Hydrogenics Corporation

Third Quarter 2018
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 unaudited condensed interim consolidated financial statements in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") applicable to the preparation of interim financial statements, including International Accounting Standards 34 - Interim Financial Reporting. On January 1, 2018, the Company was required to adopt IFRS 15 and IFRS 9. Accordingly, the Corporation has commenced reporting on this basis in these consolidated interim financial statements. In these consolidated interim financial statements, the term "IAS 18" refers to IFRS revenue recognition prior to the adoption of IFRS 15. While the adoption of IFRS 15 has not had an impact on the Company's reported net cash flows, there has been a material impact on its consolidated balance sheets and consolidated statements of operations and comprehensive loss, which is discussed further in Section 11 of this MD&A.

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 Section 14 of this MD&A.

In this MD&A, all currency amounts (except per unit amounts) are in thousands of United States dollars ("US Dollars"), unless otherwise stated. The information presented in this MD&A is as of November 1, 2018, unless otherwise stated.

Additional information about Hydrogenics, including our 2017 Audited Consolidated Financial Statements and our Annual Report on Form 40-F for the year ended December 31, 2017 is available on our website at www.hydrogenics.com, on the SEDAR website at www.sedar.com, and on the EDGAR filers section of the U.S. Securities and Exchange Commission website at 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 in Section 17 of this MD&A.

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

Management's Discussion and Analysis
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1 Overall Performance

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

	Three months ended September 30, 2018	Three months ended September 30, 2017	2018 vs 2017 Favourable (Unfavourable)	2018 vs 2017 %	Nine months ended September 30, 2018	Nine months ended September 30, 2017	2018 vs 2017 Favourable (Unfavourable)	2018 vs 2017 %
OnSite Generation	**$ 4,518**	$ 5,925	$ (1,407)	(24)%	**$ 13,055**	$ 12,187	$ 868	7 %
Power Systems	**3,147**	6,154	(3,007)	(49)%	**10,366**	16,183	(5,817)	(36)%
Total revenue	**7,665**	12,079	(4,414)	(37)%	**23,421**	28,370	(4,949)	(17)%
Gross profit	**1,471**	2,897	(1,426)	(49)%	**6,810**	6,010	800	13 %
Gross Margin %	***19%***	*24%*			***29%***	*21%*		
Selling, general and administrative expenses	**3,097**	2,909	(188)	(6)%	**8,957**	9,177	220	2 %
Research and product development expenses	**1,316**	2,157	841	39 %	**5,277**	4,654	(623)	(13)%
Loss from operations	**(2,942)**	(2,169)	(773)	(36)%	**(7,424)**	(7,821)	397	5 %
Finance income (loss), net	**(501)**	138	(639)	n/a%	**(2,474)**	(1,969)	(505)	(26)%
Income tax expense	**–**	–			**(300)**	**–**	(300)	n/a%
Net loss	**$ (3,443)**	$ (2,031)	$ (1,412)	(70)%	**$ (10,198)**	$ (9,790)	$ (408)	(4)%
Net loss per share	**$ (0.22)**	$ (0.13)	$ (0.09)	(67)%	**$ (0.66)**	$ (0.73)	$ 0.07	9 %
Cash operating costs[1]	**$ 4,053**	$ 4,939	$ 886	18 %	**$ 13,599**	$ 12,312	$ (1,287)	(10)%
Adjusted EBITDA[1]	**(2,529)**	(1,947)	(582)	(30)%	**(6,582)**	(6,133)	(449)	(7)%
Cash used in operating activities	**(2,650)**	(8,448)	5,798	69 %	**(8,249)**	(11,306)	3,057	27 %
Cash and cash equivalents (including restricted cash)	**11,897**	20,311	(8,414)	(41)%	**11,897**	20,311	(8,414)	(41)%
Total assets	**54,806**	69,823	(15,017)	(22)%	**54,806**	69,823	(15,017)	(22)%
Total non-current liabilities (excluding deferred funding and contract liabilities)	**$ 8,062**	$ 10,079	$ 2,017	20 %	**$ 8,062**	$ 10,079	$ 2,017	20 %

1. **Cash operating costs and Adjusted EBITDA are Non-IFRS measures. Refer to Section 14 – Reconciliation of Non-IFRS Measures.**
2. **As noted in the introduction, the Company has adopted IFRS 15 – Revenue from Contracts with Customers as our revenue recognition policy. This policy was applied retrospectively and as such the comparative financial information presented in Sections 1, 2, 3, 4, 6, 7 and 14 of this MD&A has been restated to reflect the application of the new policy. Refer to Section 11 and the accompanying condensed interim consolidated financial statements for more information on the effect of this change in accounting policy.**

Highlights for the three and nine months ended September 30, 2018 compared to the three and nine months ended September 30, 2017

- Revenues were down $4.4 million and $4.9 million respectively for the comparable three and nine months ended September 30, 2018. Whereas the OnSite Generation business segment realized growth in revenues through the first nine months of 2018, up $0.9 million or 7% as a result of greater industrial hydrogen orders shipped, this was offset by lower Power Systems revenues of $5.8 million for the same period. The decrease in year-to-date Power Systems revenue is attributable to delayed customer orders against our existing backlog for the Chinese market due to ongoing development of Chinese regulation for hydrogen fuel cells in the motive market and economic uncertainty caused by the current tariff and related trade challenges with the United States. Despite evolving regulations, overall Chinese policy development and sentiment remain very strong for hydrogen zero emission solutions. Accordingly, we remain confident in this market and expect accelerating orders in coming quarters.

- We received $21.4 million in new orders for the nine months ended September 30, 2018 (2017 – $61.3 million) consisting of $14.8 million (2017 – $16.6 million) for the OnSite Generation business and $6.6 million (2017 – $44.7 million) for the Power Systems business. The OnSite Generation business achieved a net positive order intake through the first nine months of $1.8 million, whereas orders delivered exceeded orders received by $3.8 million in Power Systems. As discussed in our Q2-2018 MD&A, we commenced discussions with Kolon Water and Energy Co. Ltd. with respect to dissolving our joint arrangement. Accordingly, $7.5 million of backlog with the joint venture arrangement for Power Systems was cancelled at that time. Accumulated backlog otherwise remains strong and our sales pipeline remains very active across both lines of business.

	December 31, 2017 backlog	**IFRS 15 Adj.**	**Orders Received**	**FX**	**Orders Delivered/ Revenue Recognized**	**Orders cancelled**	**September 30, 2018 backlog**
OnSite Generation	$ 19.9	$ (0.8)	$ 14.8	$ –	$ 13.0	$ –	$ 20.9
Power Systems	124.7	(0.3)	6.6	(1.9)	10.4	7.5	111.2
Total	**$ 144.6**	**$ (1.1)**	**$ 21.4**	**$ (1.9)**	**$ 23.4**	**$ 7.5**	**$ 132.1**

- Gross margin decreased to 19% (2017- 24%) for the three months ended September 30, 2018 due to a reduction in our OnSite Generation business. However, for the nine months ended September 30, 2018, gross margin improved to 29% (2017 – 21%) due to better overall project execution for OnSite Generation and product mix and margin improvement initiatives for Power Systems. Refer to Section 2 Operating Results for more discussion regarding these key drivers.

- SG&A expenses increased by $0.2 million for the three months ended September 30, 2018 versus the comparative prior period. The increase is attributable to non-cash gains realized in 2017 on the revaluation of DSUs. SG&A expenses decreased $0.2 million for the nine months ended September 30, 2018 versus the comparative to the prior period. The decrease is attributable to non-cash gains realized on the revaluation of DSUs in 2018 due to changes in our stock price, a reconciliation of which is provided in Section 14 under Cash Operating Costs. Net of these non-cash gains, expenditures for the nine months ended September 30, 2018 increased by $0.7 million as compared to the same period in 2017. The increase relates to launching a refreshed corporate branding, advertising and marketing campaign in the first half of the year to improve awareness of our company across key audiences within government, the investment community and the general public.

- Net R&D expenses for the three months ended September 30, 2018 decreased by $0.8 million as compared to the same period in 2017. The decrease is attributable to an increase in government funding for the period related to fuel cell power module manufacturing expansion and process improvement initiatives. Net R&D expenses for the nine months ended September 30, 2018 increased $0.6 million compared to the nine months ended September 30, 2017. Of the $5.3 million spent on net R&D year-to-date, $1.1 million relates to construction of a hydrogen fueling station we will own and operate in the Greater Toronto Area, $0.6 million relates to commissioning costs for the 2.5 megawatts ("MW") Power-to-Gas joint venture with Enbridge, $1.1 million relates to our government funded Fuel Cell Power Module ("FCPM") manufacturing expansion and process improvement initiatives, $1.5 million relates to expanding our FCPMs to new mobility use cases and furthering development on the next generation of our fuel cell stack platform, and $1.0 million relates to product development within our OnSite Generation business.

Three months ended September 30,		2018		2017
Research and product development expenses	**$**	**2,695**	$	2,580
Government research and product development funding		**(1,379)**		(423)
Total	**$**	**1,316**	$	2,157

Nine months ended September 30,		2018		2017
Research and product development expenses	**$**	**8,981**	$	6,133
Government research and product development funding		**(3,704)**		(1,479)
Total	**$**	**5,277**	$	4,654

- Loss from operations increased by $0.8 million for the three months ended September 30, 2018 as compared to the same period in 2017. The increase is attributable to lower revenue and reduced gross profit for the period, partially offset by the reduction in net SG&A and R&D expenses noted above. Despite lower revenue, loss from operations improved by $0.4 million for the nine months ended September 30, 2018 versus the comparative period in 2017 reflecting the significantly improved gross margin, partially offset by a net increase in SG&A and R&D expenses.

- Net finance loss increased $0.6 million for the three months ended September 30, 2018 due to the non-cash gain on revaluation of warrants realized in the 2017 comparative period. Net finance loss increased $0.5 million for the nine months ended September 30, 2018 as compared to the same period in 2017. The increase is attributable to the loss of $1.6 million recorded in the second quarter to adjust the carrying value of our investment in our joint venture arrangement with Kolon Water and Energy Co. Ltd., offset by gains on the change in fair value of outstanding warrants due to a lower share price.

- Net loss for the three months ended September 30, 2018 increased $1.4 million as compared to the same period in 2017, driven mainly by lower gross profit on lower revenues. Net loss for the nine months ended September 30, 2018 increased $0.4 million versus the comparative period in 2017 driven by higher net finance loss as described above, offset partially by improved margins and higher sales.

- Cash operating costs decreased by $0.9 million for the three months ended September 30, 2018 compared to the same period in 2017 attributable to the reduction in net R&D expenses. Cash operating costs increased by $1.3 million for the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017 attributable to an increase in net R&D and SG&A expenses of $0.5 million and $0.8 million respectively.

- Adjusted EBITDA decreased $0.6 million for the three months ended September 30, 2018, as compared to the same period in 2017. The decrease is primarily attributable to the lower gross profit of $1.4 million, mitigated by the decrease in cash operating costs of $0.9 million. Adjusted EBITDA decreased by $0.4 million for the nine months ended September 30, 2018, as compared to the same period in 2017. The decline reflects the improved gross profit of $0.8 million offset by increased cash operating costs of $1.3 million.

2 Operating Results

Business Segment Review

We report our results in two business segments, being 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

Our OnSite Generation business segment is based in Oevel, Belgium and Mississauga, Canada and develops products for industrial gas, hydrogen fueling and the renewable energy storage markets. Refer to Section 5 Strategy and Outlook for a more extensive discussion regarding these products, markets and our business segment strategy.

Selected Financial Information

	Three months September 30, 2018	2017	2018 vs 2017 Favourable (Unfavourable)	Nine months September 30, 2018	2017	2018 vs 2017 Favourable (Unfavourable)
Revenues	**$ 4,518**	$ 5,925	(24)%	**$ 13,055**	$ 12,187	7 %
Gross profit	**506**	996	(49)%	**3,161**	1,176	169 %
Gross margin %	***11%***	*17%*	(33)%	***24%***	*10%*	151 %
Selling, general and administrative expenses	**724**	709	(2)%	**2,175**	2,011	(8)%
Research and product development expenses	**559**	307	(82)%	**2,046**	815	(151)%
Segment loss	**$ (777)**	$ (20)	n/a%	**$ (1,060)**	$ (1,650)	36 %

Revenues increased for the nine months ended September 30, 2018 reflecting more unit sales for industrial hydrogen equipment and increased maintenance revenue. Increasing maintenance revenue reflects sales for software upgrades released in 2018 as well as the effect of the natural refurbishment cycle of an increasing number of units in service.

New orders awarded for the nine months ended September 30, 2018 amounted $14.8 million (2017 – $16.6 million), resulting in a net increase of $1.8 million in our backlog year-to-date. Backlog at September 30, 2018 of $20.9 million (2017 - $27.0 million) is expected to be recognized as revenue in the next twelve months.

Gross margin improved significantly through the first nine months of 2018 compared to the same period in 2017, despite a slightly lower gross margin for the three months ended September 30, 2018 as compared to the same period in 2017. The primary driver for this improvement was our success in delivering more projects consistently at targeted margins. In the nine-month 2017 comparative period, we delivered two large projects in Africa that experienced poor gross margins due to unanticipated scope changes and ensuing delays attributable to the engineering firms responsible for construction. Increased revenue year-to-date versus the 2017 comparative period also had a positive impact on overall gross margin as fixed manufacturing costs were allocated against a larger base.

SG&A expenses were flat in Q3-2018 versus Q3-2017 and increased $0.2 million the nine months ended Q3-2018 attributable to increased business development activity.

Net R&D expenses increased in 2018 over the comparative periods in 2017, primarily attributable to the construction of a hydrogen fueling station in the Greater Toronto Area that the company will own and operate. These expenses amounted to $0.2 million and $1.1 million respectively for the three and nine months ended September 30, 2018.

Segment loss increased by $0.8 million for the three months ended September 30, 2018, as compared to the same period last year, reflecting lower gross profit of $0.5 million and the increase in net R&D expenses of $0.3 million. However, segment loss improved by $0.6 million for the nine months ended September 30, 2018, as compared to the same period last year, reflecting the improved gross profit of $2.0 million offset by increased net R&D expenses associated with the fueling station of $1.1 million and SG&A expenses of $0.2 million.

Power Systems

Our Power Systems business segment is based in Mississauga, Canada with a satellite facility in Gladbeck, Germany and develops products for mobility and stationary power markets. Refer to Section 5 Strategy and Outlook for a more extensive discussion regarding these products, markets and our business segment strategy.

Selected Financial Information

	Three months September 30, 2018	2017	2018 vs 2017 Favourable (Unfavourable)	Nine months September 30, 2018	2017	2018 vs 2017 Favourable (Unfavourable)
Revenues	**$ 3,147**	$ 6,154	(49)%	**$ 10,366**	$ 16,183	(36)%
Gross Profit	**965**	1,901	(49)%	**3,649**	4,834	(25)%
Gross margin %	***31%***	*31%*	*0%*	***35%***	*30%*	*18 %*
Selling, general and administrative expenses	**1,094**	1,188	8%	**3,216**	3,052	(5)%
Research and product development expenses	**731**	1,824	60%	**3,177**	3,770	16 %
Segment loss	**$ (860)**	$ (1,111)	23%	**$ (2,744)**	$ (1,988)	(38)%

Revenues decreased $3.0 million and $5.8 million respectively for the three and nine months ended September 30, 2018 as compared to the same period in 2017. The decrease in revenue is attributable to delayed customer orders against our existing backlog for the Chinese market due to ongoing development of Chinese regulation for hydrogen fuel cells in the motive market and economic uncertainty caused by the current tariff and related trade challenges with the United States. Despite evolving regulations, overall Chinese policy development and sentiment remain very strong for hydrogen zero emission solutions. Accordingly, we remain confident in this market and expect accelerating orders in coming quarters***.***

Orders awarded through 2018 amounted to $6.6 million (2017– $44.7 million) versus revenue of $10.4 million over the same period, resulting in a $3.8 million net decrease in backlog. As discussed in Section 1 Overall Performance and in our Q2-2018 MD&A, we commenced discussions in June 2018 with Kolon Water and Energy Co. Ltd. with respect to dissolving our joint venture arrangement. Accordingly, $7.5 million of backlog with the joint venture was cancelled in the second quarter 2018. Backlog otherwise remained strong and our sales pipeline remains very active. Specifically, at September 30, 2018, backlog was $111.2 million (September 30, 2017 – $120.5 million) with approximately $34.4 million of this backlog expected to be recognized as revenue in the next twelve months.

Gross margin of 31% was achieved in Q3-2018, comparable to Q2-2018, despite the reduced overhead manufacturing absorption on the lower revenue in 2018. On a year-to-date basis, gross margin improved from 30% to 35% over the comparative period for 2017. Although a lower margin was achieved in 2017, due in part to the initial production run of the Alstom commuter rail power modules, the improved margin in 2018 also reflects year-over-year progress towards product standardization, production process efficiencies and improved supply chain management.

SG&A expenses decreased $0.1 million for Q3-2018 versus Q3-2017, but increased $0.2 million for the nine months ended September 30, 2018 versus the comparative prior period in 2017 attributable to an increase in business development and marketing activities.

Net R&D expenses were down $1.1 million and $0.6 million respectively for the three and nine months ended September 30, 2018 versus the comparative periods in 2017. The decrease is attributable to Canadian government funding awarded in March 2018 towards manufacturing and product development initiatives. Year-to-date 2018 expenses of $3.2 million reflect spending of $0.6 million on the development of the multi-megawatt energy storage project using Proton Exchange Membrane ("PEM") fuel cell technology, $1.1 million on government funded FCPM manufacturing expansion and process improvement initiatives, and $1.5 million related to expanding our FCPMs to new mobility use cases, such as heavy duty commercial vehicles, and ongoing development on the next generation of our fuel cell stack platform. The Canadian government funding noted above was subsequently cancelled effective September 28, 2018 coinciding with a change in government and policy direction.

Segment loss decreased $0.3 million for the three months ended September 30, 2018 compared to the three months ended September 30, 2017 attributable to lower revenue and lower gross profit of $0.9 million, offset by decreased net R&D expenses of $1.1 million and decreased SG&A expenses of $0.1 million. Segment loss increased $0.8 million for the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017 due to lower revenue and lower gross profit of $1.2 million and increased SG&A expenses of $0.1 million, offset by decreased R&D expenses of $0.6 million.

Corporate and Other

Selected Financial Information

	Three months September 30, 2018	2017	2018 vs 2017 Favourable (Unfavourable)	Nine months September 30, 2018	2017	2018 vs 2017 Favourable (Unfavourable)
Selling, general and administrative expenses	**$ 1,279**	$ 1,012	(26)%	**$ 3,566**	$ 4,114	13 %
Research and product development expenses	**26**	26	0%	**54**	69	22 %
Other finance gains (losses), net	**(56)**	631	n/a%	**243**	(837)	(129)%
Loss from joint ventures	**(15)**	(87)	83%	**(1,576)**	(258)	n/a%
Interest expense, net	**(369)**	(464)	20%	**(1,122)**	(1,387)	19 %
Foreign currency gains (losses), net	**(61)**	58	n/a%	**(19)**	513	n/a%
Segment loss	**$ (1,806)**	$ (900)	(101)%	**$ (6,094)**	$ (6,152)	1 %

SG&A expenses increased $0.3 million and decreased $0.5 million respectively for the three and nine months ended September 30, 2018 versus the comparative periods in 2017. The decrease for the nine months ended September 30, 2018 is a result of a net $0.9 million positive change in the non-cash fair value adjustments of DSUs (as reflected in the reconciliation of Cash Operating Costs in Section 14 Reconciliation of Non-IFRS Measures). SG&A expenses otherwise increased $0.7 million for the nine months ended September 30, 2018 versus the comparative period in 2017 as we launched our refreshed corporate branding, advertising and marketing campaign. The purpose of this initiative is to improve awareness and visibility of our company across audiences within government, the investment community and the public generally.

Other net finance gains (losses) decreased by $0.7 million and improved $1.1 million for the three and nine months ended September 30, 2018 compared to the respective periods in 2017 attributable to non-cash fair value adjustments for outstanding warrants. The improvement year-to-date in 2018 was driven by a lower share price as well as the effect of fewer warrants outstanding relative to the comparative period in 2017.

Loss on joint ventures increased $1.3 million for the nine months ended September 30, 2018 as compared to the nine months ended September 30, 2017. The increase relates primarily to the loss of $1.6 million recorded in the second quarter of 2018 to reflect a reduction of the carrying value of the assets of Kolon Hydrogenics to their estimated net recoverable amount based upon an assessment of fair values less costs of disposal. This write-down coincided with discussions commenced in June 2018 with Kolon Water and Energy Co. Ltd. with respect to dissolving our joint venture arrangement.

Net interest expense decreased $0.1 million and $0.3 million respectively for the three and nine months ended September 30, 2018 as compared to the three and nine months ended September 30, 2017 due to principal repayments offset by a slight increase in borrowing rates due to prime rate increases.

Net foreign currency gains (losses) increased due to the appreciation of the US dollar vis-a-vis the euro and Canadian dollar over both comparative periods.

3 Financial Condition

	September 30, 2018	December 31, 2017	Increase(decrease) $	%
Cash, cash equivalents and restricted cash	**$ 11,897**	$ 22,414	$ (10,517)	(47)%
Trade and other receivables	**7,461**	8,736	(1,275)	(15)%
Contract assets – (current and non-current)	**5,559**	7,223	(1,664)	(23)%
Inventories	**19,091**	15,048	4,043	27 %
Prepaid expenses	**1,772**	1,374	398	29 %
Operating borrowings	**–**	1,200	(1,200)	(100)%
Trade and other payables	**10,984**	10,361	623	6 %
Contract liabilities – (current and non-current)	**14,011**	14,044	(33)	(0)%
Financial liabilities	**4,524**	4,913	(389)	(8)%
Warranty provisions – (current and non-current)	**1,742**	2,095	(353)	(17)%
Deferred funding – (current and non-current)	**2,183**	913	1,270	139 %
Other non-current liabilities	**7,256**	8,516	$ (1,260)	(15)%

Cash, cash equivalents, restricted cash and short-term investments decreased $10.5 million or 47% on a year-to-date basis in 2018. $3.3 million was used to pay principal and interest on long term debt and repay operating borrowings and $8.2 million was used for operating activities, both of which were offset by net $1.0 million of financing proceeds attributable to government funding and proceeds on the disposal of equipment. Refer to Section 6 – Liquidity for a more detailed discussion of the change in cash, cash equivalents, restricted cash and short-term investments.

Trade and other receivables decreased $1.3 million consistent with lower revenue in the preceding periods of September 30, 2018 versus December 31, 2017.

Contract assets (current and non-current) decreased $1.7 million due to the change in value of amounts recognized on a percentage of completion basis for a long-term Power Systems contract as well as revenue recognized for start-up and commissioning of equipment consistent with the application of IFRS 15, described in Section 11 Changes in Accounting Policies and Recent Accounting Pronouncements.

Inventories accounted for $4.0 million (almost half) of the working capital used in operations for the nine months ended September 30, 2018. The increase reflects work in progress and finished goods inventory build-up required to support the schedule of expected deliveries against our backlog for Power Systems and OnSite Generation products over the balance of the year and into Q1-2019.

Prepaid expenses increased $0.4 million reflecting prepayment of advertising commitments offset by the amortization of agent commissions on long term contracts.

Trade and other payables increased $0.6 million due to the reclassification of $1.0 million (C$1.4 million) for government funding repayable due to the cancelation of government funding program effective September 28, 2018 as noted in Section 2 Operating Results. Otherwise trade and other payables were down $0.4 million (4%) compared to the end of December 31, 2017 as we reduced purchases for long lead items only given the availability of current inventory levels to support scheduled deliveries over the balance of the year.

Financial liabilities decreased $0.4 million reflecting the revaluation to fair value of outstanding warrants and DSU liabilities compared to December 31, 2017, offset by the increase in principal repayments attributable to our long-term debt with Export Development Canada.

Warranty provisions decreased $0.4 million reflecting the expiry of warranty periods and favorable warranty experience generally.

Deferred funding increased $1.3 million reflecting the receipt of $1.4 million of funding for new energy storage projects in Europe.

Other non-current liabilities decreased $1.3 million due to principal repayments made in the period on our long-term debt with Export Development Canada and the Province of Ontario.

4 Summary of Quarterly Results

The following table highlights selected financial information for the eight consecutive quarters ended March 31, 2018. The comparative financial information presented for 2017 and 2016 has been restated to reflect the retroactive adoption of IFRS 15 as described in section 11.

	2018 Q3	2018 Q2	2017 Q1	2017 Q4	2017 Q3	2017 Q2	2017 Q1	2016 Q4
Revenues	$ 7,665	$ 7,609	$ 8,147	$ 19,746	$ 12,079	$ 7,556	$ 8,735	$ 8,658
Gross profit	1,471	2,101	3,238	5,670	2,897	440	2,673	2,013
Gross margin %	19%	28%	40%	29%	24%	6%	31%	23%
Adjusted EBITDA[1]	(2,529)	(2,447)	(1,606)	187	(1,947)	(3,446)	(742)	(1,714)
Net loss	(3,443)	(4,801)	(1,954)	(964)	(2,031)	(5,462)	(2,297)	(2,481)
Net loss per share – (basic and fully diluted)	$ (0.22)	$ (0.31)	$ (0.13)	$ (0.06)	$ (0.13)	$ (0.43)	$ (0.18)	$ (0.20)
Weighted average common shares outstanding	15,442,416	15,440,888	15,436,879	15,133,194	15,232,905	12,677,167	12,545,076	12,542,950

1. Adjusted EBITDA is a Non-IFRS measure, refer to Section 14 – Reconciliation of Non-IFRS Measures.

When comparing the third quarter of 2018 to the third quarter of 2017, our net loss increased by $1.4 million (63%) to $3.4 million ($0.22 per common share) compared to a net loss of $2.0 million ($0.13 per common share). This increase was driven by lower revenue of $4.4 million and a decrease in gross profit of $1.4 million. Adjusted EBITDA decreased by $0.6 million to a loss of $2.5 million from a loss of $1.9 million reflecting the decrease in gross profit of $1.4 million offset by an improvement in cash operating costs of $0.9 million. The improvement in cash operating costs is attributable to reduced net R&D expenses; notably, an increase in government funded FCPM manufacturing expansion and process improvement initiatives in the current quarter. The focus of our R&D activities in Q3-2018 also included expanding our FCPMs to new mobility use cases, such as heavy duty commercial vehicles, and furthering development on the next generation of our fuel cell stack platform and electrolyzer products.

When comparing the second quarter of 2018 to the second quarter of 2017, our net loss decreased by $0.8 million (12%) to $4.8 million ($0.31 per common share) compared to a net loss of $5.4 million ($0.43 per common share). This improvement was driven by the increase in gross profit of $1.7 million reflecting a gross margin improvement to 28% from 6%, offset by an increase in losses from our joint venture with Kolon as previously discussed. Adjusted EBITDA improved by $1.0 million to a loss of $2.4 million from a loss of $3.4 million. The improvement reflects additional gross profit of $1.7 million offset by an increase of $0.7 million in cash operating costs year-over-year. The increase in cash operating costs reflects $0.3 million and $0.4 million respectively of additional expenditures for SG&A and net R&D. The increase in SG&A is attributable to increased business development and marketing activities. The focus of our R&D activities in the quarter included commissioning the 2.5MW Power-to-Gas facility with Enbridge, government funded FCPM manufacturing expansion and process improvement initiatives, expanding our FCPMs to new mobility use cases, such as heavy duty commercial vehicles, and furthering development on the next generation of our fuel cell stack platform and electrolyzer products.

When comparing the first quarter of 2018 to the first quarter of 2017, our net loss decreased 15% to $2.0 million ($0.13 per common share) from $2.3 million ($0.18 per common share). An increase in gross profit of $0.6 million was principally due to improved direct margins due to product mix. Finance loss improved from a loss of $0.9 million to income of $0.1 million primarily as a result of adjustments to the fair value of outstanding warrants related to the net decrease in the Company's share price in the current quarter as compared to a net increase in share price for the comparative quarter of March 31, 2017. SG&A expenses decreased $0.2 million in the first quarter of 2018. Excluding mark to market expenses relating to our DSUs as a result of the increase in our share price for the three months ended March 31, 2018 as compared to the three months ended March 31, 2017, SG&A expenses increased $0.4 million. The increase is the result of increased advertising and marketing costs, facility costs, and information technology costs within the Company. These improvements were offset by an increase in net R&D expenses of $1.1 million primarily due to increased spending on multi-megawatt energy storage projects, and mobility applications such as the demonstration of the technical viability of our Celerity Plus™ product in heavy duty commercial vehicle applications, as well as furthering development on the next generation of our fuel cell stack platform.

In the fourth quarter of 2017, our net loss improved by $1.5 million to a net loss of $1.0 million ($0.06 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 $3.7

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, as well as 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 our 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 from $0.15 per common share), compared to the third quarter of 2016. An increase in gross profit of $1.8 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 fair value adjustments (loss) relating to outstanding warrants ($0.6 million) in the three months ended September 30, 2017, whereas the three months ended September 30, 2016 had a loss of $0.1 million.

5 Strategy and Outlook

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

<u>Mobility Power</u> – 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 mobility power profiles. We configure our HyPM® products into multiple electrical power outputs ranging from 3 kilowatt (kW) to 1 MW with ease of integration, high reliability and operating efficiency, delivered from a highly compact configuration. We feel our technology provides us with a competitive advantage based upon a design that supports a compact, integrated balance of plant and ease of modularity. Our design provides for robust cold weather reliability and a patented rapid start-up and shut down capability. Our low pressure and dry/dry design further differentiates our technology and eliminates the need for additional humidification and pump components.

Our target markets include stationary power applications (including primary and back-up power) and mobility power applications, such as trains, buses, trucks, utility vehicles, air-craft and most recently, a product development contract was signed for a marine application. 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 strategy in China is to work with integrators, companies that take our fuel cell technology and incorporate it into buses and other vehicles provided by original equipment manufacturers. We created a certified integrator program to execute this strategy and have established relationships with multiple parties in China to date. Despite a slowdown in production orders in 2018, we still have the largest fleet of buses on the road in China at over 300. As well, to date, more than ten bus models incorporating our fuel cells are listed in the official Chinese government catalogue (meaning these models are approved for commercial sale). Since inception of strategy, approximately 400 units have been shipped to date and we have outstanding orders for 1,100 more units at present.

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 commercial order in our history. This order highlights the commercial maturity and strong competitive positioning of our fuel cell technology. Alstom Transport achieved certification of the train sets in July 2018 and placed the trains into active passenger service in September 2018. Alstom is actively working with German municipalities and regions to aggregate train orders which will drive follow-on fuel cell orders envisioned under our contract including $47 million in backlog.

<u>Energy Storage</u> – We continue to pursue several large-scale applications which would consume 10 to 100 MW of power, which is 100 to 300 times larger than a typical industrial unit to date. Several third-party studies and internal analysis by lead customers such as Uniper and Enbridge suggest substantial long-term opportunity for "Power-to-Gas", an application for energy conversion and storage. Our joint venture with Enbridge to build and operate a first of its kind 2.5MW energy storage facility signals the rising importance of energy storage to one of North America's largest energy companies.

We continue our focus to improve and differentiate our PEM electrolyzer technology. Our HyLYZER 600 3MW PEM single stack electrolyzer is the smallest, most power dense unit in the market today and is ideally suited for large scale energy storage applications. Product development is underway to augment to a 5MW stack permitting cost effective modular scaling in 5MW capacity blocks.

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 sales 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. For example, on June 15, 2018, the European Union issued an update to its' Renewable Energy Directive, Part ii which explicitly includes hydrogen solutions towards attainment of EU transportation target attainment. In addition, we continue to witness governments in other jurisdictions showing a willingness to increase spending on alternative energy projects for the same purpose. We believe we continue to be 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. Since 2014, we installed over 16MW of capacity across 12 reference sites in Europe, Asia and North America. 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.

<u>Industrial Hydrogen</u> – Historically, the demand for onsite generation of hydrogen gas has been driven by the manufacturing sector requiring hydrogen for industrial use and hydrogen gas resellers. A typical unit for these applications would generate 20 to 60 normal cubic meters of hydrogen and consume 100 to 300 kW of electrical energy. 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 recently completed development of our sixth generation (Type 6) design, our lowest cost and most efficient alkaline product to date, which is critical to maintaining commercial success in this market.

<u>Hydrogen Fueling</u> – 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. The increasing consumption of hydrogen to support mobility applications will demand more hydrogen supply infrastructure. We have been involved with the construction of over 55 fueling stations globally and see increased demand for hydrogen fueling; particularly, 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. Serving both the mobility and generation markets, we believe there could be a major increase in size of both addressable markets.

<u>Outlook Summary</u>

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 can have on the business going forward as discussed above. However, over the past several years, we have taken significant steps to reduce operating and product costs, streamline our operations and strengthen our consolidated financial position. We have tenaciously pursued research and product development to expand use cases across both our mobility and generation businesses. We have established significant commercial opportunities with large global companies such as Alstom, Enbridge and Air Liquide that we believe will support our trajectory to larger scale. We also continue to monitor evolving opportunities such as Hydrail.

While we may see volatility in our costs and revenues over the short-term, we expect our trend of improved cost efficiency to continue over the long term. At September 30, 2018, our order backlog was $132.1 million (September 30, 2017 – $147.5 million) spread across numerous geographical regions, of which approximately $55.3 million is expected to be recorded as revenue in the following twelve 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.

6 Liquidity

Cash Used in Operating Activities

(Thousands of US dollars)	Three months ended September 30, 2018	2017	$ Change	Nine months ended September 30, 2018	2017	$ Change
Net loss	**$ (3,443)**	$ (2,031)	(1,412)	**$ (10,198)**	$ (9,790)	$ (408)
(Increase) decrease in restricted cash	**77**	133	(56)	**(202)**	(869)	667
Net change in non-cash operating assets	**(217)**	(6,977)	6,760	**(1,076)**	(5,079)	4,003
Other items not affecting cash	**934**	427	507	**3,228**	4,432	(1,204)
Cash used in operating activities	**$ (2,650)**	$ (8,448)	5,798	**$ (8,249)**	$ (11,306)	$ 3,057

Cash used in operating activities during Q3-2018 decreased by $5.8 million compared to Q3-2017 primarily as a result of changes in non-cash working capital; notably, payments received in Q3-2018 from accounts receivable and payments made in Q3-2017 for trade accounts payable.

Cash Provided by (Used in) Investing Activities

(Thousands of US dollars)	Three months ended September 30, 2018	2017	$ Change	Nine months ended September 30, 2018	2017	$ Change
Investment in joint venture	**–**	–	–	**$ –**	$ (93)	$ 93
Purchases of property, plant and equipment	**$ (204)**	$ (180)	(24)	**(539)**	(2,255)	1,716
Receipt of government funding	**–**	32	(32)	**974**	1,883	(909)
Proceeds from disposals of property, plant and equipment	**700**	–	700	**700**	1,035	(335)
Purchase of intangible assets	**(95)**	(33)	(62)	**(96)**	(34)	–
Cash provided by (used in) investing activities	**$ 401**	$ (181)	582	**$ 1,039**	$ 536	$ 503

Cash provided by investing activities improved by $0.6 million in Q3-2018 over Q3-2017 reflecting the proceeds received in the current quarter from the transfer of assets to our joint venture investment with Enbridge for the 2.5MW Power-to-Gas energy storage project.

Cash Provided by (Used in) Financing Activities

(Thousands of US dollars)	Three months ended September 30, 2018	2017	$ Change	Nine months ended September 30, 2018	2017	$ Change
Proceeds from common shares issued and stock options exercised, net of issuance costs	**$ 39**	$ (40)	79	**$ 40**	$ 19,730	$ (19,690)
Principal repayment of long-term debt	**(500)**	–	(500)	**$ (1,250)**	$ (500)	$ (750)
Interest payment	**(276)**	–	(276)	**(858)**	(788)	(70)
Proceeds (repayment) of operating borrowings	**–**	98	(98)	**(1,193)**	287	(1,480)
Repayment of repayable government contributions	**–**	(1)	1	**–**	(113)	113
Cash provided by (used in) financing activities	**$ (737)**	$ 57	(794)	**$ (3,261)**	$ 18,616	$ (21,877)

Cash used by financing activities for Q3-2018 amounted to $0.8 million and related entirely to debt service.

We anticipate consuming up to $2.0 million of cash in the fourth quarter of 2018 to fund our operations, capital expenditures and debt service before deposits received on new customer orders.

Contractual Obligations

	Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Long-term debt[1], including current portion	**$ 12,885**	$ 4,665	$ 6,788	$ 1,432	$ –
Operating leases	**5,082**	1,246	2,016	987	833
Purchase obligations	**13,204**	12,661	543	–	–
Capital lease	**41**	8	24	9	–
Total contractual obligations[2, 3]	**$ 31,212**	**$ 18,580**	**$ 9,371**	**$ 2,428**	**$ 833**

1. Represents the undiscounted amounts payable as disclosed below under "Credit and Loan Facilities".
2. The table excludes the DSU liability of $1,024 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 warrants liability of $86 included in our financial liabilities.

Credit and Loan Facilities

At September 30, 2018, the Company's subsidiary in Belgium (the "Borrower") had a joint credit and operating line facility of €7.0 million, which renewed in April 2018. 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. Of the €7.0 million facility, €1.5 million or approximately $1.8 million was drawn as standby letters of credit and bank guarantees and €nil was drawn as an operating line (December 31, 2017 - €1.0 or approximately $1.2 million). At September 30, 2018, the Company had availability of €5.5 million or $6.3 million (December 31, 2017 – €3.6 million $4.4 million) under this facility for use as letters of credit and bank guarantees.

At September 30, 2018, the Company also had a Canadian credit facility of $2.3 million, with no expiration date for use only as letters of credit and bank guarantees. At September 30, 2018, $0.4 million was drawn as standby letters of credit and bank guarantees. At September 30, 2018, the Company had $2.0 million (December 31, 2017 – $2.4 million) available under this facility for use as letters of credit and bank guarantees.

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 September 30, 2018.

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 September 30, 2018.

In the fourth quarter of 2016, we 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.

7 Capital Resources

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

		September 30, 2018		December 31, 2017 Restated (Note 4)
Total equity	$	**14,106**	$	24,173
Operating borrowings		**–**		1,200
Long-term debt and repayable government contributions, including current portion		**10,368**		11,284
Total		**24,474**		36,657
Less Cash and cash equivalents and restricted cash		**11,897**		22,414
Total capital employed	$	**12,577**	$	14,243

The Company's financial objective when managing capital is to make sure that we have the cash, debt capacity and financial flexibility to fund our ongoing business objectives including operating activities, research and development, 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 research and product development priorities, capital spending and/or sale of assets. These alternatives, and our capital structure, 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.

8 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.

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.

9 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 the three and nine months ended September 30, 2018, Hydrogenics made purchases of $0.2 million and $0.3 million respectively (2017 – $0.2 million and $0.5 million) from this related company. At September 30, 2018, the Company had an accounts payable balance due to this related party of $0.1 million (2017 – $0.1 million). We believe that transaction terms 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 2.5MW Power-to-Gas energy storage project with Enbridge Gas Distribution. During the three and nine months ended September 30, 2018, the Company had sales to the joint venture of $1.4 million (2017 – $nil and $2.0 million) and at the end of September 30, 2018, the Company had a net receivable of less than $0.1 million (2017 - $0.3 million) from the joint venture.

The Company holds an equity investment in the joint venture Kolon Hydrogenics. During the three and nine months ended September 30, 2018, the Company had no transactions or balances outstanding. As discussed in Section 2 Operating results, the Company is currently in discussions with Kolon Water and Energy Co. Ltd. to dissolve the joint venture.

10 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. The preparation of financial information requires that the we 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 will 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. The impact on critical judgments, estimates and assumptions as a result of the implementation of IFRS 15 – Revenue from Contracts with Customers is reflected in Note 4 of the Company's Third Quarter 2018 Condensed Interim Consolidated Financial Statements.

11 Changes in Accounting Policies and Recent Accounting Pronouncements

As described in note 4 and 5 to our first quarter condensed interim consolidated financial statements, effective January 1, 2018 we implemented IFRS 15 – Revenue from Contracts with Customers and IFRS 9 – Financial Instruments. Both of these new standards were applied retrospectively. Accordingly, we have restated the financial information for all comparative periods presented within this MD&A, including the quarterly results in section 4, as if these policies had always been in effect.

Impact of adoption of IFRS 15 and IFRS 9

The adoption of IFRS 15 did not impact our previously reported net cash flows. However, there has been a material impact on our consolidated balance sheets and consolidated statements of operations and comprehensive loss. The impact on our opening deficit and other comprehensive loss and a description of the adjustments made to amounts previously recognized in our consolidated financial statements is as follows (in thousands of US dollars):

Restatement effect of the adoption of IFRS 15:	Note	**December 31, 2017**	**December 31, 2016**
Deficit		**($382,313)**	**($371,173)**
Recognition of net contract asset for installation, start-up and commissioning services	(a)	281	12
Recognition of a prepaid asset for agent commissions related to long term contracts	(b)	396	280
Restated deficit		**($381,636)**	**($370,881)**

a) Installation, start-up and commissioning services

Under IAS 18, our previous revenue recognition policy, we applied the revenue recognition criteria to each separate identifiable component of a single transaction. Specifically, contracts containing installation and start-up and commissioning services were accounted for as a separate element from the initial product sale, and the revenue on those services were deferred until the associated work was performed.

Under IFRS 15, the performance of installation and start-up and commissioning services are not considered distinct from and are considered a single performance obligation where these costs are insignificant in the context of the total sales price of the equipment and where the customer expects they are buying a final installed working product. As a result, revenue attributable to the installation, start-up and commissioning is now recorded at the time control passes of the related equipment sale (typically upon shipment). At that time, we also accrue the estimated costs to fulfill these obligations.

The implementation of IFRS 15 does not affect the ultimate amount revenue and expenses recognized related to installation, start-up and commissioning but rather the timing. These revenues and expenses are recorded sooner. Accordingly, we recognized additional gross profit of $12 accumulated at December 31, 2016 and a further $269 in

2017, thereby reducing the previously reported deficit and accumulated other comprehensive loss by $12 and $281 respectively at December 31, 2016 and December 31, 2017.

b) Sales agent commissions

We incur sales agent commissions for obtaining contracts. Under IAS18, these costs were expensed when they were earned or incurred.

Under IFRS 15, these incremental costs are deferred for contracts expected to be delivered after more than one year and expensed as the contract is delivered. Accordingly, we deferred $280 and of commissions in prepaid expenses as at December 31, 2016 and a further $116 in 2017, thereby reducing the previously reported deficit and accumulated other comprehensive loss by $280 and $396 respectively at December 31, 2016 and December 31, 2017.

c) Contract assets and liabilities

Lastly, IFRS 15 distinguishes between contract assets and accrued receivables based on whether receipt of the consideration is conditional on something other than the passage of time. At December 31, 2017 there was $6,201 (January 1, 2017 – $4,658) of receivables outstanding where our right to consideration was not unconditional (primarily relating to revenues accrued on long term contracts) which have been reclassified as a contract asset under IFRS 15.

Under IFRS 15, amounts received from customers before we have transferred the good or service are to be presented as contract liabilities. As a result, the amounts previously presented as deferred revenues have been reclassified as contract liabilities.

There was no impact to the company's financial results as a consequence of the adoption of IFRS 9.

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 CEO ("Chief Executive Officer") and CFO ("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.

We have assessed and effected the necessary change to our current disclosure controls and procedures to reflect the impact of adopting IFRS 15 – Revenues from Contracts with Customers and IFRS 9 – Financial Instruments. Specifically, we have updated and implemented a new revenue recognition checklist that is completed for each new contract to assess the appropriate treatment under IFRS 15. There were no substantive changes to our current disclosure controls and procedures to give effect to IFRS 9 requirements.

Our management, including our CEO and CFO, evaluated the effectiveness of our disclosure controls and procedures. Based on this evaluation and as described below under "Internal Control over Financial Reporting", our CEO and CFO concluded that our disclosure controls and procedures were effective as of September 30, 2018.

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 September 30, 2018, 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 September 30, 2018, 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 September 30, 2018.

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 annual 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

We believe 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, equity settled restricted share units ("RSUs") and cash settled deferred share units ("DSUs"), which are non-cash in nature and can vary significantly due to stock price fluctuations. 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:

	Three months ended September 30,		Nine months ended September 30,	
	2018	**2017**	**2018**	**2017**
Net loss	**$ (3,443)**	$ (2,031)	**$ (10,198)**	$ (9,790)
Finance (income) loss, net	**501**	(138)	**2,474**	1,969
Income tax expense	**–**	**–**	**300**	–
Amortization and depreciation	**162**	199	**514**	600
DSUs expense (recovery)	**6**	(176)	**(382)**	548
Stock-based compensation expense (including PSUs & RSUs)	**245**	199	**710**	540
Adjusted EBITDA	**$ (2,529)**	$ (1,947)	**$ (6,582)**	$ (6,133)

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 SG&A and R&D expenses:

	Three months ended September 30, 2018	Three months ended September 30, 2017	Nine months ended September 30, 2018	Nine months ended September 30, 2017
Selling, general and administrative expenses	**$ 3,097**	$ 2,909	**$ 8,957**	$ 9,177
Research and product development expenses	**1,316**	2,157	**5,277**	4,654
Total operating costs	**$ 4,413**	$ 5,066	**$ 14,234**	$ 13,831
Less: Amortization and depreciation	**(130)**	(101)	**(322)**	(314)
Less: DSUs (expense) recovery	**(6)**	176	**382**	(548)
Less: Stock-based compensation expense (including PSUs & RSUs)	**(245)**	(199)	**(710)**	(540)
Less: Gain (loss) on disposal of assets	**21**	(3)	**15**	(117)
Cash operating costs	**$ 4,053**	$ 4,939	**$ 13,599**	$ 12,312

15 Risk Factors

An investment in our common shares involves risk. Investors should carefully consider the risks and uncertainties described below and in our Annual Information Form. The risks and uncertainties described below and 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 (which are summarized below), please see our Annual Information Form and other filings with Canadian (www.sedar.com) and U.S. securities regulatory authorities (www.sec.gov/edgar.shtml).

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. Another primary risk is 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.

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

Macroeconomic and Geopolitical

- The uncertain and unpredictable condition of the global economy could have a negative impact on our business, results of operations and consolidated financial condition, or our ability to accurately forecast our results, and it may cause a number of the risks that we currently face to increase in likelihood, magnitude and duration.
- Certain external factors may affect the value of goodwill, which may require us to recognize an impairment charge.
- Significant markets for fuel cell and other hydrogen energy products may never develop or may develop more slowly than we anticipate. This would significantly harm our revenues and may cause us to be unable to recover the losses we have incurred and expect to incur in the development of our products.
- Changes in government policies and regulations could hurt the market for our products.
- Lack of new government policies and regulations for the energy storage technologies could hurt the development of our hydrogen energy storage products.
- Development of uniform codes and standards for hydrogen powered vehicles and related hydrogen refueling infrastructure may not develop in a timely fashion, if at all.
- We currently face and will continue to face significant competition from other developers and manufacturers of fuel cell power products and hydrogen generation systems. If we are unable to compete successfully, we could experience a loss of market share, reduced gross margins for our existing products and a failure to achieve acceptance of our proposed products.
- We face competition for fuel cell power products from developers and manufacturers of traditional technologies and other alternative technologies.
- Rapid technological advances or the adoption of new codes and standards could impair our ability to deliver our products in a timely manner and, as a result, our revenues would suffer.
- Our involvement in intellectual property litigation could negatively affect our business.

- If at any time we are classified as a passive foreign investment company under United State tax laws, our US shareholders may be subject to adverse tax consequences.
- If we fail to maintain the requirements for continued listing on NASDAQ, our common shares could be delisted from trading on NASDAQ, which would materially adversely affect the liquidity of our common shares, the price of our common shares, and our ability to raise additional capital. Future sales of common shares by our principal shareholders could cause our share price to fall and reduce the value of a shareholder's investment.
- Our articles of incorporation authorize us to issue an unlimited number of common and preferred shares. Significant issuances of common or preferred shares could dilute the share ownership of our shareholders, deter or delay a takeover of us that our shareholders may consider beneficial or depress the trading price of our common shares.
- US investors may not be able to enforce US civil liability judgments against us or our directors and officers.
- Our share price is volatile and we may continue to experience significant share price and volume fluctuations.

Operating

- We may not be able to implement our business strategy and the price of our common shares may decline.
- Our quarterly operating results are likely to fluctuate significantly and may fail to meet the expectations of securities analysts and investors and may cause the price of our common shares to decline.
- We currently depend on a relatively limited number of customers for a majority of our revenues and a decrease in revenue from these customers could materially adversely affect our business, consolidated financial condition and results of operations.
- Our insurance may not be sufficient.
- Hydrogen may not be readily available on a cost-effective basis, in which case our fuel cell products may be unable to compete with existing power sources and our revenues and results of operations would be materially adversely affected.
- We could be liable for environmental damages resulting from our research, development or manufacturing operations.
- Our strategy for the sale of fuel cell power products depends on developing partnerships with OEMs, governments, systems integrators, suppliers and other market channel partners who will incorporate our products into theirs.
- We are dependent on third party suppliers for key materials and components for our products. If these suppliers become unable or unwilling to provide us with sufficient materials and components on a timely and cost-effective basis, we may be unable to manufacture our products cost-effectively or at all, and our revenues and gross margins would suffer.
- We may not be able to manage successfully the anticipated expansion of our operations.
- If we do not properly manage foreign sales and operations, our business could suffer.
- We will need to recruit, train and retain key management and other qualified personnel to successfully expand our business.
- We may acquire technologies or companies in the future, and these acquisitions could disrupt our business and dilute our shareholders' interests.
- We have no experience manufacturing our fuel cell products on a large scale basis and if we do not develop adequate manufacturing processes and capabilities to do so in a timely manner, we will be unable to achieve our growth and profitability objectives.
- We may never complete the development of commercially viable fuel cell power products and/or commercially viable hydrogen generation systems for new hydrogen energy applications, and if we fail to do so, we will not be able to meet our business and growth objectives.
- We must continue to lower the cost of our fuel cell and hydrogen generation products and demonstrate their reliability or consumers will be unlikely to purchase our products and we will therefore not generate sufficient revenues to achieve and sustain profitability.
- Any failures or delays in field tests of our products could negatively affect our customer relationships and increase our manufacturing costs.
- The components of our products may contain defects or errors that could negatively affect our customer relationships and increase our development, service and warranty costs.
- We depend on intellectual property and our failure to protect that intellectual property could adversely affect our future growth and success.
- Our products use flammable fuels that are inherently dangerous substances and could subject us to product liabilities.

Liquidity

- Our inability to generate sufficient cash flows, raise additional capital and actively manage our liquidity may impair our ability to execute our business plan, and result in our reducing or eliminating product development and commercialization efforts, reducing our sales and marketing efforts, and having to forego attractive business opportunities.

Foreign Currency Exchange

- Our operating results may be impacted by currency fluctuation.

16 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 15,441,183 common shares outstanding at September 30, 2018.

	2018			2017		
	Number		**Amount**	Number		Amount
Balance at January 1,	**15,436,879**	**$**	**387,746**	12,544,960	$	365,923
Issuance of common shares	**–**		**–**	2,682,742		19,725
Issuance of common shares on vesting of performance share units	**4,204**		**96**	4,203		96
Issuance of common shares on exercise of stock options	**6,400**		**69**	1,000		9
At September 30,	**15,447,483**	**$**	**387,911**	15,232,905	$	385,753

At September 30, 2018, there were 853,089 stock options and 202,707 RSUs outstanding to purchase or vest into our common shares. If these securities are exercised, our shareholders could incur dilution.

17 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 fueled 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.