell Products and Services gross margins were \$4.8 million, or 13% of revenues, for the fourth quarter of 2021, compared to \$5.6 million, or 20% of revenues, for the fourth quarter of 2020. The decrease in gross margin of (\$0.9) million, or (15%), was driven primarily by a shift to lower overall product margin and service revenue mix, and an increase in labour, supply, and freight expenses, resulting in an (7) percentage point decrease in gross margin as a percent of revenues, which more than offset the positive impact of the 28% increase in total revenues.

Gross margin in the fourth quarter of 2021 was also negatively impacted by net inventory adjustments of (\$0.2) million related primarily to excess and impaired inventory; and positively impacted by net warranty adjustments of \$0.2 million related primarily to contractual expirations. Gross margin in the fourth quarter of 2020 was positively impacted by net warranty adjustments of \$1.2 million related primarily to contractual expirations and reduced service costs; and was negatively impacted as a result of net inventory adjustments of (\$0.4) million related primarily to excess and impaired inventory.

## Operating Expenses and Cash Operating Costs

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,			
	<b>2021</b>	2020	\$ Change	% Change	
Research and Product Development	\$ 19,870	\$ 11,759	\$ 8,111		69%
General and Administrative	7,420	4,972	2,448		49%
Sales and Marketing	3,417	2,742	675		25%
<b>Operating Expenses</b>	<b>\$ 30,707</b>	<b>\$ 19,473</b>	<b>\$ 11,234</b>		<b>58%</b>
Research and Product Development (cash operating cost)	\$ 17,153	\$ 9,571	\$ 7,582		79%
General and Administrative (cash operating cost)	6,408	4,454	1,954		44%
Sales and Marketing (cash operating cost)	3,043	2,365	678		29%
<b>Cash Operating Costs</b>	<b>\$ 26,604</b>	<b>\$ 16,390</b>	<b>\$ 10,214</b>		<b>62%</b>

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

Total Operating Expenses (excluding Other operating expenses) for the fourth quarter of 2021 was \$30.7 million, an increase of \$11.2 million, or 58%, compared to the fourth quarter of 2020. The increase was driven by higher research and product development expenses of \$8.1 million, higher general and administrative expenses of \$2.4 million, and higher sales and marketing expenses of \$0.7 million.

Cash Operating Costs (see Supplemental Non-GAAP Measures and Reconciliations) for the fourth quarter of 2021 was \$26.6 million, an increase of \$10.2 million, or 62%, compared to the fourth quarter of 2020. The \$10.2 million, or 62%, increase was driven by higher research and product development cash operating costs of \$7.6 million, by higher general and administrative cash operating costs of \$2.0 million, and by higher sales and marketing cash operating costs of \$0.7 million.

The increase in operating expenses and cash operating costs in the fourth quarter of 2021 was driven primarily by increased expenditure on technology and product development activities in Canada, Denmark and the U.K., including the design and development of next generation fuel cell stacks and modules for bus, truck, rail and marine applications, and increased continuation engineering investment in our existing fuel cell products, including activities related to product cost reduction. Increased program investment includes expenditures related to the launch of our FCmove™-HD+, a fuel cell module designed for buses and medium and heavy-duty trucks, the launch of our FCgen®-HPS High-Power Density Fuel Cell Stack for light-medium-and heavy-duty vehicles, the launch of our FCwave™ Fuel Cell Module for marine applications, and on the ongoing improvement of all of our fuel cell products including our high performance fuel cell module, the FCmove™-HD, and our high performance liquid-cooled fuel cell stack, the FCgen®-LCS.

These cost increases were also due to higher overall labour costs in Canada in the fourth quarter 2021 as a result of an approximate 3% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base. In addition, general and administrative costs are higher due to incurred COVID-19 administration costs,

and higher legal and contract administration, consulting, insurance, recruiting, corporate development, and professional fees, whereas sales and administrative costs are higher due to an increase in sales activity, consulting, and marketing labour costs in Canada and Europe primarily as a result of personnel increases.

### **Adjusted EBITDA**

	Three months ended December 31,			
	2021	2020	\$ Change	% Change
<b>Adjusted EBITDA</b>	\$ (25,482)	\$ (14,470)	\$ (11,012)	(76%)

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

Adjusted EBITDA (see Supplemental Non-GAAP Measures and Reconciliations) for the fourth quarter of 2021 was (\$25.5) million, compared to (\$14.5) million for the fourth quarter of 2020. The (\$11.0) million increase in Adjusted EBITDA loss was driven primarily by the decrease in gross margin of (\$0.9) and the increase in Cash Operating Costs of (\$10.2) million.

### **Net Loss from Continuing Operations**

	Three months ended December 31,			
	2021	2020	\$ Change	% Change
<b>Net loss from continuing operations</b>	\$ (43,836)	\$ (14,408)	\$ (29,428)	(204%)

Net loss from continuing operations for the fourth quarter of 2021 was (\$43.8) million, or (\$0.15) per share, compared to a net loss from continuing operations of (\$14.4) million, or (\$0.05) per share, in the fourth quarter of 2020. The (\$29.4) million increase in net loss in the fourth quarter of 2021 was driven primarily by the increase in Adjusted EBITDA loss of (\$11.0) million, by higher depreciation and amortization expense of (\$1.5) million, and by lower finance and other income of (\$15.4) million which includes mark to market and foreign exchange losses of (\$10.5) million on our long-term investment in Forsee Power.

In addition, operating margins, and costs in the fourth quarter of 2021 were also impacted by the negative impact of a stronger Canadian dollar, relative to the U.S. dollar, as compared to the fourth quarter of 2020. As a significant amount of our net operating costs (primarily labour) are denominated in Canadian dollars, gross margin, operating expenses, Adjusted EBITDA, and net loss from continuing operations are impacted by changes in the Canadian dollar relative to the U.S. dollar. As the Canadian dollar relative to the U.S. dollar was approximately 3%, or 300 basis points, higher in the fourth quarter of 2021 as compared to the fourth quarter of 2020, negative foreign exchange impacts on our Canadian operating margins and cost base were approximately (\$0.75) million. A \$0.01 increase in the Canadian dollar, relative to the U.S. dollar, negatively impacts annual operating margins and costs by approximately \$1.0 million.

## Net Loss from Discontinued Operations

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,			
	<b>2021</b>	2020	\$ Change	% Change	
Revenues	\$ -	\$ (19)	\$ 19	100%	
Cost of goods sold	-	-	-	-	
Gross margin	-	(19)	19	100%	
Operating expenses	4	(427)	431	101%	
Gain on sale of assets	-	168	(168)	(100%)	
<b>Net loss from discontinued operations</b>	<b>\$ 4</b>	<b>\$ (278)</b>	<b>\$ 282</b>	<b>101%</b>	

Net loss from discontinued operations for the fourth quarter of 2020 was (\$0.3) million, or (\$0.00) per share, and consist of the results of our former UAV business located in Southborough, Massachusetts that was sold in the fourth quarter of 2020.

## 5.3 Summary of Key Financial Metrics – Year Ended December 31, 2021

### Revenue and gross margin

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,			
	<b>2021</b>	2020	\$ Change	% Change	
<b>Heavy-Duty Motive</b>	<b>\$ 51,663</b>	<b>\$ 47,688</b>	<b>\$ 3,975</b>	<b>8%</b>	
China	20,163	31,409	(11,246)	(36%)	
Europe	20,702	13,455	7,247	54%	
North America	10,177	2,532	7,645	302%	
Other	621	292	329	113%	
<b>Material Handling</b>	<b>8,140</b>	<b>5,310</b>	<b>2,830</b>	<b>53%</b>	
North America	8,119	5,310	2,809	53%	
Europe	21	-	21	100%	
<b>Backup Power</b>	<b>8,214</b>	<b>5,602</b>	<b>2,612</b>	<b>47%</b>	
Europe	7,306	4,706	2,600	55%	
North America	-	33	(33)	(100%)	
Other	908	863	45	5%	
<b>Technology Solutions</b>	<b>36,488</b>	<b>45,277</b>	<b>(8,789)</b>	<b>(19%)</b>	
China	18,655	22,858	(4,203)	(18%)	
Europe	14,559	18,323	(3,764)	(21%)	
North America	2,303	1,394	909	65%	
Other	971	2,702	(1,731)	(64%)	
<b>Revenues</b>	<b>104,505</b>	103,877	628	1%	
Cost of goods sold	<b>90,492</b>	82,893	7,599	9%	
<b>Gross Margin</b>	<b>\$ 14,013</b>	<b>\$ 20,984</b>	<b>\$ (6,971)</b>	<b>(33%)</b>	
Gross Margin %	<b>13%</b>	20%	n/a	(7 pts)	

Fuel Cell Products and Services Revenues of \$104.5 million for 2021 increased 1%, or \$0.6 million, compared to 2020. The 1% increase was driven by higher Heavy-Duty Motive, Material Handling, and Backup Power revenues, which more than offset decreases in Technology Solutions revenues.

Heavy-Duty Motive revenues of \$51.7 million increased \$4.0 million, or 8%, due primarily to higher shipments of fuel cell products to customers primarily in North America and Europe which more than offset declines in China. Excluding sales to Weichai Ballard JV and Synergy Ballard JVCo in each of the respective periods, Heavy-Duty Motive revenues earned from other customers increased by \$15.4 million in 2021 compared to 2020. Heavy-Duty Motive

revenues on a quarter to quarter basis are also impacted by product mix due to varying customer requirements and various fuel cell products, including numerous power configurations required by our customers (and the resulting impact on selling price) of our fuel cell modules, fuel cell stacks, MEAs, and related component and parts kits. Heavy-Duty Motive revenues of \$51.7 million in 2021 include \$17.1 million to Weichai Ballard JV for the supply of a mix of certain fuel cell products and components that will be used in the assembly of modules to power zero-emission FCEVs in China; \$3.1 million for shipments of MEAs to Synergy Ballard JVCo for use in their manufacture and assembly of FCveloCity® fuel cell stacks in China; and \$31.5 million to a variety of customers in Europe and North America including Solaris, New Flyer, Wrightbus, CP Rail, VanHool, and others, primarily for shipments of FCveloCity®-HD7 and FCveloCity®-HDv8 fuel cell modules and related components for their respective bus and train programs. Heavy-Duty Motive revenues of \$47.7 million in 2020 include \$23.6 million of shipments to Weichai Ballard JV; \$8.0 million for shipments of MEAs to Synergy Ballard JVCo; and \$16.1 million to a variety of customers in Europe and North America including Wrightbus, Solaris, VanHool, Anglo American, New Flyer, and others.

Technology Solutions revenues of \$36.5 million decreased by (\$8.8) million, or (19%), due primarily to decreased amounts earned on the Audi and Weichai Ballard JV programs. Technology Solutions revenues in 2021, as compared to 2020, continued to be impacted by a reduction in program scope as certain planned activities were completed, and by the deferral of development work on certain of our programs as a result of ongoing work, travel and other restrictions related to the COVID-19 pandemic. Revenues of \$36.5 million in 2021 were from a variety of customer programs including revenue from the Weichai Ballard JV technology transfer program of \$18.2 million; the Audi program of \$9.8 million; the Siemens program of \$2.2 million; and \$6.3 million from a variety of other customer programs including HDF Energy. Revenues of \$45.3 million in 2020 were from a variety of customer programs including revenue from the Weichai Ballard JV technology transfer program of \$21.2 million; the Audi program of \$16.0 million; the Siemens project of \$0.9 million; the Broad-Ocean program of \$0.8 million; and \$6.4 million from a variety of other customer programs. Audi program revenues were also positively impacted by approximately \$0.6 million in 2021, as compared to 2020, as a result of an approximate 7% higher Canadian dollar, relative to the U.S. dollar, as the Audi Agreement is priced in Canadian dollars. The underlying costs to satisfy the Audi Agreement are primarily denominated in Canadian dollars.

Material Handling revenues of \$8.1 million increased \$2.8 million, or 53%, primarily as a result of higher shipments to Plug Power.

Backup Power revenues of \$8.2 million increased \$2.6 million, or 47%, due primarily to an increase in sales of back-up power fuel cell stacks, products and service revenues in Europe.

Fuel Cell Products and Services gross margins were \$14.0 million, or 13% of revenues, for 2021, compared to \$21.0 million, or 20% of revenues, for 2020. The decrease in gross margin of (\$7.0) million, or (33%), was driven primarily by a shift to lower overall product margin and service revenue mix, and by an increase in labour, supply, and freight expenses, resulting in an (7) percentage point decrease in gross margin as a percent of revenues, which more than offset the positive impact of the 1% increase in total revenues.

Gross margin in 2021 was also negatively impacted by net inventory adjustments of (\$1.1) million related primarily to excess and impaired inventory; and by net warranty adjustments

of (\$0.3) million related primarily to increased service costs. Gross margin in 2020 was negatively impacted by net inventory adjustments of (\$1.5) million related primarily to excess and impaired inventory; and positively impacted by net warranty adjustments of \$1.4 million related primarily to contractual expirations and reduced service costs.

### **Operating Expenses and Cash Operating Costs**

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
	<b>2021</b>	2020	\$ Change	% Change
Research and Product Development	<b>\$ 62,162</b>	\$ 35,519	\$ 26,643	75%
General and Administrative	<b>24,725</b>	16,234	8,491	52%
Sales and Marketing	<b>12,904</b>	8,616	4,288	50%
<b>Operating Expenses</b>	<b>\$ 99,791</b>	\$ 60,369	\$ 39,422	65%
Research and Product Development (cash operating cost)	<b>\$ 52,539</b>	\$ 28,981	\$ 23,558	81%
General and Administrative (cash operating cost)	<b>19,754</b>	13,566	6,188	46%
Sales and Marketing (cash operating cost)	<b>11,489</b>	7,482	4,007	54%
<b>Cash Operating Costs</b>	<b>\$ 83,782</b>	\$ 50,029	\$ 33,753	67%

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

Total Operating Expenses (excluding Other operating expenses) for 2021 was \$99.8 million, an increase of \$39.4 million, or 65%, compared to 2020. The increase was driven by higher research and product development expenses of \$26.6 million, higher general and administrative expenses of \$8.5 million, and higher sales and marketing expenses of \$4.3 million.

Cash Operating Costs (see Supplemental Non-GAAP Measures and Reconciliations) for 2021 was \$83.8 million, an increase of \$33.8 million, or 67%, compared to 2020. The \$33.8 million, or 67%, increase was driven by higher research and product development cash operating costs of \$23.6 million, by higher general and administrative cash operating costs of \$6.2 million, and by higher sales and marketing cash operating costs of \$4.0 million.

The increase in operating expenses and cash operating costs in 2021 was driven primarily by increased expenditure on technology and product development activities in Canada, Denmark and the U.K., including the design and development of next generation fuel cell stacks and modules for bus, truck, rail and marine applications, and increased continuation engineering investment in our existing fuel cell products, including activities related to product cost reduction. Increased program investment includes expenditures related to the launch of our FCmove™-HD+, a fuel cell module designed for buses and medium and heavy-duty trucks, the launch of our FCgen®-HPS High-Power Density Fuel Cell Stack for light-medium-and heavy-duty vehicles, the launch of our FCwave™ Fuel Cell Module for marine applications, and on the ongoing improvement of all of our fuel cell products including our high performance fuel cell module, the FCmove™-HD, and our high performance liquid-cooled fuel cell stack, the FCgen®-LCS.

These cost increases were also due to higher overall labour costs in Canada in 2021 as a result of an approximate 7% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base, partially offset by increased government funding recoveries primarily in Canada as a result of qualifying for certain COVID-19 government recoveries primarily in the first half of 2021. Government funding recoveries are reflected primarily as a cost offset against gross research and product development expenses. In addition, general and administrative costs are higher due to incurred COVID-19 administration costs, and higher legal and contract administration, consulting, insurance, recruiting, corporate development, and professional fees, whereas sales and administrative costs are higher due to an increase in sales activity, consulting, and marketing labour costs in Canada and Europe primarily as a result of personnel increases.

### Adjusted EBITDA

	Year ended December 31,			
	2021	2020	\$ Change	% Change
<b>Adjusted EBITDA</b>	\$ <b>(82,188)</b>	\$ (38,944)	\$ (43,244)	(111%)

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

Adjusted EBITDA (see Supplemental Non-GAAP Measures and Reconciliations) for 2021 was (\$82.2) million, compared to (\$38.9) million for 2020. The (\$43.2) million increase in Adjusted EBITDA loss was driven primarily by the decrease in gross margin of (\$7.0), by the increase in Cash Operating Costs of (\$33.8) million, and by higher equity in loss of investment in joint venture and associates of (\$3.6) million primarily attributed to the ongoing establishment of operations of Weichai Ballard JV.

### Net Loss from Continuing Operations

	Year ended December 31,			
	2021	2020	\$ Change	% Change
<b>Net loss from continuing operations</b>	\$ <b>(114,397)</b>	\$ (49,469)	\$ (64,928)	(131%)

Net loss from continuing operations for 2021 was (\$114.4) million, or (\$0.39) per share, compared to a net loss from continuing operations of (\$49.5) million, or (\$0.20) per share, in 2020. The (\$64.9) million increase in net loss in 2021 was driven primarily by the increase in Adjusted EBITDA loss of (\$43.2) million, higher stock-based compensation expense of (\$3.4) million, higher depreciation and amortization expense of (\$2.3) million, and by lower finance and other income of (\$13.1) million which includes mark to market and foreign exchange losses of (\$10.5) million on our long-term investment in Forsee Power.

In addition, operating margins, and costs in 2021 were impacted by the negative impact of a stronger Canadian dollar, relative to the U.S. dollar, as compared to 2020. As a significant amount of our net operating costs (primarily labour) are denominated in Canadian dollars, gross margin, operating expenses, Adjusted EBITDA, and net loss from continuing operations 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 7%, or 500 basis points, higher in 2021 as compared to 2020, negative foreign exchange impacts on our Canadian operating margins and cost base were approximately (\$5.0) million. A \$0.01 increase in the Canadian dollar,

relative to the U.S. dollar, negatively impacts annual operating margins and costs by approximately \$1.0 million.

### **Net Income (Loss) from Discontinued Operations**

		Year ended December 31,			
<i>(Expressed in thousands of U.S. dollars)</i>					
	<b>2021</b>	2020	\$ Change	% Change	
Revenues	\$ -	\$ 262	\$ (262)	(100%)	
Cost of goods sold	-	223	(223)	(100%)	
Gross margin	-	39	(39)	(100%)	
Operating recovery (expenses)	<b>164</b>	(2,115)	(2,279)	(108%)	
Gain on sale of assets	-	168	(168)	(100%)	
<b>Net income (loss) from discontinued operations</b>	<b>\$ 164</b>	\$ (1,908)	\$ 2,072	109%	

Net income (loss) from discontinued operations for 2021 was \$0.2 million, or \$0.00 per share, compared to (\$1.9) million, or (\$0.01) per share, in 2020, and consists of the results of our former UAV business located in Southborough, Massachusetts that was sold in the fourth quarter of 2020.

### **5.4 Operating Expenses and Other Items – Three Months and Year ended December 31, 2021**

#### **Research and product development expenses**

		Three months ended December 31,			
<i>(Expressed in thousands of U.S. dollars)</i>					
<b>Research and product development</b>	<b>2021</b>	2020	\$ Change	% Change	
Research and product development expense	<b>\$ 19,870</b>	\$ 11,759	\$ 8,111	69%	
Less: Depreciation and amortization expense	<b>\$ (1,458)</b>	\$ (765)	\$ (693)	(91%)	
Less: Stock-based compensation expense	<b>\$ (1,259)</b>	\$ (1,423)	\$ 164	12%	
Research and Product Development (cash operating cost)	<b>\$ 17,153</b>	\$ 9,571	\$ 7,582	79%	

		Year ended December 31,			
<i>(Expressed in thousands of U.S. dollars)</i>					
<b>Research and product development</b>	<b>2021</b>	2020	\$ Change	% Change	
Research and product development expense	<b>\$ 62,162</b>	\$ 35,519	\$ 26,643	75%	
Less: Depreciation and amortization expense	<b>\$ (4,101)</b>	\$ (3,211)	\$ (890)	(28%)	
Less: Stock-based compensation expense	<b>\$ (5,522)</b>	\$ (3,327)	\$ (2,195)	(66%)	
Research and Product Development (cash operating cost)	<b>\$ 52,539</b>	\$ 28,981	\$ 23,558	81%	

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

**Research and product development expenses for the three months ended December 31, 2021**, were \$19.9 million, an increase of \$8.1 million, or 69%, compared to the corresponding period of 2020. Excluding depreciation and amortization expense and stock-based compensation expense, research and product development cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$17.2 million in 2021, an increase of \$7.6 million, or 79%, compared to 2020.



**Research and product development expenses for the year ended December 31, 2021**, were \$62.2 million, an increase of \$26.6 million, or 75%, compared to the corresponding period of 2020. Excluding depreciation and amortization expense and stock-based compensation expense, research and product development cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$52.5 million in 2021, an increase of \$23.6 million, or 81%, compared to 2020.

The respective \$7.6 million, or 79%, and \$23.6 million, or 81%, increases in research and development cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the fourth quarter and fiscal year 2021, as compared to the fourth quarter and fiscal year 2020, was driven primarily by increased expenditure on technology and product development activities in Canada, Denmark and the U.K., including the design and development of next generation fuel cell stacks and modules for bus, truck, rail and marine applications, and increased continuation engineering investment in our existing fuel cell products, including activities related to product cost reduction. Increased program investment includes expenditures related to the launch of our FCmove™-HD+, a fuel cell module designed for buses and medium and heavy-duty trucks, the launch of our FCgen®-HPS High-Power Density Fuel Cell Stack for light-medium-and heavy-duty vehicles, the launch of our FCwave™ Fuel Cell Module for marine applications, and on the ongoing improvement of all of our fuel cell products including our high performance fuel cell module, the FCmove™-HD, and our high performance liquid-cooled fuel cell stack, the FCgen®-LCS.

These cost increases were also due to higher overall labour costs in Canada in 2021 as a result of an approximate 7% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base in 2021 compared to 2020. These cost increases were partially offset by increased government funding recoveries primarily in Canada as a result of qualifying for certain COVID-19 government recoveries primarily in the first half of 2021. Government funding recoveries are reflected primarily as a cost offset against gross research and product development expenses.

Depreciation and amortization expense included in research and product development expense for the three months and year ended December 31, 2021, was \$1.5 million and \$4.1 million, respectively, compared to \$0.8 million and \$3.2 million, respectively, for the corresponding periods of 2020. Depreciation and amortization expense relate primarily to amortization expense on our intangible assets and depreciation expense on our research and product development facilities and equipment. The increase in 2021 is primarily as a result of increased investment in core equipment and includes amortization on acquired Arcola intangible assets.

Stock-based compensation expense included in research and product development expense for the three months and year ended December 31, 2021, was \$1.3 million and \$5.5 million, respectively, compared to \$1.4 million and \$3.3 million, respectively, for the corresponding periods of 2020. The increase in 2021 is due primarily to new equity awards granted to a wider employee base to help retain key personnel including awards granted on the acquisition of Arcola.

## General and administrative expenses

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,		
<b>General and administrative</b>	<b>2021</b>	2020	\$ Change	% Change
General and administrative expense	\$ 7,420	\$ 4,972	\$ 2,448	49%
Less: Depreciation and amortization expense	\$ (577)	\$ (281)	\$ (296)	(105%)
Less: Stock-based compensation expense	\$ (698)	\$ (561)	\$ (137)	(24%)
Add: Impact of unrealized gains (losses) on foreign exchange contracts	\$ 263	\$ 324	\$ (61)	(19%)
General and Administrative (cash operating cost)	\$ 6,408	\$ 4,454	\$ 1,954	44%

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
<b>General and administrative</b>	<b>2021</b>	2020	\$ Change	% Change
General and administrative expense	\$ 24,725	\$ 16,234	\$ 8,491	52%
Less: Depreciation and amortization expense	\$ (1,672)	\$ (1,120)	\$ (552)	(49%)
Less: Stock-based compensation expense	\$ (2,780)	\$ (1,807)	\$ (973)	(54%)
Add: Impact of unrealized gains (losses) on foreign exchange contracts	\$ (519)	\$ 259	\$ (778)	(300%)
General and Administrative (cash operating cost)	\$ 19,754	\$ 13,566	\$ 6,188	46%

General and Administrative (cash operating cost) is a non-GAAP measure. We use certain Non-GAAP measures to assist in assessing our financial performance. Non-GAAP measures do not have any standardized meaning prescribed by GAAP and are therefore unlikely to be comparable to similar measures presented by other companies. General and Administrative (cash operating cost) adjusts General and administrative expense for depreciation and amortization expense, stock-based compensation expense and the impact of unrealized gains or losses on foreign exchange contracts. See the reconciliation of the adjustments to General and administrative expense in the table above.

**General and administrative expenses for the three months ended December 31, 2021**, were \$7.4 million, an increase of \$2.4 million, or 49%, compared to the corresponding period of 2020. Excluding depreciation and amortization expense, stock-based compensation expense, and the impact of unrealized gains (losses) on foreign exchange contracts, general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$6.4 million in the fourth quarter of 2021, an increase of \$2.0 million, or 44%, compared to the fourth quarter of 2020.

**General and administrative expenses for the year ended December 31, 2021**, were \$24.7 million, an increase of \$8.5 million, or 52%, compared to the corresponding period of 2020. Excluding depreciation and amortization expense, stock-based compensation expense, and the impact of unrealized gains (losses) on foreign exchange contracts, general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$19.8 million in 2021, an increase of \$6.2 million, or 46%, compared to 2020.

The respective \$2.0 million, or 44%, and \$6.2 million, or 46%, increases in general and administrative cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the fourth quarter and fiscal year 2021, as compared to the fourth quarter and fiscal year 2020, was due primarily to incurred COVID-19 administration costs, by higher legal and contract administration, consulting, insurance, recruiting, corporate development, and professional fees, and by higher overall labour costs in Canada in 2021 as a result of an approximate 7% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base in 2021 compared to 2020.

Depreciation and amortization expense included in general and administrative expense for the three months and year ended December 31, 2021, was \$0.6 million and \$1.7 million, respectively, compared to \$0.3 million and \$1.1 million, respectively, for the corresponding periods of 2020. Depreciation and amortization expense relate primarily to our office and information technology intangible assets including our ongoing investment in our ERP system.

Stock-based compensation expense included in general and administrative expense for the three months and year ended December 31, 2021, was \$0.7 million and \$2.8 million, respectively, compared to \$0.6 million and \$1.8 million, respectively, for the corresponding periods of 2020. The increase in 2021 is due primarily to new equity awards granted to a wider employee base to help retain key personnel.

The impact of unrealized gains (losses) on foreign exchange contracts included in general and administrative expense for the three months and year ended December 31, 2021, was (\$0.3) million and (\$0.5) million, respectively, in each of the periods, compared to \$0.3 million and \$0.3 million, respectively, for the corresponding periods of 2020. We use forward foreign exchange contracts to help manage our exposure to currency rate fluctuations. We record these contracts at their fair value as of the balance sheet date as either assets or liabilities with any changes in fair value in the period recorded in profit or loss (general and administrative expense) as these contracts are not designated or qualified under hedge accounting criteria.

### **Sales and marketing expenses**

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,			
<b>Sales and marketing</b>	<b>2021</b>	2020	\$ Change	% Change	
Sales and marketing expense	\$ 3,417	\$ 2,742	\$ 675	25%	
Less: Depreciation and amortization expense	\$ (12)	\$ (14)	\$ 2	14%	
Less: Stock-based compensation expense	\$ (362)	\$ (363)	\$ 1	-%	
<b>Sales and Marketing (cash operating cost)</b>	<b>\$ 3,043</b>	<b>\$ 2,365</b>	<b>\$ 678</b>	<b>29%</b>	

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,			
<b>Sales and marketing</b>	<b>2021</b>	2020	\$ Change	% Change	
Sales and marketing expense	\$ 12,904	\$ 8,616	\$ 4,288	50%	
Less: Depreciation and amortization expense	\$ (48)	\$ (40)	\$ (8)	(20%)	
Less: Stock-based compensation expense	\$ (1,367)	\$ (1,094)	\$ (273)	(25%)	
<b>Sales and Marketing (cash operating cost)</b>	<b>\$ 11,489</b>	<b>\$ 7,482</b>	<b>\$ 4,007</b>	<b>54%</b>	

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

**Sales and marketing expenses for the three months ended December 31, 2021**, were \$3.4 million, an increase of \$0.7 million, or 25%, compared to the corresponding period of 2020. Excluding stock-based compensation expense, sales and marketing cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) were \$3.0 million in the fourth quarter of 2021, an increase of \$0.7 million, or 29%, compared to the fourth quarter of 2020.

**Sales and marketing expenses for the year ended December 31, 2021**, were \$12.9 million, an increase of \$4.3 million, or 50%, compared to the corresponding period of 2020. Excluding stock-based compensation expense, sales and marketing cash operating costs (see

Supplemental Non-GAAP Measures and Reconciliations) were \$11.5 million in 2021, an increase of \$4.0 million, or 54%, compared to 2020.

The respective \$0.7 million, or 29%, and \$4.0 million, or 54%, increases in sales and marketing cash operating costs (see Supplemental Non-GAAP Measures and Reconciliations) in the fourth quarter and fiscal year 2021, as compared to the fourth quarter and fiscal year 2020, was driven primarily by an increase in sales activity, consulting, and marketing labour costs in Canada and Europe as a result of personnel increases to support increased sales activity, and by higher overall labour costs in Canada in 2021 as a result of an approximate 7% higher Canadian dollar, relative to the U.S. dollar, and the resulting negative impact on our Canadian operating cost base.

Stock-based compensation expense included in sales and marketing expense for the three months and year ended December 31, 2021, was \$0.4 million and \$1.4 million, respectively, compared to \$0.4 million and \$1.1 million, respectively, for the corresponding periods of 2020. The increase in 2021 is due primarily to new equity awards granted to a wider employee base to help retain key personnel.

**Other expense for the three months and year ended December 31, 2021**, was \$1.6 million and \$2.3 million, respectively, compared to \$0.1 million and \$0.4 million, respectively, for the corresponding periods of 2020. The following table provides a breakdown of other expense for the reported periods:

	Three months ended December 31,			
	2021	2020	\$ Change	% Change
Impairment loss (recovery) on trade receivables	\$ 11	\$ 60	\$ (49)	(82%)
Restructuring expense (recovery)	9	26	(17)	(65%)
Acquisition related charges	1,580	-	1,580	100%
<b>Other expenses (recovery)</b>	<b>\$ 1,600</b>	<b>\$ 86</b>	<b>\$ 1,514</b>	<b>1760%</b>

	Year ended December 31,			
	2021	2020	\$ Change	% Change
Impairment loss (recovery) on trade receivables	\$ 54	\$ 310	\$ (256)	(83%)
Restructuring expense	156	66	90	136%
Acquisition related charges	2,115	-	2,115	100%
<b>Other expenses (recovery)</b>	<b>\$ 2,325</b>	<b>\$ 376</b>	<b>\$ 1,949</b>	<b>518%</b>

Net impairment loss (recovery) on trade receivables for the year ended December 31, 2021, were nominal, compared to \$0.3 million for the corresponding period of 2020, and are due primarily to changes in the expected credit loss ("ECL") on our financial assets measured at amortized cost which consist primarily of trade receivables and contract assets. ECLs are a probability-weighted estimate of credit losses. 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.

Acquisition related charges for the three months and year ended December 31, 2021, was \$1.6 million and \$2.1 million, respectively, and consist primarily of legal, advisory, and transaction related costs incurred on ongoing corporate development activity including the

successful acquisition of Arcola, the long-term investment in Forsee Power, and the long-term investment in certain hydrogen infrastructure and growth equity funds.

**Finance income (loss) and other for the three months and year ended December 31, 2021**, was (\$11.4) million and (\$8.8) million, respectively, compared to \$4.1 million and \$4.3 million, respectively, for the corresponding periods of 2020. The following table provides a breakdown of finance and other income (loss) for the reported periods:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,		
	<b>2021</b>	2020	\$ Change	% Change
Employee future benefit plan expense	\$ (34)	\$ (5)	\$ (29)	(580%)
Investment and other income (loss)	<b>1,032</b>	339	693	204%
Mark to Market gain (loss) on financial assets	<b>(10,288)</b>	-	(10,288)	(100%)
Foreign exchange gain (loss)	<b>(931)</b>	5,303	(6,234)	(118%)
Government levies	<b>(1,145)</b>	(1,500)	355	24%
<b>Finance income (loss) and other</b>	<b>\$ (11,366)</b>	\$ 4,137	\$ (15,503)	(375%)

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
	<b>2021</b>	2020	\$ Change	% Change
Employee future benefit plan expense	\$ (251)	\$ (274)	\$ 23	8%
Investment and other income (loss)	<b>3,743</b>	1,181	2,562	217%
Mark to Market gain (loss) on financial assets	<b>(9,024)</b>	-	(9,024)	(100%)
Foreign exchange gain (loss)	<b>(1,336)</b>	4,875	(6,211)	(150%)
Government levies	<b>(1,945)</b>	(1,500)	(445)	(30%)
<b>Finance income (loss) and other</b>	<b>\$ (8,813)</b>	\$ 4,282	\$ (13,095)	(306%)

Employee future benefit plan expense for the years ended December 31, 2021, and 2020, were (\$0.3) million in each of the periods, and primarily represent the excess of expected interest cost on plan obligations over the expected return on plan assets on a curtailed defined benefit pension plan for certain former United States employees.

Investment and other income for the three months and year ended December 31, 2021, was \$1.0 million and \$3.7 million, respectively, compared to \$0.3 million and \$1.2 million, respectively for the corresponding periods of 2020. Amounts were earned on our cash, cash equivalents and short-term investments and have changed relatively proportionately with the increase in our overall average monthly cash balances.

Mark to market gain (loss) on financial assets for the three months and year ended December 31, 2021, was (\$10.3) million and (\$9.0) million, respectively, and consist of changes in the fair value of certain short-term and long-term financial investments including Forsee Power and certain hydrogen infrastructure and growth equity funds. Mark to market gains and losses are also impacted by the conversion of our short-term and long-term financial assets, including Forsee Power and certain hydrogen infrastructure and growth equity funds, from their respective European Euro or Great British pound denominated investment to the U.S. dollar.

Foreign exchange gains (losses) for the three months and year ended December 31, 2021, were (\$0.9) million and (\$1.3) million, respectively, compared to \$5.3 million and \$4.9 million,

respectively, for the corresponding periods of 2020. Foreign exchange gains and losses are attributable primarily to the effect of the changes in the value of the Canadian dollar, relative to the U.S. dollar, on our Canadian dollar-denominated net monetary position. Foreign exchange gains and losses 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 are recorded in other comprehensive income (loss).

Government levies for the three months and year ended December 31, 2021, was (\$1.1) million and (\$1.9) million, respectively, compared to (\$1.5) million and (\$1.5) million, respectively, for the corresponding periods of 2020. Government levies relate primarily to withholding taxes deducted from proceeds earned on certain commercial contracts.

**Finance expense for the three months and year ended December 31, 2021**, was (\$0.3) million and (\$1.3) million, respectively, consistent with the corresponding periods of 2020. Finance expense represents the interest expense incurred on all of our right-of-use assets with a lease term of greater than 12-months, including our head office building, manufacturing facility, and related storage facilities in Burnaby, British Columbia, as well as similar right-of-use assets in all of our subsidiaries.

**Equity in income (loss) of investment in joint venture and associates for the three months and year ended December 31, 2021**, was (\$4.9) million and (\$16.1) million, respectively, compared to (\$4.3) million and (\$12.6) million, respectively, for the corresponding periods of 2020. Equity in loss of investment in joint venture and associates relates to the pickup of 49% of the net income (loss) of Weichai Ballard JV as a result of our 49% ownership position, and 10% of the net income (loss) of Synergy Ballard JVCo as a result of our 10% ownership position. Both investments in China are accounted for using the equity method of accounting.

The loss of investment in joint venture and associates in 2021 and 2020 is primarily as a result of research and product development expenses in the periods consisting primarily of amounts expended on the ongoing \$90 million technology transfer agreement with Ballard as Weichai Ballard JV continue to establish operations. Weichai Ballard JV will manufacture Ballard's next-generation LCS fuel cell stack and LCS-based power modules for bus, commercial truck, and forklift applications with exclusive rights in China.

## 5.5 Summary of Quarterly Results

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

	Quarter ended,			
	Dec 31, 2021	Sep 30, 2021	Jun 30, 2021	Mar 31, 2021
<i>(Expressed in thousands of U.S. dollars, except per share amounts and weighted average shares outstanding which are expressed in thousands)</i>				
Revenues	\$ 36,705	\$ 25,220	\$ 24,961	\$ 17,619
Net loss from continuing operations	\$ (43,836)	\$ (30,844)	\$ (21,913)	\$ (17,802)
Net loss from continuing operations per share, basic and diluted	\$ (0.15)	\$ (0.10)	\$ (0.07)	\$ (0.06)
Weighted average common shares outstanding	297,655	297,612	297,569	288,209
	Dec 31, 2020	Sep 30, 2020	Jun 30, 2020	Mar 31, 2020
Revenues	\$ 28,589	\$ 25,624	\$ 25,783	\$ 23,882
Net loss from continuing operations	\$ (14,408)	\$ (11,212)	\$ (10,745)	\$ (13,103)
Net loss from continuing operations per share, basic and diluted	\$ (0.05)	\$ (0.05)	\$ (0.05)	\$ (0.06)
Weighted average common shares outstanding	268,735	246,059	235,765	235,330

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

**Revenues:** Variations in fuel cell product and service revenues reflect the demand and timing of our customers' fuel cell vehicle, bus, and fuel cell product deployments as well as the demand and timing of their engineering services projects. Variations in fuel cell product and service revenues also reflect the timing of work performed and the achievements of milestones under long-term fixed price contracts. Revenues were positively impacted as of the fourth quarter of 2021 by the acquisition of Arcola on November 11, 2021.

- **Operating expenditures:** Operating expenses were negatively impacted as of the fourth quarter of 2021 by the acquisition and integration of Arcola. Operating expenses were negatively impacted in the third and fourth quarters of 2021 by acquisition related costs of (\$0.5) million and (\$1.6) million, respectively and include costs incurred for the Arcola acquisition. Operating expenses also include the impact of changes in the value of the Canadian dollar, versus the U.S. dollar, on our Canadian dollar denominated expenditures.
- **Net loss:** Net loss in the third and fourth quarters of 2021 was impacted by the above noted impact on Revenues and Operating expenditures. Net loss in the fourth quarter of 2021 was also negatively impacted by mark to market gains (losses) on financial assets of (\$10.3) million related primarily to Forsee Power and certain hydrogen infrastructure and growth equity funds.

## 6. CASH FLOWS, LIQUIDITY AND CAPITAL RESOURCES

### 6.1 Summary of Cash Flows

Cash and cash equivalents were \$1,123.9 million as of December 31, 2021, compared to \$763.4 million as of December 31, 2020. The \$360.5 million increase in cash and cash equivalents in 2021 was driven by net proceeds of \$527.3 million received from the sale of

common shares in the capital of the Company ("Common Shares") under the bought deal offering completed in February 2021 (the "2021 Offering"), and by share purchase option exercises of \$2.4 million. These 2021 cash inflows were partially offset by net cash operating losses (excluding non-cash items) of (\$68.9) million, net working capital outflows of (\$11.6) million, equity investments in Weichai Ballard JV of (\$12.4) million, purchases of property, plant and equipment and intangible assets of (\$14.7) million, initial cash acquisition investment in Arcola of (\$7.2) million, long-term financial investments of (\$51.8) million including Forsee Power and certain hydrogen infrastructure and growth equity funds, and by finance lease repayments of (\$2.8) million.

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

<i>(Expressed in thousands of U.S. dollars)</i>	Three months ended December 31,		
	2021	2020	\$ Change
Cash Operating Loss	\$ (23,539)	\$ (6,690)	\$ (16,849)
Change in Working Capital:			
Trade and other receivables	(3,019)	(10,466)	7,447
Inventory	(1,052)	7,738	(8,790)
Prepaid expenses	(1,336)	(1,099)	(237)
Accounts payable	(507)	6,645	(7,152)
Deferred revenue	(924)	(1,563)	639
Warranty provision	(299)	(1,227)	928
	<b>(7,137)</b>	28	(7,165)
<b>Cash Used by Operating Activities</b>	<b>\$ (30,676)</b>	<b>\$ (6,662)</b>	<b>\$ (24,014)</b>

For the three months ended December 31, 2021, cash used by operating activities was (\$30.7) million compared to (\$6.7) million for the three months ended December 31, 2020. The (\$24.0) million increase in cash used by operating activities in the fourth quarter of 2021, as compared to the fourth quarter of 2020, was driven by the relative increase in cash operating losses of (\$16.8) million, and by the relative increase in working capital requirements of (\$7.2) million.

The relative (\$16.8) million increase in cash operating losses in the fourth quarter of 2021 was driven primarily by the increase in Adjusted EBITDA loss of (\$11.0) million. This net (loss) increase in the fourth quarter of 2021 was also impacted by several items included in cash operating losses but excluded from Adjusted EBITDA loss or vice-versa including: lower finance and other income (excluding mark to market fair value changes on investments) of (\$5.2) million, higher equity investment losses in joint venture and associates of \$0.5 million, and higher acquisition related costs of (\$1.6) million.

The total change in working capital of (\$7.1) million in the fourth quarter of 2021 was driven by higher accounts and contract receivables of (\$3.0) million primarily as a result of the timing of revenues and the related customer collections, by higher inventory of (\$1.1) million primarily to support expected Heavy-Duty Motive shipments in 2022 and to help mitigate ongoing COVID-19 supply chain disruptions, and by higher prepaid expenses of (\$1.3) million.



	Year ended December 31,		
	2021	2020	\$ Change
Cash Operating Loss	\$ (68,876)	\$ (25,810)	\$ (43,066)
Change in Working Capital:			
Trade and other receivables	9,640	(2,093)	11,733
Inventory	(22,996)	1,355	(24,351)
Prepaid expenses	(810)	(1,026)	216
Accounts payable	1,408	(4,238)	5,646
Deferred revenue	2,221	(10,268)	12,489
Warranty provision	(1,063)	(854)	(209)
	<b>(11,600)</b>	(17,124)	5,524
<b>Cash Used by Operating Activities</b>	<b>\$ (80,476)</b>	<b>\$ (42,934)</b>	<b>\$ (37,542)</b>

For the year ended December 31, 2021, cash used by operating activities was (\$80.5) million compared to (\$42.9) million for the year ended December 31, 2020. The (\$37.5) million increase by cash used in operating activities in 2021, as compared to 2020, was driven by relative increase in cash operating losses of (\$43.1) million, partially offset by the relative decrease in working capital contributions of \$5.5 million.

The relative (\$43.1) million increase in cash operating losses in 2021 was primarily driven by the increase in Adjusted EBITDA loss of (\$43.2) million. This net (loss) increase in 2021 was also impacted by several items included in cash operating losses but excluded from Adjusted EBITDA loss or vice-versa including: lower finance and other income (excluding mark to market fair value changes on investments) of (\$4.1) million, higher equity investment losses in joint venture and associates of \$3.6 million, and higher acquisition related costs of (\$2.1) million.

The total change in working capital of (\$11.6) million in 2021 was driven by higher inventory of (\$23.0) million primarily to support expected Heavy-Duty Motive shipments in 2022 and to help mitigate ongoing COVID-19 supply chain disruptions. These working capital outflows in 2021 were partially offset by lower accounts and contract receivables of \$9.6 million primarily as a result of the timing of revenues and the related customer collections, by higher deferred revenue of \$2.2 million as we received pre-payments on certain Heavy-Duty Motive and Technology Solutions contracts, and by higher accounts payable and accrued liabilities of \$1.4 million as a result of the timing of payments for inventory purchases and annual compensation awards.

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

Investing activities resulted in net cash outflows of (\$67.4) million and (\$85.6) million, respectively, for the three months and year ended December 31, 2021, compared to net cash outflows of (\$7.8) million and (\$36.4) million, respectively, for the corresponding periods of 2020.

Investing activities in the fourth quarter of 2021 of (\$67.4) million consist primarily of our long-term investment in Forsee Power of (\$43.8) million, long-term investment in certain hydrogen infrastructure and growth equity funds of (\$8.0) million, initial cash acquisition investment in Arcola of (\$7.2) million, investments in associated companies of (\$3.3) million paid as planned for the eleventh equity contribution in our 49% investment in Weichai Ballard

JV, and by capital expenditures of (\$5.6) million incurred primarily for production and test equipment and certain intangible assets, partially offset by proceeds received on the sale of short-term investments of \$0.3 million.

Investing activities in 2021 of (\$85.6) million consist primarily of our long-term investment in Forsee Power of (\$43.8) million, long-term investment in certain hydrogen infrastructure and growth equity funds of (\$8.0) million, initial cash acquisition investment in Arcola of (\$7.2) million, investments in associated companies of (\$12.4) million paid as planned for the eighth, ninth, tenth, and eleventh equity contributions in our 49% investment in Weichai Ballard JV, by capital expenditures of (\$14.7) million incurred primarily for production and test equipment and certain intangible assets, partially offset by proceeds received on the sale of short-term investments of \$0.3 million.

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

Financing activities resulted in net cash inflows (outflows) of (\$0.5) million and \$526.9 million, respectively, for the three months and year ended December 31, 2021, compared to net cash inflows of \$418.0 million and \$696.5 million, respectively, for the corresponding periods of 2020.

Financing activities in the fourth quarter of 2021 of (\$0.5) million consist of proceeds from the exercise of share purchase options of \$0.3 million, which were more than offset by finance lease payments of (\$0.8) million.

Financing activities in 2021 of \$526.9 consist of net proceeds from the sale of Common Shares of \$527.3 million from the 2021 Offering, proceeds from the exercise of share purchase options of \$2.4 million, partially offset by finance lease payments of (\$2.8) million.

#### **6.5 Liquidity and Capital Resources**

As of December 31, 2021, we had total liquidity of \$1,126.9 million. We measure liquidity as our net cash and short-term investment position, consisting of the sum of our cash, cash equivalents and short-term investments of \$1,126.9 million, as we have no debt.

We have a Letter of Guarantee Facility (the "LG Facility") enabling our bank to issue letters of guarantees, standby letters of credit, performance bonds, counter guarantees, counter standby letter of credit or similar credits on our behalf to from time to time up to a maximum of \$2.0 million. As of December 31, 2021, there was nil outstanding on the LG Facility. We also have a Foreign Exchange Facility (the "FX Facility") enabling us to enter into foreign exchange currency contracts to a maximum face value of \$23.7 million (approximately Canadian \$29 million) secured by a guarantee from Export Development Canada. As of December 31, 2021, we had outstanding foreign exchange currency contracts to purchase a total of Canadian \$26.5 million under the FX Facility.

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

that are sustainable. We believe that we have adequate liquidity in cash and working capital to achieve our liquidity objective.

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

We may also choose to pursue additional liquidity through the issuance of debt or equity in private or public market financings. To enable the timely issuance of equity securities in the public market, we renewed our Base Shelf Prospectus on file with the securities regulators in Canada in March 2021. The Base Shelf Prospectus, which is effective for 25-months ending in April 2023, was filed in each of the provinces and territories of Canada, and a corresponding shelf registration statement on Form F-10 was also filed with the United States Securities and Exchange Commission. These filings will enable offerings of securities up to an aggregate initial offering price of \$1.5 billion at any time during the 25-month period that the Base Shelf Prospectus remains effective.

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

## **7. OTHER FINANCIAL MATTERS**

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

Periodically, we use forward foreign exchange contracts to manage our exposure to currency rate fluctuations. We record these contracts at their fair value as either assets or liabilities on our balance sheet. Any changes in fair value are either (i) recorded in other comprehensive income if formally designated and qualified under hedge accounting criteria; or (ii) recorded in profit or loss (general and administrative expense) if either not designated, or not qualified, under hedge accounting criteria. As of December 31, 2021, we had outstanding foreign

exchange currency contracts to purchase a total of Canadian \$26.5 million at an average rate of 1.2632 Canadian per U.S. dollar, resulting in a nominal unrealized loss as of December 31, 2021. The outstanding foreign exchange currency contracts have not been designated under hedge accounting.

As of December 31, 2021, we did not have any other material obligations under guarantee contracts, retained or contingent interests in transferred assets, outstanding derivative instruments, or non-consolidated variable interests.

As of December 31, 2021, we had the following contractual obligations and commercial commitments (including capital contribution commitments to Weichai Ballard JV) calculated on a non-discounted basis with the exception of Finance leases:

<i>(Expressed in thousands of U.S. dollars)</i>		Payments due by period,			
<b>Contractual Obligations</b>	<b>Total</b>	Less than one year	1-3 years	4-5 years	After 5 years
Finance leases	\$ 20,356	\$ 4,296	\$ 8,431	\$ 4,763	\$ 2,866
Asset retirement obligations	2,025	-	2,025	-	-
Long-term investment (HyCap)	26,062	26,062	-	-	-
Long-term investment (Clean H2)	33,978	6,796	20,387	6,795	-
Capital contributions to Weichai Ballard JV	9,834	9,834	-	-	-
Total contractual obligations	\$ 92,255	\$ 46,988	\$ 30,843	\$ 11,558	\$ 2,866

Long-term investments include an investment committing us to be a limited partner in HyCap, a newly-created hydrogen infrastructure and growth equity fund. HyCap is to invest in a combination of hydrogen infrastructure projects and investments in companies along the hydrogen value chain. We have committed to investing £25.0 million (including £5.7 million invested as of December 31, 2021) into HyCap.

Long-term investments also include an investment committing us to be a limited partner in Clean H2, another newly-created hydrogen infrastructure and growth equity fund. Clean H2 is to invest in a combination of hydrogen infrastructure projects and investments in companies along the hydrogen value chain. We have committed to investing €30.0 million (including €0.3 million invested as of December 31, 2021) into Clean H2.

In addition, we have outstanding commitments of \$22.8 million as of December 31, 2021, related primarily to purchases of property, plant, and equipment. Capital expenditures and expenditures on other intangible assets pertain to our regular operations and are expected to be funded through cash on hand.

In connection with the acquisition of intellectual property from UTC in 2014, we have a royalty obligation in certain circumstances to pay UTC a portion of any future intellectual property sale and licensing income generated from certain of our intellectual property portfolio for a period of 15-years expiring in April 2029. No royalties were paid to UTC in the three months and year ended December 31, 2021, and for the years ended December 31, 2020, 2019 and 2018.

As of December 31, 2021, 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. As of December 31, 2021, we have not accrued any significant amount owing, or receivable, as a result of any indemnity agreements undertaken in the ordinary course of business.

## 7.2 Related Party Transactions

Related parties include our 49% owned equity accounted investee, Weichai Ballard JV, and our 10% owned equity accounted investee, Synergy Ballard JVCo. Transactions between us and our subsidiaries are eliminated on consolidation. For the three months and years ended December 31, 2021, and 2020, related party transactions and balances with Weichai Ballard JV and Synergy Ballard JVCo total as follows:

<i>(Expressed in thousands of U.S. dollars)</i>	Three Months Ended December 31,	
<b>Transactions with related parties</b>	<b>2021</b>	2020
Revenues	<b>\$ 16,380</b>	\$ 14,010
Cost of goods sold and operating expense	<b>\$ -</b>	\$ -

<i>(Expressed in thousands of U.S. dollars)</i>	Year Ended December 31,	
<b>Transactions with related parties</b>	<b>2021</b>	2020
Revenues	<b>\$ 38,680</b>	<b>\$ 53,087</b>
Cost of goods sold and operating expense	<b>\$ -</b>	<b>\$ -</b>

<i>(Expressed in thousands of U.S. dollars)</i>	As at Dec 31,	As at Dec 31,
<b>Balances with related parties</b>	<b>2021</b>	2020
Accounts receivable	<b>\$ 10,893</b>	\$ 17,564
Investments	<b>\$ 28,982</b>	\$ 27,561
Deferred revenue	<b>\$ (2,746)</b>	\$ (5,016)

We also provide key management personnel, being board directors and executive officers, certain benefits, in addition to their salaries. Key management personnel also participate in the Company's share-based compensation plans. Key management personnel compensation is summarized in note 28 to our annual consolidated financial statements for the year ended December 31, 2021.

## 7.3 Outstanding Share and Equity Information

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<b>As of March 11, 2022</b>	
Common share outstanding	297,809,654
Options outstanding	3,968,826
DSUs outstanding	629,360
RSUs / PSUs outstanding (subject to vesting and performance criteria)	966,220

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## 8. USE OF PROCEEDS

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

During 2021 and 2020, we completed the following offerings of our common shares:

- On February 23, 2021, we closed a bought deal offering of 14.87 million Common Shares at a price of \$37.00 per Common Share for gross proceeds of \$550.2 million and net proceeds of \$527.3 million (the "2021 Offering").
- On November 27, 2020, we closed a bought deal offering of 20.9 million Common Shares at a price of \$19.25 per Common Share for gross proceeds of \$402.5 million and net proceeds of \$385.8 million (the "2020 Offering").
- On September 1, 2020, we announced an at-the-market equity program to issue a total of 16.45 million Common Shares from treasury (the "\$250 million ATM Program"). The 16.45 million Common Shares issued under the \$250 million ATM Program were sold in the third and fourth quarters of 2020 at prevailing market prices at the time of sale for total gross proceeds of \$250 million and total net proceeds of \$244.1 million.
- On March 10, 2020, we announced an at-the-market equity program to allow the issuance of up to \$75 million of Common Shares from treasury (the "\$75 million ATM Program" and together with the \$250 million ATM Program, the "2020 ATM Programs"). The 8.2 million Common Shares issued under the \$75 million ATM Program were sold in the first half of 2020 at prevailing market prices at the time of sale for total gross proceeds of \$66.7 million and total net proceeds of \$64.7 million.

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

The following tables sets out a comparison of the Company's disclosed expected use of net proceeds from the 2020 Offering and the 2020 ATM Programs to the actual use of such net proceeds to December 31, 2021. As of December 31, 2021, the net proceeds of \$527.3 million from the 2021 Offering and residual unused amounts from the 2020 Offering and the 2020 ATM Programs were held in interest bearing cash accounts.

<b>2020 Offering Net Proceeds \$385.8M</b>			
<b>Intended Use of Net Proceeds:</b> Further strengthen the Company's balance sheet, thereby providing additional flexibility to fund growth strategies, including through activities such as product innovation, investments in production capacity expansion and localization, future acquisitions and strategic partnerships and investments.			
<b>Actual Use of Net Proceeds</b> (expressed in thousands of U.S. dollars)		<b>Variance – (Over)/Under Expenditures</b>	<b>Explanation of Variance</b>
Research and Product Development (cash Operating cost) expenditures including product development of next generation fuel cell stacks and modules	<b>\$17,153</b>	N/A	N/A
Investments in property, plant and equipment and other intangible assets including production capacity expansion and localization	<b>\$14,701</b>	N/A	N/A
Arcola acquisition (initial cash costs) including related acquisition and related expenses	<b>\$9,272</b>	N/A	N/A
Strategic partnerships and investments including Forsee Power, H2Cap, Clean H2, and Weichai Ballard JVCo	<b>\$64,108</b>	N/A	N/A

<b>2020 ATM Programs Net Proceeds \$308.8M</b>			
<b>Intended Use of Net Proceeds:</b> General Corporate Purposes			
<b>Actual Use of Net Proceeds</b> (expressed in thousands of U.S. dollars)		<b>Variance – (Over)/Under Expenditures</b>	<b>Explanation of Variance</b>
General and Administration (cash Operating cost) expenditures	<b>\$6,408</b>	N/A	N/A
Sales and Marketing (cash Operating cost) expenditures	<b>\$3,043</b>	N/A	N/A
Working capital requirements	<b>\$7,137</b>	N/A	N/A

## **9. ARCOLA ACQUISITION**

### **9.1 Arcola Purchase Price Allocation**

On November 11, 2021, we acquired Arcola, a UK-based systems engineering company (subsequently renamed Ballard Motive Systems) specializing in hydrogen fuel cell powertrain and vehicle systems integration. We acquired 100% of Arcola for total consideration of up to \$40 million, consisting of 337,353 Common Shares with an acquisition date fair value of approximately \$6 million (nil shares issued as of December 31, 2021) that vest over a two-year period from the acquisition date, and up to \$34 million in upfront and earn-out cash consideration (net \$7.2 million paid as of December 31, 2021) based on the achievement of certain performance milestones over an up to three-year period from the acquisition date.

We've completed detailed valuation studies and prepared the preliminary purchase price allocation for Arcola using the acquisition method of accounting in accordance with *IFRS 3 Business Combinations*, with Ballard considered as the accounting acquirer and Arcola as the accounting acquiree. As the accounting acquirer, consideration paid to acquire Arcola has been allocated to the assets acquired, and the liabilities assumed, based on their fair values as of the acquisition date of November 11, 2021.

As consideration for the transaction: (i) we made initial cash payments and assumed and paid certain of Arcola's debt obligations and transaction costs on closing of \$7.5 million; (ii) will

issue 337,353 Common Shares in three future tranches at a fair value of \$18.30 per share discounted for the timing delay in receiving the shares using an Asian put option pricing model, or approximately \$4.9 million; (iii) will make future cash payments of up to \$27.0 million based on the successful attainment of numerous milestone objectives over a three-year period discounted for the estimated probability of successful occurrence and for the timing delay in receiving the cash payments using a credit adjusted risk-free rate observed for bonds of a similar duration, or approximately \$26.3 million; and (iv) an actual working capital adjustment of \$0.6 million, for total purchase consideration of \$39.2 million. In accordance with *IFRS 3*, the fair value of the 337,353 Common Shares has been measured for accounting purposes using the \$18.30 5-day weighted average price of the Common Shares immediately preceding the acquisition date.

<i>(Expressed in thousands of U.S. dollars)</i>	
<b>Fair Value of Consideration</b>	<b>Nov-11-2021</b>
Cash and debt repaid on closing	\$ 7,477
Deferred share consideration	4,851
Contingent cash consideration	26,258
Working capital adjustment	611
<b>Fair Value (preliminary) of Consideration</b>	<b>\$ 39,197</b>

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, Ballard's operating and accounting policies and other pertinent conditions as of the acquisition date. The fair value review of Arcola's 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 subject to due diligence procedures 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 the preliminary fair value of each asset and liability as of the acquisition date of November 11, 2021.

<i>(Expressed in thousands of U.S. dollars)</i>	
<b>Fair Value of Arcola Assets acquired and Liabilities assumed</b>	<b>Nov-11-2021</b>
Cash and cash equivalents	\$ 320
Trade and other receivables	3,112
Property, plant and equipment	190
Intangible assets	17,279
Goodwill	23,991
Accounts payable and accrued liabilities	(1,817)
Deferred income tax liability	(3,878)
<b>Fair Value (preliminary) of Arcola Assets acquired and Liabilities assumed</b>	<b>\$ 39,197</b>

The preliminary fair value of each of the acquired identifiable assets and liabilities assumed was determined as follows:



- The fair value of certain of the acquired working capital balances including trade and other receivables, and accounts payable and accrued liabilities, have been assessed at their respective carrying amounts on November 11, 2021, which is considered to approximately equate to fair value as a result of the short-term to maturity of each of these accounts.
- Acquired property, plant and equipment consist primarily of specialized manufacturing and research and development equipment, as well as miscellaneous other items, all physically located in Arcola’s operating facilities in the U.K. As there is no market-based evidence of fair value for these specialized assets that are rarely sold other than as part of a continuing business, fair value was estimated using a depreciated replacement cost approach in accordance with *IAS 16*. A depreciated replacement cost approach considers how much it would cost to reproduce an asset after adjusting for depreciation and optimization. The adjustment for depreciation takes into account the age of the asset in relation to its useful life and its residual value. The fair value of property, plant and equipment is considered to approximately equate to its carrying amount.
- Acquired identified intangible assets consist of technology (patents, know-how and in-process research and development), customer contracts and relationships, and non-compete arrangements. We have concluded that each of the identified intangible assets meet the definition of an identified intangible asset (or non-monetary asset without physical substance) under *IAS 38 Intangible Assets* as the acquired IP meets the definition of an asset and is identifiable. The fair value of all identified intangible assets includes a fair value adjustment of \$17.3 million from their original carrying amounts.

<i>(Expressed in thousands of U.S. dollars)</i> <b>Fair Value of Arcola Identified Intangible Assets</b>	<b>Amount</b>	<b>Estimated Useful Life</b>
Technology (patents, know-how and in-process research & development)	\$ 15,976	12-years
Customer contracts and relationships	1,048	7-years
Non-compete agreements	255	3-years
<b>Fair Value (preliminary) of Identified Intangible Assets</b>	<b>\$ 17,279</b>	

The preliminary fair value of acquired identified intangible assets were calculated with the assistance of an independent valuator and were determined through a variety of valuation techniques.

- The fair value of the acquired technology including patents, know-how and in-process research & development totaling \$16.0 million has been calculated using the Multi-Period Excess Earnings Method (“MPEEM”) approach which is a variant of the Income Approach. The basic principle of the MPEEM Approach is that a single asset, in isolation, is not capable of generating cash flow for an enterprise. Several assets are brought together and exploited to generate cash flow. Therefore, to determine cash flow from the exploitation of existing technology, one must deduct the related expenses incurred for the exploitation of other assets used for the generation of overall cash flow and revenues. The fair value of existing technology was estimated by discounting the net cash flow derived from the expected revenues attributable to the acquired technology.
- The fair value of the acquired customer contracts and relationships totaling \$1.0 million has also been calculated using the MPEEM approach. The fair value of existing customer contracts/relationships was estimated by discounting the net

cash flow derived from the expected revenues attributable to the acquired customer contracts/relationships.

- The fair value of the acquired non-compete covenants of \$0.3 million were calculated using the Income Approach whereby the fair value of the non-compete covenants was estimated by calculating the expected decrease or loss in forecasted cash flows if the employees compete with the target's business sans the non-compete covenants.
- The fair value of the deferred income tax liability of (\$3.9) million represents the excess of the accounting basis of the acquired intangible assets of \$17.3 million, over their tax basis of \$1.8 million, at the current U.K tax rate of 25.0%.

The remaining unallocated \$24.0 million of the total purchase price consideration of \$39.2 million has been ascribed as Goodwill. The goodwill of \$24.0 million 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.

## **10. ACCOUNTING MATTERS**

### **10.1 Overview**

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

### **10.2 Critical Judgments in Applying Accounting Policies**

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

Our significant accounting policies are detailed in note 4 to our annual consolidated financial statements for the year ended December 31, 2021. Effective January 1, 2021, a number of new standards and interpretations became effective. However, these new standards and interpretations did not have a material impact on our financial statements.

### **10.3 Key Sources of Estimation Uncertainty**

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

#### **REVENUE RECOGNITION**

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

fundamental knowledge license revenues are derived primarily from standard licensing and technology transfer agreements. Engineering service and technology transfer service revenues are derived primarily from cost-plus reimbursable contracts and from long-term fixed price contracts.

Revenue is recognized when a customer obtains control of the goods or services. Determining the timing of the transfer of control, at a point in time or over time, requires judgment.

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

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

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

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

- The determination of expected costs for completing a contract is based on estimates that can be affected by a variety of factors such as variances in the timeline to completion, the cost of materials, the availability and cost of labour, as well as productivity.

- The determination of potential revenues includes the contractually agreed amount and may be adjusted based on the estimate of our attainment on achieving certain defined contractual milestones. Management's estimation is required in determining the amount of consideration for which the Company expects to be entitled and in determining when a performance obligation has been met.

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

During the three months and year ended December 31, 2021, and 2020, there were no significant adjustments to revenues relating to revenue recognized in a prior period.

#### ASSET IMPAIRMENT

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

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

As of December 31, 2021, our consolidated goodwill balance of \$64.3 million relates solely to our Fuel Cell Products and Services segment. We perform the annual review of goodwill as at

December 31 of each year, more often if events or changes in circumstances indicate that it might be impaired. Under IFRS, the annual review of goodwill requires a comparison of the carrying value of the asset to the higher of (i) value in use; and (ii) fair value less costs to sell. Value in use is defined as the present value of future cash flows expected to be derived from the asset in its current state. Our fair value less costs to sell test is in effect a modified market capitalization assessment, whereby we calculate the fair value of the Fuel Cell Products and Services segment by first calculating the value of the Company at December 31, 2021 based on the average closing share price in the month of December, add a reasonable estimated control premium to determine the Company's enterprise value on a controlling basis after adjusting for excess cash balances, deducting the fair value of long-term financial investments, and then deducting the estimated costs to sell from this enterprise value to arrive at the fair value of the Fuel Cell Products and Services segment. As a result of this assessment, we have determined that the fair value of the Fuel Cell Products and Services segment exceeds its carrying value as of December 31, 2021, indicating that no goodwill impairment charge is required for 2021.

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, 2021, impairment charges of \$0.3 million were recognized on our non-financial assets (other than inventories) related primarily to impaired property, plant and equipment.

#### 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, 2021, we recorded provisions to accrued warranty liabilities of \$1.1 million and \$2.7 million, respectively, for new product sales, compared to \$0.7 million and \$3.1 million, respectively, for the three months and year ended December 31, 2020.

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, 2021, were adjusted downwards (upwards) by \$0.2 million and (\$0.3) million, respectively, compared to adjustments downwards of \$1.2 million and \$1.4 million, respectively, for the three months and year ended December 31, 2020.

#### 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, 2021, net negative inventory adjustments of (\$0.2) million and (\$1.1) million, respectively, were recorded as a recovery (charge) to cost of product and service revenues, compared to net negative inventory adjustments of (\$0.4) million and (\$1.5) million, respectively, in the three months and year ended December 31, 2020.

#### FINANCIAL ASSETS INCLUDING IMPAIRMENT OF TRADE RECEIVABLES

A financial asset is classified as measured at: amortized cost; fair value through other comprehensive income ("FVOCI"); or fair value through profit or loss ("FVTPL"). The classification of financial assets is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. Derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification. Our financial assets which consist primarily of cash, cash equivalents and short term investments, trade and other receivables, and contract assets, are classified at amortized cost.

An ECL model applies to financial assets measured at amortized cost and debt investments at FVOCI, but not to investments in equity instruments. The Company's financial assets measured at amortized cost and subject to the ECL model consist primarily of trade receivables and contract assets.

In applying the ECL model, loss allowances are measured on either of the following bases:

- 12-month ECLs: these are ECLs that result from possible default events within the 12 months after the reporting date; and
- Lifetime ECLs: these are ECLs that result from all possible default events over the expected life of a financial instrument.

We have elected to measure loss allowances for trade receivables and contract assets at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, we consider reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on our historical experience and informed credit assessment and including forward-looking information.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that we expect to receive). ECLs are discounted at the effective interest rate of the financial asset. At each reporting date, we

assess whether financial assets carried at amortized cost are credit impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. Impairment (losses) recoveries related to trade receivables and contract assets are presented separately in the statement of profit or loss. During the three months and year ended December 31, 2021, nominal net impairment (charges) on trade receivables and contract assets were recorded in other operating expenses, compared to net impairment (charges) of (\$0.1) million and (\$0.3) million, respectively, during the three months and year ended December 31, 2020. Net impairment charges in 2020 include ECLs of (\$0.3) million.

#### 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.

#### **10.4 Recently Adopted Accounting Policy Changes**

Effective January 1, 2021, a number of new standards and interpretations became effective. However, these new standards and interpretations did not have a material impact on our financial statements.

#### **10.5 Future Accounting Policy Changes**

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

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

On January 23, 2020, the IASB issued amendments to *IAS 1 Presentation of Financial Statements*, to clarify the classification of liabilities as current or non-current.

For the purposes of non-current classification, the amendments removed the requirement for a right to defer settlement or roll over of a liability for at least twelve months to be unconditional. Instead, such a right must have substance and exist at the end of the reporting period. The amendments also clarify how a company classifies a liability that includes a counterparty conversion option. The amendments state that:

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

The amendments are effective for annual periods beginning on or after January 1, 2023. Early adoption is permitted. The amendments are subject to further developments. Certain application issues resulting from the amendments have been raised with the IFRS

Interpretations Committee, which referred them to the IASB. In November 2021, the IASB published the exposure draft *Non-current Liabilities with Covenants* (proposed amendments to IAS 1). The exposure draft aims to improve the information an entity provides when its right to defer settlement of a liability for at least twelve months is subject to compliance with conditions, in addition to addressing concerns about the classification of such a liability as current or non-current. The IASB proposed to defer the effective date of the 2020 amendments to no earlier than January 1, 2024. The extent of the impact of adoption of the amendments to *IAS 1* has not yet been determined.

#### Definition of Accounting Estimates (Amendments to IAS 8)

On February 12, 2021, the IASB issued *Definition of Accounting Estimates (Amendments to IAS 8)*.

The amendments introduce a new definition for accounting estimates, clarifying that they are monetary amounts in the financial statements that are subject to measurement uncertainty. The amendments also clarify the relationship between accounting policies and accounting estimates by specifying that a company develops an accounting estimate to achieve the objective set out by an accounting policy.

The amendments are effective for annual periods beginning on or after January 1, 2023. Early adoption is permitted. The extent of the impact of adoption of the amendments to *IAS 8* has not yet been determined.

#### Disclosure Initiative – Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)

On February 12, 2021, the IASB issued *Disclosure Initiative – Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2 Making Materiality Judgements)*.

The amendments help companies provide useful accounting policy disclosures. The key amendments include:

- requiring companies to disclose their material accounting policies rather than their significant accounting policies;
- clarifying that accounting policies related to immaterial transactions, other events or conditions are themselves immaterial and as such need not be disclosed; and
- clarifying that not all accounting policies that relate to material transactions, other events or conditions are themselves material to a company's financial statements.

The amendments are effective for annual periods beginning on or after January 1, 2023. Early adoption is permitted. The extent of the impact of adoption of the amendments to *IAS 1 and IFRS Practice Statement 2* has not yet been determined.

#### Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)

On May 14, 2020, the IASB issued *Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)*.

*IAS 37* does not specify which costs are included as a cost of fulfilling a contract when determining whether a contract is onerous. The IASB's amendments address this issue by clarifying that the 'costs of fulfilling a contract' comprise both:



- the incremental costs – e.g. direct labour and materials; and
- an allocation of other direct costs – e.g. an allocation of the depreciation charge for an item of PPE used in fulfilling the contract.

The amendments are effective for annual periods beginning on or after January 1, 2022, and apply to contracts existing at the date when the amendments are first applied. At the date of initial application of the amendments to *IAS 37*, the cumulative effect of applying the amendments is recognized as an opening balance adjustment to retained earnings or other component of equity, as appropriate. The comparatives are not restated.

Based on the analysis completed to date of the Corporation's 'open' contracts as of December 31, 2021, on adoption of the amendments to *IAS 37* on January 1, 2022, we expect to recognize approximately \$1.2 million of additional contract costs as an opening balance adjustment to retained earnings in our first quarter of 2022 financial statements.

## **11. SUPPLEMENTAL NON-GAAP MEASURES AND RECONCILIATIONS**

### **11.1 Overview**

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

### **11.2 Cash Operating Costs**

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

We also believe Cash Operating Costs is frequently used by securities analysts and investors when comparing our results with those of other companies. Cash Operating Costs differs from the most comparable GAAP measure, operating expenses, primarily because it does not include stock-based compensation expense, depreciation and amortization, impairment losses or recoveries on trade receivables, restructuring charges, acquisition related costs, the impact of unrealized gains and losses on foreign exchange contracts, and financing charges. The following tables show a reconciliation of operating expenses to Cash Operating Costs for the three months and year ended December 31, 2021, and 2020:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,		
<b>Cash Operating Costs</b>	<b>2021</b>	2020	<b>\$ Change</b>	
Total Operating Expenses	\$ 32,307	\$ 19,559	\$ 12,748	
Stock-based compensation expense	(2,319)	(2,347)	28	
Impairment recovery (losses) on trade receivables	(11)	(60)	49	
Acquisition related costs	(1,580)	-	(1,580)	
Restructuring (charges) recovery	(9)	(26)	17	
Impact of unrealized gains (losses) on foreign exchange contracts	263	324	(61)	
Depreciation and amortization	(2,047)	(1,060)	(987)	
<b>Cash Operating Costs</b>	<b>\$ 26,604</b>	<b>\$ 16,390</b>	<b>\$ 10,214</b>	

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
<b>Cash Operating Costs</b>	<b>2021</b>	2020	<b>\$ Change</b>	
Total Operating Expenses	\$ 102,116	\$ 60,745	\$ 41,371	
Stock-based compensation expense	(9,669)	(6,228)	(3,441)	
Impairment recovery (losses) on trade receivables	(54)	(310)	256	
Acquisition related costs	(2,115)	-	(2,115)	
Restructuring (charges) recovery	(156)	(66)	(90)	
Impact of unrealized gains (losses) on foreign exchange contracts	(519)	259	(778)	
Depreciation and amortization	(5,821)	(4,371)	(1,450)	
<b>Cash Operating Costs</b>	<b>\$ 83,782</b>	<b>\$ 50,029</b>	<b>\$ 33,753</b>	

The components of Cash Operating Costs of research and product development (cash operating cost), general and administrative (cash operating cost), and sales and marketing (cash operating cost) differ from their respective most comparable GAAP measure of research and product development expense, general and administrative expense, and sales and marketing expense, primarily because they do not include stock-based compensation expense, depreciation and amortization expense, and acquisition related costs. A reconciliation of these respective operating expenses to the respective components of Cash Operating Costs for the three months and year ended December 31, 2021, and 2020 is included in Section 5.4 Operating Expenses and Other Items.

A breakdown of total stock-based compensation expense for the three months and year ended December 31, 2021, and 2020 are as follows:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,		
<b>Stock-based compensation expense</b>	<b>2021</b>	2020	<b>\$ Change</b>	
Total stock-based compensation expense recorded as follows:				
Cost of goods sold	\$ -	\$ -	\$ -	
Research and product development expense	1,259	1,423	(164)	
General and administrative expense	698	561	137	
Sales and marketing expense (recovery)	362	363	(1)	
<b>Stock-based compensation expense</b>	<b>\$ 2,319</b>	<b>\$ 2,347</b>	<b>\$ (28)</b>	

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,	
<b>Stock-based compensation expense</b>	<b>2021</b>	2020	\$ Change
Total stock-based compensation expense			
recorded as follows:			
Cost of goods sold	\$ -	\$ -	\$ -
Research and product development expense	<b>5,522</b>	3,327	2,195
General and administrative expense	<b>2,780</b>	1,807	973
Sales and marketing expense (recovery)	<b>1,367</b>	1,094	273
<b>Stock-based compensation expense</b>	<b>\$ 9,669</b>	\$ 6,228	\$ 3,441

A breakdown of total depreciation and amortization expense for the three months and year ended December 31, 2021, and 2020 are as follows:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31,	
<b>Depreciation and amortization expense</b>	<b>2021</b>	2020	\$ Change
Total depreciation and amortization expense			
recorded as follows:			
Cost of goods sold	\$ <b>1,225</b>	\$ 708	\$ 517
Research and product development expense	<b>1,458</b>	765	693
General and administrative expense	<b>577</b>	281	296
Sales and marketing expense	<b>12</b>	14	(2)
<b>Depreciation and amortization expense</b>	<b>\$ 3,272</b>	\$ 1,768	\$ 1,504

<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,	
<b>Depreciation and amortization expense</b>	<b>2021</b>	2020	\$ Change
Total depreciation and amortization expense			
recorded as follows:			
Cost of goods sold	\$ <b>3,931</b>	\$ 3,034	\$ 897
Research and product development expense	<b>4,101</b>	3,211	890
General and administrative expense	<b>1,672</b>	1,120	552
Sales and marketing expense	<b>48</b>	40	8
<b>Depreciation and amortization expense</b>	<b>\$ 9,752</b>	\$ 7,405	\$ 2,347

### 11.3 EBITDA and Adjusted EBITDA

These supplemental non-GAAP measures are provided to assist readers in determining our operating performance. We believe this measure is useful in assessing performance and highlighting trends on an overall basis. We also believe EBITDA and Adjusted EBITDA are frequently used by securities analysts and investors when comparing our results with those of other companies. EBITDA differs from the most comparable GAAP measure, net loss from continuing operations, primarily because it does not include finance expense, income taxes, depreciation of property, plant and equipment, and amortization of intangible assets. Adjusted EBITDA adjusts EBITDA for stock-based compensation expense, transactional gains and losses, asset impairment charges, finance and other income, the impact of unrealized gains and losses on foreign exchange contracts, and acquisition related costs. The following tables show a reconciliation of net loss to EBITDA and Adjusted EBITDA for the three months and year ended December 31, 2021, and 2020:

<i>(Expressed in thousands of U.S. dollars)</i>		Three months ended December 31		
<b>EBITDA and Adjusted EBITDA</b>	<b>2021</b>	2020	\$ Change	
Net loss from continuing operations	\$ (43,836)	\$ (14,408)	\$ (29,428)	
Depreciation and amortization	3,272	1,768	1,504	
Finance expense	313	324	(11)	
Income taxes (recovery)	(233)	(39)	(194)	
<b>EBITDA</b>	<b>\$ (40,484)</b>	<b>\$ (12,355)</b>	<b>\$ (28,129)</b>	
Stock-based compensation expense	2,319	2,347	(28)	
Acquisition related costs	1,580	-	1,580	
Finance and other (income) loss	11,366	(4,138)	15,504	
Impairment loss on assets	-	-	-	
Impact of unrealized (gains) losses on foreign exchange contracts	(263)	(324)	61	
<b>Adjusted EBITDA</b>	<b>\$ (25,482)</b>	<b>\$ (14,470)</b>	<b>\$ (11,012)</b>	
<i>(Expressed in thousands of U.S. dollars)</i>		Year ended December 31,		
<b>EBITDA and Adjusted EBITDA</b>	<b>2021</b>	2020	\$ Change	
Net loss from continuing operations	\$ (114,397)	\$ (49,469)	\$ (64,928)	
Depreciation and amortization	9,752	7,405	2,347	
Finance expense	1,294	1,303	(9)	
Income taxes (recovery)	(216)	130	(346)	
<b>EBITDA</b>	<b>\$ (103,567)</b>	<b>\$ (40,631)</b>	<b>\$ (62,936)</b>	
Stock-based compensation expense	9,669	6,228	3,441	
Acquisition related costs	2,115	-	2,115	
Finance and other (income) loss	8,813	(4,282)	13,095	
Impairment loss on assets	263	-	263	
Impact of unrealized (gains) losses on foreign exchange contracts	519	(259)	778	
<b>Adjusted EBITDA</b>	<b>\$ (82,188)</b>	<b>\$ (38,944)</b>	<b>\$ (43,244)</b>	

### 11.4 Adjusted Net Loss

This supplemental non-GAAP measure is provided to assist readers in determining our financial performance. We believe this measure is useful in assessing our actual performance by adjusting our results from continuing operations for transactional gains and losses and impairment losses. Adjusted Net Loss differs from the most comparable GAAP measure, net loss from continuing operations, primarily because it does not include transactional gains and losses and asset impairment charges. There were no significant Adjusted Net Loss adjustments to net income for the three months and year ended December 31, 2021, and 2020.

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

**BALLARD POWER SYSTEMS INC.**

Years ended December 31, 2021 and 2020

## 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, 2021. 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, 2021. 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"

"PAUL DOBSON"

RANDALL MACEWEN  
President and  
Chief Executive Officer  
March 11, 2022

PAUL DOBSON  
Vice President and  
Chief Financial Officer  
March 11, 2022



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## **Report of Independent Registered Public Accounting Firm**

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

### *Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated statements of financial position of Ballard Power Systems Inc. and subsidiaries (the Corporation) as of December 31, 2021 and 2020, the related consolidated statements of loss and comprehensive income (loss), changes in equity, and cash flows for each of the years then ended, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Corporation as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of 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) (PCAOB), the Corporation's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 11, 2022 expressed an unqualified opinion on the effectiveness of the Corporation's internal control over financial reporting.

### *Basis for Opinion*

These consolidated financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Corporation in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

## *Critical Audit Matters*

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

### *Estimated costs to complete engineering and technology transfer services for long-term fixed-price contracts*

As discussed in Notes 4(j) and 5(a) to the consolidated financial statements, the Corporation recognizes engineering and technology transfer service revenues from long-term fixed-price contracts over time by multiplying the expected consideration from the contract by the ratio of the cost incurred to date to estimated costs to complete the contract. Engineering and technology transfer service revenues from long-term fixed-price contracts are inherently uncertain in that total revenue from these contracts is fixed while the amount recognized to a period end requires estimates of costs to complete these contracts which estimates are subject to significant variability. As discussed in Note 23 to the consolidated financial statements engineering and technology transfer service revenues from long-term fixed-price contracts totaled \$39,297 thousand for the year ended December 31, 2021.

We identified the evaluation of the estimate of costs to complete engineering and technology transfer services for long-term fixed-price contracts as a critical audit matter. A higher degree of auditor judgment was required to evaluate the significant assumptions used to estimate costs to complete the contracts, including the estimated labour hours and cost of materials to complete the contracts.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of an internal control related to the Corporation's determination of estimated costs to complete long-term fixed-price contracts, including the determination the significant assumptions. For a selection of long-term fixed-price contracts we compared the Corporation's historical estimated costs to complete contracts to actual labour hours and cost of materials incurred to assess the Corporation's ability to accurately forecast. We evaluated the estimated costs to completion for a selection of customer contracts, by (1) inspecting contractual documents with customers to understand the timing of services; (2) interviewing operational personnel of the Corporation to evaluate progress to date, the estimate of costs to complete contracts, and factors impacting the estimated labour hours and cost of material to complete the contracts; (3) evaluating contract progress by inspecting correspondence between the Corporation and the customer; (4) evaluating the cost to complete the contracts for consistency with the status of delivery and the underlying contractual terms; (5) comparing the Corporation's current estimate of costs to complete the contracts to those estimated in prior periods and investigating changes during the period; and (6) comparing labour hours and cost of materials incurred subsequent to the Corporation's year-end date to assess the consistency with the estimated costs for the period.

## **//s// KPMG LLP**

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

Chartered Professional Accountants

Vancouver, Canada

March 11, 2022





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## **Report of Independent Registered Public Accounting Firm**

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

### *Opinion on Internal Control Over Financial Reporting*

We have audited Ballard Power Systems Inc.'s and subsidiaries' (the Corporation) internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated statements of financial position of the Corporation as of December 31, 2021 and 2020, the related consolidated statements of loss and comprehensive income (loss), changes in equity, and cash flows for each of the years then ended, and the related notes (collectively, the consolidated financial statements), and our report dated March 11, 2022 expressed an unqualified opinion on those consolidated financial statements. The Corporation acquired Arcola Energy Limited during 2021, and management excluded from its assessment of the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2021, Arcola Energy Limited's internal control over financial reporting associated with total assets of \$44,591 thousand and total revenues of \$138 thousand included in the consolidated financial statements of the Corporation as of and for the year ended December 31, 2021. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Arcola Energy Limited.

### *Basis for Opinion*

The Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Responsibility for the Financial Statements and Report on Internal Control over Financial Reporting". Our responsibility is to express an opinion on the Corporation's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Corporation in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

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

### *Definition and Limitations of Internal Control Over Financial Reporting*

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

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

**//s// KPMG LLP**

Vancouver, Canada

March 11, 2022

**BALLARD POWER SYSTEMS INC.**  
Consolidated Statements of Financial Position  
(Expressed in thousands of U.S. dollars)

	Note	December 31, 2021	December 31, 2020
<b>Assets</b>			
Current assets:			
Cash and cash equivalents		\$ 1,123,895	\$ 763,430
Short-term investments		3,004	2,000
Trade and other receivables	9	46,395	56,795
Inventories	10	51,518	28,522
Prepaid expenses and other current assets		4,374	3,568
Total current assets		<u>1,229,186</u>	<u>854,315</u>
Non-current assets:			
Property, plant and equipment	11	56,061	49,334
Intangible assets	12	20,788	3,764
Goodwill	13	64,268	40,277
Investments	14	70,292	27,566
Other long-term assets		348	343
Total assets		<u>\$ 1,440,943</u>	<u>\$ 975,599</u>
<b>Liabilities and Equity</b>			
Current liabilities:			
Trade and other payables	16	\$ 39,555	\$ 29,877
Deferred revenue	17	12,109	9,888
Provisions and other current liabilities	18	28,257	9,635
Current lease liabilities	19	3,238	2,691
Total current liabilities		<u>83,159</u>	<u>52,091</u>
Non-current liabilities:			
Non-current lease liabilities	19	13,882	15,182
Deferred gain on finance lease liability	19	1,318	1,734
Provisions and other non-current liabilities	18	8,895	1,764
Employee future benefits	20	1,894	3,941
Deferred income tax liability	7 & 27	3,578	—
Total liabilities		<u>112,726</u>	<u>74,712</u>
Equity:			
Share capital	21	2,416,256	1,884,735
Contributed surplus	21	297,819	290,761
Accumulated deficit		(1,387,579)	(1,275,516)
Foreign currency reserve		1,721	907
Total equity		<u>1,328,217</u>	<u>900,887</u>
Total liabilities and equity		<u>\$ 1,440,943</u>	<u>\$ 975,599</u>

See accompanying notes to consolidated financial statements.

Approved on behalf of the Board:

“Doug Hayhurst”  
Director

“Jim Roche”  
Director

**BALLARD POWER SYSTEMS INC.**Consolidated Statements of Loss and Comprehensive Income (Loss)  
For the years ended December 31

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

	Note	2021	2020
<b>Revenues:</b>			
Product and service revenues	23	\$ 104,505	\$ 103,877
Cost of product and service revenues		90,492	82,893
Gross margin		14,013	20,984
<b>Operating expenses:</b>			
Research and product development		62,162	35,519
General and administrative		24,725	16,234
Sales and marketing		12,904	8,616
Other expense	25	2,325	376
Total operating expenses		102,116	60,745
Results from operating activities		(88,103)	(39,761)
Finance income (loss) and other	26	(8,813)	4,282
Finance expense	26	(1,294)	(1,303)
Net finance income (loss)		(10,107)	2,979
Equity in loss of investment in joint venture and associates	14 & 28	(16,140)	(12,557)
Impairment charges on property, plant and equipment	11	(263)	—
Loss before income taxes		(114,613)	(49,339)
Income tax recovery (expense)	27	216	(130)
<b>Net loss from continued operations</b>		<b>(114,397)</b>	<b>(49,469)</b>
Net income (loss) from discontinued operations	8	164	(1,908)
<b>Net loss</b>		<b>\$ (114,233)</b>	<b>\$ (51,377)</b>
<b>Other comprehensive income (loss):</b>			
<i>Items that will not be reclassified to profit or loss:</i>			
Actuarial gain (loss) on defined benefit plans	20	2,170	(289)
		2,170	(289)
<i>Items that may be reclassified subsequently to profit or loss:</i>			
Foreign currency translation differences		814	94
		814	94
<b>Other comprehensive income (loss), net of tax</b>		<b>2,984</b>	<b>(195)</b>
<b>Total comprehensive loss</b>		<b>\$ (111,249)</b>	<b>\$ (51,572)</b>
<b>Basic and diluted loss per share</b>			
Continuing operations		\$ (0.39)	\$ (0.20)
Discontinued operations		—	(0.01)
Loss per share		\$ (0.39)	\$ (0.21)
<b>Weighted average number of common shares outstanding</b>		<b>295,293,438</b>	<b>248,481,027</b>

See accompanying notes to consolidated financial statements.

**BALLARD POWER SYSTEMS INC.**

## Consolidated Statements of Changes in Equity

(Expressed in thousands of U.S. dollars except number of shares)

	Number of shares	Share capital	Contributed surplus	Accumulated deficit	Foreign currency reserve	Total equity
Balance, December 31, 2019	234,514,326	\$ 1,182,660	\$ 290,640	\$ (1,223,850)	\$ 813	\$ 250,263
Net loss	—	—	—	(51,377)	—	(51,377)
Equity offerings (note 21)	45,557,548	694,608	—	—	—	694,608
DSUs redeemed (note 21)	7,608	14	(78)	—	—	(64)
RSUs redeemed (note 21)	305,229	633	(3,656)	—	—	(3,023)
Options exercised (note 21)	1,693,466	6,820	(2,382)	—	—	4,438
Share-based compensation (note 21)	—	—	6,237	—	—	6,237
Other comprehensive loss:						
Defined benefit plan actuarial gain (loss)	—	—	—	(289)	—	(289)
Foreign currency translation for foreign operations	—	—	—	—	94	94
Balance, December 31, 2020	282,078,177	\$ 1,884,735	\$ 290,761	\$ (1,275,516)	\$ 907	\$ 900,887
Net loss	—	—	—	(114,233)	—	(114,233)
Deferred share consideration related to acquisition (note 7)	—	—	4,851	—	—	4,851
Equity offerings (note 21)	14,870,000	527,291	—	—	—	527,291
DSUs redeemed (note 21)	46,388	127	(1,417)	—	—	(1,290)
RSUs redeemed (note 21)	156,449	577	(4,934)	—	—	(4,357)
Options exercised (note 21)	549,281	3,526	(1,111)	—	—	2,415
Share-based compensation (note 21)	—	—	9,669	—	—	9,669
Other comprehensive income (loss):						
Defined benefit plan actuarial gain (loss)	—	—	—	2,170	—	2,170
Foreign currency translation for foreign operations	—	—	—	—	814	814
<b>Balance, December 31, 2021</b>	<b>297,700,295</b>	<b>\$ 2,416,256</b>	<b>\$ 297,819</b>	<b>\$ (1,387,579)</b>	<b>\$ 1,721</b>	<b>\$ 1,328,217</b>

See accompanying notes to consolidated financial statements.

**BALLARD POWER SYSTEMS INC.**  
Consolidated Statements of Cash Flows  
For the years ended December 31

(Expressed in thousands of U.S. dollars)

	Note	2021	2020
<b>Cash provided by (used in):</b>			
<b>Operating activities:</b>			
Net loss for the year		\$ (114,233)	\$ (51,377)
Adjustments for:			
Depreciation and amortization		9,752	7,558
Impairment loss on trade receivables	25	54	310
Unrealized gain on forward contracts		519	(259)
Equity in loss of investment in joint venture and associates	14 & 28	16,140	12,557
Net decrease (increase) in fair value of investments	14 & 31	9,024	—
Gain on sale of assets	8	—	(168)
Impairment loss on property plant and equipment	11	263	—
Accretion on decommissioning liabilities		113	76
Employee future benefits	20	131	164
Employee future benefits plan contributions	20	(8)	(908)
Share-based compensation	21	9,669	6,237
Deferred income tax expense (recovery)		(300)	—
		<u>(68,876)</u>	<u>(25,810)</u>
Changes in non-cash working capital:			
Trade and other receivables		9,640	(2,093)
Inventories		(22,996)	1,355
Prepaid expenses and other current assets		(810)	(1,026)
Trade and other payables		1,408	(4,238)
Deferred revenue		2,221	(10,268)
Warranty provision		(1,063)	(854)
		<u>(11,600)</u>	<u>(17,124)</u>
Cash used in operating activities		<u>(80,476)</u>	<u>(42,934)</u>
<b>Investing activities:</b>			
Net change in short-term investments	31	336	(2,000)
Acquisition of long-term investments	14 & 31	(51,757)	—
Additions to property, plant and equipment	11	(13,158)	(12,620)
Proceeds on sale of assets	8	—	988
Investment in other intangible assets	12	(1,543)	(246)
Investment in joint venture and associates	14	(12,351)	(22,515)
Acquisition of Arcola Energy Limited, net of cash acquired	7	(7,157)	—
Cash used in investing activities		<u>(85,630)</u>	<u>(36,393)</u>
<b>Financing activities:</b>			
Principal payments of lease liabilities	19	(2,798)	(2,517)
Net proceeds on issuance of share capital from share option exercises	21	2,415	4,438
Net proceeds on issuance of share capital from equity offerings	21	527,291	694,608
Cash provided by financing activities		<u>526,908</u>	<u>696,529</u>
Effect of exchange rate fluctuations on cash and cash equivalents held		(337)	(1,564)
<b>Increase in cash and cash equivalents</b>		<u>360,465</u>	<u>615,638</u>
<b>Cash and cash equivalents, beginning of year</b>		<u>763,430</u>	<u>147,792</u>
<b>Cash and cash equivalents, end of year</b>		<u>\$ 1,123,895</u>	<u>\$ 763,430</u>

Supplemental disclosure of cash flow information (note 29).  
See accompanying notes to consolidated financial statements.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

**1. Reporting entity:**

The principal business of Ballard Power Systems Inc. (the "Corporation") is the sale and service of proton exchange membrane ("PEM") fuel cell products for the power product markets of Heavy-Duty Motive (consisting of bus, truck, rail and marine applications), 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. 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 years ended December 31, 2021 and 2020 comprise the Corporation and its subsidiaries (note 4(a)).

On October 14, 2020, the Corporation completed the sale of the Unmanned Aerial Vehicle ("UAV") business assets of its subsidiary, Ballard Unmanned Systems. As such, the UAV business has been classified and accounted for as a discontinued operation. The historic operating results of the UAV business for 2021 and 2020 have been removed from continued operating results and are instead presented separately in the statement of comprehensive loss as loss from discontinued operations.

**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 11, 2022.

Details of the Corporation's significant accounting policies are included in note 4.

**(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 assets classified as measured at fair value through profit or loss (FVTPL); 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.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

(Tabular amounts expressed in thousands of U.S. dollars, except per share amounts and numbers 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 and employee future benefits. 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.

The Corporation's strategy to mitigate this uncertainty is to continue its drive to attain profitable operations that are sustainable by executing a business plan that continues to focus on revenue growth, improving overall gross margins, maintaining discipline over operating expenses, managing working capital requirements, and securing additional financing to fund operations as needed until the Corporation does achieve profitable operations that are sustainable. 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.

A number of new standards and interpretations became effective from January 1, 2021 however, they did not have a material impact on the Corporation's 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.



**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

## (a) Basis of consolidation:

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

	Percentage ownership	
	2021	2020
Ballard Motive Solutions (Note 7)	100 %	— %
Guangzhou Ballard Power Systems Co., Ltd.	100 %	100 %
Ballard Power Systems Europe A/S	100 %	100 %
Ballard Hong Kong Ltd.	100 %	100 %
Ballard Unmanned Systems (note 8)	100 %	100 %
Ballard Services Inc.	100 %	100 %
Ballard Fuel Cell Systems Inc.	100 %	100 %
Ballard Power Corporation	100 %	100 %

*Subsidiary Entities*

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 through 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.

## (i) Ballard Motive Solutions

On November 11, 2021, the Corporation acquired Arcola Energy Limited ("Arcola"), a UK-based systems engineering company (subsequently renamed to Ballard Motive Solutions) specializing in hydrogen fuel cell powertrain and vehicle systems integration (note 7).

## (ii) Guangzhou Ballard Power Systems

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

## (iii) Ballard Power Systems Europe A/S

On January 18, 2010, the Corporation acquired a 45% interest in its European subsidiary, Ballard Power Systems Europe A/S ("BPSE"). BPSE (formerly Dantherm Power A/S) has been consolidated since acquisition. In August 2010, the Corporation acquired an additional 7% interest and a further 5% interest in December 2012. On January 5, 2017, the Corporation purchased the remaining 43% interest in its subsidiary, held by Dansk Industri Invest A/S, thus resulting in the Corporation now owning 100% of BPSE. BPSE supports a growing market and customer base with sales, business development, engineering, manufacturing and service capabilities.

## (iv) Ballard Hong Kong Ltd.

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

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

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

## (v) Ballard Unmanned Systems

On October 1, 2015, the Corporation acquired Ballard Unmanned Systems (formerly Protonex Technology Corporation) prior to January 1, 2019), a designer and manufacturer of advanced power management products and portable fuel cell solutions.

On October 14, 2020, the Corporation completed an agreement to sell the remaining business assets of its subsidiary, Ballard Unmanned Systems. The entity will remain held by the Corporation (note 8).

*Equity Investment Entities*

The Corporation also has a non-controlling, 49% interest (2020 - 49%), in Weichai Ballard Hy-Energy Technologies Co., Ltd ("Weichai Ballard JV") and a non-controlling, 10% interest (2020 - 10%), in Guangdong Synergy Ballard Hydrogen Power Co., Ltd ("Synergy Ballard JVCo"). Both of these associated companies are accounted for using the equity method of accounting.

## (i) Weichai Ballard JV

On November 13, 2018, the Corporation, through Ballard Hong Kong Ltd. ("BHKL"), entered into an agreement with Weichai Power Co., Ltd ("Weichai Power") to create a new limited liability company based in China, Weichai Ballard JV. The JV's business is to manufacture fuel cell products utilizing the Corporation's next-generation liquid-cooled fuel cell stack ("LCS") and LCS-based power modules for bus, commercial truck and forklift applications with certain exclusive rights in China. Under the agreement, Weichai is to contribute RMB 561,000,000 (\$88,301,000 equivalent at December 31, 2021 exchange rate) and the Corporation is to contribute RMB 539,000,000 (\$79,930,000 equivalent at December 31, 2021 exchange rate) representing 51% and 49% of the registered capital in Weichai Ballard JV, respectively. The parties will make these contributions in cash over a four year period and are not obligated to contribute any additional capital in excess of the amounts noted above.

During 2018, the Corporation made an initial capital contribution of \$14,286,000 (RMB 98,000,000 equivalent). During 2019, the Corporation made two additional capital contributions totaling \$20,944,000 (RMB 143,325,000 equivalent). During 2020, the Corporation made four additional capital contributions totaling \$22,515,000 (RMB 155,575,000 equivalent). During 2021, the Corporation made four additional capital contributions totaling \$12,351,000 (RMB 79,625,000 equivalent). Weichai Power and the Corporation are committed to fund pro rata shares of Weichai Ballard JV based on an agreed business plan. Weichai Power holds three of five Weichai Ballard JV board seats and the Corporation holds two, with the Corporation having certain shareholder protection provisions. Weichai Ballard JV is not controlled by the Corporation and therefore is not consolidated. The Corporation's 49% investment in Weichai Ballard JV is accounted for using the equity method of accounting.

## (ii) Synergy Ballard JVCo

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, Synergy Ballard JVCo. Synergy Ballard JVCo's business is to manufacture fuel cell products utilizing the Corporation's FCvelocity®-9SSL fuel cell stack technology for use primarily in fuel cell engines assembled in China to provide propulsion power for zero-emission fuel cell electric buses and commercial vehicles with certain exclusive rights in China.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

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

*Equity Investment Entities (cont'd)*

## (ii) Synergy Ballard JVCo (cont'd)

In setting up the joint venture, as specified in the Equity Joint Venture Agreement ("EJV") dated September 26, 2016, Synergy contributed RMB 60,300,000 (\$9,000,000) and the Corporation contributed RMB 6,700,000, (\$971,000) in March 2017 representing 90% and 10% of the registered capital in Synergy Ballard JVCo, respectively. The parties made their contributions in cash and the Corporation is not obligated to contribute any additional capital in excess of the amounts noted above. Synergy Ballard JVCo is not controlled by the Corporation and therefore is not consolidated. The Corporation's 10% investment in Synergy Ballard JVCo is accounted for using the equity method of accounting.

## (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 statement of financial position 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 are classified as measured at: amortized cost; fair value through other comprehensive income ("FVOCI") or fair value through profit or loss ("FVTPL"). The classification of financial assets is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. Derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification. The Corporation's financial assets which consist primarily of cash and cash equivalents, short-term investments, trade and other receivables, and contract assets are classified at amortized cost.

The Corporation also periodically enters into foreign exchange forward contracts to limit its exposure to foreign currency rate 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.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

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

## (ii) Financial liabilities

Financial liabilities comprise the Corporation's trade and other payables. The financial liabilities are initially recognized on the date they are originated and are derecognized when the contractual obligations are discharged or cancelled or expire. These financial liabilities are recognized initially at fair value and subsequently are measured at amortized cost 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 (deficit).

## (d) Inventories:

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

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

## (e) Property, plant and equipment:

## (i) Recognition and measurement

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

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

## (ii) Subsequent expenditures

Subsequent expenditures are capitalized only if it is probable that the future economic benefits associated with the expenditures 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 recognized in profit or loss.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

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

## (iii) Depreciation (cont'd)

The estimated useful lives of property, plant and equipment for current and comparative periods are as follows:

Computer equipment	3 to 10 years
Furniture and fixtures	5 to 10 years
Leasehold improvements	The shorter of initial term of the respective lease and estimated useful life
Production and test equipment	4 to 15 years

Leased assets are depreciated over the shorter of the lease term or their useful lives unless it is reasonably certain that the Corporation will obtain ownership by the end of the lease term.

Right-of-use asset - Property	1 to 7 years
Right-of-use asset - Office equipment	4 to 5 years
Right-of-use asset - Vehicles	1 to 5 years

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

## (f) Leases:

*IFRS 16 Leases* introduced a single, on-balance sheet accounting model for lessees. As a result, the Corporation, as a lessee, has recognized right-of-use assets representing its rights to use the underlying assets, and lease liabilities representing its obligation to make lease payments. Lessor accounting remains similar to previous accounting policies.

At inception of a contract, the Corporation assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Corporation assesses whether:

- the contract involves the use of an identified asset - this may be specified explicitly or implicitly, and should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, then the asset is not identified;
- the Corporation has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and
- the Corporation has the right to direct the use of the asset. The Corporation has this right when it has the decision-making rights that are most relevant to changing how and for what purpose the asset is used. In rare cases where all the decisions about how and for what purpose the asset is used are predetermined, the Corporation has the right to direct the use of the asset if either:
  - the Corporation has the right to operate the asset; or
  - the Corporation designed the asset in a way that predetermines how and for what purpose it will be used.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

## (f) Leases (cont'd):

This policy is applied to contracts entered into, or changed, on or after January 1, 2019.

*i. As a Lessee*

The Corporation recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The estimated useful lives of right-of-use assets are determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Corporation's incremental borrowing rate. Generally, the Corporation uses its incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise:

- Fixed payments, including in-substance fixed payments;
- Variable lease payments that depend on an index or a rate, initially measured using the index or rate at the commencement date;
- Amounts expected to be payable under a residual value guarantee; and
- The exercise price under a purchase option that the Corporation is reasonably certain to exercise, lease payments in an optional renewal period if the Corporation is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Corporation is reasonably certain not to terminate early.

The lease liability is subsequently measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Corporation's estimate of the amount expected to be payable under a residual value guarantee or if the Corporation changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Corporation presents right-of-use assets in 'Property, plant and equipment' and lease liabilities in 'Lease liability' in the statement of financial position.

The Corporation has elected not to recognize right-of-use assets and lease liabilities for short-term leases of properties, equipment and vehicles that have a lease term of 12 months or less. The Corporation has elected not to recognize right-of-use assets and lease liabilities for low value leases that have initial values of less than \$5,000. The Corporation recognizes the lease payments associated with these leases as an operating expense on a straight-line basis over the lease term.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

## (f) Leases (cont'd):

*ii. As a Lessor*

When the Corporation is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset, and makes an overall assessment of whether the lease transfers to the lessee substantially all of the risks and rewards of ownership incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Corporation considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

## (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, customer contracts and relationships, non-compete agreements, and software systems that are acquired or developed by the Corporation and have finite useful lives are measured at cost less accumulated amortization and any accumulated impairment losses.

## (ii) Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditures, including expenditures on internally generated goodwill, are 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:

Acquired patents, know-how and in-process research & development	5 to 20 years
ERP management reporting software system	5 to 10 years
Acquired customer contracts and relationships	7 to 10 years
Acquired non-compete agreements	1 to 3 years
Domain names	15 years
Acquired trademarks and service marks	15 years
Internally generated fuel cell intangible assets	3 to 5 years

Amortization methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

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

## (h) Impairment:

## (i) Financial assets

An 'expected credit loss' ("ECL") model applies to financial assets measured at amortized cost and debt investments at FVOCI, but not to investments in equity instruments. The Corporation's financial assets measured at amortized cost and subject to the ECL model consist primarily of trade receivables and contract assets.

In applying the ECL model, loss allowances are measured on either of the following bases:

- 12-month ECLs: these are ECLs that result from possible default events within the 12 months after the reporting date; and
- lifetime ECLs: these are ECLs that result from all possible default events over the expected life of a financial instrument.

The Corporation has elected to measure loss allowances for trade receivables and contract assets at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Corporation considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on historical experience and informed credit assessment and including forward-looking information.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Corporation expects to receive). ECLs are discounted at the effective interest rate of the financial asset. At each reporting date, we assess whether financial assets carried at amortized cost are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. Impairment (losses) recoveries related to trade receivables and contract assets are presented separately in the statement of profit or loss.

## (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.



**BALLARD POWER SYSTEMS INC.**

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

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

## (h) Impairment (cont'd):

## (ii) Non-financial assets (cont'd)

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 profit or loss. Impairment losses recognized in respect of the cash generating units are allocated first to reduce the carrying amount of any goodwill allocated to the units, and then to reduce the carrying amounts of the other assets in the unit on a pro-rata basis.

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

## (i) Provisions:

A provision is recognized if, as a result of a past event, the Corporation has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risk specific to the liability. The unwinding of the discount is recognized as a finance expense.

*Warranty provision*

A provision for warranty costs is recorded on product sales at the time the sale is recognized. In establishing the warranty provision, management estimates the likelihood that products sold will experience warranty claims and the estimated cost to resolve claims received, taking into account the nature of the contract and past and projected experience with the products.

*Decommissioning liabilities*

Legal obligations to retire tangible long-lived assets are recorded at the net present value of the expected costs of settlement at acquisition with a corresponding increase in asset value. These include assets leased under operating leases. The liability is accreted over the life of the asset to the ultimate settlement amount and the increase in asset value is depreciated over the remaining useful life of the asset.

## (j) Revenue recognition:

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

Revenue is recognized when a customer obtains control of the goods or services. Determining the timing of the transfer of control, at a point in time or over time, requires judgment. On standard product sales contracts, revenues are recognized when customers obtain control of the product, that is when transfer of title and risks and rewards of ownership of goods have passed and when obligation to pay is considered certain. Invoices are generated and revenue is recognized at that point in time. Provisions for warranties are made at the time of sale.

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**4. Significant accounting policies (cont'd):****(j) Revenue recognition (cont'd):**

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

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, the customer controls all of the work in progress as the services are being provided. This is because under these contracts, the deliverables are made to a customer's specification, and if a contract is terminated by the customer, then the Corporation is entitled to reimbursement of the costs incurred to date plus the applicable gross margin. Therefore, revenue from these contracts and the associated costs are recognized as the costs are incurred over time.

On long-term fixed price contracts, revenues are recognized over time using cumulative costs incurred to date relative to total estimated costs at completion to measure progress towards satisfying performance obligations. Generally, revenue is recognized by multiplying the expected consideration by the ratio of cumulative costs incurred to date to the sum of incurred and estimated costs for completing the performance obligation. The cumulative effect of changes to estimated revenues and estimated costs for completing a contract are recognized in the period in which the revisions are identified. In the event that the estimated costs for completing the contract exceed the expected revenues on a contract, such loss is recognized in its entirety in the period it becomes known.

Deferred revenue (i.e. contract liabilities) represents cash received from customers in excess of revenue recognized on uncompleted contracts.

**(k) Finance income and expense:**

Finance income comprises interest income on funds invested, gains (losses) on the disposal of available-for-sale financial assets, foreign exchange gains (losses), and changes in the fair value of financial assets at fair value through profit or loss, pension administration expense, and employee future benefit plan expense. Interest income is recognized as it accrues in income, using the effective interest method.

Finance expense comprises interest expense on leases and the unwinding of the discount on provisions.

**(l) 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.

**BALLARD POWER SYSTEMS INC.**

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**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.

*Other long-term employee benefits*

The Corporation's net obligation in respect of long-term employee benefits other than pension plans is the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any related assets is deducted. The discount rate is the yield at the reporting date on AA credit-rated bonds that have maturity dates approximating the terms of the Corporation's obligations. The calculation is performed using the projected unit credit method. Any actuarial gains and losses are recognized in other comprehensive income or loss in the period in which they arise.

*Termination benefits*

Termination benefits are recognized as an expense (restructuring expense recorded in other operating expense) when the Corporation is committed demonstrably, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognized as an expense if the Corporation has made an offer of voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably. If benefits are payable more than 12 months after the reporting period, then they are discounted to their present value.

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## Notes to Consolidated Financial Statements

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

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

## (m) Employee benefits:

*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, share options, restricted share units, and deferred share units granted. The resulting compensation expense, based on the fair value of the awards granted, excluding the impact of any non-market service and performance vesting conditions, is charged to income over the period that the employees unconditionally become entitled to the award, with a corresponding increase to contributed surplus.

Fair values of share options are calculated using the Black-Scholes valuation method as of the grant date and adjusted for estimated forfeitures. Restricted share units and deferred share units are valued at the fair-value price at grant date. 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, share options, restricted share units, and deferred share units under its share-based compensation plans as described in note 21. 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. The redemption of restricted share units and deferred share units are non-cash transactions that are recorded in contributed surplus and 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 shown separately.

## (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.

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

## (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 financial year.

## (a) Revenue recognition:

On long-term fixed price contracts, revenues are recorded over time using costs incurred to date relative to total estimated costs at completion to measure progress towards satisfying performance obligations. Revenue is recognized by multiplying the expected consideration by the ratio of cumulative costs incurred to date to the sum of incurred and estimated costs for completing the performance obligation. The cumulative effect of changes to expected revenues and expected costs for completing a contract are recognized in the period in which the revisions are identified. If the expected costs exceed the expected revenues on a contract, such loss is recognized in its entirety in the period it becomes known.

- (i) The determination of expected costs for completing a contract is based on estimates that can be affected by a variety of factors such as variances in the timeline to completion, the cost of materials, the availability and cost of labour, as well as productivity.
- (ii) 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 amount of consideration to which the Corporation expects to be entitled and in determining when a performance obligation has been met.

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

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

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 cash generating units.

**(c) Warranty provision:**

A provision for warranty costs is recorded on product sales at the time of shipment. In establishing the warranty provision, management estimates the likelihood that products sold will experience warranty claims and the cost to resolve claims received. In making such determinations, the Corporation uses estimates based on the nature of the contract and past and projected experience with the products. Should these estimates prove to be incorrect, the Corporation may incur costs different from those provided for in the warranty provision. Management reviews warranty assumptions and makes adjustments to the provision at each reporting date based on the latest information available, including the expiry of contractual obligations. Adjustments to the warranty provision are recorded in cost of product and service revenues.

**(d) Inventory provision:**

In determining the lower of cost and net realizable value of inventory and in establishing the appropriate provision for inventory obsolescence, management estimates the likelihood that inventory carrying values will be affected by changes in market pricing or demand for the products and by changes in technology or design which could make inventory on hand obsolete or recoverable at less than the recorded value. Management performs regular reviews to assess the impact of changes in technology and design, sales trends and other changes on the carrying value of inventory. Where it is determined that such changes have occurred and will have a negative impact on the value of inventory on hand, appropriate provision are made.

If there is a subsequent increase in the value of inventory on hand, reversals of previous write-downs to net realizable value are made. Unforeseen changes in these factors could result in additional inventory provisions, or reversals of previous provisions, being required.

**(e) Financial assets including impairment of trade receivables:**

An ECL model applies to financial assets measured at amortized cost, contract assets and debt investments at FVOCI, but not to investments in equity instruments. The Corporation's financial assets that are measured at amortized cost and subject to the ECL model consist primarily of trade receivables and contract assets.

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

Key sources of estimation uncertainty (cont'd):

**(e) Financial assets including impairment of trade receivables (cont'd):**

In applying the ECL model, loss allowances are measured on either of the following bases:

- 12-month ECLs: these are ECLs that result from possible default events within the 12 months after the reporting date; and
- lifetime ECLs: these are ECLs that result from all possible default events over the expected life of a financial instrument.

The Corporation has elected to measure loss allowances for trade receivables and contract assets at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Corporation considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Corporation's historical experience and informed credit assessment and including forward-looking information.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Corporation expects to receive). ECLs are discounted at the effective interest rate of the financial asset. At each reporting date, the Corporation assesses whether financial assets carried at amortized cost are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. Impairment (losses) recoveries related to trade receivables and contract assets are presented separately in profit or loss.

**(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.

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

The following is an overview of accounting standard changes that the Corporation will be required to adopt in future years. The Corporation expects to adopt these standards as at their effective dates and will continue to evaluate the impact of these standards on the consolidated financial statements.

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**6. Recent accounting pronouncements and future accounting policy changes (cont'd):****(a) Classification of Liabilities as Current or Non-current (*Amendments to IAS 1*)**

On January 23, 2020, the IASB issued amendments to *IAS 1 Presentation of Financial Statements*, to clarify the classification of liabilities as current or non-current.

For the purposes of non-current classification, the amendments removed the requirement for a right to defer settlement or roll over of a liability for at least twelve months to be unconditional. Instead, such a right must have substance and exist at the end of the reporting period. The amendments also clarify how a company classifies a liability that includes a counterparty conversion option. The amendments state that:

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

The amendments are effective for annual periods beginning on or after January 1, 2023. Early adoption is permitted. The amendments are subject to further developments. Certain application issues resulting from the amendments have been raised with the IFRS Interpretations Committee, which referred them to the IASB. In November 2021, the IASB published the exposure draft *Non-current Liabilities with Covenants* (proposed amendments to IAS 1). The exposure draft aims to improve the information an entity provides when its right to defer settlement of a liability for at least twelve months is subject to compliance with conditions, in addition to addressing concerns about the classification of such a liability as current or non-current. The IASB proposed to defer the effective date of the 2020 amendments to no earlier than January 1, 2024. The extent of the impact of adoption of the *Amendments to IAS 1* has not yet been determined.

**(b) Definition of Accounting Estimates (*Amendments to IAS 8*)**

On February 12, 2021, the IASB issued *Definition of Accounting Estimates (Amendments to IAS 8)*.

The amendments introduce a new definition for accounting estimates, clarifying that they are monetary amounts in the financial statements that are subject to measurement uncertainty. The amendments also clarify the relationship between accounting policies and accounting estimates by specifying that a company develops an accounting estimate to achieve the objective set out by an accounting policy.

The amendments are effective for annual periods beginning on or after January 1, 2023. Early adoption is permitted. The extent of the impact of adoption of the amendments to *IAS 8* has not yet been determined.

**(c) *Disclosure Initiative – Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)***

On February 12, 2021, the IASB issued *Disclosure Initiative – Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2 Making Materiality Judgements)*.

The amendments help companies provide useful accounting policy disclosures. The key amendments include:

- requiring companies to disclose their material accounting policies rather than their significant accounting policies;
- clarifying that accounting policies related to immaterial transactions, other events or conditions are themselves immaterial and as such need not be disclosed; and
- clarifying that not all accounting policies that relate to material transactions, other events or conditions are themselves material to a company's financial statements.



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**6. Recent accounting pronouncements and future accounting policy changes (cont'd):****(c) Disclosure Initiative – Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2) cont'd**

The amendments are effective for annual periods beginning on or after January 1, 2023. Early adoption is permitted. The extent of the impact of adoption of the amendments to *IAS 1 and IFRS Practice Statement 2* has not yet been determined.

**(d) Onerous Contracts — Cost of Fulfilling a Contract (Amendments to IAS 37)**

On May 14, 2020, the IASB issued *Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)*.

IAS 37 does not specify which costs are included as a cost of fulfilling a contract when determining whether a contract is onerous. The IASB's amendments address this issue by clarifying that the "costs of fulfilling a contract" comprise both:

- the incremental costs – e.g. direct labour and materials; and
- an allocation of other direct costs – e.g. an allocation of the depreciation charge for an item of PPE used in fulfilling the contract.

The amendments are effective for annual periods beginning on or after January 1, 2022 and apply to contracts existing at the date when the amendments are first applied. At the date of initial application of the amendments to *IAS 37*, the cumulative effect of applying the amendments is recognized as an opening balance adjustment to retained earnings or other component of equity, as appropriate. The comparatives are not restated.

Based on the analysis completed to date of the Corporation's "open" contracts as of December 31, 2021, on adoption of the amendments to *IAS 37* on January 1, 2022, the Corporation expects to recognize approximately \$1,200,000 of additional contract costs as an opening balance adjustment to retained earnings in the three months ended March 31, 2022 financial statements (note 18).

**7. Acquisition:**

On November 11, 2021, the Corporation acquired Arcola Energy Limited ("Arcola"), a UK-based systems engineering company (subsequently renamed to Ballard Motive Solutions) specializing in hydrogen fuel cell powertrain and vehicle systems integration. The Corporation acquired 100% of Arcola for total consideration of up to \$40,000,000, including 337,353 shares of the Corporation with an acquisition date fair value of approximately \$6,000,000 (nil shares issued as of December 31, 2021) that vest over a two year period from the acquisition date, and up to \$34,000,000 in upfront and earn-out cash consideration (net \$7,157,000 paid as of December 31, 2021) based on the achievement of certain performance milestones over an up to three year period from the acquisition date.

The Corporation completed detailed valuation studies and prepared the preliminary purchase price allocation for Ballard Motive Solutions using the acquisition method of accounting in accordance with *IFRS 3 Business Combinations*, with the Corporation considered as the accounting acquirer and Arcola (Ballard Motive Solutions) as the accounting acquiree. As the accounting acquirer, consideration given by the Corporation to acquire Arcola (Ballard Motive Solutions) has been allocated to the assets acquired, and the liabilities assumed, based on their fair values as of the acquisition date of November 11, 2021.

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

As consideration for the transaction: (i) the Corporation paid cash and assumed and paid certain of Arcola's (Ballard Motive Solutions) debt obligations and transaction costs on closing of \$7,477,000; (ii) will issue 337,353 shares of the Corporation in three future tranches at a fair value of \$18.30 per share discounted for the timing delay in receiving the shares using an Asian put option pricing model, or \$4,851,000; (iii) will make future cash payments of up to \$27,000,000 based on the successful attainment of numerous milestone objectives over a three-year period discounted for the estimated probability of successful occurrence and for the timing delay in receiving the cash payments using a credit adjusted risk-free rate observed for bonds of a similar duration, or \$26,258,000; and (iv) an actual working capital adjustment of \$611,000, for total purchase consideration of \$39,197,000. In accordance with *IFRS 3*, the fair value of the 337,353 shares has been measured for accounting purposes using the \$18.30 5-day weighted average price of the Corporation's shares immediately preceding the acquisition date.

The preliminary fair value of purchase consideration is as follows:

Cash and debt paid on closing	\$	7,477
Deferred share consideration		4,851
Contingent cash consideration		26,258
Working capital adjustment		611
<b>Total Fair Value (Preliminary) of Purchase Consideration</b>	<b>\$</b>	<b>39,197</b>

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 Arcola's (Ballard Motive Solutions) 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 subject to due diligence procedures 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 the preliminary fair value of each asset and liability as of the acquisition date of November 11, 2021.

The preliminary fair values of assets acquired and liabilities assumed are as follows:

Cash and cash equivalents	\$	320
Trade and other receivables		3,112
Property, plant & equipment		190
Intangible assets		17,279
Goodwill		23,991
Accounts payable and accrued liabilities		(1,817)
Deferred income tax liability		(3,878)
<b>Fair Value (Preliminary) of Assets Acquired and Liabilities Assumed</b>	<b>\$</b>	<b>39,197</b>

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

The preliminary fair value of each of the acquired identifiable assets and liabilities assumed was determined as follows:

- The fair value of certain of the acquired working capital balances including trade and other receivables, and accounts payable and accrued liabilities, have been assessed at their respective carrying amounts on November 11, 2021, which is considered to approximately equate to fair value as a result of the short-term to maturity of each of these accounts.
- Acquired property, plant and equipment consist primarily of specialized manufacturing and research and development equipment, as well as miscellaneous other items, all physically located in Arcola's (Ballard Motive Solutions) operating facilities in the U.K. As there is no market-based evidence of fair value for these specialized assets that are rarely sold other than as part of a continuing business, fair value was estimated using a depreciated replacement cost approach in accordance with *IAS 16*. A depreciated replacement cost approach considers how much it would cost to reproduce an asset after adjusting for depreciation and optimization. The adjustment for depreciation takes into account the age of the asset in relation to its useful life and its residual value. The fair value of property, plant and equipment is considered to approximately equate to its carrying amount.
- Acquired identified intangible assets consist of technology (patents, know-how and in-process research and development), customer contracts and relationships, and non-compete arrangements. The Corporation has concluded that each of the identified intangible assets meet the definition of an identified intangible asset (or non-monetary asset without physical substance) under *IAS 38 Intangible Assets* as the acquired IP meets the definition of an asset and is identifiable. The fair value of all identified intangible assets includes a fair value adjustment of \$17,279,000 from their original carrying amounts.

Identified intangible assets of \$17,279,000 consist of the following and are being amortized based on the following useful lives:

Fair value (preliminary) of Identified Intangible Assets	Estimated useful life	
Technology (patents, know-how and in-process research & development)	\$ 15,976	12 years
Customer contracts and relationships	1,048	7 years
Non-compete agreements	255	3 years
	\$ 17,279	

The preliminary fair value of acquired identified intangible assets were calculated with the assistance of an independent valuator and were determined through a variety of valuation techniques.

- The fair value of the acquired technology including patents, know-how and in-process research & development totaling \$15,976,000 has been calculated using the Multi-Period Excess Earnings Method ("MPEEM") approach which is a variant of the Income Approach. The basic principle of the MPEEM Approach is that a single asset, in isolation, is not capable of generating cash flow for an enterprise. Several assets are brought together and exploited to generate cash flow. Therefore, to determine cash flow from the exploitation of existing technology, one must deduct the related expenses incurred for the exploitation of other assets used for the generation of overall cash flow and revenues. The fair value of existing technology was estimated by discounting the net cash flow derived from the expected revenues attributable to the acquired technology.

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

- The fair value of the acquired customer contracts and relationships totaling \$1,048,000 has also been calculated using the MPEEM approach. The fair value of existing customer contracts/relationships was estimated by discounting the net cash flow derived from the expected revenues attributable to the acquired customer contracts/relationships.
- The fair value of the acquired non-compete covenants of \$255,000 were calculated using the Income Approach whereby the fair value of the non-compete covenants was estimated by calculating the expected decrease or loss in forecasted cash flows if the employees compete with the target's business without the non-compete covenants.
- The fair value of the deferred income tax liability of \$3,878,000 represents the excess of the accounting basis of the acquired intangible assets of \$17,279,000 over their tax basis of \$1,768,000 at the current U.K tax rate of 25.0%.

The remaining unallocated \$23,991,000 of the total purchase price consideration of \$39,197,000 has been ascribed as goodwill, which is not deductible for tax purposes. The goodwill of \$23,991,000 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.

The amount of revenue and net loss attributable to Arcola (Ballard Motive Solutions) included in the consolidated statement of loss from the acquisition date of November 11, 2021 through the period ended December 31, 2021 is \$138,000 and (\$1,114,000), respectively.

The following table presents the unaudited pro forma results of Arcola (Ballard Motive Solutions) for the year ended December 31, 2021. The pro forma financial information is presented for informational purposes only and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at the beginning of fiscal 2021. The pro forma financial information presented includes: amortization charges for acquired tangible and intangible assets based on the values assigned in the preliminary purchase price allocation; and income tax recovery on deferred income tax liability arising from the preliminary purchase price allocation.

Proforma Information	December 31, 2021
Revenue	4,243
Loss from operations	(7,336)
Net loss	(5,966)

Acquisition costs of \$1,170,000 were incurred in 2021 as a result of this transaction, and are recognized in other operating expense.

**8. Discontinued operations:**

On October 14, 2020, the Corporation completed an agreement to sell the remaining UAV business assets of its subsidiary, Ballard Unmanned Systems, for gross cash proceeds of \$1,000,000. Net proceeds from the sale were \$988,000 after deducting for working capital adjustments and legal and other expenses, resulting in a gain on sale of these assets of \$168,000.

The Ballard Unmanned Systems subsidiary has been classified and accounted for as a discontinued operation. The historic operating results of the UAV market for both 2021 and 2020 have been removed from continued operating results and are instead presented separately in the statement of comprehensive income (loss) as income (loss) from discontinued operations.

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**8. Discontinued operations (cont'd):**

Net income (loss) from discontinued operations for the years ended December 31, 2021 and 2020 is comprised of the following:

	2021	2020
Product and service revenues	\$ —	\$ 262
Cost of product and service revenues	—	223
Gross margin	\$ —	\$ 39
Total operating income (expenses)	164	(2,115)
Finance income and other	—	—
Gain (loss) on sale of assets	—	168
Net income (loss) from discontinued operations	\$ 164	\$ (1,908)

Net cash flows from discontinued operations for the years ended December 31, 2021 and 2020 is as follows:

	2021	2020
Cash used in operating activities	\$ (113)	\$ (1,607)
Cash provided by investing activities	—	957
Cash used in financing activities	—	(20)
Cash used in discontinued operations	\$ (113)	\$ (670)

**9. Trade and other receivables:**

	December 31, 2021	December 31, 2020
Trade accounts receivable	\$ 19,423	\$ 29,252
Other receivables	6,586	5,269
Contract assets	20,386	22,274
	\$ 46,395	\$ 56,795

*Contract assets*

Contract assets primarily relate to the Corporation's rights to consideration for work completed but not billed as at December 31, 2021 for engineering services and technology transfer services.

	December 31, 2021
Contract assets	
At January 1, 2021	\$ 22,274
Additions to contract assets	27,282
Invoiced during the year	(29,170)
At December 31, 2021	\$ 20,386

Information about the Corporation's exposure to credit and market risks, and impairment losses for trade receivables and contract assets is included in note 31.

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**10. Inventories:**

	December 31, 2021	December 31, 2020
Raw materials and consumables	\$ 22,394	\$ 11,879
Work-in-progress	19,795	8,330
Finished goods	5,350	3,746
Service inventory	3,978	4,567
	<b>\$ 51,517</b>	<b>\$ 28,522</b>

In 2021, the amount of raw materials and consumables, finished goods and work-in-progress recognized as cost of product and service revenues amounted to \$60,803,000 (2020 - \$49,710,000).

In 2021, the write-down of inventories to net realizable value amounted to \$1,246,000 (2020 - \$1,888,000) and the reversal of previously recorded write-downs amounted to \$136,000 (2020 - \$434,000), resulting in a net write-down of \$1,110,000 (2020 - \$1,454,000). 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.

**11. Property, plant and equipment:**

	December 31, 2021	December 31, 2020
Property, plant and equipment owned	\$ 43,855	\$ 36,560
Right-of-use assets	12,206	12,774
	<b>\$ 56,061</b>	<b>\$ 49,334</b>

*Property, plant and equipment owned:*

	December 31, 2021	December 31, 2020
Net carrying amounts		
Computer equipment	\$ 1,599	\$ 1,846
Furniture and fixtures	762	657
Leasehold improvements	1,518	1,558
Production and test equipment	39,976	32,499
	<b>\$ 43,855</b>	<b>\$ 36,560</b>

Cost	December 31, 2020	Additions	Additions through Acquisition	Impairment	Transfers	Effect of movements in exchange rates	December 31, 2021
Computer equipment	\$ 6,635	\$ 442	\$ —	\$ —	\$ (225)	\$ —	\$ 6,852
Furniture and fixtures	1,754	164	—	—	(4)	—	1,914
Leasehold improvements	9,196	274	—	—	(18)	(2)	9,450
Production and test equipment	66,392	12,278	16	(263)	(775)	(4)	77,644
	<b>\$ 83,977</b>	<b>\$ 13,158</b>	<b>\$ 16</b>	<b>\$ (263)</b>	<b>\$ (1,022)</b>	<b>\$ (6)</b>	<b>\$ 95,860</b>

During 2021, additions through acquisition of property, plant and equipment relate to the acquisition of Arcola (Ballard Motive Solutions) on November 11, 2021 (note 7).

During the year ended December 31, 2021, an impairment loss of \$263,000 was recorded for production and test equipment that was never placed in service and was determined not required to support the Corporation's future manufacturing or testing capabilities.

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**11. Property, plant and equipment (cont'd):***Property, plant and equipment owned (owned):*

Accumulated depreciation	December 31, 2020	Depreciation	Transfers	Effect of movements in exchange rates	December 31, 2021
Computer equipment	\$ 4,789	\$ 654	\$ (175)	\$ (15)	\$ 5,253
Furniture and fixtures	1,097	63	(4)	(4)	1,152
Leasehold improvements	7,638	331	(18)	(19)	7,932
Production and test equipment	33,893	4,607	(825)	(7)	37,668
	\$ 47,417	\$ 5,655	\$ (1,022)	\$ (45)	\$ 52,005

Cost	December 31, 2019	Additions	Disposals	Transfers	Effect of movements in exchange rates	December 31, 2020
Computer equipment	\$ 5,733	\$ 791	\$ —	\$ 75	\$ 36	\$ 6,635
Furniture and fixtures	1,098	642	—	15	(1)	1,754
Leasehold improvements	8,559	440	—	170	27	9,196
Production and test equipment	55,681	10,747	(560)	500	24	66,392
	\$ 71,071	\$ 12,620	\$ (560)	\$ 760	\$ 86	\$ 83,977

Accumulated depreciation	December 31, 2019	Depreciation	Disposals	Transfers	Effect of movements in exchange rates	December 31, 2020
Computer equipment	\$ 4,306	\$ 379	\$ —	\$ 75	\$ 29	\$ 4,789
Furniture and fixtures	1,047	25	—	15	10	1,097
Leasehold improvements	7,299	302	—	—	37	7,638
Production and test equipment	30,673	3,053	(512)	670	9	33,893
	\$ 43,325	\$ 3,759	\$ (512)	\$ 760	\$ 85	\$ 47,417

*Right-of-use assets:*

The Corporation leases certain assets under lease agreements, comprising primarily of leases of land and buildings, office equipment and vehicles (note 19).

Right-of-use assets	December 31, 2021	December 31, 2020
Net carrying amounts		
Property	\$ 11,837	\$ 12,537
Equipment	139	121
Vehicle	230	116
	\$ 12,206	\$ 12,774

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**11. Property, plant and equipment (cont'd):***Right-of-use assets (cont'd):*

Cost	December 31, 2020	Additions	Additions through acquisition	Transfer	Effect of movements in exchange rates	December 31, 2021
Property	\$ 24,665	\$ 1,967	\$ —	\$ (137)	\$ (68)	\$ 26,427
Equipment	149	46	—	(22)	2	175
Vehicle	208	—	174	—	(10)	372
	\$ 25,022	\$ 2,013	\$ 174	\$ (159)	\$ (76)	\$ 26,974

During 2021, additions through acquisition of right-of-use assets relate to the acquisition of Arcola (Ballard Motive Solutions) on November 11, 2021 (note 7).

Accumulated depreciation	December 31, 2020	Depreciation	Transfer	Effect of movements in exchange rates	December 31, 2021
Property	\$ 12,128	\$ 2,633	\$ (137)	\$ (34)	\$ 14,590
Equipment	28	28	(22)	2	36
Vehicle	92	54	—	(4)	142
	\$ 12,248	\$ 2,715	\$ (159)	\$ (36)	\$ 14,768

Cost	December 31, 2019	Additions	De-recognition	Effect of movements in exchange rates	December 31, 2020
Property	\$ 24,568	\$ —	\$ (46)	\$ 143	\$ 24,665
Equipment	84	102	(42)	5	149
Vehicle	142	54	—	12	208
	\$ 24,794	\$ 156	\$ (88)	\$ 160	\$ 25,022

Accumulated depreciation	December 31, 2019	Depreciation	De-recognition	Effect of movements in exchange rates	December 31, 2020
Property	\$ 9,647	\$ 2,488	\$ (46)	\$ 39	\$ 12,128
Equipment	17	25	(15)	1	28
Vehicle	40	46	—	6	92
	\$ 9,704	\$ 2,559	\$ (61)	\$ 46	\$ 12,248



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**12. Intangible assets:**

	December 31, 2021	December 31, 2020
Intellectual property acquired from UTC	\$ 74	\$ 522
ERP management reporting software system	3,631	3,242
Intellectual property acquired from Ballard Motive Solutions, net of amortization (note 7)	17,083	—
	<b>\$ 20,788</b>	<b>\$ 3,764</b>

	Cost	Accumulated amortization	Net carrying amount
At January 1, 2020	\$ 60,409	\$ 54,722	\$ 5,687
Additions to intangible assets	246	—	246
Amortization expense	—	1,657	(1,657)
Disposals	(800)	(288)	(512)
At December 31, 2020	59,855	56,091	3,764
Acquisition of intangible assets	17,279	—	17,279
Additions to intangible assets	1,543	—	1,543
Amortization expense	—	1,798	(1,798)
At December 31, 2021	<b>\$ 78,677</b>	<b>\$ 57,889</b>	<b>\$ 20,788</b>

Acquisition of intangible assets in 2021 relate to the acquisition of Arcola's (Ballard Motive Solutions) intangible assets of \$17,279,000 (note 7). Additions to intangible assets of \$1,543,000 consist primarily of a new Phase 3 of enhancements of \$1,385,000 (2020 - \$nil) and \$158,000 (2020 - \$246,000) of costs primarily for a Manufacturing Execution System, both of which enhance the capabilities of the ERP management reporting software system.

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 2021, amortization of \$1,798,000 (2020 - \$1,657,000) was recorded.

**13. 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 30).

As of December 31, 2021, the aggregate carrying amount of the Corporation's goodwill is \$64,268,000 (2020 - \$40,277,000). During the year ended December 31, 2021, the Corporation acquired goodwill of \$23,991,000 as part of the acquisition of Arcola (Ballard Motive Solutions) (note 7).

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 less costs to sell test is a modified market capitalization assessment, whereby the fair value of the Fuel Cell Products and Services segment is determined by first calculating the value of the Corporation at December 31, 2021 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, deducting the fair value of long-term financial investments, and then deducting the estimated costs to sell to arrive at the fair value of the Fuel Cell Products and Services segment. Based on the fair value less costs to sell 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, 2021, indicating that no goodwill impairment charge is required for 2021 (\$nil in 2020).

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**14. Investments:**

	December 31, 2021	December 31, 2020
Investment in Weichai Ballard JV (note 4)	\$ 28,982	\$ 27,561
Investment in Synergy Ballard JVCo (note 4)	—	—
Investment in Forsee Power	33,335	—
Investment in HyCap Fund I SCSp	7,636	—
Investment in CleanH2 Fund	339	—
Other	—	5
	<b>\$ 70,292</b>	<b>\$ 27,566</b>

For the year ended December 31, 2021, the Corporation recorded \$16,140,000 (2020 - \$12,557,000) in equity loss of investment in JV and associates, consisting of equity loss in Weichai Ballard JV of \$16,084,000 (2020 - \$12,495,000) and equity loss in Synergy Ballard JVCo of \$56,000 (2020 - \$62,000).

*Investment in Weichai Ballard JV*

	December 31, 2021	December 31, 2020
Investment in Weichai Ballard JV		
Beginning balance	\$ 27,561	\$ 21,642
Capital contribution to JV	12,351	22,515
Recognition (deferral) of 49% profit on inventory not yet sold to third party, net	3,909	(5,759)
Equity in loss	(16,084)	(12,495)
Cumulative translation adjustment due to foreign exchange	1,245	1,658
Ending balance	<b>\$ 28,982</b>	<b>\$ 27,561</b>

Weichai Ballard JV is an associate in which the Corporation has significant influence and a 49% ownership interest. During the year ended December 31, 2021, the Corporation made committed capital contributions of \$12,351,000 (RMB 79,625,000 equivalent) (2020 - \$22,515,000 (RMB 155,575,000 equivalent)) to Weichai Ballard JV. At December 31, 2021, as specified in the Equity Joint Venture Agreement, the Corporation is currently committed to its last remaining capital contributions to Weichai Ballard JV of \$9,834,000 (RMB 62,475,000) in 2022.

The following tables summarize the financial information of Weichai Ballard JV as included in its own financial statements as of December 31, 2021, adjusted for foreign exchange differences, the application of the Corporation's accounting policies, and the Corporation's incorporation costs.

	December 31, 2021	December 31, 2020
Percentage ownership interest (49%)		
Current assets	\$ 104,907	\$ 102,083
Non-current assets	2,339	178
Current liabilities	(36,385)	(26,701)
Non-current liabilities	(2,861)	(2,610)
Net assets (100%)	68,000	72,950
Corporation's share of net assets (49%)	33,320	35,746
Incorporation costs	324	324
Elimination of unrealized profit on downstream sales, net of sale to third party	(4,662)	(8,509)
Carrying amount of investment in Weichai Ballard JV	<b>\$ 28,982</b>	<b>\$ 27,561</b>

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**14. Investments (cont'd):***Investment in Weichai Ballard JV (cont'd)*

	December 31, 2021	December 31, 2020
Revenue (100%)	\$ 38,260	\$ 15,765
Net loss (100%)	32,825	25,499
Corporation's share of net loss (49%)	\$ 16,084	\$ 12,495

*Investment in Synergy Ballard JVCo*

	December 31, 2021	December 31, 2020
Investment in Synergy Ballard JVCo		
Beginning balance	\$ —	\$ —
Recognition of 10% profit on inventory sold to third party, net	56	62
Equity in loss	(56)	(62)
Ending balance	\$ —	\$ —

Synergy Ballard JVCo is an associate in which the Corporation has significant influence and a 10% ownership interest. During the year ended December 31, 2021, the Corporation made committed capital contributions of \$nil (2020 - \$nil) to Synergy Ballard JVCo.

*Investment in Forsee Power*

In October 2021, the Corporation entered into a strategic partnership with Forsee Power, a leader in smart battery systems for sustainable electromobility. The strategic partnership is to develop a fully integrated fuel cell and battery solution, optimized for performance, cost, and installation for heavy-duty hydrogen mobility applications. As part of the strategic relationship, the Corporation committed to participate as a lead investor in connection with the initial public offering ("IPO") on Euronext in Paris, France, of Forsee Power. Pursuant to this commitment, the Corporation purchased 5,200,000 shares for consideration of \$43,809,000 (€37,700,000) in October 2021, resulting in an ownership interest of 9.77% in Forsee Power upon completion of the IPO. The Corporation also appointed a board member to the Forsee Power board of directors.

During the year ended December 31, 2021, changes in fair value and foreign exchange adjustments totalling (\$10,474,000) were recognized as an unrealized loss in the consolidated statement of loss and comprehensive income (loss) and included in finance income (loss) and other (notes 26 and 31), resulting in net fair value investment in Forsee Power of \$33,335,000 as of December 31, 2021.

*Investment in Hydrogen Funds**HyCap Fund*

In August 2021, the Corporation entered into a Subscription Agreement pursuant to a Limited Partnership Agreement ("LPA"), committing to be a limited partner in HyCap Fund I SCSp ("HyCap"), a newly-created hydrogen infrastructure and growth equity fund. The fund will invest in a combination of hydrogen infrastructure projects and investments in companies along the hydrogen value chain. The Corporation has committed to investing £25,000,000 (\$33,698,000) into this fund which will allow it to appoint two representatives to participate in the Advisory Committee. In the three months ended December 31, 2021, the Corporation made initial contributions of £5,665,000 (\$7,610,000).

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**14. Investments (cont'd):***Investment in Hydrogen Funds (cont'd)**HyCap Fund (cont'd)*

During the year ended December 31, 2021, changes in fair value and foreign exchange adjustments totalling \$26,000 were recognized as an unrealized gain in the consolidated statement of loss and comprehensive income (loss) and included in finance income (loss) and other (notes 26 and 31), resulting in net fair value investment in HyCap of \$7,636,000 as of December 31, 2021.

*Clean H2 Infrastructure Fund*

In December 2021, the Corporation entered into a Subscription Agreement pursuant to a Limited Partnership Agreement ("LPA"), committing to be a limited partner in Clean H2 Infrastructure Fund I ("Clean H2"), another newly-created hydrogen infrastructure and growth equity fund. The fund will invest in a combination of hydrogen infrastructure projects and investments in companies along the hydrogen value chain. The Corporation has committed to investing €30,000,000 (\$33,978,000) into this fund which will allow it to appoint two representatives to participate in the Advisory Committee. In the three months ended December 31, 2021, the Corporation made its initial contribution of £300,000 (\$337,000).

During the year ended December 31, 2021, changes in fair value and foreign exchange adjustments totalling \$2,000 were recognized as an unrealized gain in the consolidated statement of loss and comprehensive income (loss) and included in finance income (loss) and other (notes 26 and 31), resulting in net fair value investment in Clean H2 of \$339,000 as of December 31, 2021.

**15. Bank facilities:**

The Corporation has the following bank facilities available to it.

*Letter of Guarantee Facility*

The Corporation has an operating facility ("LG Facility"), enabling the bank to issue letters of guarantees, standby letters of credit, performance bonds, counter guarantees, counter standby letters of credit or similar credit on the Corporation's behalf from time to time up to a maximum of \$2,000,000.

At December 31, 2021, \$nil (2020 - \$nil) was outstanding on the LG Facility.

*Foreign Exchange Facility*

The Corporation also has a demand revolving foreign exchange facility ("FX Facility") that allows the Corporation to purchase foreign exchange currency contracts up to a maximum face value of \$23,684,000 (CDN \$29,000,000) secured by a guarantee from Export Development Canada.

At December 31, 2021, the Corporation had outstanding foreign exchange currency contracts to purchase a total of CDN \$26,500,000 (2020 – CDN \$16,750,000) at an average rate of 1.26 CDN per U.S. dollar, resulting in an unrealized gain (loss) of CDN \$(33,000) at December 31, 2021 (2020 – \$632,000). The unrealized gain (loss) on forward foreign exchange contracts is presented in prepaid expenses and other current assets on the statement of financial position.

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**16. Trade and other payables:**

	December 31, 2021	December 31, 2020
Trade accounts payable	\$ 13,689	\$ 9,070
Compensation payable	15,830	14,417
Other liabilities	9,130	5,306
Taxes payable	906	1,084
	<b>\$ 39,555</b>	<b>\$ 29,877</b>

**17. Deferred revenue:**

Deferred revenue (i.e. contract liabilities) represents cash received from customers in excess of revenue recognized on uncompleted contracts.

	December 31, 2021	December 31, 2020
Deferred revenue		
Beginning Balance	\$ 9,888	\$ 20,156
Additions to deferred revenue	23,618	43,166
Revenue recognized during the year	(21,397)	(53,434)
Ending Balance	<b>\$ 12,109</b>	<b>\$ 9,888</b>

**18. Provisions and other liabilities:**

Balance	Restructuring provision	Warranty provision	Onerous contracts	Contingent consideration	Other liabilities	Total
At January 1, 2020	\$ 8	\$ 10,480	\$ —	\$ —	\$ 1,688	\$ 12,176
Provisions made during the year	66	3,189	—	—	40	3,295
Provisions used/paid during the year	(65)	(2,569)	—	—	—	(2,634)
Provisions reversed/expired during the year	—	(1,486)	—	—	—	(1,486)
Effect of movements in exchange rates	1	11	—	—	36	48
At December 31, 2020	10	9,625	—	—	1,764	11,399
Provisions made during the year	131	4,102	300	26,258	109	30,900
Provisions used/paid during the year	(136)	(3,894)	—	—	—	(4,030)
Provisions reversed/expired during the year	—	(1,112)	—	—	—	(1,112)
Effect of movements in exchange rates	—	(9)	—	—	4	(5)
At December 31, 2021	<b>\$ 5</b>	<b>\$ 8,712</b>	<b>\$ 300</b>	<b>\$ 26,258</b>	<b>\$ 1,877</b>	<b>\$ 37,152</b>

At December 31, 2020						
	\$	\$	\$	\$	\$	\$
Current	10	9,625	—	—	—	9,635
Non-current	—	—	—	—	1,764	1,764
	<b>\$ 10</b>	<b>\$ 9,625</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 1,764</b>	<b>\$ 11,399</b>

At December 31, 2021						
	\$	\$	\$	\$	\$	\$
Current	5	8,712	300	19,240	—	28,257
Non-current	—	—	—	7,018	1,877	8,895
	<b>\$ 5</b>	<b>\$ 8,712</b>	<b>\$ 300</b>	<b>\$ 26,258</b>	<b>\$ 1,877</b>	<b>\$ 37,152</b>

**BALLARD POWER SYSTEMS INC.**

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**18. Provisions and other liabilities (cont'd):***Restructuring provision*

Restructuring charges relate to minor restructurings focused on overhead cost reductions and relate primarily to employee termination benefits. Restructuring charges are recognized in other operating expense.

*Warranty provision*

The Corporation recorded warranty provisions of \$4,102,000 (2020 - \$3,189,000), comprised of \$2,711,000 (2020 - \$3,098,000) related to new product sales and \$1,391,000 (2020 - \$91,000) related to upward warranty adjustments. This was offset by warranty expenditures of \$3,894,000 (2020 - \$2,569,000) and downward warranty adjustments of \$1,112,000 (2020 - \$1,486,000), due primarily to contractual expirations and changes in estimated and actual costs to repair. The remaining \$9,000 decrease (2020 - \$11,000 increase) to the warranty provision related to the effect of movements in exchange rates.

*Onerous Contracts*

Prior to the January 1, 2022 effective date of the *Amendments to IAS 37* (note 6), the Corporation performed a detailed review of its contracts as of December 31, 2021, which consistent with past practice, only included incremental costs, to determine if a contract was onerous. As a result of this review, Ballard recorded an onerous contract provision of \$300,000 as of December 31, 2021.

On completion of the review of contract costs in preparation for the implementation of *Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)* and with the inclusion of other direct costs in addition to incremental costs, it was determined that on adoption of the *Amendments to IAS 37*, additional contracts are expected to be deemed onerous with a calculated additional provision of \$1,200,000 which is expected to be recorded on January 1, 2022 against retained earnings as an opening balance adjustment. The Corporation will continue to review open contracts on a quarterly basis to determine if any ongoing or new contracts become onerous, and if any of the underlying conditions or assumptions change which would require an adjustment to the accrued provision.

*Contingent Consideration*

As part of the acquisition of Arcola (Ballard Motive Solutions) (note 7), total consideration includes earn-out cash consideration payable by the Corporation, based on the achievement of certain performance milestones over a three year period from the acquisition date. These future cash payments of up to \$27,000,000 are contingently based on the successful attainment of numerous milestone objectives over a three-year period discounted for the estimated probability of successful occurrence and for the timing delay in receiving the cash payments, or \$26,258,000.

Cash payments of \$4,800,000 were made by the Corporation in January 2022, upon successful achievement of three performance milestones.

*Other liabilities: Decommissioning liabilities*

A provision for decommissioning liabilities has been recorded for the Corporation's head office building in Burnaby, British Columbia and is related to estimated site restoration obligations at the end of the lease term. The Corporation has made certain modifications to the leased building 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 infrastructure of the leased building to its original state of when the lease was 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. In determining the fair value of the decommissioning liabilities, the estimated future cash flows have been discounted at 1.25% per annum (2020 - 0.39%).

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**18. Provisions and other liabilities (cont'd):***Other liabilities: Decommissioning liabilities (cont'd)*

The Corporation performed an assessment of the estimated cash flows required to settle the obligations for the building as of December 31, 2021. Based on the assessment, an increase of \$65,000 in the provision (2020 - \$nil) was recorded against decommissioning liabilities, in addition to accretion costs of \$44,000 (2020 - \$40,000).

The net discounted amount of estimated cash flows required to settle the obligation for the building is \$1,877,000 (2020 -\$1,764,000) which is expected to be settled at the end of the lease term in 2025.

**19. Lease liability:**

The Corporation leases certain assets under lease agreements. The lease liability consists primarily of leases of land and buildings, office equipment and vehicles. The leases have interest rates ranging from 2.45% to 6.85% per annum and expire between May 2022 and June 2032.

	December 31, 2021	December 31, 2020
Property	\$ 3,117	\$ 2,613
Equipment	38	29
Vehicle	83	49
<b>Lease Liability, Current</b>	<b>\$ 3,238</b>	<b>\$ 2,691</b>
Property	\$ 13,647	\$ 15,017
Equipment	105	98
Vehicle	130	67
<b>Lease Liability, Non-current</b>	<b>\$ 13,882</b>	<b>\$ 15,182</b>
<b>Lease Liability</b>	<b>\$ 17,120</b>	<b>\$ 17,873</b>

The Corporation is committed to minimum lease payments as follows:

	December 31, 2021
<b>Maturity Analysis</b>	
Less than one year	\$ 4,296
Between one and five years	13,194
More than five years	2,866
<b>Total undiscounted lease liabilities</b>	<b>\$ 20,356</b>

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**19. Lease liability (cont'd):**

*IFRS 16 Leases* had the following impact for the years ended December 31, 2021 and 2020.

	December 31, 2021	December 31, 2020
<b>Amounts recognized in profit or loss</b>		
Interest on lease liabilities	\$ 1,225	\$ 1,244
Income from sub-leasing right-of-use assets	1,744	1,557
Expenses relating to short-term leases	168	120
<b>Amounts recognized in the statement of cash flows</b>		
Interest paid	\$ 1,225	\$ 1,244
Principal payments of lease liabilities	2,798	2,517
Expenses relating to short-term leases	168	120
Total cash outflow for leases	\$ 4,191	\$ 3,881

Deferred gains were also recorded on closing of the finance lease agreement and are amortized over the lease term. At December 31, 2021, the outstanding deferred gain was \$1,318,000 (2020 – \$1,734,000).

**20. Employee future benefits:**

	December 31, 2021	December 31, 2020
Net defined benefit pension plan liability	\$ 1,814	\$ 3,856
Net other post-retirement benefit plan liability	80	85
Employee future benefits	\$ 1,894	\$ 3,941

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, 2021. The next actuarial valuation of the employee future benefit plans for funding purposes is expected to be performed as of January 1, 2022.

The Corporation expects contributions of \$nil to be paid to its defined benefit plans in 2022.

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.



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**20. Employee future benefits (cont'd):**

	Defined benefit obligation		Fair value of plan assets		Net defined benefit liability	
	2021	2020	2021	2020	2021	2020
<b>Defined benefit pension plan</b>						
Balance at January 1	\$ 20,203	\$ 18,272	\$ (16,347)	\$ (13,964)	\$ 3,856	\$ 4,308
<b>Included in profit or loss</b>						
Current service cost	37	36	—	—	37	36
Interest cost (income)	476	566	(383)	(440)	93	126
Benefits payable	—	—	—	—	—	—
	513	602	(383)	(440)	130	162
<b>Included in other comprehensive income</b>						
Remeasurements loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	56	(150)	—	—	56	(150)
Financial assumptions	(986)	2,054	—	—	(986)	2,054
Experience adjustment	92	110	—	—	92	110
Return on plan assets excluding interest income	—	—	(1,334)	(1,733)	(1,334)	(1,733)
Plan expenses	(30)	(36)	30	36	—	—
	(868)	1,978	(1,304)	(1,697)	(2,172)	281
<b>Other</b>						
Contributions paid by the employer	—	—	—	(895)	—	(895)
Benefits paid	(661)	(649)	661	649	—	—
	(661)	(649)	661	(246)	—	(895)
Balance at December 31	\$ 19,187	\$ 20,203	\$ (17,373)	\$ (16,347)	\$ 1,814	\$ 3,856
<b>Other post-retirement benefit plan</b>						
Balance at January 1	\$ 85	\$ 88	\$ —	\$ —	\$ 85	\$ 88
<b>Included in profit or loss</b>						
Interest cost (income)	1	2	—	—	1	2
	1	2	—	—	1	2
<b>Included in other comprehensive income</b>						
Remeasurements loss (gain):						
Actuarial loss (gain) arising from:						
Demographic assumptions	—	(5)	—	—	—	(5)
Financial assumptions	(2)	6	—	—	(2)	6
Experience adjustment	4	7	—	—	4	7
	2	8	—	—	2	8
<b>Other</b>						
Contributions paid by the employer	—	—	(8)	(13)	(8)	(13)
Benefits paid	(8)	(13)	8	13	—	—
	(8)	(13)	—	—	(8)	(13)
Balance at December 31	\$ 80	\$ 85	\$ —	\$ —	\$ 80	\$ 85
<b>Included in other comprehensive income (loss)</b>						
Defined benefit pension plan actuarial gain (loss)					\$ 2,172	\$ (281)
Other post-retirement benefit plan actuarial loss					(2)	(8)
					\$ 2,170	\$ (289)

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**20. Employee future benefits (cont'd):**

Pension plan assets comprise:

	2021	2020
Cash and cash equivalents	3 %	3 %
Equity securities	60 %	61 %
Debt securities	37 %	36 %
<b>Total</b>	<b>100 %</b>	<b>100 %</b>

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

	2021		2020	
	Pension plan	Other benefit plan	Pension plan	Other benefit plan
Discount rate	2.76 %	2.25 %	2.40 %	1.82 %
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:

	2021		2020	
	Pension plan	Other benefit plan	Pension plan	Other benefit plan
Discount rate	2.40 %	2.25 %	3.16 %	1.82 %
Rate of compensation increase	n/a	n/a	n/a	n/a

Impacts of assumed health care cost trend rates applicable to the other post-retirement benefit plan at December 31, 2021 including a one-percentage-point change in assumed health care cost trend rates would not have a material impact on the Corporation's financial statements.

**21. Equity:**

	December 31, 2021	December 31, 2020
Share-based compensation		
Option Expense	\$ 6,093	\$ 4,482
DSU Expense	672	314
RSU Expense	2,904	1,432
Total share-based compensation for continuing operations (per statement of loss)	\$ 9,669	\$ 6,228
Discontinued operations	—	9
Total share-based compensation (per statement of equity)	\$ 9,669	\$ 6,237

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

**21. Equity (cont'd):**

## (a) Share capital:

On February 23, 2021, the Corporation completed a bought deal offering with a syndicate of financial institutions for 14,870,000 shares of the Corporation at \$37.00 per share, resulting in gross offering proceeds of \$550,190,000 and net offering proceeds of \$527,291,000.

Shares Transacted	14,870,000
Average Share Price	\$ 37.00
Gross offering proceeds	\$ 550,190
Less: Underwriting expenses	(22,186)
Less: Other financing expenses	(713)
Net offering proceeds	\$ 527,291

During the year ended December 31, 2020, the Corporation entered into two at-the-market Equity Distribution Agreements, issuing 24,648,248 shares at an average price per share of \$12.85 for gross proceeds of \$316,673,000 and net proceeds of \$308,826,000.

During the year ended December 31, 2020, the Corporation also completed a bought deal offering with a syndicate of underwriters of 20,909,300 shares at \$19.25 per share, resulting in gross proceeds of \$402,504,000 and net proceeds of \$385,782,000.

	December 31, 2020
Net proceeds from ATM programs	\$ 308,826
Net proceeds from bought deal offering	385,782
Total net proceeds from equity offerings	\$ 694,608

During March 2021, the Corporation filed a short form base Shelf Prospectus, which provides the flexibility to make offerings of securities up to an aggregate initial offering price of \$1,500,000,000 during the effective period of the Prospectus, until April 2023.

At December 31, 2021, 297,700,295 (2020 - 282,078,177) common shares were issued and outstanding.

## (b) 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.

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**21. Equity (cont'd):**

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

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, 2020	4,116,149	\$ 2.92
Options granted	1,834,919	12.36
Options exercised	(1,693,466)	2.77
Options forfeited	(107,963)	6.86
Options expired	—	—
At December 31, 2020	4,149,639	7.07
Options granted	540,116	21.12
Options exercised	(549,281)	4.33
Options forfeited	(98,907)	10.09
Options expired	—	—
At December 31, 2021	4,041,567	\$ 9.25

The following table summarizes information about the Corporation's share options outstanding as at December 31, 2021:

Range of exercise price	Options outstanding			Options exercisable	
	Number outstanding	Weighted average remaining contractual life (years)	Weighted average exercise price	Number exercisable	Weighted average exercise price
\$1.23 - \$1.50	118,517	1.1	\$ 1.42	118,517	\$ 1.42
\$2.00 - \$2.36	260,507	1.6	2.17	260,507	2.17
\$2.86 - \$3.16	339,976	3.6	2.93	285,894	2.90
\$3.21 - \$4.71	1,150,704	3.9	3.46	800,235	3.53
\$10.64 - \$13.46	1,275,856	5.3	11.35	340,989	11.16
\$15.63 - \$26.13	896,007	6.0	19.18	157,651	15.83
	4,041,567	4.6	\$ 9.25	1,963,793	\$ 5.44

During 2021, compensation expense of \$6,093,000 (2020 – \$4,482,000) was recorded in net loss based on the grant date fair value of the awards recognized over the vesting period.

During 2021, 549,281 options were exercised for an equal amount of common shares for proceeds of \$2,415,000. During 2020, 1,693,466 options were exercised for an equal amount of common shares for proceeds of \$4,438,000.

During 2021, options to purchase 540,116 common shares were granted with a weighted average fair value of \$10.76 (2020 – 1,834,919 options and \$5.49 fair value). The granted options vest annually over three years.

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

	2021	2020
Expected life	4 years	4 years
Expected dividends	Nil	Nil
Expected volatility	67 %	61 %
Risk-free interest rate	1 %	1 %

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**21. Equity (cont'd):**

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

As at December 31, 2021, options to purchase 4,041,567 common shares were outstanding (2020 – 4,149,639).

## (c) 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, 2021, there were 19,540,514 (2020 – 17,877,028) shares available to be issued under this plan.

During 2020 and 2021, no shares were issued under this plan and therefore no compensation expense was recorded against profit or loss.

## (d) Deferred share units:

Deferred share units (“DSUs”) are granted to the board of directors and executives. Eligible directors must elect to receive at least half 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, 2020	811,378
DSUs granted	23,809
DSUs exercised	(15,156)
At December 31, 2020	820,031
DSUs granted	35,953
DSUs exercised	(99,761)
At December 31, 2021	756,223

During 2021, compensation expense of \$672,000 (2020 - \$314,000) was recorded in net loss relating to 35,953 DSUs (2020 - 23,809) granted during the year.

During 2021, 99,761 DSUs (2020 – 15,156) were exercised, net of applicable taxes, which resulted in the issuance of 46,388 common shares (2020 – 7,608), resulting in an impact on equity of \$1,290,000 (2020 - \$64,000).

As at December 31, 2021, 756,223 deferred share units were outstanding (2020 – 820,031).

## (e) Restricted share units:

Restricted share units (“RSUs”) are granted to employees and executives. Each RSU is convertible into one common share. The RSUs vest after a specified number of years from the date of issuance, and under certain circumstances, are contingent on achieving specified performance criteria. A performance factor adjustment is made if there is an over-achievement (or under-achievement) of specified performance criteria, resulting in additional (or fewer) RSUs being converted.

The Corporation has two plans under which RSUs may be granted, the consolidated share distribution plan and the market purchase RSU plan. Awards under the consolidated share distribution plan are satisfied by the issuance of treasury shares on maturity.

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**21. Equity (cont'd):**

## (e) Restricted share units (cont'd):

Balance	RSUs for common shares
At January 1, 2020	1,305,265
RSUs granted	334,758
RSU performance factor adjustment	98,867
RSUs exercised	(593,025)
RSUs forfeited	(15,919)
At December 31, 2020	1,129,946
RSUs granted	195,838
RSU performance factor adjustment	(12,128)
RSUs exercised	(325,863)
RSUs forfeited	(21,573)
At December 31, 2021	966,220

During 2021, compensation expense of \$2,904,000 (2020 - \$1,432,000) was recorded in net loss.

During 2021, 195,838 RSUs were issued (2020 – 334,758). 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 2021, 325,863 RSUs (2020 – 593,025) were exercised, net of applicable taxes, which resulted in the issuance of 156,449 common shares (2020 – 305,229), resulting in an impact on equity of \$4,357,000 (2020 - \$3,023,000).

As at December 31, 2021, 966,220 RSUs were outstanding (2020 – 1,129,946).

**22. Commitments and contingencies:**

The Corporation is committed to capital contributions to Weichai Ballard JV in 2022 (note 14). The Corporation is also committed to minimum lease payments (note 19).

Long-term investments include two investments committing the Corporation to be a limited partner in newly-created hydrogen infrastructure and growth equity funds (note 14). The Corporation has committed to investing £25,000,000 (including £5,665,000 invested as of December 31, 2021) into HyCap. The Corporation has committed to investing €30,000,000 (including €300,000 invested as of December 31, 2021) into Clean H2.

As at December 31, 2021, the Corporation has outstanding commitments aggregating up to a maximum of \$22,800,000 relating primarily to purchases of property, plant and equipment.

In connection with the acquisition of intellectual property from UTC in April 2014, the Corporation retains a royalty obligation in certain circumstances to pay UTC a portion of any future intellectual property sale and licensing income generated from certain of the Corporation's intellectual property portfolio for a period of 15 years expiring in April 2029. No royalties were paid to UTC in the years ended December 31, 2021 and December 31, 2020.

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, 2021, no royalties have been incurred to date for this agreement.

The Corporation also retains a previous funding obligation to pay royalties of 2% of revenues, to a maximum of \$1,896,000 (CDN \$2,200,000), on sales of certain fuel cell products for commercial transit applications. As of December 31, 2021, no royalties have been incurred to date for this agreement.

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**23. Disaggregation of revenue:**

The Corporation's operations and main revenue streams are the same as those described in note 4. The Corporation's revenue is derived from contracts with customers.

In the following table, revenue is disaggregated by geographical market, by market application, and by timing of revenue recognition.

	December 31, 2021	December 31, 2020
<b>Geographical markets</b>		
China	\$ 38,818	\$ 54,267
Europe	42,588	36,484
North America	20,599	9,269
Other	2,500	3,857
	\$ 104,505	\$ 103,877
<b>Market application</b>		
Heavy Duty Motive	51,663	47,688
Material Handling	8,140	5,310
Back Up Power	8,214	5,602
Technology Solutions	36,488	45,277
	\$ 104,505	\$ 103,877
<b>Timing of revenue recognition</b>		
Products transferred at a point in time	65,208	56,655
Products and services transferred over time	39,297	47,222
	\$ 104,505	\$ 103,877

**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.

	December 31, 2021	December 31, 2020
Salaries and employee benefits	\$ 84,555	\$ 63,392
Share-based compensation (note 21)	9,669	6,228
	\$ 94,224	\$ 69,620

**25. Other operating expense:**

	December 31, 2021	December 31, 2020
Net impairment loss on trade receivables	\$ 54	\$ 60
Impairment loss allowance	—	250
Total impairment loss on trade receivables	54	310
Restructuring costs	156	66
Acquisition related costs (note 7)	2,115	—
	\$ 2,325	\$ 376

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**25. Other operating expense (cont'd):**

For the year ended December 31, 2021, the Corporation recorded a net impairment loss on trade receivables of \$54,000 (2020 - \$60,000). The impairment loss in 2021 consists of various miscellaneous receivables no longer deemed collectible. 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.

For the year ended December 31, 2021, the Corporation recorded an impairment loss allowance of \$nil (2020 - \$250,000), based on a probability-weighted estimate of credit losses. Information about the Corporation's exposure to credit and market risks, and impairment losses for trade receivables and contract assets is included in note 31.

During 2021, restructuring charges of \$156,000 (2020 - \$66,000) relate primarily to cost reduction initiatives.

Acquisition related costs of \$2,115,000 (2020 - \$nil) for the year ended December 31, 2021 consist primarily of other legal, advisory, and transaction related costs incurred on ongoing corporate development activity including the successful acquisition of Arcola (Ballard Motive Solutions), the long-term investment in Forsee Power, and the long-term investment in the HyCap and Clean H2 hydrogen infrastructure and growth equity funds.

**26. Finance income and expense:**

	2021	2020
Employee future benefit plan expense (note 20)	\$ (131)	\$ (164)
Pension administration expense	(120)	(110)
Investment income	4,043	1,436
Other income	(300)	(255)
Mark to market and foreign exchange loss on financial assets (notes 14 & 31)	(9,024)	—
Foreign exchange gain (loss)	(1,336)	4,875
Government levies	(1,945)	(1,500)
Finance income and other	\$ (8,813)	\$ 4,282
Finance expense	\$ (1,294)	\$ (1,303)

**27. 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:

	2021	2020
<b>Current tax expense</b>		
Current period income tax	\$ 63	\$ 64
Withholding tax	21	66
Total current tax expense	\$ 84	\$ 130
<b>Deferred tax expense</b>		
Origination and reversal of temporary differences	\$ (31,581)	\$ (24,578)
Adjustments for prior periods	(565)	743
Change in unrecognized deductible temporary differences	31,846	23,835
Total deferred tax expense	\$ (300)	\$ —
Total income tax expense (recovery) from continuing operations	\$ (216)	\$ 130



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**27. Income taxes (cont'd):**

The Corporation's effective income tax rate differs from the combined Canadian federal and provincial statutory income tax rate for companies. The principal factors causing the difference are as follows:

	2021	2020
Net loss before income taxes (from continuing operations)	\$ (114,613)	\$ (49,339)
Expected tax recovery at 27.00% (2020 – 27.00%)	\$ (30,945)	\$ (13,322)
Increase (reduction) in income taxes resulting from:		
Non-deductible expenses (non-taxable income)	6,330	(3,001)
Expiry of losses and ITC	64	194
Investment tax credits earned	(3,677)	(3,182)
Foreign tax rate and tax rate differences	3,341	1,668
Change in unrecognized deductible temporary differences	24,651	17,707
Other	20	66
Income taxes (recovery) from continuing operations	\$ (216)	\$ 130

**(b) Recognized deferred tax liabilities:**

The components of the Corporation's deferred tax assets and liabilities as at December 31, 2021 are as follows:

	2021	2020
<b>Deferred tax assets</b>		
Losses from operations carried forward	\$ 665	\$ —
Research and development tax credits	32	—
	\$ 697	\$ —
<b>Deferred tax liabilities</b>		
Intangible assets	\$ (4,275)	—
Deferred tax liabilities	\$ (3,578)	\$ —

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

At December 31, 2021, the Corporation did not recognize any deferred tax assets resulting from the following deductible temporary differences for financial statement and income tax purposes.

	2021	2020
Scientific research expenditures	\$ 122,742	\$ 110,548
Investments	9,357	—
Accrued warranty provision	—	1,619
Share issuance costs	33,100	19,765
Losses from operations carried forward	219,326	151,620
Investment tax credits	42,939	39,052
Property, plant and equipment and intangible assets	217,142	205,074
	\$ 644,606	\$ 527,678

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.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

**27. Income taxes (cont'd):**

The Corporation has available to carry forward the following as at December 31:

	2021	2020
Canadian scientific research expenditures	\$ 122,742	\$ 110,548
Canadian losses from operations	131,514	66,306
Canadian investment tax credits	42,939	39,052
German losses from operations for corporate tax purposes	232	457
US federal losses from operations	50,103	47,872
Denmark losses from operations	35,996	33,441
Hong Kong losses from operations	50	36
UK losses from operations	2,659,000	—
UK research and development tax credits	129,000	—

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 2031 to 2041.

The German, Hong Kong, Denmark and UK losses from operations may be used to offset future taxable income in Germany, Hong Kong, Denmark and UK for corporate tax and trade tax purposes and may be carried forward indefinitely.

The US federal losses from operations incurred prior to January 1, 2018 may be used to offset future US taxable income and expire over the period from 2021 to 2037 and may be carried forward indefinitely for losses incurred after January 1, 2018.

The Canadian investment tax credits may be used to offset future Canadian income taxes otherwise payable and expire over the period from 2021 to 2041. The UK scientific research and development tax credits may be carried forward indefinitely.

**28. 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 investees: Weichai Ballard JV and Synergy Ballard JVCo (note 14).

For the year ended December 31, 2021 and 2020, related party transactions and balances with the Corporation's 49% owned equity accounted investee, Weichai Ballard JV, were as follows:

Balances with related party - Weichai Ballard JV	2021	2020
Trade and other receivables	\$ 10,794	\$ 17,465
Investments	28,982	27,561
Deferred revenue	2,730	4,712
<hr/>		
Transactions during the year with related party - Weichai Ballard JV	2021	2020
Revenues	\$ 35,239	\$ 44,855

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

**28. Related party transactions (cont'd):**

For the year ended December 31, 2021 and 2020, related party transactions and balances with the Corporation's 10% owned equity accounted investee, Synergy Ballard JVCo, were as follows:

Balances with related party - Synergy Ballard JVCo	2021	2020
Trade and other receivables	\$ 99	\$ 99
Investments	—	—
Deferred revenue	16	304
Transactions during the year with related party - Synergy Ballard JVCo	2021	2020
Revenues	\$ 3,441	\$ 8,232

*Corporation Directors and Executive Officers*

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 21).

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 are substantially the same with slight variations 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:

	2021	2020
Salaries and employee benefits	\$ 3,767	\$ 3,021
Post-employment retirement benefits	74	62
Share-based compensation (note 21)	2,411	1,530
	\$ 6,252	\$ 4,613

**29. Supplemental disclosure of cash flow information:**

Non-cash financing and investing activities:	2021	2020
Compensatory shares	\$ 704	\$ 647

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

**30. Operating segments:**

The Corporation operates in a single segment, Fuel Cell Products and Services, which consists of the sale and service of PEM fuel cell products for the power product markets of Heavy-Duty Motive (consisting of bus, truck, rail and marine applications), 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.

The results of Ballard Motive Solutions from the date of acquisition on November 11, 2021 to December 31, 2021, are currently included in the Technology Solutions market.

In 2021, revenues included sales to one individual customer of \$35,239,000, which exceeded 10% of total revenue. In 2020, revenues included sales to two individual customers of \$44,855,000, and \$15,965,000, respectively, which each exceeded 10% of total revenue.

Revenues from continuing operations by geographic area, which are attributed to countries based on customer location for the years ended December 31, are as follows:

Revenues	2021	2020
China	\$ 38,818	\$ 54,267
Germany	22,063	23,032
United States	17,536	8,010
United Kingdom	8,968	7,876
Canada	3,063	1,259
Denmark	3,026	1,171
Norway	2,521	436
Belgium	2,121	2,673
France	1,827	1,090
Japan	954	2,695
Spain	926	128
Taiwan	912	1,008
Poland	541	—
India	439	—
Ukraine	244	—
Sweden	129	—
Other countries	417	232
	\$ 104,505	\$ 103,877

Non-current assets by geographic area are as follows:

Non-current assets	December 31, 2021	December 31, 2020
Canada	\$ 157,805	\$ 88,128
China	29,009	27,577
United Kingdom	17,552	—
United States	4,121	4,107
Denmark	3,270	1,472
	\$ 211,757	\$ 121,284

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

**31. Financial instruments:**

## (a) Fair value:

The Corporation's financial instruments consist of cash and cash equivalents, short-term investments, trade and other receivables, investments, and trade and other payables. 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.

Short-term investments comprise term deposits with terms of greater than 90 days and an investment in a Danish public company held by Ballard Power Systems Europe ("BPSE"). BPSE previously held an investment of approximately \$5,000 in a Danish private company, Green Hydrogen Systems A/S which recently issued an initial public offering on the Danish stock exchange in June 2021. On June 17, 2021, BPSE received 259,551 shares in the new publicly-owned investment company (after relinquishing its shares in the previous privately-held company) initially valued at \$1,681,000, resulting in investment income of \$1,676,000. While held, the fair value of this investment is re-assessed each quarter as per *IFRS 9 Financial Instruments*, with any gain (loss) recognized through finance income (loss) and other. As at December 31, 2021, there was a decrease in the fair value of the investment of \$254,000 resulting in net investment income of \$1,422,000 for the twelve months ended December 31, 2021. During the three months ended December 31, 2021, the Corporation sold 69,000 Green Hydrogen shares for net proceeds of \$336,000.

Long-term investments comprise newly-created hydrogen infrastructure and growth equity funds: HyCap Fund and Clean H2 Fund, and an investment in Forsee Power, as well as equity-accounted investments. Changes in fair value and foreign exchange adjustments are recognized as gains or losses in the consolidated statement of loss and comprehensive income (loss) and included in finance income (loss) and other (note 14). All gains or losses are unrealized. During the year ended December 31, 2021, the Corporation recognized mark to market and foreign exchange losses of \$10,474,000 in its investment in Forsee Power and nominal foreign exchange gains in HyCap Fund and Clean H2 Fund.

	December 31, 2021	December 31, 2020
Increase (decrease) in fair value due to MTM and foreign exchange		
Short-term investment - Green Hydrogen	\$ 1,422	\$ —
Long-term investment - Forsee Power	(10,474)	—
Long-term investment - HyCap Fund	26	—
Long-term investment - Clean H2 Fund	2	—
Decrease in fair value of investments	\$ (9,024)	\$ —

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).

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

**31. Financial instruments (cont'd):**

## (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.

Periodically, the Corporation uses foreign exchange currency contracts to manage exposure to currency rate fluctuations. These contracts are recorded at their fair value as either assets or liabilities on the statement of financial position. 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 loss and comprehensive income (loss) if either not designated, or not qualified, under hedge accounting criteria. The outstanding foreign exchange currency contracts are not qualified under hedge accounting.

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, 2021, the Corporation held Canadian dollar denominated cash and cash equivalents of CDN \$73,524,000 and outstanding forward foreign exchange contracts to buy a total of CDN \$26,500,000 in 2021 at an average rate of CDN \$1.26 to US \$1.00.

The following exchange rates applied during the year ended December 31, 2021:

	\$US to \$1.00 CDN	\$CDN to \$1.00 US
January 1, 2021 Opening rate	\$0.785	\$1.274
December 31, 2021 Closing rate	\$0.787	\$1.271
Fiscal 2021 Average rate	\$0.798	\$1.254

Based on cash and cash equivalents and forward foreign exchange contracts held at December 31, 2021, 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 \$7,871,000 recorded against net income.

If the Canadian dollar weakened 10% against the US 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.

**BALLARD POWER SYSTEMS INC.**

## Notes to Consolidated Financial Statements

Years ended December 31, 2021, and 2020

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

**31. Financial instruments (cont'd):**

## (b) Financial risk management (cont'd):

*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, 2021, a 1.0% decline in interest rates, with all other variables held constant, would result in a decrease in investment income of \$11,239,000. If interest rates had been 1.0% higher, there would be an equal and opposite impact on net income.

*Credit risk*

Credit risk is the risk of financial loss to the Corporation if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Corporation's receivables from customers.

*IFRS 9 Financial Instruments* requires impairment losses to be recognized based on "expected losses" that will occur in the future, incorporating forward looking information relating to defaults and applies a single ECL impairment model that applies to all financial assets within scope. ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the Corporation in accordance with the contract and the cash flows that the Corporation expects to receive). Under *IFRS 9*, at each reporting date the Corporation is required to assess whether financial assets carried at amortized cost are credit-impaired.

Impairment loss on financial assets and contract assets recognized in profit and loss of \$54,000 (2020 - \$310,000) were comprised of realized impairment loss recognized during the year of \$54,000 (2020 - \$60,000) and an impairment loss allowance of \$nil (2020 - \$250,000).

The Corporation's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the factors that may influence the credit risk of its customer base, including the default risk associated with the industry and country in which customers operate. Details of concentration of revenue are included in note 23 and note 30.

The Corporation limits its exposure to credit risk from trade receivables and contract assets by contracting prepayments (from 50% to 100%) from certain customers.

The Corporation determines probability of default based on the following common credit risk characteristics: geographic region, age of customer relationship, and duration of remaining contract. The Corporation calculates probability of default using a forecasted default rate over the next twelve months for the automotive and manufacturing industries, ranging from 0.8% to 1.2%. The Corporation has assessed the probability of default to the higher end of the default range of 1.2% as a result of the COVID-19 pandemic. The loss given default is assumed to be 100% due to the Corporation's position as an unsecured creditor.

The movement in the allowance for impairment in respect of trade receivables and contract assets during the year was as follows.

	December 31, 2021	December 31, 2020
Impairment loss allowance		
Beginning balance	\$ 500	\$ 250
Net measurement of loss allowance	—	250
Ending balance	\$ 500	\$ 500

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## CORPORATE INFORMATION

### CORPORATE OFFICES

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### INDEPENDENT AUDITORS

#### **KPMG LLP**

Vancouver, BC Canada

### TRANSFER AGENT

#### **Computershare Trust Company of Canada**

Shareholder Services Department  
510 Burrard Street  
Vancouver, BC Canada V6C 3B9  
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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.

### INVESTOR RELATIONS

To obtain additional information, please contact:

#### **Ballard Power Systems**

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### EXECUTIVE MANAGEMENT

#### **Randy MacEwen**

President & Chief Executive Officer

#### **Paul Dobson**

Senior Vice President &  
Chief Financial Officer

#### **Robert Campbell**

Senior Vice President &  
Chief Commercial Officer

#### **Kevin Colbow**

Senior Vice President &  
Chief Technology Officer

#### **Linda Downs**

Senior Vice President &  
Chief People Officer

#### **Jyoti Sidhu**

Senior Vice President, Operations

### LEGAL COUNSEL

#### **Canada:**

Stikeman Elliott, LLP  
Vancouver, BC Canada

#### **United States:**

Dorsey & Whitney LLP  
Seattle, WA USA

#### **Intellectual Property:**

Seed Intellectual Property  
Law Group, LLC  
Seattle, WA USA

### BOARD OF DIRECTORS

#### **Kathy Bayless**

Corporate Director  
California, USA

#### **Douglas P. Hayhurst**

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Corporate Director  
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Chief Executive Officer  
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California, USA

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Chairman of the Board  
Ontario, Canada

#### **Sherman Sun**

Corporate Director  
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#### **Janet Woodruff**

Corporate Director  
British Columbia, Canada

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