

# **MANAGEMENT'S DISCUSSION & ANALYSIS**

For the Quarter Ended August 31, 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 first quarter of Fiscal Year 2019, ended August 31, 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 30% of our operations, assets and liabilities are denominated in British Pound Sterling. 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 October 26, 2018. 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".

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## 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<sup>™</sup>**, **FLU-ACE<sup>®</sup>**, **THERMALONOx<sup>™</sup>** and **DRY-REX<sup>™</sup>** 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**<sup>TM</sup> steam traps). The Company is also developing a number of other technology lines, including low, temperature biomass drying systems (**DRY-REX**<sup>TM</sup>).

In 2008, the Company acquired Gardner Energy Management Limited, which owns, manufactures and sells the GEM<sup>™</sup> 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<sup>™</sup> 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 First Quarter Results

	Q1 2019	Q1 2018
	\$	\$
Revenue	6,800,861	3,097,584
Cost of sales	(4,590,976)	(1,579,787)
Gross profit	2,209,885	1,517,797
Administration, selling, marketing and business development expenses	(2,295,743)	(1,704,019)
Research and development expenses	(29,958)	(33,727)
Operating loss	(115,816)	(219,949)
Finance costs	(36,440)	-
Finance revenue	6,258	9,054
Loss before income taxes	(145,998)	(210,895)
Income taxes recovery	96,540	30,115
Net loss for the period	(49,458)	(180,780)
Exchange differences on translation of overseas operations	(26,291)	(241,314)
Total comprehensive loss for the period	(75,749)	(422,094)
EBITDAS	(50,736)	(186,269)
Order backlog as at August 31	7.3 million	5.8 million
Order backlog as at October reporting date	9.3 million	7.8 million

#### **Revenues and Gross Profits**

Revenues were \$6,800,861 in the quarter ended August 31, 2018, representing an increase of \$3,703,277, or 119.6%, over the \$3,097,584 recognized in the quarter ended August 31, 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 74% complete as at August 31, 2018, plus the addition of the Boilerroom Equipment business effective June 29, 2018.

The gross profit of \$2,209,885 in the quarter ended August 31, 2018 represented an increase of \$692,088, or 45.6%, from the \$1,517,797 achieved in the quarter ended August 31, 2017. The increase was mainly the result of increased revenues. Gross profit expressed as a percentage of sales was 32.5% in the first quarter of FY 2019 compared with 49.0% in the first quarter of FY 2018. The decrease in gross profit percentage was due to the product split between heat recovery and steam traps.

#### Expenses

Administration, selling, marketing and business development expenses ("Operating Expenses") in the quarter ended August 31, 2018 totaled \$2,295,743 compared to \$1,704,019 in the quarter ended August 31, 2017, an increase of \$591,724, or 34.7%. Excluding noncash items (i.e. depreciation, amortization and stock-based compensation) cash based Operating Expenses for the quarter were \$2,236,908 compared to \$1,679,849 the same quarter last year. The main increases included onetime costs related to the acquisition of Boilerroom Equipment Inc. (\$107,342), the integration of Boilerroom Equipment Inc's results into the consolidated results, increased commission payable related to the increased revenue, 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 (\$110,800), plus foreign exchange losses experienced in the quarter compared to foreign exchange gains experienced in the same quarter of the previous year (a difference of \$54,644), due to a weaker pound sterling against the dollar. Despite the increases, cash based Operating Expenses as a percent of revenue was only 32.9% in the first quarter of FY 2019 compared to 54.2% in the same quarter prior year. Furthermore, excluding the onetime costs related to the acquisition of page | 4

## Management Discussion and Analysis for Quarter Ended August 31, 2018

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 \$2,018,766.

*Research and development expenses* in the first quarter of FY 2019 of \$29,958 compared to \$33,727 in the first quarter of FY 2018.

*Finance costs and finance revenue*: in the quarter ended August 31, 2018, finance costs of \$36,440 arose due to the issuance of long-term debt to finance the acquisition of Boilerroom Equipment Inc. Finance revenue of \$6,258 was recognized compared to \$9,054 in the quarter ended August 31, 2017.

*Loss before income taxes* for the quarter ended August 31, 2018 was \$145,998 compared to \$210,895 in the same quarter of the previous year. Excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. of \$107,342 and \$110,800 of investments in the growth of the business (new staff and increased advertisement and marketing activities), the Company would have earned an income before income taxes of \$72,144 for the first quarter of FY 2019.

*Income tax recovery* in the first quarter of FY 2019 was \$96,540, compared to \$30,115 in the first 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 August 31, 2018 was \$49,458 compared to a net loss of \$180,780 in the same quarter of the previous year.

*Comprehensive loss* was \$75,749 for the first quarter of FY 2019 compared to a loss of \$422,094 for the first quarter of FY 2018. Both periods saw a weakening of the pound sterling against the Canadian dollar.

*Comprehensive loss* was \$75,749 for the first quarter of FY 2019 compared to a loss of \$422,094 for the first quarter of FY 2018. Both periods saw a weakening of the pound sterling against the Canadian dollar.

**EBITDAS** was negative \$50,736 for the first quarter of FY 2019 compared to negative of \$186,269 for the same quarter of the previous year. Excluding the onetime costs related to the acquisition of Boilerroom Equipment Inc. of \$107,342 and \$110,800 of investments in the growth of the business (new staff and increased advertisement and marketing activities), EBITDAS for the first quarter of FY 2019 would have been positive \$167,406.

#### Liquidity & Capital Resources

Working capital increased \$299,331 to \$2,326,334 as at August 31, 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 \$2,254,613 as at August 31, 2018 compared to \$3,282,208 at May 31, 2018 due to \$1,326,433 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:

	Nov 30, 2016 \$	Feb 28, 2017 \$	May 31, 2017 \$	Aug 31, 2017 \$	Nov 30, 2017 \$	Feb 28, 2018 \$	May 31, 2018 \$	Aug 31, 2018 \$
Current Assets	5,066,120	5,363,954	6,221,714	4,245,864	4,450,013	4,933,877	6,613,125	8,310,609
Current Liabilities	3,806,596	4,149,552	4,790,917	3,079,805	3,099,395	3,706,345	4,586,122	5,984,275
Working Capital	1,259,524	1,214,402	1,430,797	1,166,059	1,350,618	1,227,532	2,027,003	2,326,334

## Q1 FY 2019 Changes

Current assets increased in the first quarter of FY 2019 by \$1,697,484 to \$8,310,609 from \$6,613,125 at May 31, 2018. The increase was mainly due to the increase in trade and other receivables of \$2,406,451. Current liabilities increased by \$1,398,153 to \$5,984,275. The increase was mainly due to the increase in trade payables of \$1,108,341. The increases in both trade receivables and trade payables were related to the large heat recovery project in progress.

As at August 31, 2018, \$343,339 (9.2%) of the Company's trade receivables balance was over 90 days past due. None of the overdue balance is considered impaired as at August 31, 2018.

At August 31, 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	243,074	174,587	68,487	nil

Net cash used in operating activities in the quarter ended August 31, 2018 was \$1,352,984 compared to \$1,658,677 in the quarter ended August 31, 2017. The outflow was mainly due to the result of outstanding trade receivables for invoices issued to customers relating to heat recovery contracts.

Net cash used by investing activities for the quarter ended August 31, 2018 was \$2,606,683. The outflow was a result of the cash consideration of \$2,612,845 paid for the acquisition of Boilerroom Equipment Inc.

Net cash provided by financing activities for the quarter ended August 31, 2018 was \$2,937,375 due to the proceeds received from the issuance of long-term debt.

After allowing negative \$5,303 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 \$1,022,292 over the first three months of FY 2019, compared to \$1,653,481 over the first three months 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:

	August 31,	May 31,
	2018	2018
	\$	\$
Total estimated minimum lease payments receivable	181,107	209,607
Less: unearned income	(20,952)	(27,209)
	160,155	182,398
Less: current portion	(92,365)	(89,141)
	67,790	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	71,553
Residual value of equipment	-
	181,107

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 August 31, 2018 were 1,250,000 of which 1,000,167 were exercisable. There were no warrants outstanding for Directors.

Options outstanding for Senior Management (including the CEO) as at August 31, 2018 were 8,085,787 of which 7,669,221 were exercisable. There were no warrants outstanding for Senior Management.

## **Directors and Senior Management Compensation**

During the quarter ended August 31, 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 August 31, 2018, Directors fees paid were \$20,250. 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. One in-person meeting was held during the period.

Compensation payable to directors and officers during the period ended August 31, (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		Tot	Total	
	2018	2017	2018	2017	2018	2017	2018	2017	
	\$	\$	\$	\$	\$	\$	\$	\$	
Directors									
M. Williams	4,375	4,375	-	-	-	-	4,375	4,375	
J. Kelly	6,400	6,400	-	-	-	-	6,400	6,400	
W. Ollerhead	5,725	5,725	-	-	-	-	5,725	5,725	
J. Schoenmakers	5,725	5,725	-	-	-	-	5,725	5,725	
D. Spagnolo	4,375	4,375	-	-	-	-	4,375	4,375	
W. White	4,375	4,375	-	-	-	-	4,375	4,375	
K. Milsom <sup>(1)</sup>	-	4,375	-	-	-	-	-	4,375	
Total	30,975	35,350	-	-	-	-	30,975	35,350	
Senior Management									
W. Crossland	60,000	60,000	-	-	-	-	60,000	60,000	
J. Flynn <sup>(2) (3)</sup>	35,429	36,717	-	-	5,619	5,693	41,048	42,410	
J. Zhang <sup>(3)</sup>	10,417	-	-	-	811	-	11,227	-	
R. Triebe	45,250	45,250	-	-	845	-	46,095	45,250	
S. Mawby <sup>(2)(4)</sup>	38,108	26,014	-	-	5,815	4,197	43,923	30,211	
Total	189,204	167,981	-	-	13,090	9,890	202,293	177,871	
Total Related Party Transactions	220,179	203,331	-	-	13,090	9,890	233,268	213,221	

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) Ms. Milsom resigned on August 31, 2017.

- (2) Ms. Flynn and Mr. Mawby are compensated in UK Pound sterling. Average exchange rate to Canadian dollar was 1.7169 and 1.6620 in the first quarter of FY 2019, and the first quarter of FY 2018 respectively.
- (3) Ms. Flynn stepped down as Chief Financial Officer effective July 31, 2018 and Ms. Jie (Julia) 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.

## Segmented Information

In the quarters ended August 31, 2018 and August 31, 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

## Management Discussion and Analysis for Quarter Ended August 31, 2018

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 August 31, 2018 and the comparative period are detailed in the table below.

	Thermal Energy Ottawa Thermal Energy Bristol Reconciling Ite		ng Items Total		al			
	2018	2017	2018	2017	2018	2017	2018	2017
	\$	\$	\$	\$	\$	\$	\$	\$
Total revenue from external								
customers	5,654,400	2,061,529	1,146,461	1,036,055	-	-	6,800,861	3,097,584
Cost of sales	(3,983,705)	(1,207,180)	(607,271)	(372,607)	-	-	(4,590,976)	(1,579,787)
Gross profit	1,670,695	854,349	539,190	663,448	-	-	2,209,885	1,517,797
Other expenses	(937,166)	(687,965)	(844,779)	(742,866)	(543,756)	(306,915)	(2,325,701)	(1,737,746)
Net finance (costs) income	(30,182)	9,054	-	-	-	-	(30,182)	9,054
Income (loss) before taxation	703,347	175,438	(305,589)	(79,418)	(543,756)	(306,915)	(145,998)	(210,895)
Tax (expense) recovery	-	(18,868)	60,441	29,055	36,099	19,928	96,540	30,115
Profit (loss) after taxation	703,347	156,570	(245,148)	(50,363)	(507,657)	(286,987)	(49,458)	(180,780)
Attributable to:								
Owners of the parent	707,986	165,994	(255,733)	(55,392)	(507,657)	(286,987)	(55,404)	(176,385)
Non-controlling interest	(4,639)	(9,424)	10,585	5,029	-	-	5,946	(4,395

Other expenses within reconciling items comprise the following:

	2018	2017
Corporate administration costs Stock-based compensation Professional fees Depreciation of property, plant and equipment Amortization of intangible assets Acquisition costs Bank charges and interest Foreign exchange differences	\$ 247,884 4,125 75,446 16,969 37,741 107,342 41,990 12,259	\$ 236,270 13,922 80,120 10,247 - - 8,741 (42,385)
Total	\$ 543,756	\$ 306,915

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.

During the quarter ended August 31, 2018 the company had one customer in North America that accounted for 63% of total group revenue for the period.

During the quarter ended August 31, 2017 the company had one customer in North America that accounted for 28% of total group revenue for the period.

Further geographical analysis:

	Sales for the three months ended		Property, Plant and Equipment as at			and other assets as at	Finance lease receivable (non current) as at	
	August 31, 2018	August 31, 2017	August 31, 2018	May 31, 2018	August 31, 2018	May 31, 2018	August 31, 2018	May 31, 2018
	\$	\$	\$	\$	\$	\$	\$	\$
Canada	4,475,421	601,515	44,686	41,789	-	-	67,790	93,257
U.S.A.	1,178,979	1,460,014	190,597	-	2,422,103	-	-	-
U.K.	1,034,168	759,206	35,176	35,606	1,814,092	1,856,739	-	-
Italy	43,335	51,845	-	-	-	-	-	-
Netherlands	37,947	17,847	-	-	-	-	-	-
Germany	19,770	78,671	-	-	-	-	-	-
Norway	-	44,196	-	-	-	-	-	-
Slovenia	-	30,965	-	-	-	-	-	-
Rest of								
Europe	4,531			-	-	-	-	-
U.A.E	-	43,790	-	-	-	-	-	-
Rest of world	6,710	3,453	-	-	-	-	-	-
Total	6,800,861	3,097,584	270,459	77,395	4,236,195	1,856,739	67,790	93,257

#### Material Segmentation Variances

#### Revenue

North America: revenue for the quarter ended August 31, 2018 was \$5,654,400 compared to \$2,061,529 for the quarter ended August 31, 2017. Revenue increased by \$3,326,900, with the current period seeing the partial delivery of the \$11 million energy efficiency project with the Pulp & Paper Customer announced December 5, 2017 and the integration of the result of Boilerroom Equipment Inc. into the consolidated results.

Europe and rest of the world: revenue for the quarter ended August 31, 2018 was \$1,146,461 compared to \$1,036,055 for the same period of the previous year, an increase of \$110,406.

#### Segment Income (loss) Before Tax

North America: gross profit increased by \$816,346 in the quarter ended August 31, 2018 over the same quarter 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 the results of Boilerroom Equipment Inc. to the consolidated results and the increased commissions. The net income before tax was \$703,347 for the first quarter of FY 2019 compared to \$175,438 for the first quarter of FY 2018.

Europe and rest of the world gross profit decreased by \$124,258 in the quarter ended August 31, 2018 from the same quarter of the preceding year despite of the increase in revenue. The decrease in gross profit was mainly due to product mix. Other net costs increased by \$101,913 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 \$305,589 for the first quarter of FY 2019 compared to \$79,418 for the first quarter of FY 2018.

Other expenses within Reconciling items, which incorporates all costs not specifically attributable to the either regional operational center, amounted to \$543,756 in the first quarter of FY 2019 compared to \$306,915 in the first quarter of FY 2018. The main variances included the acquisition costs of \$107,342 related to the acquisition of Boilerroom Equipment Inc., the increased interest charge as a result of the issuance of long-term debt, additional amortization expense on the intangible assets acquired upon the acquisition, plus unfavorable exchange rate fluctuations in the current quarter than in the same period of the previous year. Page | 10

## Quarterly financial information (unaudited)

For the eight quarters ended August 31, 2018:

Quarter ended	31-Aug-18	31-May-18	28-Feb-18	30-Nov-17
	\$	\$	\$	\$
Revenue	6,800,861	7,352,794	3,228,386	3,729,447
Gross Profit	2,209,885	3,362,945	1,599,771	1,853,510
Gross Profit Percentage	32.5%	45.7%	49.6%	49.7%
EBITDAS <sup>(1)</sup>	(50,736)	850,479	(156,016)	108,711
Total net income (loss)	(49,458)	888,389	(158,644)	70,514
Income (loss) per share, basic and diluted	0.000	0.006	(0.001)	0.000

Quarter ended	31-Aug-17	31-May-17	28-Feb-17	30-Nov-16
	\$	\$	\$	\$
Revenue	3,097,584	4,754,080	3,224,530	3,078,744
Gross Profit	1,517,797	2,378,543	1,675,233	1,929,114
Gross Profit Percentage	49.0%	50.0%	52.0%	62.7%
EBITDAS <sup>(1)</sup>	(186,269)	462,964	(1,811)	285,307
Total net income (loss)	(180,780)	353,776	(56,472)	175,158
Income (loss) per share, basic and diluted	(0.001)	0.002	0.000	0.001

# (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 August 31:

	2018	2017
	\$	\$
Total net income (loss) attributable to owners of the parent	(55,404)	(176,385)
Total net income (loss) attributable to non-controlling interest	5,946	(4,395)
Interest charge	36,440	500
Interest received	(13)	(44)
Taxation	(96,540)	(30,115)
Depreciation and amortization	54,710	10,247
Share based compensation	4,125	13,923
EBITDAS	(50,736)	(186,269)

## 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 August 31, 2018 was approximately \$7.3 million. As at October 26, 2018, the Company had an order backlog of approximately \$9.3 million.

	2016 \$ million	2017 \$ million	2018 \$ million
Order backlog as at August 31	4.7	5.8	7.3
Order backlog as at October reporting date	7.8	7.8	9.3

- 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 June 2018, the Company announced that it had received a \$1.2 million order from one of its corporate accounts, a leading Fortune 500 food and beverage conglomerate, for a heat recovery system. The project is expected to be completed and revenue earned over the next six months.
- In March 2018, the Company announced that it had received an order for approximately \$840,000 for the installation of a heat recovery system at a teaching hospital. The order is expected to be fulfilled and the revenue earned over the next three months.
- 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<sup>™</sup> Steam Trap system.

The project was about 74% completed as at August 31, 2018 and is expected to be completely fulfilled and the remaining revenue earned over the next nine months.

# 5. Summary of Outstanding Shares and Dilutive Instruments

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

Shares

159,088,950 class A common shares.

## Options

At August 31, 2018:

	Options outstanding		0	Options exercisable		
Range of exercise	Number outstanding August 31, 2018	Weighted average remaining contractual life	Weighted average exercise price	Number exercisable at August 31, 2018	Weighted average exercise price	
0.05-0.07	5,991,500	1.58	0.05	4,974,833	0.05	
0.07-0.10	4,071,360	1.71	0.08	4,071,360	0.08	
0.10-0.12	10,432,671	0.37	0.10	10,099,338	0.10	
	20,495,531	0.99	0.08	19,145,531	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 nonvesting 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<sup>™</sup> and FLU-ACE<sup>®</sup> 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<sup>™</sup>, FLU-ACE<sup>®</sup> and DRY-REX<sup>™</sup> 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 August 31, 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.