



**MANAGEMENT'S DISCUSSION & ANALYSIS**

**For the Quarter Ended August 31, 2021**

## 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 first quarter of Fiscal Year 2022, ended August 31, 2021 (or "Q1 2022"), and compares the Q1 2022 financial results to the previous quarter ended August 31, 2020 (or "Q1 2021"). 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. Unless otherwise indicated, all comparisons to the first quarter of FY 2022 are against the first quarter of FY 2021. 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 39% of our operations, assets and liabilities are denominated in British Pound Sterling and 28% in US Dollar. 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 21, 2021. Disclosure contained in this document is current to October 21, 2021, 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 9 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 10 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, and U.S.

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; lowered 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 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 two technology lines – heat recovery solutions, including direct contact heat recovery solutions (e.g. **FLU-ACE®**), indirect contact heat recovery solutions (**HEATSPONGE** and **SIDEKICK**), and condensate return system solutions (**GEM™** steam traps). The Company is also developing several other technology lines, including low temperature biomass drying systems (**DRY-REX™**).

In 2008, the Company acquired Gardner Energy Management Limited, which owns, manufactures and sells the **GEM™** steam traps throughout the world. As part of this transaction, the Company also acquired the 67% share of GEMchem Ltd, a UK-based water treatment company providing services within the UK only. On June

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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 Thermal Energy Ottawa is considered to be the center of excellence for heat recovery engineering and technical support, and Thermal Energy Bristol the center of excellence for GEM™ steam traps and condensate return systems engineering and technical support, continuous cross-training means that both Ottawa and Bristol have expertise across both major product lines.

Although the Company markets its products throughout the world, most 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 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, 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 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

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 EBITDA

Management believes that EBITDA (earnings before interest, taxation, depreciation, amortization, impairment of intangible assets, and share-based compensation expense) is a useful performance measure as it approximates cash generated from operations, before tax, capital expenditures and changes in working capital, and excludes impairment of intangible assets. EBITDA also assists comparison among companies as it eliminates the differences in earnings due to how a company is financed. EBITDA does not have a standardized meaning prescribed by International Financial Reporting Standards (“IFRS”) and therefore may not be comparable to similar measures presented by other companies. There is no direct comparable IFRS measure for EBITDA.

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

A reconciliation of net income (loss) to EBITDA is shown below:

	Three months ended	
	Aug 31, 2021 \$	Aug 31, 2020 \$
Total net income (loss) attributable to owners of the parent	(181,383)	(225,074)
Total net income (loss) attributable to non-controlling interest	27,503	6,974
Interest charge	79,932	99,245
Taxation	(5,191)	(16,251)
Depreciation and amortization	106,053	99,874
Share based compensation	53,842	50,230
<b>EBITDA</b>	<b>80,756</b>	<b>14,998</b>

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

## 3. Performance

### 3.1 Quarterly Financial Information (unaudited)

For the most recent eight quarters ended:

Quarter ended	30-Nov-20 \$	28-Feb-21 \$	31-May-21 \$	31-Aug-21 \$
Revenue	5,019,682	3,735,968	3,765,814	3,879,256
Gross Profit	2,430,242	1,644,265	1,352,379	1,643,717
Gross Profit Percentage	48.4%	44%	35.9%	42.4%
EBITDA <sup>(1)</sup>	788,471	171,726	(38,846)	80,756
Total net income (loss)	580,425	(33,757)	(105,603)	(153,880)
Income (loss) per share, basic and diluted	0.004	(0.000)	(0.001)	(0.001)

Quarter ended	30-Nov-19 \$	29-Feb-20 \$	31-May-20 \$	31-Aug-20 \$
Revenue	7,848,096	5,811,626	2,790,664	2,827,862
Gross Profit	2,918,357	2,417,450	1,427,728	1,324,203
Gross Profit Percentage	37.2%	41.6%	51.2%	46.8%
EBITDA <sup>(1)</sup>	709,182	709,115	31,412	14,998
Total net income (loss)	385,181	429,787	(2,953,186)	(218,100)
Income (loss) per share, basic and diluted	0.002	0.003	(0.019)	(0.001)

(1) EBITDA represents earnings before interest, taxation, depreciation, amortization, impairment of intangible assets, and share-based compensation expense.

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

### 3.2 Summary of First Quarter Results

	Q1 2022	Q1 2021
	\$	\$
Revenue	<b>3,879,256</b>	2,827,862
Cost of sales	<b>2,235,539</b>	1,503,659
Gross profit	<b>1,643,717</b>	1,324,203
Expenses:		
Administration, selling, marketing and business development	<b>1,722,297</b>	1,441,823
Research and development	<b>559</b>	17,486
	<b>1,722,856</b>	1,459,309
Operating loss	<b>(79,139)</b>	(135,106)
Finance costs	<b>(79,932)</b>	(99,245)
Loss before income taxes	<b>(159,071)</b>	(234,351)
Income taxes recovery	<b>5,191</b>	16,251
Net loss for the period	<b>(153,880)</b>	(218,100)
Exchange differences on translation of overseas operations	<b>(62,668)</b>	175,698
Total comprehensive loss for the period	<b>(216,548)</b>	(42,402)
EBITDA for the quarter <sup>1 2</sup>	<b>80,756</b>	14,998
Order backlog as at August 31 <sup>3</sup>	<b>6.3 million</b>	6.0 million
Order backlog as at reporting date <sup>3</sup>	<b>7.9 million</b>	9.6 million

1. A reconciliation of net income (loss) to EBITDA is shown in section 2.1 Performance Measures - EBITDA.
2. EBITDA represents earnings before interest, taxation, depreciation, amortization, impairment of intangible assets, and share-based compensation expense.
3. Order backlog represents 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.

#### Revenue and Gross Profit

Revenues were \$3,879,256 in the first quarter ended August 31, 2021, representing an increase of \$1,051,394, or 37.2%, compared to \$2,827,862 in the quarter ended August 31, 2020. The increase of revenue in the first quarter of FY 2022 was mainly due to the increase of the revenues from heat recovery systems. The COVID-19 pandemic caused significant delays on heat recovery projects in the first quarter of prior year because customers' sites were either closed or our technical team and the subcontractors could not travel to site due to travel restrictions. With the ease of travel restrictions and lock-down orders, the Company delivered more revenues in heat recovery projects than the same quarter of prior year.

The gross profit of \$1,643,717 in the quarter ended August 31, 2021, represented an increase of \$319,514, or 24.1%, from the \$1,324,203 in the quarter ended August 31, 2020. Although the revenue increased in the first quarter by 37.2% compared to the same quarter of prior year, the gross profit only increased by 24.1%. This is because the cost of materials for the indirect contact heat recovery units manufactured by the Company's US subsidiary, Boilerroom Equipment Inc., increased significantly in the first quarter of FY 2022 as compared to the same quarter of prior year. The continued shortage of materials and supplies in the US market has resulted in supply chain disruptions. As a result, the cost of materials increased. Overall, gross profit expressed as a percentage of sales was 42.4% in the first quarter of FY 2022 compared with 46.8% in the same quarter of FY 2021.

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

### Expenses

**Administration, selling, marketing and business development expenses (“Operating Expenses”)** in the quarter ended August 31, 2021 totaled \$1,722,297 compared to \$1,441,823 in the quarter ended August 31, 2020, an increase of \$280,474 or 19.5%. In the first quarter of FY 2022, the Company incurred foreign exchange gain of \$193,136, as compared to foreign exchange loss of \$176,096 from the same quarter of prior year. As mentioned earlier, approximately 39% of our operations, assets and liabilities are denominated in British Pound Sterling and 28% in US Dollar. Foreign currency fluctuations affect the values reported in the statement of profit and loss. During the first quarter of FY 2022, both US Dollar and British Pound Sterling strengthened against Canadian dollar. As the revenues from the US and the UK market were significant to the Company, the weakening of Canadian dollar caused foreign exchange gain to the Company. As a result, foreign exchange gain increased by \$369,232 compared to the same quarter of the previous year. During the first quarter of FY 2022, the Company received and recognized government wage subsidies in the amount of \$148,569, representing a decrease of \$259,994 compared to the same quarter of previous year. In the same quarter of the previous year, the Company recognized government subsidies of \$408,563. The Company’s other operating expenses increased by \$389,712, compared to the same quarter of prior year. During the first quarter of prior year, the Company implemented some temporary cost control measures in order to prepare for the potential adverse financial impact from COVID-19, including reducing non-essential and discretionary expenditures. Some of these measures were no longer in place in the current year. In addition, the travel and business development costs also decreased significantly in the previous year due to travel restrictions and quarantine requirements. During the first quarter of current year, more travel and business development activities were conducted because of the ease of travel restrictions. As a result, the other operating costs increased compared to the same quarter of prior year.

**Research and development (“R&D”) expenses** in the quarter ended August 31, 2021 totaled \$559, as compared to \$17,486 in the quarter ended August 31, 2020.

**Finance costs** include interest expense on the long-term debt, amortization of deferred financing cost, and interest accretion on lease obligations. The first quarter of FY 2022 incurred finance costs of \$79,932. The costs were lower than the first quarter of FY 2021 by \$19,313 due to the lower interest rate and the lower balance of long-term debt compared to the first quarter of prior year. The interest rate is reassessed annually around October.

**Loss before income taxes** for the quarter ended August 31, 2021 was \$159,071, compared to a loss of \$234,351 in the same quarter of the previous year, a decrease of \$75,280. Loss before income taxes decreased mainly due to the increase in gross profit of \$319,514 as a result of the increased revenues, the increase in foreign exchange gain of \$369,232, the decrease of research and development costs of \$16,927 and finance costs of \$19,313, offset by the decrease of \$259,994 of the government wage subsidies received, and the increase in operating expenses of \$389,712.

**Income tax recovery** in the first quarter of FY 2022 was \$5,191, as compared to \$16,251 in the first quarter of FY 2021, a decrease of \$11,060.

**Net loss** for the first quarter of FY 2022 was \$153,880, compared to a net loss of \$218,100 in the same quarter of the previous year, representing a decrease of \$64,220. The decrease in net loss was mainly due to the decrease in loss before income taxes of \$75,280, offset by the decrease in income taxes recovery of \$11,060.

**Comprehensive loss** was \$216,548 for the first quarter of FY 2022, compared to \$42,402 for the first quarter of FY 2021, an increase of \$174,146. During the first quarter of FY 2022, exchange loss arising on translation of overseas operations was \$62,668, as compared to exchange gain of \$175,698 from the same quarter of prior year, an increase of exchange loss of \$238,366. As mentioned earlier, approximately 39% of our operations are denominated in British Pound Sterling and 28% in US Dollar. Foreign currency fluctuations affect the values reported in exchange differences arising on translation of overseas operations.

**EBITDAS** was \$80,756 for the first quarter of FY 2022, compared to \$14,998 for the same quarter of the previous year, representing an increase of \$65,758. The increase was mainly due the increase in gross profit

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

of \$319,514 due to the increased revenues, and the decrease of research of development cost of \$16,927, offset by the increase in operating expenses of \$280,474.

### 3.3 Liquidity & Capital Resources

Current assets decreased by \$139,276 to \$8,441,508 at August 31, 2021, compared to \$8,580,784 at May 31, 2021. This decrease was mainly due to the decrease in trade and other receivables of \$188,438, offset by the increase in inventory of \$50,130. Current liabilities increased by \$413,863 to \$5,186,143, mainly due to the increase in trade payables and other liabilities of \$101,939 and deferred revenue of \$273,596.

Working capital decreased by \$553,139 to \$3,255,365 at August 31, 2021, compared to \$3,808,504 at May 31, 2021. The decrease was mainly due to the decrease in trade and other receivables of \$188,438, the increase in trade payables and other liabilities of \$101,939 and the increase in deferred revenue of \$273,596.

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

	Nov 30, 2019 \$	Feb 29, 2020 \$	May 31, 2020 \$	Aug 31, 2020 \$	Nov 30, 2020 \$	Feb 28, 2021 \$	May 31, 2021 \$	Aug 31, 2021 \$
Current Assets	9,574,004	8,646,798	8,063,550	7,938,009	8,984,102	8,606,829	8,580,784	8,441,508
Current Liabilities	7,129,049	5,859,669	5,192,014	4,198,761	4,756,957	4,404,265	4,772,280	5,186,143
Working Capital	2,444,955	2,787,129	2,871,536	3,739,248	4,227,145	4,202,564	3,808,504	3,255,365

The Company's cash position was \$4,232,842 as at August 31, 2021, compared to \$4,240,855 at May 31, 2021, representing a decrease of \$8,013. The decrease was mainly due to cash used in investing activities of \$306,458 relating to the acquisition of property, plant and equipment as well as intangible assets, and cash used in financing activities of \$267,934 relating to repayment of long-term debt and lease obligations, offset by cash generated from operating activities of \$522,589 and exchange gain on cash and cash equivalents of \$43,790.

The net cash generated from the operating activities for the first quarter ended August 31, 2021 was \$522,589, mainly due to adding back of non-cash items of \$278,245 and changes in working capital of \$476,672 which was offset by the net loss of \$153,880 and interest paid in the amount of \$78,550.

The Company invested \$24,282 in property, plant and equipment and \$283,421 in intangible assets during the first quarter ended August 31, 2021. On June 11, 2021, the Company acquired technology from Sofame Technologies Inc. for a total consideration of \$283,421.

During the first quarter ended August 31, 2021, the Company used net cash in financing activities of \$267,934 which included repayment of long-term debt of \$215,028 and repayment of lease obligations of \$52,906.

At August 31, 2021, \$335,291 (24.1%) of the Company's trade receivables balance was over 90 days past due. \$26,227 of the past due balance was impaired at August 31, 2021. \$27,746 of trade receivables that was not over 90 days past due was also impaired.

At May 31, 2021, \$402,848 (18.8%) of the Company's trade receivables balance was over 90 days past due. \$28,837 of the past due balance was impaired at May 31, 2021. \$11,471 of trade receivables that was not over 90 days past due was also impaired.

The Company's trade and other receivables have been reviewed for indicators of impairment. For the quarter ended August 31, 2021, provisions of \$22,996 were made as expected credit losses and recorded under administrative expenses on the condensed interim statements of comprehensive income (\$nil – August 31, 2020). For the quarter ended August 31, 2021, \$9,988 of the allowance for doubtful accounts was released due to the collection (\$5,585 – August 31, 2020).

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The following table presents the contractual undiscounted and discounted cash flows for lease obligations as of August 31, 2021 and May 31, 2021:

	August 31, 2021	May 31, 2021
Less than one year	\$333,365	\$ 326,987
One to five years	899,970	904,426
Six to ten years	884,063	905,054
Total undiscounted lease obligations	2,117,398	2,136,467
Less: impact of present value	(572,793)	(583,403)
Total discounted lease obligations	1,544,605	1,553,064
Less: current portion	(222,472)	(215,923)
Long term portion	1,322,133	\$ 1,337,141

During the quarter ended August 31, 2021, the interest expense on lease obligations was \$29,635 and total cash outflow for leases was \$82,541.

During the quarter ended August 31, 2020, the interest expense on lease obligations was \$9,648 and total cash outflow for leases was \$68,838, including \$27,519 for short-term leases.

For the three months ended August 31, 2021 and 2020, expenses for leases of low-dollar value items are not material. Extension options are included in the measurement of lease obligations when the Company is reasonably certain to exercise that option.

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.

The Company has been actively applying for COVID-related government salary subsidy programs provide by the Canadian, the U.S. and the UK government since March 2020. The Company received \$148,569 during the first quarter ended August 31, 2021, which was recognized as a reduction to the operating expenses.

Management is of the opinion that there is sufficient cash to support the Company's operations for the next 12 months.

### 3.4 Segmentation Information

In the three months ended August 31, 2021 and 2020, the Company operated in the energy efficiency industry in North America, Europe, 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 and Europe.

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 the other in Bristol, UK, 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.

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

Segment information for the quarter ended August 31, 2021 and the comparative period are detailed in the table below:

	Thermal Energy Ottawa		Thermal Energy Bristol		Reconciling Items		Total	
	2021	2020	2021	2020	2021	2020	2021	2020
	\$	\$	\$	\$	\$	\$	\$	\$
Total revenue	<b>2,079,501</b>	1,550,737	<b>1,799,755</b>	1,277,125	-	-	<b>3,879,256</b>	2,827,862
Cost of sales	<b>(1,369,732)</b>	(836,330)	<b>(865,807)</b>	(667,329)	-	-	<b>(2,235,539)</b>	(1,503,659)
Gross profit	<b>709,769</b>	714,407	<b>933,948</b>	609,796	-	-	<b>1,643,717</b>	1,324,203
Other expenses	<b>(668,442)</b>	(337,815)	<b>(814,765)</b>	(567,522)	<b>(239,649)</b>	(553,972)	<b>(1,722,856)</b>	(1,459,309)
Net finance (costs) income	<b>(26,754)</b>	(7,770)	<b>(2,839)</b>	(1,880)	<b>(50,339)</b>	(89,595)	<b>(79,932)</b>	(99,245)
Income (loss) before taxation	<b>14,573</b>	368,822	<b>116,344</b>	40,394	<b>(289,988)</b>	(643,567)	<b>(159,071)</b>	(234,351)
Tax recovery (expense)	<b>2,068</b>	2,231	<b>(14,465)</b>	(4,958)	<b>17,588</b>	18,978	<b>5,191</b>	16,251
Net income (loss)	<b>16,641</b>	371,053	<b>101,879</b>	35,436	<b>(272,400)</b>	(624,589)	<b>(153,880)</b>	(218,100)
Attributable to:								
Owners of the parent	<b>16,890</b>	371,053	<b>74,127</b>	28,462	<b>(272,400)</b>	(624,589)	<b>(181,383)</b>	(225,074)
Non-controlling interest	<b>(249)</b>	-	<b>27,752</b>	6,974	-	-	<b>27,503</b>	6,974

Reconciling items comprise the following:

	Three months ended August 31	
	2021	2020
	\$	\$
Corporate admin costs	<b>166,062</b>	123,980
Share-based compensation	<b>53,842</b>	50,230
Professional fees	<b>85,729</b>	93,692
Depreciation of property, plant and equipment	<b>31,833</b>	29,586
Amortization of intangible assets	<b>74,220</b>	70,288
Acquisition costs	<b>21,099</b>	10,100
Foreign exchange (gain) loss	<b>(193,136)</b>	176,096
Total	<b>239,649</b>	553,972

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.

Finance costs within the reconciling items include interest and deferred financing charge on the long-term debt.

### **Material Segmentation Variances**

#### **Thermal Energy Ottawa:**

Revenue for the quarter ended August 31, 2021 was \$2,079,501, an increase of \$528,764, or 34.1%, from \$1,550,737 in the same quarter of the previous year. The increase was mainly due to the increased revenues in both heat recovery systems and condensation return systems.

Gross profit for the quarter ended August 31, 2021 decreased by \$4,638 compared to the same period of prior year despite the increase in revenues. The decrease in gross profit was mainly due to the increased cost of sales on heat recovery systems. The cost of materials increased significantly in the first quarter ended August 31, 2021 as compared to the same quarter of prior year in the US. Shortages of materials and supplies have caused supply chain disruptions which drove up the price. As a result, the company's US subsidiary, Boilerroom Equipment Inc., incurred a higher cost of sales in the first quarter of FY 2022. As a percentage of

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revenue, total gross profit was 34.1% for the quarter ended August 31, 2021, compared to 46.1% achieved in the same period of last year.

Other expenses in this segment increased by \$330,627 or 97.9% for the quarter ended August 31, 2021 compared to same quarter last year. During the first quarter of prior year, the Company implemented some temporary cost control measures in order to prepare for the potential adverse financial impact from COVID. Some of these measures were no longer in place in the current year, which resulted in higher expenses in the current year. The other reason for the increase was due to increased business development and travelling expenses. As travel restrictions and quarantine requirements were slowly easing, the Company was able to resume some of its regular business development activities in the first quarter of FY 2022, which resulted in higher expenses. In addition, during the first quarter of prior year, the Company received \$179,741 more government wage subsidies compared to the same quarter of the current year. The government wage subsidies were recorded as a reduction to the other expenses.

For the quarter ended August 31, 2021, the North America sector incurred income before taxation of \$14,573, a decrease of \$354,249, or 96%, from \$368,822 achieved in the same quarter of last year. The decrease was mainly due to the increase in operating expenses of \$330,627.

### Thermal Energy Bristol:

Revenue for the quarter ended August 31, 2021 was \$1,799,755, an increase of \$522,630, or 40.9%, from \$1,277,125 achieved in the same period of the previous year. The increase in revenue was mainly due to increased revenues in heat recovery systems.

Gross profit increased in the first quarter of FY 2022 by \$324,152, compared to the same quarter last year. The increase in gross profit was mainly due to the increased revenues and increased profit margin on both heat recovery systems and condensate return systems. As a result, the gross profit as a percentage of total revenue increased from 47.7% to 51.9%.

Other expenses increased by \$247,243 or 43.6% for the quarter ended August 31, 2021, compared to the same quarter of the previous year. During the first quarter of prior year, the Company implemented some temporary cost control measures in order to prepare for the potential adverse financial impact from COVID. The same as in North America, some of these measures were no longer in place in the current year, which resulted in higher expenses in the current year. The other reason for the increase was due to increased business development and travelling expenses. As travel restrictions and quarantine requirements were slowly easing, the Company was able to resume some of its regular business development activities in the first quarter of FY 2022, which resulted in higher expenses. In addition, during the first quarter of prior year, the Company received \$80,253 government wage subsidies, but did not receive any subsidies in the current year, which resulted in higher other expenses for the current year because the government wage subsidies were recorded as a reduction to the other expenses.

The resulting pre-tax income was \$116,344 for the quarter ended August 31, 2021, compared to \$40,394 for the quarter ended August 31, 2020. The pre-tax income increased by \$75,950 due to the increase in gross profit of \$324,152 as a result of increased revenues, offset by the increase in other expenses of \$247,243.

### Reconciling Items:

Other expenses within Reconciling items, which incorporates all costs not specifically attributable to either regional operational center. For the three months ended August 31, 2021, the other expenses within reconciling items decreased from \$553,972 to \$239,649, a decrease of \$314,323, compared to the same period of the previous year. The decrease was mainly due to the increase in foreign exchange gain of \$369,232, offset by the increase in corporate admin costs of \$42,082.

## 4. Related Party Transactions

### Directors and Senior Management Compensation

During the quarter ended August 31, 2021 compensation arrangements for Directors were 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, 2021, total Directors' fees were \$16,875. In addition, fees to the Chairperson of the Audit Committee were \$1,350; fees to the Chairperson of the Ethics, Governance and Compliance Committee were \$1,350; fees paid to the Chairman were \$2,025.

For the period April 16, 2020 to September 15, 2020, the Directors elected to reduce their compensation by 15% in support of the Company's cost control initiatives.

Compensation paid to Directors and Officers during the quarter ended August 31, 2021 (inclusive of the amounts described above but excluding share-based compensation) was as follows:

	Salaries and fees		Incentives		Other short-term benefits		Total	
	2021 \$	2020 \$	2021 \$	2020 \$	2021 \$	2020 \$	2021 \$	2020 \$
<b>Directors</b>								
M. Williams	3,375	2,869	-	-	-	-	3,375	2,869
J. Kelly	5,400	4,590	-	-	-	-	5,400	4,590
W. Ollerhead	4,725	4,016	-	-	-	-	4,725	4,016
D. Spagnolo	4,725	4,016	-	-	-	-	4,725	4,016
W. White	3,375	2,869	-	-	-	-	3,375	2,869
<b>Total</b>	<b>21,600</b>	<b>18,360</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>21,600</b>	<b>18,360</b>
<b>Senior Management</b>								
W. Crossland	60,000	51,000	-	-	-	-	60,000	51,000
R. Triebe	45,250	38,463	-	-	826	681	46,076	39,144
S. Mawby <sup>(1)</sup>	38,845	32,693	-	-	6,295	7,159	45,140	39,852
J. Zhang	31,250	26,563	-	-	826	681	32,076	27,244
<b>Total</b>	<b>175,345</b>	<b>148,719</b>	<b>-</b>	<b>-</b>	<b>7,947</b>	<b>8,521</b>	<b>183,292</b>	<b>157,240</b>
Total Related Party Transactions	196,945	167,079	-	-	7,947	8,521	204,892	175,600

(1) Mr. Mawby is compensated in UK Pound Sterling. Average exchange rate to Canadian dollar was 1.7272 and 1.7152 in Q1 2022 and Q1 2021, respectively.

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.

Options outstanding for Directors (excluding the CEO) as at August 31, 2021 were 1,250,000, of which 750,000 were exercisable. There were no warrants outstanding for Directors.

Options outstanding for Senior Management (including the CEO) as at August 31, 2021 were 5,125,000, of which 2,041,667 were exercisable. There were no warrants outstanding for Senior Management.

## 5. COVID-19 Update

On March 11, 2020, COVID-19 was declared a global pandemic by the World Health Organization. The Company has been closely monitoring the impact of COVID-19 on all aspects of its business. COVID-19 has had disruptive effects in countries in which the Company operates including Canada, the US and the UK.

We are conducting business with substantial modifications to employee travel and employee work locations. The travel restrictions had decreased business development and sales activities. As travel restrictions and quarantine requirements are slowly easing, the Company starts resuming some of its regular sales and business development activities. While most of our customers are essential businesses and continue to operate, the pandemic also has impacts on many of them, including adapting their operation to include physical distancing, limiting site visits, delays in making purchasing decisions and the temporary suspension of on-going projects. The continued global supply chain issues caused by shortages of labour and materials have also affected the Company's operations.

The Company has taken proactive measures to cope with the impact from COVID-19 including the deployment of video conferencing tools, the development of remote working and file-sharing capabilities, a temporary reduction in non-essential expenditures, the implementation of temporary control measures, and the application of government sponsored emergency loans and salary subsidy programs. Despite the COVID-19 slowdown, the Company has maintained its pre-pandemic staff levels and has maintained its full production and project development capabilities.

Currently, we are still unable to estimate the long-term impact of COVID-19 on our businesses, financial position, results of operations, and cash flows. Despite the ease of travel restrictions and lock-down orders, we still expect COVID-19 to have some impact on our sales and the results of operations in the next 6 to 12 months.

## 6. 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 2.2 earlier, Management uses order backlog as an indicator of the short-term future revenue of our Company resulting from already recognized orders. Order backlog represents 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.

The Company's order backlog as at August 31, 2021 was approximately \$6.3 million. As at October 21, 2021, the Company had an order backlog of approximately \$7.9 million.

	2019 \$ million	2020 \$ million	2021 \$ million
Order backlog as at August 31	12.8	6.0	6.3
Order backlog as at October reporting date	14.6	9.6	7.9

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

- On September 14, 2021, the Company announced that it had received its third heat recovery order from a multinational food products corporation. The order includes major equipment, engineering, and commissioning and is valued at over \$900,000. The heat recovery system is expected to deliver an annual carbon reduction of 1,426 tonnes and energy savings of \$300,000 per year.
- On April 15, 2021, the Company announced that it has received its second heat recovery order from one of the world's largest brewers. The order includes major equipment, engineering, and commissioning and is valued at over \$500,000. Thermal Energy will design and deliver a customized FLU-ACE® system for the customer's Russian production facility. The FLU-ACE® will be integrated with, and improve the efficiency of, the biogas generation system already present at the site. The project was about 72% complete at the quarter-end.
- On March 17, 2021, the Company announced that it had been commissioned to design and implement an extensive \$1,180,000 heat recovery project with a major US dairy group. By implementing the Company's ultra-efficient solution, this repeat customer expects to reduce this site's natural gas usage by 13% as well as cut its annual CO2 emissions by over 730 tonnes. The project was about 17% complete at the quarter-end.
- On February 24, 2021, the Company announced that it had been commissioned by a prominent multinational brewer to supply a turn-key heat recovery system to one of its North American sites. The system, valued at over \$1,000,000, is expected to increase energy efficiency, reduce fuel use, and save an estimated 8 million litres of water annually, as well as reduce CO2 emissions by over 1,800 metric tonnes per year. The project was about 59% complete at the quarter-end.
- On January 19, 2021, the Company announced that it had been commissioned by a Canadian hospital to supply heat recovery equipment to reduce fuel use and carbon emissions. The systems, valued at \$770,000, are expected to deliver an annual fuel saving of \$198,000 and reduce carbon emissions by 1,115 metric tonnes per year. The project was about 71% complete at the quarter-end.
- On October 27, 2020, the Company announced that it had been commissioned by a leading hospital group to supply two heat recovery systems to reduce fuel use and carbon emissions. The systems, valued at \$1,530,000, will be installed at two facilities. The systems are expected to deliver an annual fuel saving of \$410,600 and reduce carbon emissions by over 2,300 tonnes per year. The project was about 74% complete at the quarter-end.
- On August 18, 2020, the Company announced that it had been commissioned by one of Europe's largest food and drink groups to supply a turnkey heat recovery system designed to reduce fuel use and carbon emissions, while also minimizing particulate matter, and NOx emissions. The project, valued at approximately \$920,000, will be installed at a canning and pouch packaging facility in the UK. At the heart of the system will be Thermal Energy's proprietary direct contact heat recovery technology, FLU-ACE®. Once commissioned, the system is expected to deliver an annual fuel saving of \$383,300 and reduce the site's carbon emissions by 2,868 tonnes a year. The project was about 79% complete at the quarter-end.

## 7. Summary of Outstanding Shares and Dilutive Instruments

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

Shares:

163,887,606 class A common shares.

Options:

Range of exercise prices	Options outstanding			Options exercisable	
	Number outstanding August 31, 2021	Weighted average remaining contractual life	Weighted average exercise price	Number exercisable at August 31, 2021	Weighted average exercise price
0.08-0.10	14,268,007	3.12	0.08	5,031,668	0.08
0.11-0.12	250,000	0.24	0.12	250,000	0.12
	14,518,007	3.07	0.08	5,281,668	0.08

## 8. Critical Accounting Estimates and Changes in Accounting Standards

### Critical Accounting Estimates

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expenses. The judgements, estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of the valuation of assets and liabilities that are not readily apparent from other sources. The judgements, estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates and assumptions are recognized in the year in which they are revised and in any future periods affected. Actual results may differ from these estimates, judgements and assumptions.

The COVID-19 outbreak began to impact the Company's operations in the latter half of March 2020. Management believes the extent of the COVID-19 pandemic's adverse impact on the Company's operating results and financial condition will be driven by many factors, most of which are beyond management's control and ability to forecast. Such factors include, but are not limited to, the scope and duration of past and potential future stay-at-home policies and business closures, travel restrictions, and the willingness of customers to allow outside contractors onsite. Because of these and other uncertainties, management cannot estimate the length or severity of the impact of the pandemic on the business. Decreases in cash flows and results of operations may have an impact on the inputs and assumptions used in significant accounting estimates, including management's assessment of future compliance with financial covenants and potential impairments of intangible and long-lived assets.

The following components of the financial statements depend most heavily on such management estimates, assumptions and judgment, and 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.

### Business combinations

The identifiable assets acquired and liabilities assumed as part of a business combination are measured at the date of acquisition at their fair values. In estimating fair value, the Company uses market observable data to the extent it is available. In cases when Level 1 inputs are not available, the measurement of fair value involves the selection of an appropriate valuation model and consideration as to the inputs necessary for the valuation model chosen.

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

### *Valuation intangible assets and asset impairment*

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 and determines a suitable discount 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 expected cash flows, and 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 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.

### *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.

### *Expected credit loss*

The valuation of allowances for uncollectable trade receivables requires assumptions including estimated credit losses based on the Company's knowledge of the financial conditions of its customers, historical experience, and general economic conditions.

### *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*

There has been no change in accounting standards since we issued our latest consolidated annual financial statements for the year ended May 31, 2021.

## 9. 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 impact of major global pandemics;
- 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 past litigation with a 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. and Europe to the financial markets in securing project financing and in particular to industrial and commercial customers in committing capital to projects; and
- The impact of the departure from the European Union by the U.K.

### *Management's addressing of the risks:*

FY 2016 and FY 2017 saw a return to profitability and an increase in cash balances of \$427,805 and \$1,806,992, respectively. This was followed in FY 2018 by another profitable year which saw cash balances increase by \$336,334. In FY 2019, sales increased by 21.1% due to the increased revenue in heat recovery systems and the acquisition of Boilerroom Equipment Inc. In FY 2020, despite of the COVID-19 pandemic, the Company maintained the same sales level as FY 2019 with higher gross margins and recorded operating income before impairment of \$1,275,708. In FY 2021, the Company's revenue decreased due to the delays in heat recovery project delivery caused by COVID-19. However, the Company implemented cost control measures to decrease the operating expenses and the Company applied for wage subsidies from the U.K., the U.S. and Canadian government. The Company also applied and received \$1,000,000 COVID-19 loan from a Canadian financial institution to support the Company's global operations during the unprecedented time. With all these efforts, the Company was able to finish FY 2021 under COVID-19 with a net income of \$222,965.

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 technologies is limited at this time and believes that the marketplace is sufficiently large enough to mitigate the risk of stronger competition in the future.

## Management Discussion and Analysis for the Quarter Ended August 31, 2021

On June 23, 2016, a referendum was held in the U.K., resulting in the decision to leave the European Union (“EU”). The withdrawal of the UK from the EU is also called “Brexit”. On December 24, 2020, a post-Brexit trade deal was reached between the EU and the UK. At this moment, the most prominent post-Brexit concern for our business is related to potential shipping delays on product sales to EU countries. The Company has implemented new processes to adapt to the changes, including changing shipping terms to cover additional costs arising post-Brexit (i.e. taxes, custom clearing fees, etc.) to avoid shipping delays, and registering sales taxes in EU countries to be in compliance with local sales tax rules.

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.

### 10. 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.

### 11. 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, 2021 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.