

# **Hydrogenics Corporation**

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2017 Management's Discussion and Analysis

The following Management's Discussion and Analysis ("MD&A") of Hydrogenics Corporation ("Hydrogenics" or the "Company") should be read in conjunction with the Company's Audited Consolidated Financial Statements and related notes for the year ended December 31, 2017. The Company prepares its consolidated financial statements in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB").

The Company uses certain non-IFRS financial performance measures in this MD&A. For a detailed reconciliation of each of the non-IFRS measures used in this MD&A, please see the discussion under "Non-IFRS Measures" below.

In this MD&A, all currency amounts (except per unit amounts) are in thousands and, unless otherwise stated, they are in thousands of United States dollars ("US Dollars"). The information presented in this MD&A is as of March 7, 2018, unless otherwise stated.

Additional information about Hydrogenics, including our 2017 Audited Consolidated Financial Statements and our Annual Report on Form 40-F, which is filed in Canada as our annual information form, is available on our website at [www.hydrogenics.com](http://www.hydrogenics.com), on the SEDAR website at [www.sedar.com](http://www.sedar.com), and on the EDGAR filers section of the U.S. Securities and Exchange Commission website at [www.sec.gov](http://www.sec.gov).

This document contains forward-looking statements, which are qualified by reference to, and should be read together with the "Forward-looking Statements" cautionary notice on page 27 of this MD&A.

"Hydrogenics" or the "Company" or the words "our," "us" or "we" refer to Hydrogenics Corporation and its subsidiaries.

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**Management's Discussion and Analysis**  
**Table of Contents**

<b>Section</b>	<b>Description</b>	<b>Page</b>
1	<a href="#"><u>Our Business</u></a>	4
2	<a href="#"><u>Growth Strategy</u></a>	7
3	<a href="#"><u>Operating Results</u></a>	8
4	<a href="#"><u>Financial Condition</u></a>	13
5	<a href="#"><u>Summary of Quarterly Results</u></a>	14
6	<a href="#"><u>Liquidity and Capital Resources</u></a>	16
7	<a href="#"><u>Outstanding Share Data</u></a>	21
8	<a href="#"><u>Critical Accounting Estimates</u></a>	22
9	<a href="#"><u>Changes in Accounting Policies and Recent Accounting Pronouncements</u></a>	22
10	<a href="#"><u>Outlook</u></a>	22
11	<a href="#"><u>Related Party Transactions</u></a>	24
12	<a href="#"><u>Disclosure Controls</u></a>	24
13	<a href="#"><u>Internal Control Over Financial Reporting</u></a>	25
14	<a href="#"><u>Reconciliation of Non-IFRS Measures</u></a>	25
15	<a href="#"><u>Risk Factors</u></a>	26
16	<a href="#"><u>Forward-looking Statements</u></a>	27

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# 1 Our Business

## Who We Are

Hydrogenics, together with its subsidiaries, is a globally recognized leader in the design, development and manufacture of hydrogen generation, energy storage and fuel cell products based on water electrolysis technology and proton exchange membrane (“PEM”), technology. Hydrogenics’ mission is to provide safe, secure, sustainable and emission free energy as a leading global provider of clean energy solutions based on hydrogen. We maintain operations in Belgium, Canada and Germany with satellite offices in the United States and branch offices in Russia, Indonesia and Malaysia.

We believe our intellectual property provides us with a strong competitive advantage and represents a significant barrier to entry. As part of our portfolio, we maintain a collection of innovative energy storage patents with broad and exclusive rights concerning the use of excess electrical power to produce hydrogen from water while simultaneously providing electric grid stabilization services. We believe these patents place Hydrogenics in the strongest possible position to build our company over the long term and will continue to strengthen our efforts as electric grid operators look to hydrogen as an important strategy for utility-scale energy storage.

## How We Are Organized

We operate in various geographic markets and organize ourselves in two reportable segments being Onsite Generation and Power Systems.

Our OnSite Generation business segment is primarily based in Oevel, Belgium and develops products for industrial gas, hydrogen fueling and renewable energy storage markets. For the year ended December 31, 2017, our OnSite Generation business reported revenues of \$25.0 million and, at December 31, 2017, had 82 full-time employees.

Our Power Systems business segment is primarily based in Mississauga, Canada, with a satellite facility in Gladbeck, Germany, and develops products for energy storage, motive power and stationary applications. For the year ended December 31, 2017 our Power Systems business reported revenues of \$23.1 million and, at December 31, 2017 had 89 full-time employees.

Where applicable, corporate and other activities are reported separately as Corporate and Other. This is the provision of corporate services and administrative support. At December 31, 2017, our Corporate and Other activities had four full-time employees.

## OnSite Generation

Our OnSite Generation business segment, is based on water electrolysis technology which involves the decomposition of water into oxygen and hydrogen gas by passing an electric current through a liquid electrolyte or a polymer electrolyte membrane. The resultant hydrogen gas is then captured and used for industrial gas applications, hydrogen fueling applications, and is used to store renewable and surplus energy in the form of hydrogen gas. Our HySTAT® and HyLYZER® branded electrolyzer products are based on 60 years of hydrogen experience, meet international standards, such as ASME, CE, Rostechnadzor and UL, and are certified ISO 9001 from design to delivery. We configure our HySTAT® products for both indoor and outdoor applications and tailor our products to accommodate various hydrogen gas requirements.

Historically the demand for onsite generation of hydrogen gas has been driven by relatively modest market applications for industrial hydrogen. A typical unit for these applications would generate 20 to 60 normal cubic meters of hydrogen and consume 100 to 300 kilowatt (kW) of electrical energy. Recently we have seen several large scale applications which would consume 10 to 100 megawatts (“MW”) of power, which is 100 to 300 times larger than a typical industrial unit to date. Today several third party studies and internal work by lead customers such as Uniper and Enbridge suggest substantial long term opportunity for “power to gas”, an application for energy conversion and storage. The ongoing commercialization of these applications will coincide with changes to legal and regulatory frameworks in countries that recognize the commercial importance of energy storage as a key factor in energy management and reducing a carbon footprint for electricity generation. In addition to Power-to-Gas, very large scale industrial applications are also appearing such as the de-tritiation of contaminated waste water at nuclear reactor sites. In larger applications, the use of PEM electrolysis technology results in highly efficient energy dense applications. Our 1.5MW PEM single stack electrolyzer is the most power dense unit in the market today and is ideally suited for large scale energy storage applications.

Hydrogenics is one of the leaders in Power-to-Gas, an innovative energy conversion and storage solution using electrolysis. Power-to-Gas is the three-step process of integrating renewable sources of generation by load-following, converting the surplus electricity to hydrogen or renewable gas, and leveraging the existing natural gas infrastructure for seasonal storage. An electrolyzer provides the rapid, dynamic response to the Independent System Operator's signals to accurately load-follow the intermittent generation pattern of renewable sources such as wind turbines. The hydrogen produced is injected into the natural gas system and can be intermingled with natural gas and thus additional storage vessels are not needed. Surplus electricity can be stored for consecutive days or even consecutive weeks without the need to discharge; it is a seasonal storage capability. This energy storage solution bridges the power grid and the gas grid to unlock new options. It enhances the flexibility of managing the power grid and provides the means to capitalize on the vast potential of alternative sources of generation to produce a local source of renewable gas to de-carbonize the gas system. Hydrogenics is working with global energy utilities such as E.ON and Enbridge to commercialize Power-to-Gas energy storage globally.

We also are promoting electrolysis in hydrogen fueling stations as possible Power-to-Gas solutions at a distributed storage level. The electrolyzer can be used to generate hydrogen during periods of surplus energy levels, thus absorbing the excess energy at lower cost to generate hydrogen. This hydrogen is then stored at site and can be used to fuel hydrogen cars and buses. If the surplus power is generated from renewable energy sources such as wind and solar, the potential exists for a completely green solution as hydrogen fuel cell vehicles emissions are only water vapor.

Our OnSite Generation products are sold to leading merchant gas companies, such as Air Liquide and Linde Gas and end-users requiring high purity hydrogen produced on-site for industrial applications. We also sell and service products for progressive oil and gas companies, requiring hydrogen fueling stations for transportation applications. Recently, the rollout of fuel cell motor vehicles and the increase in fuel cell buses and other mass transit applications has resulted in an increase in orders and interest for fueling stations in Europe, California and elsewhere. This shift has signaled what we believe could be a major increase in the size of this market.

The business objectives for our OnSite Generation group are to: (i) continue to pursue opportunities for customers to convert otherwise wasted renewable and other excess energy, such as wind, solar or excess baseload energy, into hydrogen; (ii) further expand into traditional markets, such as Eastern Europe (including Russia), Asia and the Middle East; (iii) grow our fueling station business; (iv) continue to expand opportunities in Power-to-Gas in Europe, North America and elsewhere; (v) further increase the gross margins of existing product lines by improving our procurement and manufacturing processes; (vi) reduce the cost of ownership of our products through design and technology improvement; and (vii) further increase the reliability and durability of our products to exceed the expectations of our customers and improve the performance of our applications.

## **Power Systems**

Our Power Systems business segment is based on PEM fuel cell technology, which transforms chemical energy liberated during the electrochemical reaction of hydrogen and oxygen into electrical energy. Our HyPM® branded fuel cell products are based on our extensive track record of on-bench testing and real-time deployments across a wide range of stationary and motive power profiles. We configure our HyPM® products into multiple electrical power outputs ranging from three kW to one MW with ease of integration, high reliability and operating efficiency, delivered from a highly compact area.

Our target markets include stationary power applications (including primary and back-up power) and motive power applications, such as trains, buses, trucks and utility vehicles and backup power applications. The military, historically an early technology adopter, is a specialized market for our innovative fuel cell based products. Our target future addressable markets (stationary power and mobility markets) are estimated to be in excess of \$2 billion specifically related to hydrogen power technology.

Our Power Systems products are sold to leading Original Equipment Manufacturers ("OEMs"), to provide backup power applications for telecom installations and vehicle and other integrators for motive power, direct current and alternating current backup. Additionally, our products are sold for prototype field tests intended to be direct replacements for traditional lead-acid battery packs for motive applications. We also sell our power systems in stationary power applications such as that employed by our Kolon-Hydrogenics joint venture in South Korea. Finally, we also sell our Power Systems products to military, aerospace and other early adopters of emerging technologies.

The business objectives for our Power Systems group are to: (i) offer a standard fuel cell platform for many markets, thereby enabling manufacturing efficiencies and reduced development spending; (ii) achieve further market penetration in the stationary power and motive power markets by tailoring our HyPM® fuel cell products to meet market specific requirements, including price, performance and features; (iii) reduce product cost; (iv) invest in sales and market development activities in the backup power and motive power markets; (v) continue to target early adopters of emerging technologies as a bridge to future commercial markets; and (vi) secure the requisite people and processes to align our anticipated growth plans with our resources and capabilities.

Our Power Systems business competes with several well-established battery and internal combustion engine companies in addition to several other fuel cell companies. We compete on relative price/performance and design innovation. In the backup power market, we believe our HyPM® systems have an advantage over batteries and internal combustion engines for customers seeking extended run requirements, by offering more reliable and economical performance. In motive power markets, we believe our HyPM® products are well positioned against diesel generation and lead-acid batteries by offering increased productivity and lower operational costs.

There are four types of fuel cells other than PEM fuel cells that are generally considered to have possible commercial applications, including phosphoric acid fuel cells, molten carbonate fuel cells, solid oxide fuel cells and alkaline fuel cells. Each of these fuel cell technologies differs in their component materials and operating characteristics. While all fuel cell types may have potential environmental and efficiency advantages over traditional power sources, we believe PEM fuel cells can be manufactured less expensively and are more efficient and more practical in small-scale stationary and motive power applications. Further, most automotive companies have selected PEM technology for fuel cell powered automobiles. We expect this will help establish concentration around PEM technology and may result in a lower cost, as compared to the other fuel cell technologies.

### **How We Sell Our Products**

Our products are sold worldwide to OEMs, systems integrators and end-users through a direct sales force and a network of distributors. Our sales method varies depending on the product offering, market and stage of technology adoption.

### **Intellectual Property**

We protect our intellectual property by means of a combination of patents, copyrights, trademarks, trade secrets, licenses, non-disclosure agreements and contractual provisions. We generally enter into non-disclosure and confidentiality agreements with each of our employees, consultants and third parties that have access to our proprietary technology. We currently hold 147 patents in a variety of jurisdictions and have 49 patent applications pending. Additionally, we enter into commercial licenses and cross-licenses to access third party intellectual property.

We believe our intellectual property provides us with a strong competitive advantage and represents a significant barrier to entry into our industry for potential competitors. As part of our patent portfolio, we maintain a collection of innovative energy storage patents with broad and exclusive rights concerning the use of excess electrical power to produce hydrogen from water while simultaneously providing electric grid stabilization services. We believe these patents place Hydrogenics in the strongest possible position to build our company over the long-term and will continue to strengthen our efforts as electric grid operators look to hydrogen as an important strategy for utility-scale energy storage.

We typically retain sole ownership of intellectual property developed by us. In certain situations, we provide for shared intellectual property rights. We have these rights in perpetuity, including subsequent improvements to the licensed technology.

Given the relative early stages of our industry, our intellectual property is and will continue to be important in providing differentiated products to customers.

### **Government Regulation**

We are not subject to regulatory commissions governing traditional electric utilities and other regulated entities in any of the jurisdictions that we operate in. Our products are subject to oversight and regulation by governmental bodies in regards to building codes, fire codes, public safety, electrical and gas pipeline connections and hydrogen siting, among others.

## 2 Growth Strategy

Our strategy is to develop electrolyzer and fuel cell products for sale to OEMs, electric utilities, gas utilities, merchant gas companies, municipalities and other owners of mass transit applications (such as buses and trains) and end-users requiring highly reliable products offered at competitive prices. We believe our success will be substantially predicated on the following factors:

### Increasing Market Penetration

At December 31, 2017, we had 15 full-time staff employed in sales functions. Our senior management team is also actively involved in sales initiatives, including maintaining close contact with our more significant customers. In the year, significant efforts were made to strengthen the sales function, including repositioning of responsibilities to permit dedicated sales leadership, obtaining detailed assessments of markets, and leveraging our strategic relationships with companies such as Enbridge and Kolon.

2017 continued the focus begun in 2016 on developing several key markets and geographies. In Power Systems, our growth in the Chinese bus and transportation market was evidenced by significant year-over-year sales growth, as well as a 1,000 unit order and licensing agreement with Blue-G New Energy Science & Technology Corporation that is expected to contribute to further growth in 2018 and beyond. Driven by government incentives for fuel cell buses, the Chinese market currently represents the single largest geographic market for fuel cell technology. Also on the mobility front, work continued on our ten-year contract to develop and supply hydrogen fuel cell propulsion systems for Alstom Transport for passenger rail in Europe. We are also investigating extending hydrogen rail opportunities into other markets in North America and Asia.

Additionally, we have developed or maintained relationships with third parties we believe are well positioned in our relevant markets to identify new opportunities for our products. In the industrial gas market, these third parties include leading merchant gas companies, such as Air Liquide and Linde Gas. In the energy storage market, we are leveraging our strategic relationship with Enbridge. Construction on our Toronto area energy storage facility (in a joint venture with Enbridge Gas Distribution) is nearing completion ongoing with commercial operation expected in the second quarter of 2018.

We are also noting increased success in partnering with companies to develop hydrogen fueling stations using our electrolysis technology as automobile manufacturers begin to roll out hydrogen fuel cell vehicles at commercial production levels (principally for the European, Asian and California markets).

### Future Markets

Hydrogenics is pioneering Power-to-Gas, an innovative energy conversion and storage solution using electrolysis. Power-to-Gas is the three-step process of integrating renewable sources of generation by load-following, converting the surplus electricity to hydrogen or renewable gas, and leveraging the existing natural gas infrastructure for seasonal storage. An electrolyzer provides the rapid, dynamic response to the Independent System Operator's signals to accurately load-follow the intermittent generation pattern of renewable sources such as wind turbines. The hydrogen produced is injected into the natural gas system and can be intermingled with natural gas and thus additional storage vessels are not needed. In this way, surplus electricity can be stored for consecutive days or even consecutive weeks without the need to discharge; it is a seasonal storage capability. This energy storage solution bridges the power grid and the gas grid to unlock new options. It enhances the flexibility of managing a power grid and provides the means to capitalize on the vast potential of alternative sources of generation to produce a local source of renewable gas to de-carbonize the gas system. Hydrogenics is working with global energy utilities such as Uniper and Enbridge to commercialize Power-to-Gas energy storage globally.

We also are promoting electrolysis in hydrogen fueling stations as possible Power-to-Gas solutions at a distributed storage level. The electrolyzer can be used to generate hydrogen during periods of surplus energy levels, thus absorbing the excess energy at lower cost to generate hydrogen. This hydrogen is then stored at site and can be used to fuel hydrogen cars and buses. If the surplus power is generated from renewable energy sources such as wind and solar, the potential exists for a completely green solution as hydrogen fuel cell vehicles emissions emit only water vapor.

Unique applications and products such as our Celerity fuel cell module for bus and truck applications, smaller fuel cells for range extension mobile applications and our rack mounted stationary fuel cell products for stationary power applications such as Kolon in South Korea will continue to be a focus area of our Company.

## Advancing Our Product Designs

Within our OnSite Generation business segment, we remain focused on two key areas. First, reducing the cost of our HySTAT® alkaline electrolyzer and improving its efficiency. Innovation in the design, elimination of non-value adding components, improved component sourcing and fundamental electrochemical improvements have all contributed to ongoing cost reduction initiatives in 2017 and beyond. We also recognize the opportunity for larger scale energy storage installations and are continuing to develop significantly scale-up products to better meet this market opportunity. Second, we are looking at continuing the rollout of PEM electrolysis, particularly in the area of Power-to-Gas where PEM technology provides a more scalable solution than alkaline electrolysis at higher power levels.

Within our Power Systems business segment, we spent much of 2017 focusing on further reducing the cost of a fully integrated fuel cell system inclusive of its components. We continue to leverage our integration capability in taking a standard fuel cell stack and finding multiple cost-effective applications. The result is a common building block such as our (HD30 30kW fuel cell) being used in multiple applications such as buses, stationary power and grid stabilization. We have achieved significant cost reduction milestones but will continue to further improve the financial viability of the product in the marketplace by looking at both scale (increased volume ordering from suppliers) as well as bringing components of the supply chain in-house to further reduce production cost.

## 3 Operating Results

### Selected Financial information

(in thousands of US dollars, except per share amounts)

				2017 vs 2016	2016 vs 2015
	2017	2016	2015	% Favourable (Unfavourable)	% Favourable (Unfavourable)
OnSite Generation	\$ 24,973	\$ 17,510	\$ 23,556	43 %	(26)%
Power Systems	23,079	11,480	12,308	101 %	(7)%
Total revenue	48,052	28,990	35,864	66 %	(19)%
Gross profit	11,420	5,995	5,971	90%	n/a
Gross Margin %	24%	21%	17%		
Selling, general and administrative expenses	13,742	10,825	10,215	(27)%	(6)%
Research and product development expenses	6,376	3,576	4,070	(78)%	12 %
Income (loss) from operations	(8,698)	(8,406)	(8,314)	(3)%	(1)%
Finance income (loss), net	(2,442)	(1,451)	(3,128)	(68)%	54 %
Net loss	\$ (11,140)	\$ (9,857)	\$ (11,442)	13 %	(14)%
Net loss per share	\$ (0.80)	\$ (0.79)	\$ (1.12)	2 %	(30)%
Cash operating costs <sup>1</sup>	\$ 17,834	\$ 13,894	\$ 14,102	28 %	(1)%
Adjusted EBITDA <sup>1</sup>	(6,334)	(7,555)	(7,875)	16 %	4 %
Cash used in operating activities	(4,782)	(13,213)	(5,838)	64 %	(126)%
Cash and cash equivalents (including restricted cash)	22,414	11,278	24,901	99 %	(55)%
Total assets	64,913	49,273	59,368	32 %	(17)%
Total non-current liabilities (excluding deferred revenue)	\$ 9,437	\$ 10,103	\$ 4,059	7 %	(149)%

<sup>1</sup> Cash operating costs and Adjusted EBITDA are Non-IFRS measures. Refer to section 14 – Reconciliation of Non-IFRS Measures.

**Highlights for the year ended December 31, 2017 compared to the year ended December 31, 2016**

- Revenues increased by \$19.1 million, or 66% to \$48.1 million for the year ended December 31, 2017 compared to \$29.0 million in the prior year due primarily to increases in shipments in both of our segments. Specifically: i) an \$8.7 million increase in Power Systems revenue principally related to the delivery of fuel cell mobility orders to the Chinese mobility market; and ii) \$11.1 million in energy storage orders related to Power-to-Gas applications for EGAT Thailand, Doosan Babcock in Aberdeen, Scotland, and Brunsbuttel, Germany.
- The Company received new orders for \$21.7 million (2016 - \$21.2 million) for the OnSite Generation business and \$54.2 million (2016 - \$22.8 million) for the Power Systems business.

	December 31, 2016		Orders		Orders		December 31, 2017			
	backlog		Received		FX	Delivered/ Revenue Recognized	backlog			
OnSite Generation	\$	20.8	\$	21.7	\$	2.4	\$	25.0	\$	19.9
Power Systems		85.8		54.2		7.8		23.1		124.7
<b>Total</b>	<b>\$</b>	<b>106.6</b>	<b>\$</b>	<b>75.9</b>	<b>\$</b>	<b>10.2</b>	<b>\$</b>	<b>48.1</b>	<b>\$</b>	<b>144.6</b>

- Of the above backlog of \$144.6 million, we expect to recognize approximately \$55 million as revenue in the following 12 months. Revenue for the year ending December 31, 2018 will also include orders received and delivered in 2018.
- Gross margin increased from 21% to 24% of revenue primarily due to product mix within the Power Systems segment, which saw an increase in gross margin from 22% to 34%. This was partially offset by several key first-of-a-kind projects having a lower margin profile within the OnSite Generation segment.
- Selling, general and administrative (“SG&A”) expenses for 2017 of \$13.7 million were greater by \$2.9 million, or 27%, compared to \$10.8 million for the year ended December 31, 2016. Excluding: i) the impact of the reversal of an indemnification liability of \$0.5 million associated with an acquisition in 2004 included within the year ended 2016; and ii) the reversal of previously charged compensation expense for PSUs of \$0.2 million also included within the year ended 2016, SG&A expenses increased \$2.2 million. This increase was due to: i) mark-to-market expenses totaling \$1.2 million as a result of the increase in our share price for the year ended December 31, 2017 as compared to the year ended December 31, 2016 (to C\$14.00 from C\$5.75); ii) an increase of \$0.5 million in allowance for doubtful accounts related to the collectability of a receivable related to a energy storage project; and iii) an increase of \$0.4 million relating to increased business activity, such as compensation costs tied to the achievement of targets, legal fees and insurance costs.
- Research and product development (“R&D”) expenses were \$6.4 million for the year ended December 31, 2017 compared to \$3.6 million in 2016, an increase of \$2.8 million, or 78%. In the Power Systems segment, the increase represents increased spending on R&D, primarily for multi-megawatt energy storage projects specifically for our Power-to-Gas facility with our Enbridge joint venture in Toronto, Canada, and mobility applications such as ongoing development on the next generation of our fuel cell stack platform for mobility applications such as rail, trucks and buses. While net R&D expenses also increased in the OnSite Generation segment, this increase was principally due to a decline in funded R&D as there was a significant power-to-gas demonstration project ongoing in Denmark in 2016. Overall gross R&D spending levels at OnSite Generation declined year-over-year.
- Adjusted EBITDA loss decreased to \$6.3 million for the year ended December 31, 2017 from \$7.6 million for the prior year, for the reasons noted above.
- Net loss for the year ended December 31, 2017 was \$11.1 million, or \$0.80 per share, compared to a net loss of \$9.9 million, or \$0.79 per share, for the prior year. While gross profit increased over \$5.4 million, the increase in SG&A expenses and R&D expenses, as discussed above, resulted in a consistent loss from operations when compared to the year ended December 31, 2016. The increase in net loss in the current period reflects an increase in other finance losses of \$1.0 million. There was a \$0.7 million loss on fair value adjustments relating to outstanding and exercised warrants in the year ended December 31, 2017, whereas the year ended December 31, 2016 included a \$0.8 million fair value gain related to outstanding warrants. This was offset by an increase in net foreign currency gains (losses) from a loss of \$0.3 million for the year ended December 31, 2016 to a gain of \$0.6 million in the current year.

- Cash operating costs increased 28% to \$17.8 million for the year ended December 31, 2017, compared to \$13.9 million for the year ended December 31, 2016, primarily reflecting the increase in SG&A and net R&D expenses above.

#### Highlights for the year ended December 31, 2016 compared to the year ended December 31, 2015

- Revenues decreased by \$7.0 million, or 19%, to \$29.0 million for the year ended December 31, 2016 compared to \$35.9 million in the prior year. The decrease of \$7.0 million was due to: i) a decline in new customer capital expenditures, plant expansion expenditures, and energy storage projects for which the market is developing; ii) the completion in 2015 of a \$2.3 custom project for which there was no comparable project revenue in 2016; and iii) timing impacts on our long-term significant custom project totaling \$1.3 million. Partially offsetting this was: i) an increase of \$2.7 million in the Chinese mobility market in 2016; and ii) an increase of \$0.8 million related to our hydrogen fuel cell systems for commuter trains in Europe, for which two additional train fuel cell modules were shipped in 2016. During 2016, the Company received new orders for \$21.2 million (2015 - \$14.9 million) for the OnSite Generation business and \$22.8 million (2015 - \$58.5 million) for the Power Systems business.

	December 31, 2015		Orders		Orders		December 31, 2016			
	backlog		Received		FX	Delivered/ Revenue Recognized	backlog			
OnSite Generation	\$	17.1	\$	21.2	\$	–	\$	17.5	\$	20.8
Power Systems		76.2		22.8		(1.7)		11.5		85.8
<b>Total</b>	<b>\$</b>	<b>93.3</b>	<b>\$</b>	<b>44.0</b>	<b>\$</b>	<b>(1.7)</b>	<b>\$</b>	<b>29.0</b>	<b>\$</b>	<b>106.6</b>

- Gross margin increased from 16.6% to 20.7% of revenue, driven by several key first-of-a-kind projects that had a lower margin profile included in 2015 and the impact of the increased revenues in the Chinese mobility market, partially offset by lower absorption of indirect fixed overhead costs and changes in product mix (including a lower proportion of custom projects including engineering services).
- Cash operating costs were \$13.9 million in the current year compared to \$14.1 million for 2015, with the lower costs resulting from a decrease in net R&D expenditures, partially offset by an increase in SG&A expenses excluding stock-based compensation and amortization and depreciation.
- Selling, general and administrative (“SG&A”) expenses for 2016 of \$10.8 million were greater by \$0.6 million or 6% compared to \$10.2 million for the year ended December 31, 2015. The increase over the prior year was due largely to: i) increased sales costs attributable to greater order intake; ii) a provision for doubtful accounts of \$0.8 million; and iii) an increase in costs related to Power-to-Gas and rail transportation market development of \$0.2 million. This was partially offset by: i) the reversal of an indemnification liability of \$0.5 million associated with an acquisition in 2004; ii) a decrease of \$0.2 million in stock based compensation relating to our performance share units (“PSUs”) as a result of the changes in vesting assumptions; and iii) the impact of the weakening Canadian dollar relative to the US dollar of approximately \$0.2 million.
- Research and product development (“R&D”) expenses were \$3.6 million for the year ended December 31, 2016 compared to \$4.1 million in 2015. In the OnSite Generation segment, R&D activity increased \$0.3 million due to increased spending, offset by increased funding of \$1.7 million, both of which are primarily due to the Power-to-Gas demonstration project in Denmark, announced in February 2016. This was partially offset by an increase in both expenses and funding in Power Systems related to increased spending on multi mega-watt system development, the development of in-house manufacturing processes, as well as further development on the heavy-duty mobility market.
- The Adjusted EBITDA loss decreased to \$7.6 million for the year ended December 31, 2016 from \$7.9 million for last year, for the reasons noted above.

- Net loss for the year ended December 31, 2016 was \$9.9 million or \$0.79 per share compared to a net loss of \$11.4 million or \$1.12 per share for the prior year. The net loss in the current period reflects an increase in other finance gains (losses) of \$2.1 million. The results for 2016 included a gain from change in the fair value of outstanding warrants of \$0.8 million resulting from the decrease in our share price during 2016. The 2015 figures included the issuance of warrants (\$0.9 million) as well as fair value adjustments relating to held for trading foreign exchange forward contracts (\$0.6 million). Also contributing to the decrease in net loss was a decrease in R&D expenses as described above. This change was partially offset by an increase in SG&A expenses of \$0.6 million, an increase in interest expense of \$0.4 million due to debt outstanding for a greater period in the year, and an increase in the loss from our joint venture of \$0.1 million.

## Business Segment Review

We report our results in two business segments: OnSite Generation and Power Systems. Our reporting structure reflects the way we manage our business and how we classify our operations for planning and measuring performance. The corporate office and administrative support is reported under Corporate and Other.

### OnSite Generation

#### Selected Financial Information

	Years ended		2017 vs 2016 % Favourable (Unfavourable)
	December 31,		
	2017	2016	
Revenues	\$ 24,973	\$ 17,510	43 %
Gross profit	3,525	3,465	2 %
Gross margin %	14%	20%	(29)%
Selling, general and administrative expenses	3,381	2,910	(16)%
Research and product development expenses	1,275	516	(147)%
Segment income (loss)	\$ (1,131)	\$ 39	n/a

**Revenues** increased \$7.5 million, or 43%, to \$25.0 million for the year ended December 31, 2017 compared to \$17.5 million for 2016. Revenue in 2017 consisted of the sale of electrolyzer products to customers in industrial gas markets, the energy storage project with Doosan Babcock in Aberdeen Scotland, the energy storage EGAT project in Thailand, and the Power-to-Gas plant in Brunsbuttel, Germany. The strengthening of the euro relative to the US dollar also contributed approximately \$0.8 million to the increase. Orders awarded for the year ended December 31, 2017 were \$21.7 million (December 31, 2016 – \$21.2 million). At December 31, 2017 we had \$16.7 million of confirmed orders (December 31, 2016 – \$20.8 million) to be delivered and recognized as revenue in 2018.

**Gross Margin** declined in 2017 to 14% from 20% in 2016 primarily due to lower margin orders – in particular, key first-of-a-kind projects, including the EGAT project in Thailand and the Power-to-Gas plant in Brunsbuttel, as well as several low margin projects in the industrial gas market as a result of customer delays in the power plant market.

**SG&A Expenses** were \$3.4 million for the year ended December 31, 2017, an increase of 16% due to a \$0.4 million provision of an allowance for doubtful accounts for a customer in OnSite Generation. The remainder of the increase was due to the impact of the strengthening euro relative to the US dollar.

**R&D Expenses** were \$1.3 million during 2017 compared to \$0.5 million for the year ended December 31, 2016. Gross expenditures for 2017 decreased \$1.7 million, from \$4.2 million to \$2.6 million, while corresponding funding fell by \$2.4 million, from \$3.7 million to \$1.3 million. Higher R&D spending (and associated funding) in 2016 was the result of a significant power-to-gas demonstration project in Denmark.

**Segment Income (Loss)** decreased to a loss of \$1.1 million for the year ended December 31, 2017 compared to a gain of less than \$0.1 million for the prior year. This is largely due to the reduced gross margin noted above, combined with the increase in net R&D expenses and SG&A expenses.

## Power Systems

### Selected Financial Information

	Years ended		2017 vs 2016 % Favourable (Unfavourable)
	December 31, 2017	2016	
Revenues	\$ 23,079	\$ 11,480	101 %
Gross Profit	7,895	2,530	212 %
Gross margin %	34%	22%	55 %
Selling, general and administrative expenses	4,437	4,579	3 %
Research and product development expenses	4,996	2,889	(73)%
Segment Income (Loss)	\$ (1,538)	\$ (4,938)	69 %

**Revenues** increased \$11.6 million, or 101%, to \$23.1 million for the year ended December 31, 2017 compared to \$11.5 million for 2016. The increase is due in part to a significant increase in the delivery of fuel cell orders to the mobility market (principally to China), which increased revenue by \$8.7 million for the year ended 2017. Also contributing to the increase in the Power segment was: i) \$1.5 million of revenue from the EGAT megawatt-scale energy storage and clean power project; ii) \$0.9 million related to our long-term significant custom project; iii) an increase in non-China Power segment revenue such as fuel cell power modules and associated support; and iv) an increase in our spares and service revenue. While order intake significantly increased in the current year, there was a decrease in revenue recognized due to the long-term nature of certain significant projects. Orders awarded for the year ended December 31, 2017 were \$54.3 million (December 31, 2016 – \$22.8 million). At December 31, 2017, Power Systems backlog was \$124.7 million (December 31, 2016 – \$85.8 million), with \$38 million of this backlog expected to be recognized as revenue in 2018.

**Gross Margin** improved to 34% from 22% in 2017 from the prior year, with the increase in the current period due to product mix and improved capacity utilization. There was a substantial increase in standard production batches, notably in the Chinese market, and a smaller proportion of first-of-a-kind projects. This increase was partially offset by the realignment of costs and associated revenue on our long-term significant propulsion contract in the third quarter of 2017, combined with a lower margin profile on commuter rail revenue compared with other Power Systems business segment applications

**SG&A Expenses** decreased by 5% to \$4.4 million for the year ended December 31, 2017 from \$4.6 million for the prior year. Excluding the impact of a provision for doubtful accounts of \$0.8 million in the prior year, SG&A expenses in the Power Systems segment increased \$0.6 million. This increase reflects: i) higher personnel costs associated with the increase in business activity; ii) increased facility costs associated with a second production facility in Canada; iii) an \$0.5 million increase in marketing expenses; and iv) a \$0.1 million provision of an allowance for doubtful accounts for a customer related to the Power Systems segment; and v) \$0.1 million of foreign exchange impact as a result of the strengthening of the Canadian dollar and euro relative to the US dollar.

**R&D Expenses** of \$5.0 million for the year ended December 31, 2017 an increase of \$2.1 million over the year ended December 31, 2016. This increase represents increased spending on R&D, primarily for multi-megawatt energy storage projects (notably related to the Power-to-Gas facility in Toronto, Canada developed with our joint venture partner Enbridge Gas Distribution, as well as mobility applications, such as the demonstration of the technical viability of our Celerity Plus™ product in heavy duty commercial vehicle applications and furthering development on the next generation of our fuel cell stack platform for bus, truck and rail mobility applications.

**Segment Loss** declined \$3.4 million to a loss of \$1.6 million for the year ended December 31, 2017 compared to a loss of \$4.9 million for the year ended December 31, 2016. Given the increase in revenue for the year ended September 30, 2017 the loss decreased by a smaller proportion as a result of the increased spending on net R&D expenses.

**Corporate and Other****Selected Financial Information**

	Years ended		2017 vs 2016 % Favourable (Unfavourable)
	December 31, 2017	2016	
Selling, general and administrative expenses	\$ 5,924	\$ 3,336	(78)%
Research and product development expenses	105	171	39 %
Net other finance gains (losses)	(931)	735	n/a
Loss on joint venture	(334)	(156)	(114)%
Interest income (expense)	(1,812)	(1,762)	(3)%
Foreign exchange gains (losses) net	635	(268)	n/a
<b>Total</b>	<b>\$ (8,471)</b>	<b>\$ (4,958)</b>	<b>(71)%</b>

**SG&A Expenses** increased by \$2.6 million or 78% to \$5.9 million for the year ended December 31, 2017 compared to \$3.3 million for 2016. Excluding: i) the impact of the reversal of an indemnification liability of \$0.5 million associated with an acquisition in 2004 included within the year ended 2016; and ii) the reversal of previously charged compensation expense for PSUs of \$0.2 million included within the year ended 2016, SG&A expenses increased \$1.9 million. This increase is due to i) mark to market expenses totaling \$1.2 million as a result of the increase in our share price for the year ended December 31, 2017 as compared to the year ended December 31, 2016; ii) the impact of \$0.2 million relating to stock based compensation issued in 2017; iii) an increase of \$0.4 million relating to increased business activity, such as compensation costs tied to the achievement of targets, legal fees and insurance costs; and iv) \$0.1 million as a result of the strengthening of the Canadian dollar relative to the US dollar. The share price improved to C\$14.00 the end of 2017 from C\$5.75 per share at the end of 2016.

**R&D Expenses** were less than \$0.2 million for the year ended December 31, 2017 consistent with the prior year and reflect the cost of maintaining our intellectual property.

**Net Other Finance Gains (Losses)** increased from a gain of \$0.7 million to a loss of \$0.9 million, an increase of \$1.7 million at the end of 2017. The increase is due to fair value loss adjustments relating to outstanding and exercised warrants in the year ended December 31, 2017 of \$0.7 million, whereas the year ended December 31, 2016 included fair value gain adjustments related to outstanding warrants of \$0.8 million. These fair value adjustments are the result of the decrease in our share price for the year ended December 31, 2017 as compared to the year ended December 31, 2016.

**Interest expense** remained consistent for the year ended December 31, 2017 as compared to the year ended December 31, 2016.

**4 Financial Condition**

	December 31,	December 31,	Increase/(decrease)	
	2017	2016	\$	%
Cash, cash equivalents, restricted cash and short-term investments	\$ 22,414	\$ 11,278	\$ 11,136	99 %
Trade and other receivables	14,292	9,802	4,490	46 %
Inventories	15,164	17,208	(2,044)	(12)%
Operating borrowings	1,200	2,111	(911)	(43)%
Trade and other payables	9,736	7,235	2,501	35 %
Financial liabilities	4,913	3,939	974	25 %
Warranty provisions – (current and non-current)	2,095	2,062	33	2 %
Deferred revenue – (current and non-current)	14,957	14,282	675	5 %
Other non-current liabilities	8,516	9,262	\$ (746)	(8)%

**Cash, cash equivalents, restricted cash and short-term investments** were \$22.4 million, an increase of \$11.1 million or 99%. Refer to Section 9 – Liquidity for a discussion of the change in cash, cash equivalents, restricted cash and short-term investments.

**Trade and other receivables** were \$14.3 million, an increase of 46% primarily as a result of the 66% increase in revenue. The increase is not proportional to the increase in revenue as a result of the timing of shipments when compared to the prior year period. Revenue increased 124% for the fourth quarter of 2017, when compared to the fourth quarter of 2016. The balance has also increased approximately \$0.8 million as a result of the impact of the strengthening euro relative to the US dollar.

**Inventories** were \$15.2 million compared to \$17.2 million, a decrease of 12%. Excluding the foreign exchange impact as a result of the greater value of the euro and Canadian dollar when compared to the US dollar in the current period, inventories decreased approximately \$3.8 million as a result of the timing of shipments of significant projects within the fourth quarter of 2017 and the expected product deliveries during early 2018.

**Trade and other payables** were \$9.7 million, an increase of \$2.5 million compared to \$7.2 million at the end of December 31, 2016. Excluding the impact of an increase due to the greater value of the euro and Canadian dollar when compared to the US dollar in the current period, trade and other payables increased \$1.5 million. While inventory levels decreased in the fourth quarter of 2017 when compared to 2016, the timing of the payment for this inventory slowed in the fourth quarter of 2017 resulting in the increase in trade and other payables at the end of 2017.

**Financial liabilities** were \$4.9 million, an increase of \$1.0 million, primarily as a result of the increase in the deferred share unit liability as a result of the increase in our share price.

**Warranty provisions** were \$2.1 million, consistent with the balance at December 31, 2016. Excluding the impact of the increase in value of the euro and Canadian dollar when compared to the US dollar in the current period, the warranty provision decreased \$0.2 million as a result of the release of expired warranty provisions.

**Deferred revenues** were \$15.0 million, an increase of \$0.7 million or 5%. Excluding the impact of an increase due to the foreign exchange impact as a result of the greater value of the euro when compared to the US dollar in the current period, the deferred revenue decreased \$0.8 million. The decrease reflects the timing of customer deposits received on order bookings in the OnSite and Power Systems business segments.

**Other non-current liabilities** were \$8.5 million at December 31, 2017, a decrease of \$0.7 million or 8%, due primarily to repayments on long-term debt, partially offset by interest accretion.

## 5 Summary of Quarterly Results

The following table highlights selected financial information for the eight consecutive quarters ended December 31, 2017.

	2017		2017		2016		2016		2016	
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3
Revenues	\$ 19,528	\$ 12,200	\$ 7,487	\$ 8,837	\$ 8,730	\$ 6,733	\$ 9,198	\$ 4,329		
Gross profit	5,590	2,900	250	2,680	1,965	1,000	1,819	1,211		
Gross margin %	29%	24%	3%	30%	23%	15%	20%	28%		
Adjusted EBITDA <sup>1</sup>	22	(1,919)	(3,726)	(711)	(1,737)	(1,466)	(2,463)	(1,889)		
Net loss	(1,129)	(2,003)	(5,742)	(2,266)	(2,504)	(1,899)	(3,092)	(2,362)		
Net loss per share – (basic and fully Diluted)	\$ (0.07)	\$ (0.13)	\$ (0.45)	\$ (0.18)	\$ (0.20)	\$ (0.15)	\$ (0.25)	\$ (0.19)		
Weighted average common shares outstanding	15,133,194	15,232,905	12,677,167	12,545,076	12,542,950	12,544,960	12,541,080	12,540,757		

1. Adjusted EBITDA is a Non-IFRS measure, refer to Section 17 – Reconciliation of Non-IFRS Measures.

In the fourth quarter of 2017, our net loss improved by \$1.4 million to a net loss of \$1.1 million (\$0.07 per common share) from a net loss of \$2.5 million (\$0.20 per common share) in the fourth quarter of 2016. An increase in gross profit of \$3.6 million was principally due to increased revenues and improved direct margins due to product mix through increased production and delivery of standardized fuel cells for the mobility market, and economies of scale, particularly within the Power Systems business segment. This was partially offset by an increase in net R&D spending during the quarter of \$1.0 million. The increase represents increased spending on R&D, primarily for multi-megawatt energy storage projects as well as mobility applications, such as the demonstration of the technical viability of our Celerity Plus™ product in heavy duty commercial vehicle applications and furthering development on the next generation of our fuel cell stack platform. The improvement in gross profit was also partially offset by an increase of \$1.4 million relating to SG&A expenses as compared to the fourth quarter of 2016. Excluding the impact of an increase in DSU expense of \$0.6 million for the three months ended December 31, 2017 as a result of the increase in the share price in the current quarter, SG&A expenses increased \$0.8 million. This increase is the result of: i) higher personnel costs associated with the increase in business activity; ii) increased facility costs associated with a second production facility in Canada; iii) the provision of an allowance for doubtful accounts of \$0.5 million for an energy storage application for a customer impacting both the OnSite Generation and Power Systems segments; iii) an increase in marketing expenses totaling \$0.2 million; and iv) a \$0.1 million foreign exchange impact as a result of the strengthening of the Canadian dollar and euro relative to the US dollar. The improvement in gross profit was partially offset by an increase in fair value adjustments (loss) relating to outstanding warrants (\$0.1 million) in the three months ended December 31, 2017 as a result of the increase in the share price in the current quarter, whereas the three months ended December 31, 2016 had a gain of \$0.2 million. This was offset by the movement in net foreign currency gains (losses), from a loss of \$0.2 million for the three months ended December 31, 2016 to a gain of \$0.1 million in the current year.

In the third quarter of 2017, our net loss was consistent at \$2.0 million (\$0.13 per common share) compared to the third quarter of 2016 (\$0.15 per common share). An increase in gross profit of \$1.9 million was principally due to increased revenues and improved direct margins due to product mix. This was partially offset by an increase in net R&D spending during the quarter of \$1.9 million, and an increase in fair value adjustments relating to outstanding warrants (a loss of \$0.6 million) in the three months ended September 30, 2017 compared to the three months ended September 30, 2016 (a loss of \$0.1 million).

In the second quarter of 2017, our net loss increased to \$5.7 million from \$3.1 million (\$0.45 per common share) compared to the second quarter of 2016 (\$0.25 per common share). A decrease in gross profit of \$1.5 million was principally due to decreased revenues and reduced direct margins due to product mix. Also contributing to the decrease in gross margin was lower absorption of indirect overhead costs as a result of the decrease in revenue. There was also an increase in other finance losses of \$1.1 million in the three months ended June 30, 2017 compared to the same period of 2016 due to the fair value adjustments relating to outstanding warrants (a loss of \$0.8 million) in the three months ended June 30, 2017, whereas the three months ended June 30, 2016 included a gain of \$0.3 million.

In the first quarter of 2017, our net loss remained consistent at \$2.3 million (\$0.18 per common share) compared to the first quarter of 2016. An increase in gross profit of \$1.5 million was principally due to increased revenue and improved direct margins due to product mix. This was offset by: i) an increase in SG&A expenses related to the increased mark-to-market expenses due to the increase in our share price; ii) the absence of a reversal in SG&A expenses of \$0.5 million related to the indemnification liability in the first quarter of 2016; iii) an increase in other finance losses of \$0.7 million in the three months ended March 31, 2017 compared to the same period of 2016 due to the fair value adjustments relating to outstanding warrants in the three months ended March 31, 2017 compared to the three months ended March 31, 2016; and iv) a fair market value adjustment gain of \$0.1 million on unsettled foreign exchange contracts included in the 2016 quarter.

In the first quarter of 2016, our net loss decreased by \$1.1 million (\$0.15 per common share) compared to the first quarter of 2015. This decrease is primarily due to a decrease in foreign currency losses of \$0.8 million, higher margin sales, as well as an increase in other finance gains of \$0.1 million due to the change in market value of the outstanding warrants, partially offset by an increase in interest expense of \$0.3 million.

In the second quarter of 2016, our net loss decreased by \$0.6 million (\$0.12 per common share) compared to the second quarter of 2015. The change is primarily due to a decrease in other finance losses of \$0.8 million, an improvement in margin due to product mix as well as higher absorption of indirect overhead costs as a result of the increase in revenue. This was partially offset by an increase in SG&A expenses and R&D expenses.

In the third quarter of 2016, our net loss decreased by \$0.3 million (\$0.07 per common share) compared to the third quarter of 2015. This increase primarily reflects a decrease in other finance losses of \$0.4 million, an increase in adjusted EBITDA

loss due to a decrease in gross profit of \$1.1 million, partially offset by: i) a decrease in net R&D expenses of \$0.8 million; ii) a decrease in SG&A expenses of \$0.2 million (excluding compensation indexed to our share price); and iii) a decrease related to the reversal of previously charged compensation expense of \$0.2 million relating to our PSUs, partially offset by an increase in compensation indexed to our share price of \$0.1 million.

In the fourth quarter of 2016, our net loss increased by \$0.4 million compared to the fourth quarter of 2015. A discussion of the key items is as follows:

- Revenues decreased \$2.6 million, or 23%, reflecting decreased revenues in our OnSite Generation business unit driven by a decline in new capital and plant expansion expenditures by customers, partially offset by an increase in our Power Systems business unit reflecting increased order shipments in the last three months of the year related to Chinese mobility orders as well as shipments related to our hydrogen fuel cell systems for commuter trains in Europe.
- Gross profit was \$2.0 million (23% of revenues) compared to \$1.7 million (15% of revenues). The increase in gross margin is due to the absence of the lower margin project to a research organization included in the results of the fourth quarter of 2015.
- SG&A expenses were \$3.1 million, an increase of \$0.6 million or 25%. Excluding the impacts of stock-based compensation (recovery), SG&A expenses increased \$0.1 million due to a provision in our allowance for doubtful accounts of \$0.8 million. This was partially offset by timing in our SG&A expenses in the quarter.
- R&D expenses were \$0.7 million, a decrease of \$0.2 million or 233% from \$1.0 million in the fourth quarter of 2015. R&D activity increased in OnSite Generation business unit due to increased spending, but this was more than offset by increased funding; both were primarily due to the Power-to-Gas demonstration project in Denmark, announced in February 2016.
- Our loss from joint venture was \$0.1 million in the fourth quarter of 2016, an increase of \$0.2 million from a gain in the fourth quarter of 2015.

## 6 Liquidity and Capital Resources

### Cash Used in Operating Activities

(Thousands of US dollars)	Years ended December 31,		\$ Change	% Change
	2017	2016		
Net loss	\$ (11,140)	\$ (9,857)	\$ (1,283)	13 %
(Increase) decrease in restricted cash	134	542	(408)	(75)%
Net change in non-cash working capital	162	(5,382)	5,544	103
Other items not affecting cash	6,062	1,484	4,578	309 %
<b>Cash used in operating activities</b>	<b>\$ (4,782)</b>	<b>\$ (13,213)</b>	<b>\$ 8,431</b>	<b>(64)%</b>

Cash used in operating activities decreased by \$8.4 million compared to 2016 due to the following:

- Net loss adjusted for other items not affecting cash decreased \$2.9 million or 37%, primarily the result of the significant increase in gross profit of \$5.4 million, partially offset by the increase in cash operating costs of \$5.8 million as described above in Section 3 – “Operating Results”.
- Restricted cash decreased \$0.4 million or 75%, as a result of reduced outstanding standby letters of credit and letters of guarantee as at December 31, 2017.
- Changes in non-cash working capital decreased \$5.5 million as described above in Section 4 – “Financial Condition”. The majority of the change is due to the increase of Trade and other receivables and the decrease in Inventories as a result of the increase in revenue in the year and timing of shipments of significant projects late in 2017 and expected early in 2018. Also contributing to the change is the increase in Trade and other payables as a result of the timing of payments for inventory.

At current operating levels, we anticipate consuming between \$2.0 million and \$4.0 million of cash in 2018 to fund our anticipated net losses, non-cash working capital requirements and capital expenditures. In the event we are successful in securing orders in excess of our base case revenue outlook, our cash requirements may increase.

## Cash Used in Investing Activities

(Thousands of US dollars)	Years ended		\$ Change	% Change
	December 31, 2017	2016		
Investment in joint venture	\$ (93)	\$ –	\$ (93)	100 %
Purchases of property plant and equipment	(3,920)	(2,955)	(965)	33 %
Receipt of IDF government funding	1,792	1,201	591	49 %
Proceeds from disposals of property, plant and equipment	1,035	–	1,035	100 %
Purchase of intangibles	(25)	(48)	23	(49)%
<b>Cash provided by (used in) investing activities</b>	<b>\$ (1,211)</b>	<b>\$ (1,802)</b>	<b>\$ 591</b>	<b>33 %</b>

Cash provided by investing activities during 2017 was \$1.2 million compared to (\$1.8) million for the year ended December 31, 2016. The increase was due to: i) the receipt of IDF government funding and proceeds from the disposal of assets related to the Ontario, Canada, IESO 2.5 MW Power-to-Gas storage project, which we expect to be operational in 2018; as well as ii) expenditures on cost-reducing production equipment.

## Cash Provided By Financing Activities

(Thousands of US dollars)	Years ended		\$ Change	% Change
	December 31, 2017	2016		
Common shares issued and stock options exercised, net of issuance costs	\$ 19,745	\$ –	\$ 19,745	100 %
Principal repayment of long-term debt	(1,654)	–	(1,654)	100 %
Exercise of warrants	1,374	–	1,374	100 %
Interest payment	(1,259)	–	(1,259)	100 %
Proceeds (repayment) of operating borrowings	(873)	1,072	(1,945)	n/a
Repayment of repayable government contributions	(171)	(374)	203	(54)%
Repayment of long-term debt – institutional	–	(7,500)	7,500	(100)%
Proceeds of borrowings, net of transaction costs	–	8,715	(8,715)	(100)%
<b>Cash provided by financing activities</b>	<b>\$ 17,162</b>	<b>\$ 1,913</b>	<b>\$ 15,249</b>	<b>797%</b>

Changes in cash provided by financing activities for the year ended December 31, 2017 was \$17.2 million compared to \$1.9 million in the prior year.

On April 28, 2017, the Company and Fuzhou Bonded Zone Hejili Equity Investment Limited Partnership (“Hejili”) entered into a subscription agreement to issue 2,682,742 common shares of Hydrogenics to Hejili on a private placement basis, for gross proceeds to Hydrogenics of \$21.0 million or approximately \$7.83 per common share. The subscription price represented a 10% premium to the 20-day volume-weighted average trading price of the Company’s common shares on the NASDAQ for the period ending April 27, 2017. The transaction closed on June 27, 2017. The Company received net proceeds of \$19.7 million after underwriting fees and expenses. Subsequent to closing of the private placement, Hejili’s interest in Hydrogenics is approximately 17.6% of total issued shares.

The subscription agreement provides, among other things, that Hejili has participation rights on future offerings, and the right to nominate one director to the board of directors of Hydrogenics, and that Hejili will be subject to certain restrictions, including lock-up, transfer and voting restrictions, subject, in each case, to certain ownership threshold requirements. The subscription agreement also provides that Hejili will cooperate with Hydrogenics to jointly develop the Chinese market for hydrogen, energy storage and fuel cell products.

In 2017, we repaid \$2.9 million of principal and interest on our long-term loans with EDC and the Province of Ontario, and we received \$1.4 million as a result of the exercise of the warrants issued to EDC in 2016.

In 2016, we entered into a long-term loan with EDC for net proceeds of \$8.7 million after financing fees. We also repaid our institutional long-term debt for a total repayment of \$7.5 million.

### **Credit and Loan Facilities**

At December 31, 2017, the Company's subsidiary in Belgium (the "Borrower") had a joint credit and operating line facility of €7.0 million, which renews annually upon review in April. Under this facility, the Borrower may borrow up to a maximum of 75% of the value of awarded sales contracts, approved by the Belgian financial institution, to a maximum of €0.5 million; and may also borrow up to €1.5 million for general business purposes, provided sufficient limit exists under the overall facility limit of €7.0 million. Also included within the facility is an available line of credit of €1.5 million dedicated as a bank guarantee loan for the Wind-to-Gas Sudermarsch project in Germany, which was not utilized at December 31, 2017. Of the €7.0 million facility, €2.4 million or approximately \$2.8 million was drawn as standby letters of credit and bank guarantees and €1.0 million or approximately \$1.2 million was drawn as an operating line. At December 31, 2017, the Company had availability of €3.6 million or \$4.4 million (December 31, 2016 - \$4.7 million) under this facility for use as letters of credit and bank guarantees.

At December 31, 2017, the Company also had a Canadian credit facility of \$2.4 million, with no expiration date for use only as letters of credit and bank guarantees. At December 31, 2017, \$nil was drawn as standby letters of credit and bank guarantees. At September 30, 2017, the Company had \$2.4 million (December 31, 2016 - \$2.3 million) available under this facility.

These letters of credit and bank guarantees relate primarily to obligations in connection with the terms and conditions of our sales contracts. The standby letters of credit and letters of guarantee may be drawn on by the customer if we fail to perform our obligations under the sales contracts.

On September 28, 2011, we entered into a loan agreement with the Province of Ontario's Ministry of Economic Development, Strategic Jobs and Investment Fund for funding up to C\$6.0 million. Eligible costs had to be incurred between October 1, 2010 and September 30, 2015. After this five-year period, the loan bears interest at a rate of 3.67% and requires annual repayment at a rate of 20% per year of the outstanding balance for the five years subsequent to the sixth anniversary of the first disbursement, which was November 30, 2011. There is no availability remaining under this facility at December 31, 2017.

The loan is collateralized by a general security agreement covering assets of Hydrogenics Corporation. Additionally, the Corporation is required to maintain a minimum balance of cash in Canadian dollars in a Canadian financial institution at all times. We were in compliance with this covenant at December 31, 2017.

In the fourth quarter of 2016, the Company entered into a loan agreement with EDC for a five-year facility of \$9.0 million. The loan is structured as a five-year term loan with quarterly interest payments calculated at an annual interest rate of U.S. prime plus 10%, declining to U.S. prime plus 7% (or 5%) if certain annual earnings before interest, taxes, depreciation and amortization thresholds are met. The loan is secured by a second charge over the assets located within Canada. Commencing March 31, 2017, the loan principal is subject to four quarterly repayments of \$0.25 million followed by 16 quarterly repayments of \$0.5 million. There is an option to prepay a portion of or the entire loan at any time.

We may need to take additional measures to increase its liquidity and capital resources, including obtaining additional debt or equity financing, pursuing joint-venture partnerships, equipment financings or other receivables financing arrangements. We may experience difficulty in obtaining satisfactory financing terms. Failure to obtain adequate financing on satisfactory terms could have a material adverse effect on Hydrogenics' results of operations or financial condition.

### Capital Resources

We consider our capital employed to consist of shareholders' equity and total debt, net of cash and cash equivalents as follows:

	December 31, 2017	December 31, 2016
Shareholders' equity	\$ 23,496	\$ 10,382
Operating borrowings	1,200	2,111
Long-term debt and repayable government contributions	11,284	12,043
Total	35,980	24,536
Less Cash and cash equivalents and restricted cash	22,414	11,278
Total capital employed	\$ 13,566	\$ 13,258

The Company's financial objective when managing capital is to make sure that we have the cash and debt capacity and financial flexibility to fund our ongoing business objectives including operating activities, investments and growth in order to provide returns for our shareholders and other stakeholders.

We monitor our capital structure and make adjustments according to market conditions in an effort to meet our objectives given the Company's operating and financial performance and current outlook of the business and industry in general. The Company's alternatives to fund future capital needs include cash flows from operating activities, debt or equity financing, adjustments to capital spending and/or sale of assets. The capital structure and these alternatives are reviewed by management and the board of directors of the Company on a regular basis to ensure the best mix of capital resources to meet the Company's needs.

### Financial Instruments, Long-term Debt, Commitments and Contingent Off-balance Sheet Arrangements

The Corporation's financial instruments and the nature of the risks, existing or potential, are as set out in the following table:

Financial Instruments	Risk			
	Credit	Liquidity	Market	
			Currency	Interest Rate
Cash and cash equivalents and restricted cash	X		X	X
Short-term investments	X		X	X
Trade and other receivables	X		X	
Trade and other payables		X	X	
Financial liabilities		X	X	
Non-current liabilities		X	X	

**Credit risk**

Credit risk arises from the potential that a counterparty will fail to perform its obligations. Credit risk associated with cash and cash equivalents, restricted cash and short-term investments is minimized by limiting net exposure to any one jurisdiction or financial institution and ensuring financial assets are placed for short periods of time, generally less than 90 days, with governments, well-capitalized financial institutions and other creditworthy counterparties. Ongoing reviews are performed by management to evaluate changes in the status of financial institutions and counterparties.

Credit risk associated with trade and other receivables is minimized by carrying out a detailed review and approval by senior management of credit extensions to customers taking into account customer history, any amounts that are past due and any available relevant information about the customers' liquidity and potential going concern problems. In addition, progress payments are generally required by customers as contracts are executed, which generally results in between 35% and 100% of a contract's value being collected before shipments are made. Where credit terms are extended beyond shipment, terms are generally not granted beyond 60 days. We also maintain provisions for potential credit losses. Any such losses to date have been insignificant.

**Currency risk**

Foreign currency risk arises because of fluctuations in exchange rates. We conduct a significant portion of our business activities in currencies other than the functional currency of the parent company (US dollars) and the functional currency of our self-sustaining subsidiaries (euro). This primarily includes Canadian dollar transactions at the parent company and US dollar transactions at our self-sustaining subsidiaries.

Our objective in managing foreign currency risk is to minimize our net exposures to foreign currency cash flows by converting cash balances into foreign currencies to the extent practical to match other foreign currency obligations. Our foreign exchange risk management program includes the potential use of foreign exchange currency forward contracts to fix the exchange rates on short-term Canadian dollar, euro and US dollar denominated transactions and commitments.

**Interest rate risk**

Interest rate risk arises because of the fluctuation in market interest rates. We are subject to interest rate risk on our cash and cash equivalents, restricted cash and short-term investments, and variable rate long-term debt.

**Liquidity risk**

Liquidity risk arises from our general funding needs and in the management of our assets, liabilities and optimal capital structure. We manage liquidity risk to maintain sufficient liquid financial resources to fund our commitments and obligations in the most cost-effective manner possible.

We have sustained losses and negative cash flows from operations since our inception. At December 31, 2017, we had approximately \$22.4 million of cash and cash equivalents and restricted cash. The Company monitors its financial position on a monthly basis at minimum, and updates its expected use of cash resources based on the latest available data. Such forecasting takes into consideration the Company's financing plans and compliance with internal targets.

There are uncertainties related to the timing and use of our cash resources and working capital requirements. These uncertainties include, among other things, the timing and volume of commercial sales and associated gross margin of our existing products and the development of markets for, and customer acceptance of, new products. Throughout 2017, we do not expect our operations to generate sufficient cash flow to fund our obligations as they come due. As such, these obligations will be funded out of existing and forecasted cash resources to the extent possible.

We may need to take additional measures to increase its liquidity and capital resources, including obtaining additional debt or equity financing, pursuing joint-venture partnerships, equipment financings or other receivables financing arrangements. We may experience difficulty in obtaining satisfactory financing terms. Failure to obtain adequate financing on satisfactory terms could have a material adverse effect on Hydrogenics' results of operations or financial condition.

**Contractual Obligations**

	Total	Less than			After
		1 year	1-3 years	4-5 years	5 years
Long-term debt <sup>1</sup> , including current portion	\$ 15,019	\$ 4,653	\$ 7,243	\$ 3,123	\$ –
Operating borrowings	1,200	1,200	–	–	–
Operating leases	4,649	1,164	1,616	836	1,033
Purchase obligations	12,071	12,062	9	–	–
Capital lease	44	6	26	12	–
<b>Total contractual obligations<sup>2, 3</sup></b>	<b>\$ 32,983</b>	<b>\$ 19,085</b>	<b>\$ 8,894</b>	<b>\$ 3,971</b>	<b>\$ 1,033</b>

1. Represents the undiscounted amounts payable as disclosed below under “Other Loan Facilities”.
2. The table excludes the DSU liability of \$1,406 included in our current liabilities which relate to units that are only settled once a director resigns as a director.
3. The table excludes the warrant liability of \$409 included in our financial liabilities.

**Contingent Off-balance Sheet Arrangements**

We do not have any material obligations under forward foreign exchange contracts, guarantee contracts, retained or contingent interests in transferred assets, outstanding derivative instruments or non-consolidated variable interests. Our forward foreign exchange contracts have been accounted for as financial instruments in our consolidated financial statements.

In the normal course of operations, we occasionally provide indemnification agreements, other than those listed above, to counterparties that would require us to compensate them for costs incurred as a result of changes in laws and regulations or as a result of litigation claims or statutory sanctions that may be suffered by the counterparty as a consequence of the transaction. The terms of these indemnification agreements will vary. The nature of the indemnification agreements prevents us from making a reasonable estimate of the maximum potential amount we could be required to pay to counterparties. No amount has been recorded in the consolidated financial statements with respect to these indemnification agreements as we are not aware of any claims.

**7 Outstanding Share Data**

The authorized share capital of the Company consists of an unlimited number of common shares, with no par value, and an unlimited number of preferred shares in series, with no par value. We had 15,436,879 common shares outstanding at December 31, 2017.

	2017		2016	
	Number	Amount	Number	Amount
Balance at January 1,	12,544,960	\$ 365,923	12,540,757	\$ 365,824
Adjustment for partial shares on share consolidation	(1)	–	–	–
Issuance of common shares	2,682,742	19,725	–	–
Warrants exercised	200,575	1,966	–	–
Issuance of common shares on vesting of performance share units	4,203	96	4,203	99
Issuance of common shares on exercise of stock options	4,400	36	–	–
At December 31,	15,436,879	\$ 387,746	12,544,960	\$ 365,923

At December 31, 2017, there were 762,173 stock options and 191,366 PSUs outstanding to purchase our common shares. If these securities are exercised, our shareholders could incur dilution.

## 8 Critical Accounting Estimates

The Company's management make judgments in its process of applying the Company's accounting policies in the preparation of its consolidated financial statements. In addition, the preparation of financial information requires that the Company's management make assumptions and estimates of effects of uncertain future events on the carrying amounts of the Company's assets and liabilities at the end of the reporting period and the reported amounts of revenue and expenses during the reporting period. Actual results may differ from those estimates as the estimation process is inherently uncertain. Estimates are reviewed on an ongoing basis based on historical experience and other factors that are considered to be relevant under the circumstances. Revisions to estimates and the resulting effects on the carrying amounts of the Company's assets and liabilities are accounted for prospectively.

The critical judgments, estimates and assumptions applied in the preparation of Company's financial information are reflected in Note 4 of the Company's 2017 annual audited consolidated financial statements.

## 9 Changes in Accounting Policies and Recent Accounting Pronouncements

Our accounting policies and information on the adoption and impact of new and revised accounting standards the Company was required to adopt effective January 1, 2017 are disclosed in Note 3 of our consolidated financial statements and their related notes for the year ended December 31, 2017.

## 10 Outlook

### Current Market Environment

Our strategy is to profitably grow hydrogen energy solutions for diverse applications globally. We continue to leverage the milestones and reference sites established in 2017 and prior years to gain additional traction in the following target markets and applications:

**Motive Power** – We have seen strong momentum in our motive power fuel cell applications with significant growth achieved in the Chinese market as we have now had over two years to execute on our Chinese strategy. We received significant order intake and made deliveries to our integrators in 2017. Our integrators are those companies that take our fuel cell technology and incorporate it into buses and other vehicles provided by original equipment manufacturers. In addition, we have positioned ourselves for future growth by signing a 1,000 unit order and licensing agreement with Blue-G New Energy Science & Technology Corporation, one of our original integrators that we had worked with since late 2015.

In 2017, we also delivered the last of the pre-commercial units for the Company's ten-year commuter train propulsion system contract with Alstom Transport, which at €50 million is the largest order in our history. This order highlights the commercial maturity and strong competitive positioning of our fuel cell technology. Field testing of the train sets is now complete and Alstom Transport is working with German municipalities and regions to aggregate orders with the expectation that a follow-on order be provided to us in 2018.

**Stationary Power** – We continue to work with our partner Kolon in South Korea to evaluate future growth opportunities in stationary power applications in Korea. The success of the pilot plant provides the potential opportunity to scale into multiple multi-megawatt installations throughout South Korea. The pilot plant is in the process of being moved to a new location in South Korea and we are currently in ongoing discussions with Kolon and power plant operators.

**Energy Storage** – In 2017 we delivered three energy storage projects in Europe and in Thailand. We are also in the process of completing our 2.5MW energy storage facility in Toronto, Canada, which will be jointly owned by Hydrogenics and Enbridge Gas Distribution. When this facility is completed in the second quarter of 2018, we will have Power-to-Gas reference sites in Europe, Asia and the Americas allowing us to showcase our facility to potential grid operators, utilities and other potential customers in all geographies of the globe.

We are experiencing a willingness on the part of utilities and regulatory agencies to increase spending in the growing problem areas related to energy storage and grid stabilization and our pipeline remains robust in this area. We are also seeing a gradual maturation around the regulatory framework needed to integrate energy storage into an overall energy framework to permit its cost-effective rollout. In addition, we continue to witness governments in many jurisdictions showing a willingness to increase spending on alternative energy projects for the same purpose. We believe we are well positioned to benefit from government initiatives in Canada, the European Union (particularly in Germany) and the United States (particularly in California), which we expect will positively impact our business. Recently, an increase in interest in our Power-to-Gas application and orders for energy storage and fueling stations in Europe, California, the UK and other geographies has signaled what we believe could be a significant increase in opportunities in the markets we serve.

**Hydrogen Fueling** – The movement to hydrogen powered buses, trains, trucks and automobiles has created demand for fueling infrastructure in the markets where these vehicles are being launched (principally Europe, China, Japan, Korea & California). We have been involved with the construction of over 50 fueling stations globally and see increased demand for hydrogen fueling, especially when it can be linked to electrolyzed hydrogen coming from electricity that is generated from renewable sources such as wind and solar energy thus reducing the carbon footprint of the production of hydrogen.

### Delivery Outlook

We operate in various markets and in this MD&A, define the market in which we have a product offering as a relevant market. Our delivery outlook is segmented by relevant market and is subject to a number of factors that are within our control, such as product development and market engagement initiatives, as well as a number of factors beyond our control, such as macroeconomic conditions. As part of our annual business planning cycle, we make a number of assumptions regarding delivery outlook in each of our relevant markets in order to best allocate our resources.

Set forth below is a summary assessment of those factors we anticipate will most significantly influence deliveries by relevant market as well as our anticipated level of deliveries by relevant market. We caution that readers should not place undue reliance on this assessment and refer to our forward-looking statement on Section 16 of this MD&A.

Relevant Market	Economic Activity in 2017	External and Corporate Specific Considerations	Anticipated Economic Activity in 2018
Industrial Gas	Revenues and orders delivered were higher than in 2016.	We have seen a solid recovery in the economic climate in many of the markets where we have leadership in industrial gas (most notably Russia and the Eurozone region).	We anticipate revenues and orders delivered will be higher than in 2017.
Hydrogen Fueling Stations	Revenues and orders delivered were lower than in 2016.	Governments continue to support programs to accelerate the use of hydrogen fueling stations. Automobile companies have also announced increased production levels of hydrogen fuel cell vehicles. In the short term, government seems to be focusing in on trucked hydrogen rather than electrolysis to speed the rollout of fueling infrastructure. We believe that the evolution to electrolysis generated hydrogen will accelerate given the cleaner carbon footprint of this alternative. Therefore, we are continuing to dedicate resources to secure additional business.	We anticipate orders will be higher than 2017 but revenues will be in line with 2017.
Motive/Mobile Power	Revenues and orders delivered were higher than in 2016.	We expect the Chinese bus market will continue to grow and the order intake for commercial production of Alstom Transport commercial rail car fuel cell production will commence in 2018.	We anticipate revenues and orders delivered will be higher than in 2017.

Energy Storage, Power to Gas and Ancillary Services	Revenues and orders delivered were higher than in 2016.	Our Toronto area Enbridge Power-to-Gas facility is scheduled to go-live in 2018 resulting in the first North American reference site for Power-to-Gas.	We anticipate revenues and orders delivered will be higher than in 2017.
Stationary Power and Other Power Products	Progression and completion of anticipated milestones in custom projects.	Our expertise on custom engineering projects is well regarded by end-users. We continue to target custom engineering projects on a case by case basis.	We anticipate revenues and orders delivered will be higher than in 2017.

## Outlook Summary

The timing and full realization of the opportunities above, under the current market environment, cannot be assured or specifically established. It is however important to understand the magnitude of these opportunities and the transformative impact that any one of them could have on the business going forward.

Over the past few years, we have taken significant steps to reduce operating and product costs, streamline our operations and strengthen our consolidated financial position. While we may see volatility in our costs over the short-term, our expectations for the long-term are that our trend of improved cost efficiency will continue. At December 31, 2017, our order backlog was \$144.8 million (December 31, 2016 – \$106.6 million) spread across numerous geographical regions, of which \$55 million is expected to be recorded as revenue in the next 12 months.

As a global company, we are subject to the risks arising from adverse changes in global economic and political conditions. Political conditions such as government commitments and policies towards environmental protection and renewable energy may change over time. Economic conditions in leading and emerging economies have been, and remain, unpredictable. In particular, currency fluctuations could have the impact of significantly reducing revenue and gross margin as well as the competitive positioning of our product portfolio. These macroeconomic and geopolitical changes could result in our current or potential customers reducing purchases or delaying shipment which could cause revenue recognition on these products to shift into 2019 or beyond.

## 11 Related Party Transactions

In the normal course of operations, we subcontract certain manufacturing functions to a company owned by a family member of a senior officer, director, and shareholder of the Company. During 2017, Hydrogenics made purchases of \$0.6 million (2016 – \$0.4 million) from this related company. At December 31, 2017, the Company had an accounts payable balance due to this related party of less than \$0.1 million (2016 – less than \$0.1 million). We believe that transactions with this company are consistent with those we have with unrelated third parties.

The Company holds an equity investment in the joint venture 2562961 Ontario Ltd., related to the energy storage facility project with Enbridge Gas Distribution. During the year ended December 31, 2017 the Company had sales to the joint venture of \$2.0 million (2016 – \$nil) and at the end of December 31, 2017 the Company had a receivable of \$nil (2016 – \$nil) owing from the joint venture.

The Company holds an equity investment in the joint venture Kolon Hydrogenics. During 2017, the Company had sales to the joint venture of \$nil (2016 – \$0.2 million), and at the end of December 31, 2017 the Company had a receivable of \$nil (2016 – less than \$0.1 million) owing from the joint venture.

## 12 Disclosure Controls

We have established disclosure controls and procedures that are designed to ensure that the information required to be disclosed by the Company in the reports that it files or submits under Canadian and US securities legislation is recorded, processed, summarized, and reported within the time periods specified in such rules and forms and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer (who are our Chief Executive Officer and Chief Financial Officer, respectively) as appropriate to allow timely decisions

regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met.

Our management, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures. Based on this evaluation and as described below under "Internal Control over Financial Reporting", our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2017.

## 13 Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed by, or under the supervision of, the CEO and the CFO and effected by the Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with IFRS.

Our management, including our CEO and CFO, believes that any disclosure controls and procedures or internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by unauthorized override of the control. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud might occur and not be detected.

Management assessed the effectiveness of the Company's internal control over financial reporting at December 31, 2015, based on the criteria set forth in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission as published in 2013. Based on this evaluation, management believes, at December 31, 2017, the Corporation's internal control over financial reporting is effective. Also, management determined there were no material weaknesses in the Corporation's internal control over financial reporting at December 31, 2017.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2017, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included in the Company's audited financial statements.

## 14 Reconciliation of Non-IFRS Measures

Non-IFRS financial measures, including earnings before interest, taxes, depreciation and amortization ("EBITDA"), "Adjusted EBITDA" and "cash operating costs" are used by management to provide additional insight into our performance and financial condition. We believe these non-IFRS measures are an important part of the financial reporting process and are useful in communicating information that complements and supplements the consolidated financial statements.

### **Adjusted Earnings Before Interest, Taxes, Depreciation and Amortization ("Adjusted EBITDA")**

The Company believes Adjusted EBITDA assists investors in comparing a company's performance on a consistent basis excluding depreciation and amortization, stock-based compensation, including both share settled PSUs and stock options and cash settled RSUs and DSUs, which are non-cash in nature and can vary significantly. We believe that removing these expenses is a better measurement of operational performance. Investors should be cautioned that Adjusted EBITDA, as reported by us, may not be comparable in all instances to Adjusted EBITDA, as reported by other companies.

The following table provides a reconciliation of Adjusted EBITDA with net loss:

	Years ended December 31,	
	2017	2016
Net loss	\$ (11,140)	\$ (9,857)
Finance income (loss), net	2,442	1,451
Amortization and depreciation	672	751
DSUs expense (recovery)	950	(290)
Stock-based compensation expense (including PSUs & RSUs)	742	390
Adjusted EBITDA	\$ (6,334)	\$ (7,555)

### Cash Operating Costs

We report cash operating costs because management feels they are a key measurement of the normal operating costs required to operate the ongoing business units of the Company. Cash operating costs are regularly reported to the chief operating decision maker and correspond to the definition used in our historical quarterly discussions. Investors should be cautioned that cash operating costs as reported by us may not be comparable in all instances to cash operating costs as reported by other companies.

The following table provides a reconciliation of cash operating costs with total operating expenses consisting of Selling, general and administrative expenses and Research and product development expenses:

	Years ended December 31,	
	2017	2016
Selling, general and administrative expenses	\$ 13,742	\$ 10,825
Research and product development expenses	6,376	3,576
Total operating costs	\$ 20,118	\$ 14,401
Less: Amortization and depreciation	(461)	(407)
Less: DSUs recovery (expense)	(950)	290
Less: Stock-based compensation expense	(742)	(390)
Less: Loss on disposal of assets	(131)	–
Cash operating costs	\$ 17,834	\$ 13,894

## 15 Risk Factors

An investment in our common shares involves risk. Investors should carefully consider the risks and uncertainties described in our Annual Information Form. The risks and uncertainties described in our Annual Information Form are not the only ones we face. Additional risks and uncertainties, including those that we do not know about now or that we currently deem immaterial, may also adversely affect our business. For a more complete discussion of the risks and uncertainties which apply to our business and our operating results, please see our Annual Information Form/40-F and other filings with Canadian ([www.sedar.com](http://www.sedar.com)) and U.S. securities regulatory authorities ([www.sec.gov](http://www.sec.gov)).

Our business entails risks and uncertainties that affect our outlook and eventual results of our business and commercialization plans. The primary risks relate to meeting our product development and commercialization milestones, which require that our products exhibit the functionality, cost and performance required to be commercially viable against competing technologies and that we have sufficient access to capital to fund these activities. There is also a risk that key markets for certain of our products may never develop, or that market acceptance might take longer to develop than anticipated – in particular for applications such as energy storage which require leadership at a government and regulatory level.

## 16 Forward-Looking Statements

This MD&A constitutes “forward-looking information,” within the meaning of applicable Canadian securities laws and “forward-looking statements” within the meaning of the United States Private Securities Litigation Reform Act of 1995 (collectively referred to herein as “forward-looking statements”). Forward-looking statements can be identified by the use of words, such as “plans,” “expects,” or “is expected,” “budget,” “scheduled,” “estimates,” “forecasts,” “intends,” “anticipates,” or “believes” or variations of such words and phrases or state that certain actions, events or results “may,” “could,” “would,” “might” or “will” be taken, occur or be achieved. These forward-looking statements relate to, among other things, our future results, levels of activity, performance, goals or achievements or other future events. These forward-looking statements are based on current expectations and various assumptions and analyses made by us in light of our experience and our perceptions of historical trends, current conditions and expected future developments and other factors that we believe are appropriate in the circumstances. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in our forward-looking statements.

These risks, uncertainties and factors include, but are not limited to: our inability to execute our business plan, or to grow our business; inability to address a slow return to economic growth, and its impact on our business, results of operations and consolidated financial condition; our limited operating history; inability to implement our business strategy; fluctuations in our quarterly results; failure to maintain our customer base that generates the majority of our revenues; currency fluctuations; failure to maintain sufficient insurance coverage; changes in value of our goodwill; failure of a significant market to develop for our products; failure of hydrogen being readily available on a cost-effective basis; changes in government policies and regulations; lack of new government policies and regulations for the energy storage technologies; failure of uniform codes and standards for hydrogen fuelled vehicles and related infrastructure to develop; liability for environmental damages resulting from our research, development or manufacturing operations; failure to compete with other developers and manufacturers of products in our industry; failure to compete with developers and manufacturers of traditional and alternative technologies; failure to develop partnerships with original equipment manufacturers, governments, systems integrators and other third parties; inability to obtain sufficient materials and components for our products from suppliers; failure to manage expansion of our operations; failure to manage foreign sales and operations; failure to recruit, train and retain key management personnel; inability to integrate acquisitions; failure to develop adequate manufacturing processes and capabilities; failure to complete the development of commercially viable products; failure to produce cost-competitive products; failure or delay in field testing of our products; failure to produce products free of defects or errors; inability to adapt to technological advances or new codes and standards; failure to protect our intellectual property; our involvement in intellectual property litigation; exposure to product liability claims; failure to meet rules regarding passive foreign investment companies; actions of our significant and principal shareholders; failure to maintain the requirements for continued listing on NASDAQ; dilution as a result of significant issuances of our common shares and preferred shares; inability of US investors to enforce US civil liability judgments against us; volatility of our common share price; and dilution as a result of the exercise of options.

These factors may cause the Company’s actual performance and financial results in future periods to differ materially from any estimates or projections of future performance or results expressed or implied by such forward-looking statements. Forward-looking statements do not take into account the effect that transactions or non-recurring or other special items announced or occurring after the statements are made have on the Company’s business. For example, they do not include the effect of business dispositions, acquisitions, other business transactions, asset write-downs or other charges announced or occurring after forward-looking statements are made. The financial impact of such transactions and non-recurring and other special items can be complex and necessarily depends on the facts particular to each of them.

We believe the expectations represented by our forward-looking statements are reasonable, yet there can be no assurance that such expectations will prove to be correct. The purpose of the forward-looking statements is to provide the reader with a description of management’s expectations regarding the Company’s fiscal 2018 financial performance and may not be appropriate for other purposes. Furthermore, unless otherwise stated, the forward-looking statements contained in this report are made as of the date of this report and we do not undertake any obligation to update publicly or to revise any of the included forward-looking statements, whether as a result of new information, future events or otherwise unless required by applicable legislation or regulation. The forward-looking statements contained in this report are expressly qualified by this cautionary statement.