



**MANAGEMENT'S DISCUSSION & ANALYSIS**

**For the Fiscal Year Ended May 31, 2018**

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

Dated as of September 27, 2018

This Management Discussion and Analysis has been amended since it was first filed on September 28, 2018 to indicate that information is current as of September 27, 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 position and financial performance for the fiscal year ended May 31, 2018 (or "FY 2018"), and compares the FY 2018 financial results to the previous year ended May 31, 2017 (or "FY 2017"). The consolidated financial statements and notes to the consolidated financial statements constitute an integral part of the discussion and should be read in conjunction with this MD&A. Unless otherwise indicated, all comparisons to the fourth quarter of FY 2018 are against the fourth quarter of FY 2017. Additional information relating to the Company is available on SEDAR at [www.sedar.com](http://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 September 26, 2018.

### 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.

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 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](http://www.thermalenergy.com). **GEM™**, **FLU-ACE®**, **THERMALONOX™** and **DRY-REX™** are trademarks of Thermal Energy.

### 1.2 Core Businesses

The Company operates 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 (**FLU-ACE®**) and condensate return system solutions (**GEM™** steam traps). The Company is also developing a third technology line - low temperature biomass drying systems (**DRY-REX™**).

Before 2007, the Company concentrated mainly on the selling of heat recovery systems but had begun selling GEM™ product through a distribution agreement with Gardner Energy Management Limited, based in the U.K. In 2008, the Company acquired Gardner Energy Management Limited, which sells the GEM™ product throughout the world. As part of this transaction, the Company also acquired the 67% share of GEMchem Ltd, a U.K.-based water treatment company providing services within the U.K. only.

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The Company has two primary operational bases, 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 Ottawa base is deemed to be the center of excellence for **FLU-ACE**<sup>®</sup> heat recovery engineering and technical support, and Bristol the center of excellence for **GEM**<sup>™</sup> steam traps and condensate return system engineering and technical support, continuous cross-training means that both bases 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, due to the proximity to the Company’s bases. While this continues to be the key focus, the Company also continues to look for new distributors in 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 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 footprint. The Company’s products and services are “best-in-class” with world-wide application in a broad range of sectors.

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 companies in the pharmaceutical, food and beverage, pulp and paper, chemical and petrochemical sectors.

With a global sales and distribution network the Company also has the opportunity to introduce new synergistic products and services, and acquire complementary products and businesses that can be distributed through our existing network.

Finally, the Company is also developing a number of recurring revenue streams such as rental and shared savings programs as well as service and maintenance programs.

## 2. Performance Measures

The Company believes 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 Adjusted Operating Cash Flow

Adjusted operating cash flow (defined as income (loss) for the period, as adjusted for revenue recorded upon signing of a finance lease, plus items not involving cash but excluding any changes in working capital items, plus finance lease payments received) is a performance measure used to gauge the cash generating capability of the Company. The impact changes in working capital items has on cash balances is excluded from the calculation of operating cash flow because changes in working capital items are usually only temporary and can fluctuate significantly from period to period and therefore are not a good indicator of the Company’s longer term cash generating capabilities.

It is important to note that cash flow is not the same as net income, which includes transactions that did not involve actual cash outflows and excludes some transactions that did involve actual cash inflows. The calculation of adjusted operating cash flow starts with net income as identified in the Consolidated Statements of Comprehensive Income and then adds or subtracts a number of items identified in the Statement of Cash Flows. Adjusted operating cash flow 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

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International Financial Reporting Standards within the financial statements is net cash provided (used) in operating activities, as disclosed in the statement of cash flows.

### 2.2 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 International Financial Reporting Standards within the financial statements is income (loss) before income taxes, as disclosed in the statements of comprehensive income.

### 2.3 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 International Financial Reporting Standards and therefore may not be comparable to similar measures presented by other companies.

## 3. Performance

### 3.1 Summary of Fourth Quarter Results

|  | Q4 2018     | Q4 2017     |
|--|-------------|-------------|
|  | \$          | \$          |
| Revenue  | 7,352,794   | 4,754,080   |
| Cost of Sales  | (3,989,849) | (2,375,537) |
| Gross Profit   | 3,362,945   | 2,378,543   |
| Administration, selling, marketing and business development expenses | (2,530,424) | (1,989,143) |
| Research and development (expenses) recovery                         | (13,643)    | 28,966      |
| Operating income   | 818,878     | 418,366     |
| Finance Revenue  | 7,034       | 4,426       |
| Income before income taxes   | 825,912     | 422,792     |
| Income taxes recovery (expense)                                      | 62,477      | (69,016)    |
| Net income for the period  | 888,389     | 353,776     |
| Exchange differences on translation of overseas operations           | (61,602)    | 161,978     |
| Total comprehensive income for the period                            | 826,787     | 515,754     |

#### Revenues and Gross Profits

Revenues were \$7,352,794 in the quarter ended May 31, 2018, representing an increase of \$2,598,714, or 54.7%, compared to \$4,754,080 in the quarter ended May 31, 2017. Sales of heat recovery systems increased by \$2,339,490 (83.6%) over the same period in the previous year, while sales of GEM™ condensate return systems increased by \$259,224 (13.3%).

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

Revenues from sales of heat recovery systems in the current quarter included the substantial completion of a hospital project as announced October 12, 2017, the partial delivery of the cogeneration project at a food and beverage customer as announced August 31, 2017, and the partial delivery of the heat recovery project to an existing pulp and paper customer, as announced December 5, 2017. In comparison, the same period of the previous year saw the substantial completion of an installation at a major hospital, as announced November 2, 2016, the partial delivery of a system to a leading producer of industrial and fuel alcohols, as announced September 28, 2016, plus the further extension of the finance lease in May 2017.

GEM™ condensate return system sales for the final quarter of FY 2018 included further orders from a leading performance materials company and the order to an existing pulp and paper customer, as announced December 5, 2017. The revenue increased compared to the same period of the previous year mainly due to the above two orders received with higher amounts and the increased sales in smaller orders. The final quarter of FY 2017 included the fulfillment of sales to a leading chemical producer as well as the fulfillment of orders from a further three sites of the Fortune 500 food and beverage company.

The gross profit of \$3,362,945 in the quarter ended May 31, 2018 represented an increase of \$984,402, or 41.4%, from the \$2,378,543 achieved in the quarter ended May 31, 2017. The increase was mainly the result of increased heat recovery revenues. Gross profit expressed as a percentage of sales was 45.7% in the final quarter of FY 2018 compared with 50.0% in the final quarter of FY 2017. The decrease in gross profit percentage was due to the product split.

### **Expenses**

**Administration, selling, marketing and business development expenses** in the quarter ended May 31, 2018 totaled \$2,530,424 compared to \$1,989,143 in the quarter ended May 31, 2017, an increase of \$541,281. This increase was predominantly the result of higher commissions associated with the revenues, plus a staff incentive in the current year, as well as costs associated with a new marketing and a new administrative staff.

**Research and development expenses** related to expenditures on various research and development programs. The Company receives credits from the SR&ED claims and the credits are accounted as a reduction of research and development expenses. The total expenses net of SR&ED credits in the final quarter of FY 2018 gave rise to a net expense of 13,643, compared to a net credit of \$28,966 in the final quarter of FY 2017.

**Finance revenue** in the fourth quarter of FY 2018 was \$7,034 compared to \$4,426 recognized in the fourth quarter of FY 2017. On May 1, 2017, the final extension agreement was signed for 36 months to May 1, 2020. The interest rate implicit in the final lease extension is 14.3% which is applied against the reducing finance lease receivable balance.

**Income before income taxes** for the quarter ended May 31, 2018 was \$825,912 compared to \$422,792 in the same quarter of the previous year.

**Income tax recovery** in the fourth quarter of FY 2018 was \$62,477, compared to a charge of \$69,016 in the fourth quarter of FY 2017. Taxes are payable on profits made in subsidiaries in both the U.S. and the U.K.

**Net income for the fourth quarter of FY 2018** was \$888,389 compared to \$353,776 in the same quarter of the previous year due to increased heat recovery revenues.

**Comprehensive income** was \$826,787 for the final quarter of FY 2018 compared to \$515,754 for the final quarter of FY 2017. We saw a strengthening of the Canadian dollar against the U.K. pound sterling in the fourth quarter of FY 2018, hence the comprehensive loss arising from the translation of assets recorded in sterling.

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

### 3.2 Review of Year End Results

|  | 2018        | 2017        |
|--|-------------|-------------|
|  | \$          | \$          |
| Revenue  | 17,408,211  | 13,192,107  |
| Cost of Sales  | (9,074,188) | (5,753,532) |
| Gross Profit   | 8,334,023   | 7,438,575   |
| Administration, selling, marketing and business development expenses | (7,732,044) | (6,789,868) |
| Research and development expenses                                    | (113,200)   | (67,730)    |
| Operating income   | 488,779     | 580,977     |
| Finance Revenue  | 32,225      | 11,523      |
| Income before income taxes   | 521,004     | 592,500     |
| Income taxes recovery (expense)                                      | 98,475      | (199,768)   |
| Net income for the period  | 619,479     | 392,732     |
| Exchange differences on translation of overseas operations           | (64,600)    | (218,436)   |
| Total comprehensive income for the period                            | 554,879     | 174,296     |

#### Revenues and Gross Profits

Revenues were \$17,408,211 in FY 2018 compared to \$13,192,107 in FY 2017, an increase of \$4,216,104, or 32.0%. Sales of heat recovery systems increased by \$4,812,897 (73.6%), while sales of GEM™ condensate return systems decreased by \$596,793 (-9.0%).

FY 2018 included the substantial completion of installations at two major hospitals and a major food and beverage customer as announced on July 6, 2017, as well as a partial delivery of the super-efficient cogeneration heat recovery system at a food and beverage customer, as announced August 31, 2017, and the partial delivery of the large heat recovery projects to an existing pulp and paper customer, as announced December 5, 2017. The previous fiscal year saw the substantial completion of installations at two major hospitals as well as the substantial completion of an extension project at another major hospital. Other projects completed in the previous year included an installation at a global brewing company, as announced August 8, 2016, an installation at a leading food products business, as announced May 3, 2016 and a second equipment sale to a global mining company.

GEM™ condensate return systems sales in FY 2018 were \$6,055,352 compared to \$6,652,145 in FY 2017. GEM™ condensate return system sales for FY 2018 included further orders from a leading performance materials company and the order to an existing pulp and paper customer, as announced December 5, 2017. FY2018 revenue decreased compared to the previous year mainly due to lack of small orders and the decrease in sales in the rest of world market. The FY 2017 included the fulfillment of sales to a leading chemical producer as well as the fulfillment of orders from a further three sites of the Fortune 500 food and beverage company. There were no comparable orders in FY 2018.

FY 2018 gross profit of \$8,334,023 represents an increase of \$895,448, or 12.0%, over the \$7,438,575 achieved in FY 2017. The gross profit expressed as a percentage of sales was 47.9% in FY 2018 compared with 56.4% in FY 2017. The decrease in gross profit percentage is due to the product split.

#### Expenses

**Administration, selling, marketing and business development expenses** in FY 2018 totaled \$7,732,044 compared to \$6,789,868 in FY 2017, an increase of \$942,176, or 13.9%. This increase is mainly due to the increased commissions on the higher revenues along with the additional costs associated with the new sales, technical, administrative and marketing staff.

**Research and development costs** in FY 2018 totaled \$113,200, compared to \$67,730 in FY 2017. During the FY 2018, the Company recorded SR&ED credits receivable totaling \$20,005, compared to \$63,594 in the previous year.

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**Finance revenue** in FY 2018 was \$32,225, an increase of \$20,702 from the \$11,523 received in FY 2017. On May 1, 2017, the final extension agreement was signed for 36 months to May 1, 2020. The interest rate implicit in the final lease extension is 14.3% which is applied against the reducing finance lease receivable balance.

**Income before income taxes** for the fiscal year ended May 31, 2018 was \$521,004 compared to \$592,500 for the fiscal year ended May 31, 2017.

**Income tax recovery** in FY 2018 was \$98,475, compared to a charge of \$199,768 in the previous year. This was the result of loss within the UK entity for FY 2018.

**Net income for FY 2018** was \$619,479, compared to \$392,732 in the year ended May 31, 2017. The increase in net income was mainly due to the increased revenues in FY 2018.

**Comprehensive income** was \$554,879 in the year ended May 31, 2018, compared to \$174,296 in the previous year. The weakening of sterling against the Canadian dollar following the Brexit referendum in June 2016 in the previous year has started to turn around somewhat in FY 2018, resulting in a lower exchange loss from the revaluation of goodwill and intangible assets in the U.K. in FY 2018.

### Liquidity & Capital Resources

The working capital was \$2,027,002 at May 31, 2018 compared to working capital of \$1,430,797 at May 31, 2017 – an increase of \$596,205, with the Company's net cash position (Cash and cash equivalents less Bank loans) increasing by \$332,068 from \$2,950,140 as at May 31, 2017 to \$3,282,208 as at May 31, 2018.

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

|                     | Aug 31,<br>2016 \$ | Nov 30,<br>2016 \$ | Feb 28,<br>2017 \$ | May 31,<br>2017 \$ | Aug 31,<br>2017 \$ | Nov 30,<br>2017 \$ | Feb 28,<br>2018 \$ | May 31,<br>2018 \$ |
|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Current Assets      | 3,400,711          | 5,066,120          | 5,363,954          | 6,221,714          | 4,245,864          | 4,450,013          | 4,933,877          | 6,613,125          |
| Current Liabilities | 2,502,425          | 3,806,596          | 4,149,552          | 4,790,917          | 3,079,805          | 3,099,395          | 3,706,345          | 4,586,122          |
| Working Capital     | 898,286            | 1,259,524          | 1,214,402          | 1,430,797          | 1,166,059          | 1,350,618          | 1,227,532          | 2,027,003          |

### FY 2018 Changes

Current assets increased in FY 2018 by \$391,411 to \$6,613,125, mostly due to in the increase in cash balances of \$332,068. Current liabilities meanwhile decreased by \$204,795 to \$4,586,122. Main decrease was deferred revenue of \$942,194 relating to heat recovery projects in progress at year end. The decrease in deferred revenue was partially offset by the increase in accrued commissions and accrued costs related to the acquisition of a US-based company subsequent to the year-end.

As at May 31, 2018, \$165,420 (9.3%) of the Company's trade receivables balance was over 90 days past due, none of which is considered impaired.

At May 31, 2018, the Company had operating lease commitments as shown below. The Company had no purchase obligations:

|                  | Total<br>\$ | Less than 1 year<br>\$ | 1-5 years<br>\$ | More than 5 years<br>\$ |
|------------------|-------------|------------------------|-----------------|-------------------------|
| Operating Leases | 218,916     | 144,314                | 74,602          | -                       |



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Net cash provided by operating activities in the year ended May 31, 2018 was \$307,689. Net cash provided by investing activities of \$36,936 comprised \$77,329 finance lease principal payments received and proceeds received from disposal of property, plant and equipment of \$9,157 less \$40,550 paid for net additions to property, plant and equipment. Net cash used by financing activities was \$8,291 for dividends paid to the minority shareholder of a UK subsidiary. After allowing negative \$4,266 for the effect of exchange rate fluctuations on cash and cash equivalents, the net result of the above activities was an increase in cash balance of \$332,068.

Adjusted operating cash inflow (defined as net income or loss for the period, as adjusted for revenue recorded upon signing of a finance lease, plus items not involving cash, after net tax and interest cash inflows or outflows, plus finance lease payments received) for the year ended May 31, 2018 was \$536,867. After adjusting this for \$151,849 of negative changes in non-cash working capital items and deducting \$40,393 for the net purchase of fixed assets, deducting \$8,291 used by financing activities, and deducting \$4,266 to allow for the effect of exchange rate fluctuations on cash and cash equivalents, the net cash inflow was \$332,068, increasing the net cash balance as at May 31, 2018 to \$3,282,208 from \$2,950,140 as at May 31, 2017.

In addition to its net cash balance of \$3,282,208 as at May 31, 2018, the Company also had an estimated \$157,000 of unused borrowing capacity under its bank loans.

The Company's ability to realize its assets and discharge its liabilities depends on its ability to generate sufficient cash from operations or its ability to arrange debt or equity financing. 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.

A reconciliation of Net cash provided in operating activities to adjusted operating cash flow is shown below:

|   | 2016<br>\$ | 2017<br>\$  | 2018<br>\$ |
|---|------------|-------------|------------|
| Net cash provided in operating activities | 418,167    | 1,680,115   | 307,689    |
| Changes in working capital                | 180,106    | (1,312,674) | 151,849    |
| Finance lease principal payments received | 111,524    | 111,031     | 77,329     |
| Adjusted operating cash flow              | 709,797    | 478,472     | 536,867    |

### *Net Investment in Lease*

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

|   | May 31,<br>2018<br>\$ | May 31,<br>2017<br>\$ |
|---|-----------------------|-----------------------|
| Total estimated minimum lease payments receivable | 209,607               | 319,161               |
| Less: unearned income                             | (27,209)              | (59,434)              |
|   | 182,398               | 259,727               |
| Less: current portion                             | (89,141)              | (77,328)              |
|   | 93,257                | 182,399               |

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

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

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  | 100,053        |
| Residual value of equipment | -              |
|                             | <u>209,607</u> |

### *Related Party Transactions*

Options outstanding for Directors (excluding the CEO) as at May 31, 2018 were 1,250,000 of which 916,668 were exercisable. There were no warrants outstanding for Directors.

Options outstanding for Senior Management (including the CEO) as at May 31, 2018 were 9,305,787 of which 8,805,788 were exercisable. There were no warrants outstanding for Senior Management.

### *Directors and Senior Management Compensation*

During the year ended May 31, 2018 compensation arrangements for directors was as follows:

Before November 27, 2016: \$15,000 per annum per Director plus an additional \$9,000 per annum payable to the Chairman of the Board, \$6,000 per annum payable to the chairperson of the Audit Committee, \$6,000 per annum payable to the chairperson of the Ethics Committee and \$1,000 payable for each in-person meeting.

After November 27, 2016: \$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 year ended May 31, 2018, Directors fees paid were \$84,375. Fees to the Chairperson of the Audit Committee were \$5,400; fees to the Chairperson of the Ethics, Governance and Compliance Committee were \$5,400, fees paid to the Chairman were \$8,100; and a total of \$25,000 was paid for in-person meetings.

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Compensation paid to directors and officers during the year ended May 31, (inclusive of the amounts described above but excluding stock-based compensation) was as follows:

|                          | Salaries and fees |                | Incentives |          | Other short-term benefits |          | Total          |                |
|--------------------------|-------------------|----------------|------------|----------|---------------------------|----------|----------------|----------------|
|                          | 2018              | 2017           | 2018       | 2017     | 2018                      | 2017     | 2018           | 2017           |
|                          | \$                | \$             | \$         | \$       | \$                        | \$       | \$             | \$             |
| <b>Directors</b>         |                   |                |            |          |                           |          |                |                |
| M. Williams              | 18,500            | 22,187         | -          | -        | -                         | -        | 18,500         | 22,187         |
| J. Kelly                 | 24,600            | 27,780         | -          | -        | -                         | -        | 24,600         | 27,780         |
| W. Ollerhead             | 23,900            | 21,982         | -          | -        | -                         | -        | 23,900         | 21,982         |
| J. Schoenmakers          | 21,900            | 23,932         | -          | -        | -                         | -        | 21,900         | 23,932         |
| D. Spagnolo              | 18,500            | 19,238         | -          | -        | -                         | -        | 18,500         | 19,238         |
| K. Milsom <sup>(1)</sup> | 4,375             | 9,863          | -          | -        | -                         | -        | 4,375          | 9,863          |
| W. White                 | 16,500            | 8,863          | -          | -        | -                         | -        | 16,500         | 8,863          |
| <b>Total</b>             | <b>128,275</b>    | <b>133,845</b> | <b>-</b>   | <b>-</b> | <b>-</b>                  | <b>-</b> | <b>128,275</b> | <b>133,845</b> |

### Senior Management

|                                  |                |                |               |                |               |               |                |                |
|----------------------------------|----------------|----------------|---------------|----------------|---------------|---------------|----------------|----------------|
| W. Crossland                     | 240,000        | 240,000        | 32,630        | 42,077         | 3,796         | 3,735         | 276,426        | 285,812        |
| J. Flynn <sup>(2)</sup>          | 154,939        | 146,378        | 20,492        | 25,058         | 25,280        | 26,218        | 200,711        | 197,654        |
| R. Triebe                        | 181,000        | 167,347        | 20,492        | 25,058         | 7,788         | 7,457         | 209,280        | 199,862        |
| S. Mawby <sup>(2)(3)</sup>       | 128,083        | 145,832        | 20,492        | 25,058         | 20,015        | 25,877        | 168,590        | 196,767        |
| <b>Total</b>                     | <b>704,022</b> | <b>699,557</b> | <b>94,106</b> | <b>117,251</b> | <b>56,879</b> | <b>63,287</b> | <b>855,007</b> | <b>880,095</b> |
| Total Related Party Transactions | 832,297        | 833,402        | 94,106        | 117,251        | 56,879        | 63,287        | 983,282        | 1,013,940      |

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 U.K. based subsidiaries.

(1) Ms. Milsom resigned on July 31, 2017.

(2) Ms. Flynn and Mr. Mawby are compensated in U.K. Pound sterling. Average exchange rate to Canadian dollar was 1.7025 and 1.693 in FY 2018 and FY 2017 respectively.

(3) Mr. Mawby was working part-time during parental leave between August 2017 and November 2017.

### Normal Course Issuer Bid

During the 12-month period commencing February 15, 2016 and ending February 15, 2017, the Company was able to purchase on the TSX up to 12,758,701 common shares, representing approximately 8% of the then issued and outstanding common shares, pursuant to a Normal Course Issuer Bid as approved by the TSX Venture Exchange on February 12, 2016.

The previously announced Normal Course Issuer Bid expired on February 15, 2017. There has been no Normal Course Issuer Bid activity for the year ended May 31, 2018 or May 31, 2017.

### Segmented Information

In fiscal 2018 and 2017, the Company operated in the energy efficiency industry in North America, Europe, China and 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 Discussion and Analysis for the Fiscal Year Ended May 31, 2018

Management reporting comprises analysis of revenue and gross profit 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 Ottawa, Canada covering North America and China, and the other in Bristol, United Kingdom, covering Europe and the rest of the world. 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 year ended May 31, 2018 and the comparative year 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 from external customers | <b>12,505,454</b>     | 6,357,723   | <b>4,902,757</b>       | 6,834,384   | -                  | -           | <b>17,408,211</b>  | 13,192,107  |
| Cost of sales                         | <b>(7,408,364)</b>    | (2,886,324) | <b>(1,665,824)</b>     | (2,867,208) | -                  | -           | <b>(9,074,188)</b> | (5,753,532) |
| Gross profit                          | <b>5,097,090</b>      | 3,471,399   | <b>3,236,933</b>       | 3,967,176   | -                  | -           | <b>8,334,023</b>   | 7,438,575   |
| Other expenses                        | <b>(3,288,837)</b>    | (2,885,103) | <b>(3,340,178)</b>     | (2,859,750) | <b>(1,216,229)</b> | (1,112,745) | <b>(7,845,244)</b> | (6,857,598) |
| Finance revenue                       | <b>32,225</b>         | 11,523      | -                      | -           | -                  | -           | <b>32,225</b>      | 11,523      |
| Income (loss) before taxation         | <b>1,840,478</b>      | 597,819     | <b>(103,245)</b>       | 1,107,426   | <b>(1,216,229)</b> | (1,112,745) | <b>521,004</b>     | 592,500     |
| Tax (expense) recovery                | <b>(22,391)</b>       | (102,766)   | <b>23,950</b>          | (188,459)   | <b>96,916</b>      | 91,457      | <b>98,475</b>      | (199,768)   |
| Profit (loss) after taxation          | <b>1,818,087</b>      | 495,053     | <b>(79,295)</b>        | 918,967     | <b>(1,119,313)</b> | (1,021,288) | <b>619,479</b>     | 392,732     |
| Attributable to:                      |                       |             |                        |             |                    |             |                    |             |
| Owners of the parent                  | <b>1,832,463</b>      | 541,991     | <b>(74,152)</b>        | 894,177     | <b>(1,119,313)</b> | (1,021,288) | <b>638,998</b>     | 414,880     |
| Non-controlling interest              | <b>(14,376)</b>       | (46,938)    | <b>(5,143)</b>         | 24,790      | -                  | -           | <b>(19,519)</b>    | (22,148)    |

Reconciling items comprise the following:

|   | 2018             | 2017      |
|---|------------------|-----------|
|   | \$               | \$        |
| Corporate administration costs                | <b>946,288</b>   | 894,136   |
| Stock-based compensation                      | <b>49,606</b>    | 117,266   |
| Professional fees                             | <b>141,524</b>   | 137,418   |
| Depreciation of property, plant and equipment | <b>44,342</b>    | 38,114    |
| Bank charges and interest                     | <b>33,306</b>    | 36,143    |
| Foreign exchange differences                  | <b>1,163</b>     | (110,332) |
| <b>Total</b>                                  | <b>1,216,229</b> | 1,112,745 |

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 as well as the Annual General Meeting.

During the year ended May 31, 2018, the Company had one customer that accounted for 22.4% and another customer accounted for 10.0% of total consolidated revenue in North America for the year.

During the year ended May 31, 2017, the Company had one customer in North America that accounted for 10.2% of total consolidated revenue for the year.

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

Further geographical analysis:

|                | Sales for the year ended |                   | Property, plant and equipment as at |               | Goodwill and intangibles assets as at |                  | Finance lease receivable (non-current) as at |                |
|----------------|--------------------------|-------------------|-------------------------------------|---------------|---------------------------------------|------------------|--|----------------|
|                | May 31,                  |                   | May 31,                             |               | May 31,                               |                  | May 31,                                      |                |
|                | 2018                     | 2017              | 2018                                | 2017          | 2018                                  | 2017             | 2018   | 2017           |
|                | \$                       | \$                | \$                                  | \$            | \$                                    | \$               | \$   | \$             |
| Canada         | 5,274,196                | 1,708,140         | 41,789                              | 40,984        | –                                     | –                | 182,398                                      | 182,399        |
| U.S.A.         | 7,231,259                | 4,649,583         | –                                   | –             | –                                     | –                | –  | –              |
| U.K.           | 3,793,527                | 4,561,505         | 35,606                              | 35,639        | 1,856,739                             | 1,874,529        | –  | –              |
| Italy          | 291,663                  | 1,454,195         | –                                   | –             | –                                     | –                | –  | –              |
| Germany        | 173,145                  | 189,388           | –                                   | –             | –                                     | –                | –  | –              |
| Norway         | 122,870                  | –                 | –                                   | –             | –                                     | –                | –  | –              |
| Rest of world  | 109,307                  | 19,412            | –                                   | –             | –                                     | –                | –  | –              |
| India          | 103,854                  | 86,912            | –                                   | –             | –                                     | –                | –  | –              |
| Netherlands    | 85,652                   | 63,338            | –                                   | –             | –                                     | –                | –  | –              |
| Rest of Europe | 78,204                   | 171,896           | –                                   | –             | –                                     | –                | –  | –              |
| Kenya          | 73,551                   | 38,187            | –                                   | –             | –                                     | –                | –  | –              |
| Ireland        | 70,983                   | 83,446            | –                                   | –             | –                                     | –                | –  | –              |
| Greece         | –                        | 166,105           | –                                   | –             | –                                     | –                | –  | –              |
| <b>Total</b>   | <b>17,408,211</b>        | <b>13,192,107</b> | <b>77,395</b>                       | <b>76,623</b> | <b>1,856,739</b>                      | <b>1,874,529</b> | <b>182,398</b>                               | <b>182,399</b> |

### Material Segmentation Variances

#### Revenue

Thermal Energy Ottawa: for the year ended May 31, 2018, revenue was \$12,505,454 as compared to \$6,357,723 for FY 2017. The increase was mainly due to the increased number of orders from heat recovery projects. The heat recovery revenue increased by \$6,424,326 due to substantial completion of installations at one major hospital and one major food and beverage customer as announced on July 6, 2017, as well as a partial delivery of the super-efficient cogeneration heat recovery system at a food and beverage customer, as announced August 31, 2017, and the partial delivery of the project to an existing pulp and paper customer, as announced December 5, 2017. Revenue from sales of GEM™ products decreased by \$276,595 mainly due to lack of small orders.

Thermal Energy Bristol: revenue for the year ended May 31, 2018 was \$4,902,757 compared to \$6,834,384 for the previous year. The decrease was \$1,931,627. The decrease was mainly due to the decrease of heat recovery revenue, which decreased by \$1,611,429 in FY 2018. Historically, the heat recovery revenue from Europe is dependent on the delivery of systems to hospital customers based in the U.K. Although the Company has been trying to develop turnkey projects outside the U.K. and outside the hospital sector, there was no projects developed outside the U.K. or the hospital sector in FY 2018. In the previous year, however, the Company did complete an installation at a global brewing company and another installation at a leading food products business. Revenue from sales of GEM™ products meanwhile decreased by \$320,198 due to decreased sales across Europe and the rest of the world market.

#### Segment Income (loss) Before Tax

Thermal Energy Ottawa: gross profit increased from \$3,471,399 in FY 2017 to \$5,097,090 in FY 2018. As a percentage of revenue, gross profit was 40.8% in FY 2018, compared to 54.6% achieved in FY 2017. Gross profit as a percentage of revenue decreased due to the product split. Other expenses in the region increased by \$403,734 (14.0%), due to increased commissions payable and profit related incentive, plus the additional sales and technical staff hired in FY 2018. With finance revenue increasing by \$20,702 as the finance lease was renewed, the resulting segment income before tax of \$1,840,478 represented an increase of \$1,242,659 from the previous year.

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

Thermal Energy Bristol: gross profit decreased in the year ended May 31, 2018 over the previous year by \$730,243, due to decreased heat recovery revenues. Gross profit as a percentage of revenue increased from 58.0% to 66.0% due to the product split. The increase in other expenses of \$480,428 was mainly due to the recruitment of additional sales, marketing and administrative staff. The resulting pre-tax loss was \$103,245 as compared to pre-tax income of \$1,107,426 in the prior year, a decrease of \$1,210,671.

Other expenses within Reconciling items, which incorporates all costs not specifically attributable to either regional operational center, increased in FY 2018 from the prior year by \$103,484. The increase was mainly due to the increase of corporate administration expense of \$52,152 and the decrease in foreign exchange gain of \$111,495 offset by the decrease of stock-based compensation of \$67,660. The predominant cause of the increase was the strengthening of the British pound in the FY 2018, compared to a weakening in the previous year. A gain of \$110,332, due to the weakening of U.K. Sterling against the Canadian dollar, was recognized in FY 2017. In F2018, there was only a loss \$1,163 recorded on foreign currency translation.

### *Selected Annual Information*

The following table shows selected consolidated financial data for the three most recently completed financial years.

Financial information for the years ending May 31, 2016, 2017 and 2018

|  | 2016<br>\$ | 2017<br>\$ | 2018<br>\$ |
|--|------------|------------|------------|
| Revenue  | 12,402,076 | 13,192,107 | 17,408,211 |
| Gross Profit   | 6,794,005  | 7,438,575  | 8,334,023  |
| Gross Profit Percentage                                      | 54.8%      | 56.4%      | 47.9%      |
| EBITDAS <sup>(1)</sup>                                       | 564,179    | 749,762    | 616,905    |
| Total net income (loss) attributable to owners of the parent | 253,849    | 414,880    | 638,998    |
| Net profit (loss) per share – basic and diluted              | 0.002      | 0.003      | 0.004      |
| Total assets   | 5,980,709  | 8,376,789  | 8,692,148  |
| Total long term financial liabilities                        | 0          | 0          | 0          |
| Cash dividends declared per share                            | 0.00       | 0.00       | 0.00       |
| Adjusted operating cash flow <sup>(2)</sup>                  | 709,797    | 478,472    | 536,867    |

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

(2) Adjusted operating cash flow represents net income (loss) plus items not involving cash, plus lease payments received.

A reconciliation of Net income (loss) to EBITDAS is shown below:

|  | 2016<br>\$ | 2017<br>\$ | 2018<br>\$ |
|--|------------|------------|------------|
| Total net income (loss) attributable to owners of the parent     | 253,849    | 414,880    | 638,998    |
| Total net income (loss) attributable to non-controlling interest | 5,019      | (22,148)   | (19,519)   |
| Interest paid  | 4,692      | 4,015      | 2,302      |
| Interest received  | (3,405)    | (2,133)    | (349)      |
| Taxation   | 97,606     | 199,768    | (98,475)   |
| Depreciation   | 38,344     | 38,114     | 44,342     |
| Share based compensation   | 168,074    | 117,266    | 49,606     |
| EBITDAS  | 564,179    | 749,762    | 616,905    |

FY 2018 generated \$4,216,104 more revenue than FY 2017, an increase of 32%. All of this increase came from increased revenues of heat recovery systems in North America, and the result was an increase in gross profit of \$895,448. Most of the increase in costs was the direct result of the increased revenue, with commissions and incentive payable being higher than in the previous year. In addition, the Company

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

recruited additional sales, marketing, technical and administrative staff in FY 2018. In FY 2018, cash balances grew by \$332,068 contributing to the overall increase in total assets of \$315,359 from May 31, 2017.

FY 2017 generated \$790,031 more revenue than FY 2016 despite the weakening of U.K. Sterling against the Canadian dollar, an increase of 6%. All of this increase came from sales of GEM traps, both within North America and Europe, and the result was an increase in gross profit of \$644,570. Most of the increase in costs was the direct result of the increased revenue, with commissions and incentive payable being higher than in the previous year. Over the current year, cash balances grew by \$1,806,992, contributing to the overall increase in total assets of \$2,396,080 from May 31, 2016.

FY 2016 provided \$5,601,884 more revenue than FY 2015 – an increase of 82%. Whereas FY 2015 saw just one heat recovery order from a hospital, which was partially completed in FY 2016, the FY 2016 included the completion of that project as well as two other hospital conversions and a significant extension project at the first site. In addition, FY 2016 included three FLU-ACE® projects from other markets as well as two equipment sales, compared to two conversions and one smaller equipment sale in the prior year. Revenue from the sale of GEM™ products in North America increased by \$2,116,969 in FY 2016, much of which was due to orders from three customers, but also some resulting from a general increase in orders from that region. This increase in revenue contributed directly to the increase in gross profit, with the main increases in other expenses also being the result of the increased activity, as commissions payable and incentive payable being higher than in FY 2015. Total assets grew by \$83,844 in FY 2016, with an increase in cash balances of \$427,805 being partially offset by a decrease in finance lease receivable and current tax assets, due to the profits realized in the U.K. entity in FY 2016.

Quarterly financial information (unaudited)  
For the eight quarters ended May 31, 2018

| Quarter ended                              | 31-May-18<br>\$ | 28-Feb-18<br>\$ | 30-Nov-17<br>\$ | 31-Aug-17<br>\$ |
|--|-----------------|-----------------|-----------------|-----------------|
| Revenue                                    | 7,352,794       | 3,228,386       | 3,729,447       | 3,097,584       |
| Gross Profit                               | 3,362,945       | 1,599,771       | 1,853,510       | 1,517,797       |
| Gross Profit Percentage                    | 45.7%           | 49.6%           | 49.7%           | 49.0%           |
| EBITDAS <sup>(1)</sup>                     | 850,479         | (156,016)       | 108,711         | (186,269)       |
| Total net income (loss)                    | 888,389         | (158,644)       | 70,514          | (180,780)       |
| Income (loss) per share, basic and diluted | 0.006           | (0.001)         | 0.000           | (0.001)         |

| Quarter ended                              | 31-May-17<br>\$ | 28-Feb-17<br>\$ | 30-Nov-16<br>\$ | 31-Aug-16<br>\$ |
|--|-----------------|-----------------|-----------------|-----------------|
| Revenue                                    | 4,754,080       | 3,224,530       | 3,078,744       | 2,134,753       |
| Gross Profit                               | 2,378,543       | 1,675,233       | 1,929,114       | 1,455,685       |
| Gross Profit Percentage                    | 50.0%           | 52.0%           | 62.7%           | 68.2%           |
| EBITDAS <sup>(1)</sup>                     | 462,964         | (1,811)         | 285,307         | 3,302           |
| Total net income (loss)                    | 353,776         | (56,472)        | 175,158         | (79,730)        |
| Income (loss) per share, basic and diluted | 0.002           | 0.000           | 0.001           | (0.001)         |

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

## 4. Business Outlook

Governments around the world are taking unprecedented action, including increasing regulations, to reduce carbon emissions. 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 2.3 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 May 31, 2018 was approximately \$9.9 million. As at September 26, 2018, the Company had an order backlog of approximately \$12.7 million.

|  | 2016<br>\$ million | 2017<br>\$ million | 2018<br>\$ million |
|--|--------------------|--------------------|--------------------|
| Order backlog as at May 31                   | 2.6                | 4.2                | 9.9                |
| Order backlog as at September reporting date | 7.3                | 9.0                | 12.7               |

- 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 nine months.
- In March 2018, the Company announced that it had received an order for approximately \$840 thousand 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 to six 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™ Steam Trap system.

The project was 30% completed at at May 31, 2018 and is expected to be completely fulfilled and the remaining revenue earned over the next twelve months.

- In August 2017, the Company announced that it had received a Super-Efficient Cogeneration Heat Recovery order from a leading Fortune 500 food and beverage producer for approximately \$1,460,000. As at May 31, 2018 this order was 75% complete and is expected to be completely fulfilled and the remaining revenue earned over the next three to six 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

| Range of exercise prices | Options outstanding             |   |                                 | Options exercisable                |                                 |
|--------------------------|---------------------------------|---|---------------------------------|------------------------------------|---------------------------------|
|                          | Number outstanding May 31, 2018 | Weighted average remaining contractual life | Weighted average exercise price | Number exercisable at May 31, 2018 | Weighted average exercise price |
| 0.05-0.07                | 5,991,500                       | 1.84  | 0.05                            | 4,974,833                          | 0.05                            |
| 0.07-0.10                | 4,071,360                       | 1.97  | 0.08                            | 4,071,360                          | 0.08                            |
| 0.10-0.12                | 10,432,671                      | 0.46  | 0.10                            | 10,099,338                         | 0.10                            |
|                          | 20,495,531                      | 1.16  | 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 and, in the case of other intangible assets, determines an applicable royalty rate. 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 period.

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.

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

### *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.

### *Allowance for doubtful accounts*

The valuation of allowances for uncollectable trade receivables requires assumptions including estimated credit losses based on customer and industry concentrations and the Company's knowledge of the financial conditions of its customers.

### *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 IAS 7: Statement of Cash Flows ("IAS 7")***

In January 2016, the IASB issued amendments to IAS 7. These amendments require entities to provide disclosures that help users of the financial statements to better understand changes in liabilities that arise from financing activities, including both changes arising from cash flow and non-cash changes. These amendments became effective for annual periods beginning on or after January 1, 2017. The company adopted the amendments on June 1, 2017. The adoption of these amendments did not have a material impact on the consolidated financial statements.

#### ***Amendments to IAS 12: Income Taxes ("IAS 12")***

In January 2016, the IASB issued amendments to IAS 12. The amendments clarify the accounting for deferred tax assets for unrealized losses on debt instruments measured at fair value. These amendments became effective for annual periods beginning on or after January 1, 2017. The company adopted the amendments on June 1, 2017. The adoption of these amendments did not have a material impact on the consolidated financial statements.

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

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.

### ***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. These amendments are to be applied prospectively for annual periods beginning on or after January 1, 2018.

The Company is currently evaluating the impact of adopting the amendments on the consolidated financial statements. The company will adopt the amendments on June 1, 2018.

### ***IFRS 9, "Financial Instruments"***

In July 2014, the IASB issued the final version of IFRS 9, bringing together the classification and measurement, impairment and hedge accounting phases of the project to replace IAS 39, Financial Instruments: Recognition and Measurement. 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. IFRS 9 is to be applied retrospectively for annual periods beginning on or after January 1, 2018.

The Company is currently evaluating the impact of adopting this standard on the consolidated financial statements. The company will adopt the new standard on June 1, 2018.

### ***IFRS 15, "Revenue from Contracts with Customers"***

In May 2014, the IASB issued IFRS 15, which provides a single, principles-based five-step model for revenue recognition to be applied to all customer contracts and requires enhanced disclosures. The standard also provides guidance relating to recognition of customer acquisition costs. In April 2016, the IASB issued Clarifications to IFRS 15 in relation to the identification of performance obligations, principal versus agent considerations, as well as licensing application guidance. This standard will be effective January 1, 2018 and allows early adoption. The two permitted transition methods under the new standard are the full retrospective method, in which case the standard would be applied to each prior reporting period presented, or the modified retrospective method, in which case the cumulative effect of applying the standard would be recognized at the date of initial application.

The company is still evaluating the of adopting this standard on the consolidated financial statements. The company will adopt the new standard effective June 1, 2018.

### ***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

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

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.

### 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;
- The effect of a continuing prolonged recession in Canada, U.S.A. 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 and FY 2017 saw a return to profitability and an increase in cash balances of \$427,805 and \$1,806,992 respectively, and this was followed in FY 2018 by another profitable year which saw cash balances increase by \$336,334. 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 enough to mitigate the risk of stronger competition in the future.

## Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018

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, although it has now stabilized. Negotiations regarding how trade will continue after 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 year ended May 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.

## **Management Discussion and Analysis for the Fiscal Year Ended May 31, 2018**

Thermal Energy's auditors, KPMG LLP, conducted an independent audit of the consolidated financial statements for the year ended May 31, 2018, performing such tests and other procedures as they consider necessary to express an audit opinion. The external auditors have full and unrestricted access to the Audit Committee to discuss their audit and related findings.