MANAGEMENT'S DISCUSSION & ANALYSIS

For the Quarter Ended November 30, 2018

Introduction

This Management Discussion and Analysis (MD&A) explains the material changes in Thermal Energy International Inc.'s ("Thermal Energy" or the "Company") financial condition and results of operations for the second quarter of Fiscal Year 2019, ended November 30, 2018. The unaudited condensed consolidated interim financial statements and accompanying notes constitute an integral part of the discussion and should be read in conjunction with this MD&A. Additional information relating to the Company is available on SEDAR at www.sedar.com.

Currency

All financial information in this report is stated in Canadian Dollars, which is both the presentation and functional currency of the Company. Approximately 13% and 16% of our operations, assets and liabilities are denominated in British Pound Sterling and US Dollar respectively. As such, foreign currency fluctuations affect the reported values of individual lines on our statement of financial position and income statement. When the Canadian dollar strengthens, the reported values decrease and the opposite occurs when the Canadian dollar weakens.

Review and Approval by the Board of Directors

The Board of Directors, on recommendation of the Audit Committee, approved the content of this MD&A on January 24, 2019. Disclosure contained in this document is current to this date, unless otherwise stated.

Forward-Looking Statements

This MD&A may include statements that are forward-looking. These statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. We discuss the principal risks of our business in Section 7 of this MD&A. We cannot provide any assurance that forecasted financial or operational performance will actually be achieved. If it is achieved, we cannot provide assurance that it will result in an increase in our share price. See Section 8 entitled "Forward-Looking Information".

Table of Contents

1. Our Business

1.1 Company Overview

Thermal Energy, established in 1991, is a global provider of proprietary and proven energy and water efficiency and emission reduction products and solutions to the industrial, commercial and institutional markets. The Company is headquartered in Ottawa, Canada, with offices in the U.K., Italy, Germany, U.S., and China. The Company's products and services are "best-in-class" with world-wide application in a broad range of sectors.

Thermal Energy engages clients through a unique mix of process, energy, environmental and financial expertise to save our customers money and improve their bottom lines by reducing their fuel use, water use and carbon emissions. The Company's award-winning products have an excellent track record of longevity, proven reliability and performance and have been shown to provide: significant energy savings; improved water efficiency; reduced greenhouse gas emissions; lower maintenance costs; improved product quality; and increased production efficiency. Thermal Energy's products are effective in a wide range of industries and applications.

More information on Thermal Energy can be found at www.thermalenergy.com. **GEM™, FLU-ACE®, THERMALONOx™** and **DRY-REX™** are trademarks of Thermal Energy.

1.2 Core Businesses

The Company operates primarily in North America and Europe but also sells its products and services through representative agents throughout the rest of the world. The Company markets, sells, engineers, fabricates, constructs, installs and supports three technology lines - direct contact heat recovery solutions (e.g. **FLU-ACE®**), indirect contact heat recovery solutions (**HEATSPONGE** and **SIDEKICK**) and condensate return system solutions (**GEM™** steam traps). The Company is also developing a number of other technology lines, including low, temperature biomass drying systems (**DRY-REX™**).

In 2008, the Company acquired Gardner Energy Management Limited, which owns, manufactures and sells the GEM™ steam traps throughout the world. As part of this transaction, the Company also acquired the 67% share of GEMchem Ltd, a UK-based water treatment company providing services within the UK only. On June 29, 2018, the Company acquired Boilerroom Equipment Inc., a company based in the U.S., which owns, manufactures and sells HEATSPONGE and SIDEKICK indirect contact heat recovery units.

The Company has two primary operational bases of operation, one in Ottawa, Canada covering North America ("Thermal Energy Ottawa"), and the other in Bristol, United Kingdom, covering Europe and the rest of the world ("Thermal Energy Bristol"). Although the Thermal Energy Ottawa is considered to be the center of excellence for heat recovery engineering and technical support, and Thermal Energy Bristol the center of excellence for GEM™ steam traps and condensate return systems engineering and technical support, continuous cross-training means that both Ottawa and Bristol have expertise across both major product lines.

Although the Company markets its products throughout the world, the majority of sales are from within North America and Europe where the Company has direct sales and engineering staff. While North American and European markets continue to be the Company's strategic focus, the Company also continues to look for new agents and distributors in other regions deemed to have potential.

1.3 Strategy

The Company's mission is to be a best-in-class provider of return on investment-driven thermal energy efficiency and sustainability technology and solutions to the industrial, institutional, and commercial sectors, helping our clients around the world improve their bottom line, move towards sustainable operations and reduce their environmental and carbon foot print.

The Company has representation in 28 countries around the world with a current focus on the key markets of North America and Europe. Thermal Energy's penetration in these markets remains low and therefore the Company plans to continue growing its sales and distribution capabilities in these markets while at the same time begin to build its business in other energy-intensive markets around the world.

We have sold our proprietary and proven products to hundreds of companies and institutions, including approximately 50 large multinational companies in the pharmaceutical, food and beverage, pulp and paper, chemical and petrochemical sectors.

With an established global sales and distribution network the Company is looking to develop and/or acquire additional complementary products and services that can be distributed through its existing network.

2. Performance Measures

In addition to the quarterly financial statements, the following performance measures provide useful information to both management and investors to better understand the financial performance and financial position of the Company.

2.1 EBITDAS

Management believes that EBITDAS (earnings before interest, taxation, depreciation, amortization, impairment of goodwill and other intangible assets, share-based compensation expense and net write down of lease) is a useful performance measure as it approximates cash generated from operations, before tax, capital expenditures and changes in working capital and excludes non-operating items. EBITDAS also assists comparison among companies as it eliminates the differences in earnings due to how a company is financed. EBITDAS does not have a standardized meaning prescribed by International Financial Reporting Standards and therefore may not be comparable to similar measures presented by other companies. The most directly comparable measure calculated in accordance with generally accepted accounting principles within the financial statements is income (loss) before income taxes, as disclosed in the statements of comprehensive income.

2.2 Order Backlog

Order backlog is a useful performance measure that Management uses as an indicator of the short term future revenue of our Company resulting from already recognized orders. The Company includes in "order backlog" any purchase orders that have been received by the Company but have not yet been reflected as revenue in the Company's published financial statements. It is important to note that once an order or partial order is recorded as revenue, the order backlog is reduced by the amount of the newly reported revenue. Order backlog does not have a standardized meaning prescribed by generally accepted accounting principles or International Financial Reporting Standards and therefore may not be comparable to similar measures presented by other companies.

3. Performance

3.1 Summary of Second Quarter Results

	Q2 2019	Q2 2018
	$	$
Revenue	**5,193,092**	3,729,447
Cost of sales	**(3,090,582)**	(1,875,937)
Gross profit	**2,102,510**	1,853,510
Administration, selling, marketing and business development expenses	**(2,220,628)**	(1,740,214)
Research and development expenses	**(57,563)**	(37,263)
Operating income (loss)	**(175,681)**	76,033
Finance costs	**(80,993)**	-
Finance revenue	**5,453**	8,353
Income (loss) before income taxes	**(251,221)**	84,386
Income taxes recovery (expense)	**139,099**	(13,872)
Net income (loss) for the period	**(112,122)**	70,514
Exchange differences on translation of overseas operations	**(8,533)**	215,155
Total comprehensive income (loss) for the period	**(120,655)**	285,669
EBITDAS	**(67,995)**	108,711
Order backlog as at November 30	**4.9 million**	5.3 million
Order backlog as at January reporting date	**10.4 million**	17.5 million

Revenues and Gross Profits

Revenues were $5,193,092 in the quarter ended November 30, 2018, representing an increase of $1,463,645, or 39.2%, over the $3,729,447 recognized in the quarter ended November 30, 2017. The increase in revenues from in the current quarter was mainly due to the partial delivery of the $11 million energy efficiency project with the Pulp & Paper Customer announced December 5, 2017, which was approximately 94% complete as at November 30, 2018, plus the addition of the Boilerroom Equipment business effective June 29, 2018.

The gross profit of $2,102,510 in the quarter ended November 30, 2018 represented an increase of $249,000, or 13.4%, from the $1,853,510 achieved in the quarter ended November 30, 2017. The increase was mainly the result of increased revenues. Gross profit expressed as a percentage of sales was 40.5% in the second quarter of FY 2019 compared with 49.7% in the second quarter of FY 2018. The decrease in gross profit percentage was due to the changes in the product split between heat recovery and steam traps.

Expenses

Administration, selling, marketing and business development expenses ("Operating Expenses") in the quarter ended November 30, 2018 totaled $2,220,628 compared to $1,740,214 in the quarter ended November 30, 2017, an increase of $480,414, or 27.6%. Excluding noncash items (i.e. depreciation, amortization and stock-based compensation) cash based Operating Expenses for the quarter were $2,117,952 compared to $1,716,361 the same quarter last year. The main increases included costs related to the acquisition of Boilerroom Equipment Inc. ($36.5k), the integration of Boilerroom Equipment Inc's operating expenses into the consolidated results, additional depreciation and amortization expense on the intangibles and fixed assets acquired from Boilerroom Equipment Inc., the strategic addition of new sales and technical staff plus additional investments in advertisement and marketing activities to support the future growth of the business ($107k). Despite the increases, cash based Operating Expenses as a percent of revenue was only 40.8% in the second quarter of FY 2019 compared to 46% in the same quarter of the previous year, while total Operating Expenses were 42.8% compared to 46.7% of the same quarter prior year. Furthermore, excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. and the strategic investments to support the future growth of the business (new staff and increased advertisement and marketing activities) cash based Operating Expenses for the quarter would have been only $1,974,452.

Research and development expenses in the second quarter of FY 2019 totaled $57,563 compared to $37,263 in the second quarter of FY 2018.

Finance costs and finance revenue: in the quarter ended November 30, 2018, finance costs of $80,993 arose due to the issuance of long-term debt to finance the acquisition of Boilerroom Equipment Inc. Finance revenue of $5,453 was recognized compared to $8,353 in the quarter ended November 30, 2017.

Loss before income taxes for the quarter ended November 30, 2018 was $251,221 compared to a profit of $84,386 in the same quarter of the previous year. Excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. of $36,500 and $107,000 of investments in the growth of the business (new staff and increased advertisement and marketing activities), the Company would have had a loss before income taxes of $107,721 for the second quarter of FY 2019.

Income tax recovery in the second quarter of FY 2019 was $139,099, compared to a tax expense of $13,872 in the second quarter of FY 2018. Both the U.K. and the U.S entities are subject to tax charges. Fluctuations in the tax charges are the result of changing profitability in those entities.

Net loss for the quarter ended November 30, 2018 was $112,122 compared to a net profit of $70,514 in the same quarter of the previous year.

Comprehensive loss was $120,655 for the second quarter of FY 2019 compared to an income of $285,669 for the second quarter of FY 2018. In the second quarter of FY 2018, the pound sterling was strengthened against the Canadian dollar with a significant magnitude which resulted in other comprehension income of $215,155.

EBITDAS was negative $67,995 for the second quarter of FY 2019 compared to positive of $108,711 for the same quarter of the previous year. Excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. of $36,500 and $107,000 of investments in the growth of the business (new staff and increased advertisement and marketing activities), EBITDAS for the second quarter of FY 2019 would have been positive $75,505.

3.2 Summary of Year to Date Results	**Six months Ended Nov 30, 2018**	Six months Ended Nov 30, 2017
	$	$
Revenue	**11,993,953**	6,827,031
Cost of sales	**(7,681,558)**	(3,455,724)
Gross profit	**4,312,395**	3,371,307
Administration, selling, marketing and business development expenses	**(4,516,371)**	(3,444,233)
Research and development expenses	**(87,521)**	(70,990)
Operating loss	**(291,497)**	(143,916)
Finance costs	**(117,433)**	-
Finance revenue	**11,711**	17,407
Loss before income taxes	**(397,219)**	(126,509)
Income taxes recovery	**235,639**	16,243
Net loss for the period	**(161,580)**	(110,266)
Exchange differences on translation of overseas operations	**(34,824)**	(26,159)
Total comprehensive loss for the period	**(196,404)**	(136,425)
EBITDAS	**(118,731)**	(77,558)
Order backlog as at November 30	**4.9 million**	5.3 million
Order backlog as at January reporting date	**10.4 million**	17.5 million

Revenues and Gross Profits

Revenues were $11,993,953 in the six months ended November 30, 2018, representing an increase of $5,166,922, or 75.7%, over the $6,827,031 recognized in the six months ended November 30, 2017. The increase in revenues was mainly due to the partial delivery of the $11 million energy efficiency project with the Pulp & Paper Customer announced December 5, 2017, which was approximately 94% complete as at November 30, 2018, plus the addition of the Boilerroom Equipment Inc. business effective June 29, 2018.

The gross profit of $4,312,395 in the first half of FY 2019 represented an increase of $941,088, or 27.9%, from the $3,371,307 achieved in the first half of FY 2018. The increase was mainly the result of increased revenues. Gross profit expressed as a percentage of sales was 35.9% in the first half of FY 2019 compared with 49.4% in the first half of FY 2018. The decrease in gross profit percentage was due to the changes in the product split between heat recovery and steam traps.

Expenses

Administration, selling, marketing and business development expenses ("Operating Expenses") in the six months ended November 30, 2018 totaled $4,516,371 compared to $3,444,233 in the six months ended November 30, 2017, an increase of $1,072,138, or 31.1%. Excluding noncash items (i.e. depreciation, amortization and stock-based compensation) cash based Operating Expenses for the first six months of FY 2019 were $4,354,860 compared to $3,396,210 in the same period last year. The main increases included onetime costs related to the acquisition of Boilerroom Equipment Inc. ($143.9k), the integration of Boilerroom Equipment Inc's operating expenses into the consolidated results, additional depreciation and amortization expense on the intangibles and fixed assets acquired from Boilerroom Equipment Inc. , the strategic addition of new sales and technical staff plus additional investments in advertisement and marketing activities to support the future growth of the business ($217.8k). Despite the increases, cash based Operating Expenses as a percent of revenue was only 36.3% in the first six months of FY 2019 compared to 49.7% in the same period of the previous year, while total Operating Expenses were 37.7% compared to 50.4% of the same period prior year. Furthermore, excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. and the strategic investments to support the future growth of the business (new staff and increased advertisement and marketing activities) cash based Operating Expenses for the first half of FY 2019 would have been only $3,993,218.

Research and development expenses in the first half of FY 2019 were $87,521 compared to $70,990 in the second quarter of FY 2018.

Finance costs and finance revenue: in the six months ended November 30, 2018, finance costs of $117,433 arose due to the issuance of long-term debt to finance the acquisition of Boilerroom Equipment Inc. Finance revenue of $11,711 was recognized compared to $17,407 in the six months ended November 30, 2017.

Loss before income taxes for the six months ended November 30, 2018 was $397,219 compared to $126,509 in the same period of the previous year. Excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. of $143,842 and $217,800 of investments in the growth of the business (new staff and increased advertisement and marketing activities), the Company would have had a loss before income taxes of $35,577 for the first half of FY 2019.

Income tax recovery in the first half of FY 2019 was $235,639, compared to $16,243 in the first half of FY 2018. Both the U.K. and the U.S entities are subject to tax charges. Fluctuations in the tax charges are the result of changing profitability in those entities.

Net loss for the six months ended November 30, 2018 was $161,580 compared to $110,266 in the same period of the previous year.

Comprehensive loss was $196,404 for the first half of FY 2019 compared to $136,425 for the first six months of FY 2018.

EBITDAS was negative $118,731 for the first six months of FY 2019 compared to $77,558 for the same quarter of the previous year. Excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. of $143,842 and $217,800 of investments in the growth of the business (new staff and increased advertisement and marketing activities), EBITDAS for the first half of FY 2019 would have been positive $242,911.

3.3 Liquidity & Capital Resources

Working capital increased by $39,279 to $2,066,282 as at November 30, 2018 compared to $2,027,003 as at May 31, 2018. The Company's net cash position (Cash and cash equivalents less operating bank loans) was $2,235,481 as at November 30, 2018 compared to $3,282,208 at May 31, 2018 due to $1,046,727 cash used by normal changes in working capital items.

The Company's working capital position over the last eight quarters can be summarized as follows:

	Feb 28, 2017 $	May 31, 2017 $	Aug 31, 2017 $	Nov 30, 2017 $	Feb 28, 2018 $	May 31, 2018 $	Aug 31, 2018 $	Nov 30, 2018 $
Current Assets	5,363,954	6,221,714	4,245,864	4,450,013	4,933,877	6,613,125	8,310,609	7,244,731
Current Liabilities	4,149,552	4,790,917	3,079,805	3,099,395	3,706,345	4,586,122	5,984,275	5,178,449
Working Capital	1,214,402	1,430,797	1,166,059	1,350,618	1,227,532	2,027,003	2,326,334	2,066,282

Q2 FY 2019 Changes

Current assets increased in the second quarter of FY 2019 by $631,606 to $7,244,731 from $6,613,125 at May 31, 2018. The increase was mainly due to the increase in trade and other receivables of $1,485,170 and the decrease of cash and cash equivalents by $1,046,727. Current liabilities increased by $592,327 to $5,178,449. The increase was mainly due to the increase in deferred revenue of $480,099 and the current portion of long-term debt of $166,263. The increase in trade receivables was related to the large heat recovery project in progress.

As at November 30, 2018, $366,204 (10.9%) of the Company's trade receivables balance was over 90 days past due. None of the overdue balance is considered impaired as at November 30, 2018.

At November 30, 2018, the Company has operating lease commitments as shown below. The Company had no purchase obligations:

	Total $	Less than 1 year $	1-5 years $	More than 5 years $
Operating Leases	257,731	169,267	88,464	nil

Net cash used in operating activities in the quarter ended November 30, 2018 was $76,861 compared to net cash of $548,454 provided in the quarter ended November 30, 2017. The outflow was mainly due to the result of interest paid on the long-term debt and movement in trade receivables, prepayments and payables relating to heat recovery contracts.

Net cash used by investing activities for the quarter ended November 30, 2018 was $81,406. The outflow was a result of the additions to property, plant and equipment and additional cash consideration paid for the acquisition of Boilerroom Equipment Inc.

Net cash provided by financing activities for the quarter ended November 30, 2018 was $133,379 due to the proceeds received by issuing shares for the stock options exercised.

After allowing a positive amount of $5,756 for the effect of exchange rate fluctuations on cash and cash equivalents, the net result of the above activities was a decrease in cash balance of $19,132 over the second quarter of FY 2019, compared to an increase of $503,538 over the second quarter of FY 2018.

The Company's ability to realize its assets and discharge its liabilities depends on its ability to arrange debt or equity financing and its ability to generate sufficient cash from operations. No assurance can be given that any such additional funding will be available or that, if available, it can be obtained on terms favorable to the Company.

Management is of the opinion that sufficient working capital will be obtained from future cash flows by achieving profitable operations through continuing to manage expenditures, concentrating on building upon revenue levels experienced in 2016, 2017 and 2018, and growing revenues at growth rates experienced in the years ended May 31, 2010 through May 31, 2018.

Net Investment in Lease

The Company's net investment in lease includes the following:

	November 30, 2018 $	May 31, 2018 $
Total estimated minimum lease payments receivable	157,054	209,607
Less: unearned income	(15,500)	(27,209)
	141,554	182,398
Less: current portion	(95,707)	(89,141)
	45,847	93,257

Finance lease receivable relates to one arrangement. The estimated minimum lease payments receivable in this lease represent the estimated monthly energy outputs of the leased asset and are based on assumptions regarding the efficiency of the asset, the operations of the plant in which it is located and penalty payments resulting from temporary plant shut-downs.

On December 31, 2012, the lease with Fortress Specialty Cellulose, as signed on June 29, 2010, expired. On November 27, 2012, an agreement was signed whereby the customer agreed to purchase the recovered energy for a further two years, after which the customer had the option to renew for an additional 24 months on substantially the same terms or purchase the asset from the Company.

On December 22, 2013, the site commenced a market downtime for a period of ten weeks, following the imposition of an interim duty in China on the import of Canadian dissolving pulp, further to which on April 11, 2014, an agreement was made to further extend the existing lease by five months to mid-May 2015.

On May 1, 2015, the customer signed a further extension for 24 months to May 1, 2017. Pursuant to this new extension, the customer has agreed to pay up to $12,000 per month over two years, at the end of which the customer has the option to purchase the asset from the Company.

On May 1, 2017, a final extension agreement was signed for 36 months to May 1, 2020. Pursuant to this new extension, the customer has agreed to pay up to $9,500 per month over three years, at the end of which the customer assumes full ownership of the equipment.

Until the expiry of the new lease on May 1, 2020, finance revenue will be recognized within the consolidated statements of comprehensive income at the interest rate implicit in the lease.

The estimated minimum lease payments receivable in this lease represent the estimated monthly energy outputs of the leased asset and are based on assumptions regarding the efficiency of the asset and the operations of the plant in which it is located.

Future estimated minimum lease payments receivable, and expected residual value of equipment at the end of the lease, under the sales-type lease are as follows:

	$
Less than one year	109,554
Between two and five years	47,500
Residual value of equipment	-
	157,054

The finance lease receivable at the end of the reporting period is neither past due nor impaired.

Related Party Transactions

Options outstanding for Directors (excluding the CEO) as at November 30, 2018 were 1,000,000 of which 250,000 were exercisable. There were no warrants outstanding for Directors.

Options outstanding for Senior Management (including the CEO) as at November 30, 2018 were 5,391,720 of which 2,683,387 were exercisable. There were no warrants outstanding for Senior Management.

Directors and Senior Management Compensation

During the quarter ended November 30, 2018 compensation arrangements for directors was as follows:

$13,500 per annum per Director plus an additional $8,100 per annum payable to the Chairman of the Board, $5,400 per annum payable to the chairperson of the Audit Committee, $5,400 per annum payable to the chairperson of the Ethics Committee and $1,000 payable for each in-person meeting.

During the quarter ended November 30, 2018, Directors fees paid were $20,138. Fees to the Chairperson of the Audit Committee and to the Chairperson of the Ethics, Governance and Compliance Committee were $1,350 each; fees paid to the Chairman were $2,025. Two in-person meetings were held during the period.

Compensation payable to directors and officers during the quarter ended November 30, (inclusive of the amounts described above but excluding stock-based compensation) was as per the table below:

	Salaries and fees		Incentives		Other short-term benefits		Total	
	2018	2017	**2018**	2017	**2018**	2017	**2018**	2017
	$	$	**$**	$	**$**	$	**$**	$
Directors								
M. Williams	**5,375**	5,375	**-**	-	**-**	-	**5,375**	5,375
J. Kelly	**7,400**	7,400	**-**	-	**-**	-	**7,400**	7,400
W. Ollerhead	**5,725**	6,725	**-**	-	**-**	-	**5,725**	6,725
J. Schoenmakers(1)	**4,568**	5,725	**-**	-	**-**	-	**4,568**	5,725
D. Spagnolo	**4,420**	5,375	**-**	-	**-**	-	**4,420**	5,375
W. White	**5,375**	4,375	**-**	-	**-**	-	**5,375**	4,375
Total	**32,863**	34,975	**-**	-	**-**	-	**32,863**	34,975
Senior Management								
W. Crossland	**60,000**	60,000	-	-	**-**	-	**60,000**	60,000
J. Flynn(2) (3)	**-**	36,525	-	-	**-**	6,980	**-**	43,505
J. Zhang(3)	**31,250**	-	-	-	**1,669**	-	**32,919**	-
R. Triebe	**45,250**	45,250	-	-	**845**	1,040	**46,095**	46,290
S. Mawby(2)(4)	**37,720**	17,588	-	-	**6,408**	3,034	**44,128**	20,622
Total	**174,220**	159,363	**-**	-	**8,922**	11,054	**183,142**	170,417
Total Related Party Transactions	**207,083**	194,338	**-**	-	**8,922**	11,054	**216,005**	205,392

Other short-term benefits include cash payments for social security costs, employee benefits, and payments made into defined contribution pension plans of the Company's UK based subsidiaries.

(1) Mr. Schoenmakers resigned on November 27, 2018.
(2) Ms. Flynn and Mr. Mawby are compensated in UK Pound sterling. Average exchange rate to Canadian dollar was 1.6994 and 1.6642 in the second quarter of FY 2019, and the second quarter of FY 2018 respectively.
(3) Ms. Flynn stepped down as Chief Financial Officer effective July 31, 2018 and Ms. Zhang was appointed Chief Financial Officer of the Corporation effective the same date.
(4) Mr. Mawby was working part-time during parental leave between August 2017 and November 2017.

3.4 Segmented Information

In the quarters ended November 30, 2018 and November 30, 2017, the Company operated in the energy efficiency industry in North America, Europe, China and the rest of the world. The Company markets, sells, engineers, fabricates, constructs, installs and supports two technology lines – heat recovery solutions and condensate return system solutions. The Company is also developing a third technology line - low temperature biomass drying systems. Assets are located in Canada, Europe and China.

Management reporting comprises analysis of revenue and gross profit by product segment within two distinct geographical areas. All other items of revenue and expenses are considered on a geographical and/or global basis in making strategic decisions regarding the Company's future. The Company has two operational bases ("reporting units"), one in Canada covering North America and China ("Thermal Energy Ottawa"), and the other in Bristol, United Kingdom, covering Europe and the rest of the world ("Thermal Energy Bristol"). These areas are determined by proximity of the region to the reporting unit, plus the location of the contracts in existence with agents and distributors in the respective areas and the historical relationships with those agents and distributors. Corporate costs that cannot easily be attributed to either of the two reporting units are included in reconciling items. The chief operating decision maker focuses on revenues and costs by geographical segments, but manages assets and liabilities on a global basis.

Segment information for the quarter ended November 30, 2018 and the comparative period are detailed in the table below.

	Thermal Energy Ottawa		Thermal Energy Bristol		Reconciling Items		Total	
	2018	2017	**2018**	2017	**2018**	2017	**2018**	2017
	$	$	**$**	$	**$**	$	**$**	$
Total revenue	**4,300,032**	3,030,026	**893,060**	699,421	**-**	-	**5,193,092**	3,729,447
Cost of sales	**(2,688,431)**	(1,731,263)	**(402,151)**	(144,674)	**-**	-	**(3,090,582)**	(1,875,937)
Gross profit	**1,611,601**	1,298,763	**490,909**	554,747	**-**	-	**2,102,510**	1,853,510
Other expenses	**(1,039,144)**	(771,296)	**(969,555)**	(699,697)	**(269,492)**	(306,484)	**(2,278,191)**	(1,777,477)
Net finance (costs) income	**5,453**	8,353	**-**	-	**(80,993)**	-	**(75,540)**	8,353
Income (loss) before taxation	**577,910**	535,820	**(478,646)**	(144,950)	**(350,485)**	(306,484)	**(251,221)**	84,386
Tax (expense) recovery	**34,432**	(29,612)	**85,737**	15,369	**18,930**	371	**139,099**	(13,872)
Net income (loss)	**612,342**	506,208	**(392,909)**	(129,581)	**(331,555)**	(306,113)	**(112,122)**	70,514
Attributable to:								
Owners of the parent	**616,043**	507,027	**(390,246)**	(124,677)	**(331,555)**	(306,113)	**(105,758)**	76,237
Non-controlling interest	**(3,701)**	(819)	**(2,663)**	(4,904)	**-**	-	**(6,364)**	(5,723)

Segment information for the six months ended November 30, 2018 and the comparative period are detailed in the table below.

	Thermal Energy Ottawa		Thermal Energy Bristol		Reconciling Items		Total	
	2018	2017	**2018**	2017	**2018**	2017	**2018**	2017
	$	$	**$**	$	**$**	$	**$**	$
Total revenue	**9,954,432**	5,091,555	**2,039,521**	1,735,476	**-**	-	**11,993,953**	6,827,031
Cost of sales	**(6,672,136)**	(2,938,443)	**(1,009,422)**	(517,281)	**-**	-	**(7,681,558)**	(3,455,724)
Gross profit	**3,282,296**	2,153,112	**1,030,099**	1,218,195	**-**	-	**4,312,395**	3,371,307
Other expenses	**(2,012,750)**	(1,459,260)	**(1,814,334)**	(1,442,563)	**(776,808)**	(613,400)	**(4,603,892)**	(3,515,223)
Net finance (costs) income	**11,711**	17,407	**-**	-	**(117,433)**	-	**(105,722)**	17,407
Income (loss) before taxation	**1,281,257**	711,259	**(784,235)**	(224,368)	**(894,241)**	(613,400)	**(397,219)**	(126,509)
Tax (expense) recovery	**34,432**	(48,480)	**146,178**	44,424	**55,029**	20,299	**235,639**	16,243
Net income (loss)	**1,315,689**	662,779	**(638,057)**	(179,944)	**(839,212)**	(593,101)	**(161,580)**	(110,266)
Attributable to:								
Owners of the parent	**1,324,029**	673,022	**(645,979)**	(180,069)	**(839,212)**	(593,101)	**(161,162)**	(100,148)
Non-controlling interest	**(8,340)**	(10,243)	**7,922**	125	**-**	-	**(418)**	(10,118)

Other expenses within reconciling items comprise the following:

	Three months ended November 30		Six months ended November 30	
	2018	2017	**2018**	2017
	$	$	**$**	$
Corporate admin costs	**116,158**	218,934	**364,042**	455,205
Stock-based compensation	**4,125**	13,923	**8,250**	27,845
Professional fees	**26,722**	3,141	**102,168**	83,261
Depreciation of property, plant and equipment	**22,167**	9,930	**39,136**	20,177
Amortization of intangible assets	**76,384**	-	**114,125**	-
Acquisition costs	**60,762**		**168,104**	-
Bank charges and interest	**4,803**	8,561	**10,353**	17,302
Foreign exchange differences	**(41,629)**	51,995	**(29,370)**	9,610
Total	**269,492**	306,484	**776,808**	613,400

Corporate administration costs include directors' fees, all costs relating to both the CEO and CFO, directors' and officers' insurance, corporate legal costs, public relations costs, professional fees relating to group tax planning and corporate filing costs and strategic planning.

Finance costs within the reconciling items include interest and deferred financing charge on the long-term debt and interest accretion on contingent consideration and holdback payable following the acquisition of Boilerroom Equipment Inc. Finance costs of $36,440 incurred during the three months ended August 31, 2018 was previously reported as an expense within Thermal Energy Ottawa account. For the six months ended November 30, 2018, all finance costs incurred (including the costs incurred in the three months ended August 31, 2018) have been reclassified as an expense within the reconciling items.

During the quarter ended November 30, 2018 the company had one customer in North America that accounted for 45% of total group revenue for the period.

During the quarter ended November 30, 2017, Thermal Energy Ottawa had three customers that accounted for 11%, 12% and 35% of total group revenue for the period.

During the six months ended November 30, 2018, Thermal Energy Ottawa had one customer that accounted for 53% of total group revenue for the period.

During the six months ended November 30, 2017, Thermal Energy Ottawa had three customers that accounted for 10%, 19% and 20% respectively of total group revenue.

Further geographical analysis:

	Sales for the six months ended		Property, Plant and Equipment as at		Goodwill and other Intangible assets as at		Finance lease receivable (non current) as at	
	Nov 30, 2018	Nov 30, 2017	**Nov 30, 2018**	May 30, 2018	**Nov 30, 2018**	May 30, 2018	**Nov 30, 2018**	May 30, 2018
	$	$	**$**	$	**$**	$	**$**	$
Canada	**6,966,432**	1,144,036	**49,927**	41,789	**-**	-	**45,847**	93,257
U.S.A.	**2,988,000**	3,947,519	**183,965**	-	**2,947,512**	-	**-**	-
U.K.	**1,639,910**	1,187,311	**36,372**	35,606	**1,828,926**	1,856,739	**-**	-
Italy	**209,947**	135,635	**-**	-	**-**	-	**-**	-
Netherlands	**60,109**	26,606	**-**	-	**-**	-	**-**	-
Poland	**28,774**	-						
Germany	**25,491**	138,116	**-**	-	**-**	-	**-**	-
Belgium	**15,734**	-						
Norway	**-**	44,196	**-**	-	**-**	-	**-**	-
Slovenia	**-**	32,879	**-**	-	**-**	-	**-**	-
Rest of Europe	**6,369**	32,456	**-**	-	**-**	-	**-**	-
U.A.E	**-**	46,607	**-**	-	**-**	-	**-**	-
Rest of world	**53,187**	91,670	**-**	-	**-**	-	**-**	-
Total	**11,993,953**	6,827,031	**270,264**	77,395	**4,776,438**	1,856,739	**45,847**	93,257

Material Segmentation Variances

Revenue

North America: revenue for the quarter ended November 30, 2018 was $4,300,032 compared to $3,030,026 for the quarter ended November 30, 2017 which represented an increase of $1,270,006. Revenue for the six months ended November 30, 2018 of $9,954,432 represented an increase of $4,862,877, or 95,5%, over the $5,091,555 achieved in the first six months of the previous year. The increase in revenue for the quarter and six months ended November 30, 2018 is due to the partial delivery of the $11 million energy efficiency project with the Pulp & Paper Customer announced December 5, 2017 and the integration of the operating expenses of Boilerroom Equipment Inc. into the consolidated results.

Europe and rest of the world: revenue for the quarter ended November 30, 2018 was $893,060 compared to $699,421 for the same period of the previous year, an increase of $216,361. For the six months ended November 30, 2018, revenue was $2,039,521 representing an increase of $304,045, or 17.5%, over the revenue of $1,735,476 for the six months ended November 30, 2017.

Segment Income (loss) Before Tax

North America: gross profit increased by $312,838 and respectively by $1,129,184 in the quarter and six months ended November 30, 2018 over the same period of the preceding year mainly due to the partial delivery of the $11 million energy efficiency project with the Pulp & Paper Customer. Other expenses increased due to the integration of operating expenses of Boilerroom Equipment Inc. to the consolidated results and the increased commissions. The net income before tax was $577,910 for the second quarter of FY 2019 compared to $535,820 for the second quarter of FY 2018. For the six months ended November 30, 2018 the net income increased by $569,998 over the same period of the preceding year.

Europe and rest of the world: gross profit decreased by $63,838 and respectively by $188,096 in the quarter and six months ended November 30, 2018 over the same period of the preceding year despite of the increase in revenue. The decrease in gross profit was mainly due to changes in product mix. Other net costs increased by $269,858 in the second quarter and by $371,771 in the first six months of FY 2019 due to additional costs related to new sales and marketing staff hired as well as new costs related to advertising and marketing activities. This resulted in a net loss before tax of $478,646 for the second quarter of FY 2019 compared to a net loss before tax of $144,950 for the second quarter of FY 2018 and a net loss before tax of $784,235 for the first six months of FY 2019 compared to a net loss before tax of $224,368 for the same period of FY 2018.

Other expenses within Reconciling items, which incorporate all costs not specifically attributable to the either regional operational center, amounted to $269,492 in the second quarter of FY 2019 compared to $306,484 in the second quarter of FY 2018. For the six months ended November 30, 2018, other expenses within Reconciling items were $776,808, an increase of $163,408. The main variances related to the costs incurred for acquisition of Boilerroom Equipment Inc. and the additional amortization expense on the intangible assets acquired upon the acquisition.

Quarterly financial information (unaudited)

For the eight quarters ended November 30, 2018:

Quarter ended	30-Nov-18 $	31-Aug-18 $	31-May-18 $	28-Feb-18 $
Revenue	5,193,092	6,800,861	7,352,794	3,228,386
Gross Profit	2,102,510	2,209,885	3,362,945	1,599,771
Gross Profit Percentage	40.5%	32.5%	45.7%	49.6%
EBITDAS(1)	(67,995)	(50,736)	850,479	(156,016)
Total net income (loss)	(112,122)	(49,458)	888,389	(158,644)
Income (loss) per share, basic and diluted	(0.001)	0.000	0.006	(0.001)

Quarter ended	30-Nov-17 $	31-Aug-17 $	31-May-17 $	28-Feb-17 $
Revenue	3,729,447	3,097,584	4,754,080	3,224,530
Gross Profit	1,853,510	1,517,797	2,378,543	1,675,233
Gross Profit Percentage	49.7%	49.0%	50.0%	52.0%
EBITDAS(1)	108,711	(186,269)	462,964	(1,811)
Total net income (loss)	70,514	(180,780)	353,776	(56,472)
Income (loss) per share, basic and diluted	0.000	(0.001)	0.002	0.000

(1) EBITDAS represents earnings before interest, taxation, depreciation, amortization, share-based compensation expense and net write down of lease.

A reconciliation of Net income (loss) to EBITDAS is shown below for the quarters ended November 30:

	Three months ended		Six months ended	
	2018 $	2017 $	2018 $	2017 $
Total net income (loss) attributable to owners of the parent	(105,758)	76,237	(161,162)	(100,148)
Total net income (loss) attributable to non-controlling interest	(6,364)	(5,723)	(418)	(10,118)
Interest charge	80,993	499	117,433	999
Interest received	(443)	(27)	(456)	(71)
Taxation	(139,099)	13,872	(235,639)	(16,243)
Depreciation and amortization	98,551	9,930	153,261	20,178
Share based compensation	4,125	13,923	8,250	27,845
EBITDAS	(67,995)	108,711	(118,731)	(77,558)

4. Business Outlook

Governments around the world are taking unprecedented action, including increasing regulations, to reduce carbon emissions and become more environmentally sustainable. Energy efficiency can make the transition toward a clean energy economy faster and cheaper than other initiatives, and therefore is an important element in energy policies around the world. As such, the industrial sector has begun to feel the pressing need to adopt measures that can improve the energy efficiency of internal processes and operations, thus contributing to an increased demand for energy efficiency products, solutions and services globally.

Other than our order backlog, we do not provide specific financial performance guidance. However, we believe that we are well positioned to benefit from this increased demand, particularly in our key markets of North America, the United Kingdom, and the European Union. As mentioned in Section 2.2 earlier, Management uses order backlog as an indicator of the short term future revenue of our Company resulting from already recognized orders.

The Company's order backlog as at November 30, 2018 was approximately $4.9 million. As at January 24, 2019, the Company had an order backlog of approximately $8.0 million. On January 29, 2019, the Company announced a new order received in the amount of $2.4 million as mentioned below. This increased the order backlog to $10.4 million as at January reporting date, January 29, 2019.

	2016 $ million	2017 $ million	2018 $ million
Order backlog as at November 30	6.5	5.3	4.9
Order backlog as at January reporting date	7.1	17.5	10.4

- On January 29, 2019, the Company announced that it had been commissioned by a leading food ingredient company to install an innovative heat recovery system at one of its processing plants. This FLU-ACE® heat recovery project, valued at over $2.4 million, is the first time Thermal Energy will apply its proprietary heat recovery technology in this Food & Beverage sub-sector.

- On December 13, 2018, the Company announced that it had been commissioned by a multinational food and beverage conglomerate to add a second FLU-ACE® to its existing heat recovery system. This heat recovery project, valued at approximately $2.4 million, is an extension to the Company's proprietary FLU-ACE® technology already deployed at the beverage processing plant.

- On November 26, 2018, the Company announced that it had been commissioned by a leading Fortune 500 food and beverage conglomerate to integrate a heat recovery process with a solar thermal water heating system. The landmark project, with an order value of approximately $300,000, leverages Thermal Energy's expertise in low temperature heating systems.

- On November 19, 2018, the Company announced that it had been commissioned by a leading speciality chemicals producer to design, manufacture and install a turnkey heat recovery project. This $960,000 contract is set to be implemented as part of a company-wide resource productivity and sustainability initiative and follows the successful deployment of a GEM™ Trap installation at the same location, which was designed to maximize steam system and energy efficiency via optimal steam trapping.

- On October 25, 2018, the Company announced that it had been commissioned by a leading Fortune 500 food and beverage company to implement a water recovery system as part of an ongoing sustainability drive. This landmark project has an order value of approximately $1.3 million and highlights the Company's strategic goal of expanding its products and capabilities beyond energy efficiency to include water recovery and the broader sustainability market.

- In December 2017, the Company announced that it has been engaged by an existing Pulp and Paper Customer to design, develop and implement a major energy efficiency improvement and greenhouse gas reduction project with a total order amount of $11 million. The project includes the installation of two of Thermal Energy's proprietary FLU-ACE® Heat Recovery Systems and the conversion of the mill's steam traps to Thermal Energy's proprietary GEM™ Steam Trap system.

The project was about 94% completed as at November 30, 2018 and is expected to be completely fulfilled and the remaining revenue earned over the next four months.

5. Summary of Outstanding Shares and Dilutive Instruments

The Company currently has the following shares and dilutive instruments outstanding:

Shares

161,885,616 class A common shares.

Options

At November 30, 2018:

	Options outstanding			Options exercisable	
Range of exercise prices	Number outstanding November 30, 2018	Weighted average remaining contractual life	Weighted average exercise price	Number exercisable at November 30, 2018	Weighted average exercise price
0.05-0.07	2,789,583	2.50	0.05	1,845,833	0.05
0.07-0.10	11,213,360	3.88	0.08	3,563,360	0.08
0.10-0.12	2,933,360	0.70	0.11	2,850,027	0.11
	16,936,303	3.10	0.08	2,259,220	0.08

6. Critical Accounting Estimates and Changes in Accounting Standards

Critical Accounting Estimates

The preparation of financial statements in accordance with IFRS necessitates the use of management estimates, assumptions and judgment that affect reported amounts of assets, liabilities, revenues and expenses and disclosure of contingent assets and liabilities at the date of the financial statements. Although management reviews its estimates on an ongoing basis, actual results may differ from these estimates as confirming events occur. The following components of the financial statements depend most heavily on such management estimates, assumptions and judgment, any changes in which may have a material impact on the Company's financial condition or results of operations. For more information about certain assumptions and risks that may affect these estimates, assumptions and judgments, please see the "Forward Looking Information" section of this MD&A.

Valuation of goodwill and intangible assets and asset impairment

Goodwill and intangible assets are tested annually for impairment, or earlier if circumstances indicate an impairment.

An impairment loss is recognized for the amount by which an asset's or cash-generating unit's carrying amount exceeds its recoverable amount. To determine the recoverable amount, management estimates expected future cash flows from each asset or cash-generating unit and determines a suitable interest rate in order to calculate the present value of those cash flows. In the process of measuring expected future cash flows management makes assumptions about future operating results. These assumptions relate to future events and circumstances. The actual results may vary, and may cause significant adjustments to the Company's assets within the next financial year.

In most cases, determining the applicable discount rate involves estimating the appropriate adjustment to market risk and the appropriate adjustment to asset-specific risk factors.

Future production outputs relating to the finance lease

When a new finance lease or amendment is signed, in determining minimum lease payments receivable, management makes estimates regarding monthly energy outputs of the leased asset based on assumptions regarding the efficiency of the asset, the operations of the plant in which it is located, penalty payments resulting from temporary plant shut-downs and residual value of the equipment. These assumptions relate to future events and circumstances. Actual results may vary from estimate.

Assumptions used in the Black-Scholes fair value calculations

The estimation of share-based payment expense requires the selection of an appropriate valuation model and consideration as to the inputs necessary for the valuation model chosen. In calculating the share-based payment expense, key estimates such as the rate of forfeiture of options granted, the expected life of the option, the volatility of the Company's stock price and the risk-free interest rate are used.

Revenue Recognition relating to contracts for heat recovery solutions

The stage of completion of any heat recovery solutions contract is assessed by management by taking into consideration all information available at the reporting date. In this process, management exercises significant estimate about milestones, actual work performed and the estimated costs to complete work.

Deferred tax assets

Deferred tax assets are recognized for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable income will be available against which they can be utilized. These estimates are reviewed at every reporting date. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of the reversal of existing differences, future taxable income and future tax planning strategies.

Changes in Accounting Standards

The Company has adopted the following new or amended accounting standards.

Amendments to IFRS 2: Share Based Payments ("IFRS 2")

In June 2016, the IASB issued amendments to IFRS 2. The amendments, which were developed through the IFRS Interpretations Committee, provide requirements for accounting for the effects of vesting and non-vesting conditions on the measurement of cash-settled share-based payments. They also provide guidance on the accounting for share-based payment transactions with a net settlement feature for withholding tax obligations; and a modification to the terms and conditions of a share-based payment that changes the classification of the transaction from cash-settled to equity-settled. The company adopted the amendments on June 1, 2018. The adoption of these amendments did not have a material impact on the consolidated financial statements.

IFRS 9, "Financial Instruments"

Effective June 1, 2018, the Company adopted IFRS 9, which sets out requirements for recognition and measurement, impairment, derecognition and general hedge accounting. This standard simplifies the classification of a financial asset as either at amortized cost or at fair value as opposed to the multiple classifications which were permitted under IAS 39. This standard also requires the use of a single impairment method as opposed to the multiple methods in IAS 39. The approach in IFRS 9 is based on how an entity manages its financial instruments in the context of its business model and the contractual cash flow characteristics of the financial assets. The standard also adds guidance on the classification and measurement of financial liabilities.

Trade and other receivables that were classified as loans and receivables under IAS 39 are classified as financial assets measured at amortized cost. There is no change to the initial measurement of the Company's financial assets. Impairment of financial assets is based on an expected credit loss ("ECL") model under IFRS 9, rather than the incurred loss model under IAS 39. ECLs are a probability-weighted estimate of credit losses. The Company calculated ECLs based on consideration of customer-specific factors and actual credit loss experience over the past five years. As a percentage of revenue, the Company's actual credit loss experience has not been material.

The adoption of IFRS 9 has not had an effect on the Company's accounting policies related to the financial liabilities.

There was no material impact of transition to IFRS 9 on the Company's statement of financial position at June 1, 2018.

IFRS 15, "Revenue from Contracts with Customers"

Effective June 1, 2018, the Company adopted IFRS 15.

IFRS 15 provides a single, principles based five-step model to be applied to all sales contracts as outlined below. It is based on the transfer of control of goods and services to customers and replaces the separate models for goods, services and construction contracts.

1. Identify the contract(s) with a customer
2. Identify the performance obligations in the contract
3. Determine the transaction price
4. Allocate the transaction price to the performance obligations in the contract
5. Recognise revenue when or as the entity satisfies its performance obligations

The Company adopted IFRS 15 using the cumulative effect method, with the effect of adopting this standard recognized on June 1, 2018, the date of initial application. Accordingly, the information presented for 2018 has not been restated. It remains as previously reported under IAS 18, IAS 11 and related interpretations. Adoption of IFRS 15 has not impacted the accounting for the sale of goods, rendering of services and contracts for heat recovery solutions.

New standards and amendments yet to be adopted:

At the date of approval of the accompanying consolidated financial statements, certain new standards, amendments and interpretations to existing standards have been published but are not yet effective, and have not been adopted early by the Company. These standards will be adopted at the effective date.

Management anticipates that all of the pronouncements will be adopted in the Company's accounting policy for the first period beginning after the effective date of the pronouncement. Information on new standards, amendments and interpretations that are expected to be relevant to the Company's consolidated financial statements is provided below. Certain other new standards and interpretations have been issued, but are not expected to have an impact on the Company's consolidated financial statements.

IFRS 16, "Leases"

In January 2016, the IASB issued IFRS 16, Leases, which specifies how to recognize, measure present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize all assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Consistent with its predecessor, IAS 17, the new lease standard continues to require lessors to classify leases as operating or finance. IFRS 16 is to be applied retrospectively for annual periods beginning on or after January 1, 2019. Earlier application is permitted if IFRS 15 Revenue from Contracts with Customers has also been applied.

The Company does not intend to adopt this standard early and is currently evaluating the impact of adopting this standard on the consolidated financial statements. The company will adopt the new standard on June 1, 2019.

7. Risk Factors and Risk Management

Management is confident about our long-term prospects, but does recognize that the company is exposed to a number of risks in the normal course of business that could negatively impact the financial condition of the Company.

Operational risks of the company include the ability to continue to secure and implement sales contracts for its GEM™ and FLU-ACE® technology solutions.

Financial risks and uncertainties of the Company include:

- The Company's history of operating losses and uncertainty of future profitability;
- The ability to grow sales through the establishment of new cooperative partnerships and strategic alliances;
- The ability to grow sales through the licensing of the corporation's technologies;
- The ability to secure and maintain the required outside working capital financing;
- The ability to achieve profitable operations through increased sales,
- Reliance on third party collaborations and license arrangements;
- Reliance on proprietary technology;
- Competition in the energy conservation and environmental compliance solutions;
- Product liability claims and insurance;
- Reliance on key personnel;
- The ongoing litigation with its former President & CEO;
- The ability to control costs and achieve a positive gross margin on projects; and,
- The effect of a continuing prolonged recession in Canada, USA and Europe to the financial markets in securing project financing and in particular to industrial and commercial customers in committing capital to projects.
- The impact of the pending departure from the European Union by the U.K.

Management's addressing of the risks:

FY 2012 saw the Company's first ever net profit, which was the result of increased revenues and strict cost control. FY 2013, however, produced an operating loss of $844,328, resulting from diminished revenues and increasing costs. Despite further cost increases as management continue to build the sales force, FY 2014 produced the company's best ever post-tax income of $634,023 as well as an increase in cash balance of $742,022, but this was again followed by a net loss of $2,154,817, accompanied by a cash decrease of $1,331,074 in FY 2015. FY 2016, FY 2017, and FY 2018 saw a return to profitability and an increase in cash balances of $427,805, $1,806,992, and $336,334, respectively. Management is confident that this recent trend is set to continue.

The Company actively protects its proprietary technology through registered trademarks and confidentiality agreements.

The Company maintains adequate forms of general liability insurance including product liability and errors and omission coverage.

Management still believes that competition against its core technology of GEM™, FLU-ACE® and DRY-REX™ is limited at this time and believes that the market place is sufficiently large to mitigate the risk of stronger competition in the future.

On June 23, 2016 a referendum was held in the U.K., resulting in the decision to leave the European Union. One immediate effect was a significant fall in the value of U.K. Pound Sterling against most other major currencies. Negotiations regarding how trade will continue after the U.K. leaves are ongoing, the outcome of which is difficult to predict. Management continues to monitor the situation, but at this point cannot comment on how the eventual break will impact the Company. In the meantime, business continues as normal.

Management continues to focus on strengthening relationships with key customers, as well as securing new relationships with multi-site organizations, which is anticipated to provide repeat business into the foreseeable future. Management continually monitors costs and cash flow to ensure that the Company has sufficient funds for operations while providing for future growth.

8. Forward-Looking Information

This MD&A contains certain "forward-looking statements." All statements, other than statements of historical fact, that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future (including, without limitation, statements regarding financial and business prospects and financial outlook) are forward looking statements. These forward-looking statements reflect the current expectations or beliefs of Management, based on information currently available to the Company. Forward-looking statements are subject to a number of risks, uncertainties and assumptions that may cause the actual results of the Company to differ materially from those discussed in the forward-looking statements and, even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on the Company. Factors that could cause actual results or events to differ materially from current expectations include, among other things, changes in general economic and market conditions, changes to regulations affecting the Company's activities, and uncertainties relating to the availability and costs of financing needed in the future. Any forward-looking statement speaks only as at the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise. Although Management believes that the assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance and, accordingly, undue reliance should not be put on such statements due to the inherent uncertainty therein.

9. Management's Responsibility for Financial Reporting

In compliance with the Canadian Securities Administrators' National Instrument 52-109 ("NI 52-109"), the Company has filed with applicable Canadian securities regulatory authorities, certificates signed by its Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") that, among other things, report on the design and effectiveness of disclosure controls and procedures and the design of internal controls over financial reporting.

Under the supervision of the CEO and CFO, the Company maintains systems of internal accounting and administrative controls to provide reasonable assurance that the financial information is relevant, reliable and accurate and that transactions are authorized, assets are safeguarded and proper records are maintained. Internal controls over financial reporting, no matter how well designed, have inherent limitations and may not prevent or detect all misstatements. There were no changes to the Company's internal control over financial reporting during the quarter ended November 30, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

The Board of Directors is responsible for ensuring that management fulfills its responsibility principally through its Audit Committee.