THERMAL ENERGY
INTERNATIONAL INC.

MANAGEMENT'S DISCUSSION & ANALYSIS

For the Quarter Ended August 31, 2022

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 2023, ended August 31, 2022 (or "Q1 2023"), and compares the Q1 2023 financial results to the previous quarter ended August 31, 2021 (or "Q1 2022"). 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 2023 are against the first quarter of FY 2022. Additional information relating to the Company is available on SEDAR at www.sedar.com.

Currency

All financial information in this report is stated in Canadian Dollars, which is both the presentation and functional currency of the Company. Approximately 33% of our operations, assets and liabilities are denominated in British Pound Sterling and 36% 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 20, 2022. Disclosure contained in this document is current to October 20, 2022, 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. **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 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.

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

	Three months ended	
	Aug 31, 2022 $	Aug 31, 2021 $
Total net income (loss) attributable to owners of the parent	**(512,657)**	(181,383)
Total net income (loss) attributable to non-controlling interest	**4,156**	27,503
Interest charge	**103,086**	79,932
Income tax expense (recovery)	**9,591**	(5,191)
Depreciation and amortization	**110,733**	106,053
Share based compensation	**55,148**	53,842
EBITDA	**(229,943)**	80,756

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.

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The Company's order backlog as at August 31, 2022 was approximately $6.0 million. As at October 20, 2022, the Company had an order backlog of approximately $12.3 million.

	2022 $ million	2021 $ million	2020 $ million
Order backlog as at August 31	6.0	6.3	6.0
Order backlog as at October reporting date	12.3	7.9	9.6

3. Performance

3.1 Quarterly Financial Information (unaudited)

For the most recent eight quarters ended:

Quarter ended	30-Nov-21 $	28-Feb-22 $	31-May-22 $	31-Aug-22 $
Revenue	4,076,808	3,491,429	4,461,701	3,122,249
Gross Profit	1,712,230	1,469,102	1,907,535	1,349,287
Gross Profit Percentage	42.0%	42.1%	42.8%	43.2%
EBITDA(1)	(395,091)	(647,527)	203,480	(229,943)
Total net income (loss)	(640,328)	(894,301)	(149,462)	(508,501)
Income (loss) per share, basic and diluted	(0.004)	(0.006)	(0.001)	(0.003)

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(1)	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)

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

3.2 Summary of First Quarter Results

	Q1 2023	Q1 2022
	$	$
Revenue	**3,122,249**	3,879,256
Cost of sales	**1,772,962**	2,235,539
Gross profit	**1,349,287**	1,643,717
Expenses:		
Administration, selling, marketing and business development	**1,728,630**	1,722,297
Research and development	**16,481**	559
	1,745,111	1,722,856
Operating loss	**(395,824)**	(79,139)
Finance costs	**(103,086)**	(79,932)
Loss before income taxes	**(498,910)**	(159,071)
Income taxes (expense) recovery	**(9,591)**	5,191
Net loss for the period	**(508,501)**	(153,880)
Exchange differences on translation of overseas operations	**(199,511)**	(62,668)
Total comprehensive loss for the period	**(708,012)**	(216,548)
EBITDA for the quarter[1 2]	**(229,943)**	80,756
Order backlog as at August 31 [3]	**6.0 million**	6.3 million
Order backlog as at reporting date [3]	**12.3 million**	7.9 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 $3,122,249 in the first quarter ended August 31, 2022, representing a decrease of $757,007, or 19.5%, compared to $3,879,256 in the quarter ended August 31, 2021. The decrease of revenue in the first quarter of FY 2023 was mainly due to the decreased revenues from direct contact heat recovery systems resulting from less orders received. Customers were delaying the purchase of heat recovery systems given the uncertainties resulting from the global pandemic.

The gross profit of $1,349,287 in the quarter ended August 31, 2022, represented a decrease of $294,430, or 17.9%, from the $1,643,717 in the quarter ended August 31, 2021. The decrease in gross profit was mainly due to the decreased revenues from heat recovery systems. Overall, gross profit expressed as a percentage of sales was 43.2% in the first quarter of FY 2023 compared with 42.4% in the same quarter of FY 2022.

Expenses

Administration, selling, marketing and business development expenses ("Operating Expenses") in the quarter ended August 31, 2022 totaled $1,728,630 compared to $1,722,297 in the quarter ended August 31, 2021, an increase of $6,333 or 0.4%. The Operating Expenses were comparable to the same period of previous year.

Research and development ("R&D") expenses in the quarter ended August 31, 2022 totaled $16,481, as compared to $559 in the quarter ended August 31, 2021.

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 2023 incurred finance costs of $103,086. The costs were higher than the first quarter of FY 2022 by $23,154 due to the higher interest rate on 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, 2022 was $498,910, compared to a loss of $159,071 in the same quarter of the previous year, a loss increase of $339,839. Loss before income taxes increased mainly due to the decrease in gross profit of $294,430 as a result of the decreased revenues.

Income tax expense in the first quarter of FY 2023 was $9,591, as compared to income tax recovery of $5,191 in the first quarter of FY 2022, an increase of $14,782.

Net loss for the first quarter of FY 2023 was $508,501, compared to a net loss of $153,880 in the same quarter of the previous year, representing a loss increase of $354,621. The increase in net loss was mainly due to decreased revenue and gross profit as a result of decreased order intake from heat recovery sales.

Comprehensive loss was $708,012 for the first quarter of FY 2023, compared to $216,548 for the first quarter of FY 2022, a loss increase of $491,464. The increase in comprehensive loss was mainly due to increased net loss of $354,621 as explained above plus the increase in exchange loss of $136,843 on translation of overseas operations. During the first quarter of FY 2023, exchange loss arising on translation of overseas operations was $199,511, as compared to exchange loss of $62,668 from the same quarter of prior year. As mentioned earlier, approximately 33% of our operations are denominated in British Pound Sterling and 36% in US Dollar. Foreign currency fluctuations affect the values reported in exchange differences arising on translation of overseas operations.

EBITDAS was negative $229,943 for the first quarter of FY 2023, compared to positive $80,756 for the same quarter of the previous year, representing a decrease of $310,699. The decrease was mainly due the increase in net loss of $354,621 as a result of decreased revenue and gross profit compared to the same quarter of the previous year.

3.3 Liquidity & Capital Resources

Current assets decreased by $729,288 to $6,284,671 at August 31, 2022, compared to $7,013,959 at May 31, 2022. This decrease was mainly due to the decrease in cash and cash equivalents of $310,785, and trade and other receivables of $367,936. Current liabilities slightly decreased by $25,233 to $4,211,907.

Working capital decreased by $704,055 to $2,072,764 at August 31, 2022, compared to $2,776,819 at May 31, 2021. The decrease was mainly due to the decrease in cash and cash equivalents of $310,785, and trade and other receivables of $367,936.

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

	Nov 30, 2020 $	Feb 28, 2021 $	May 31, 2021 $	Aug 31, 2021 $	Nov 30, 2021 $	Feb 28, 2022 $	May 31, 2022 $	Aug 31, 2022 $
Current Assets	8,984,102	8,606,829	8,580,784	8,441,508	7,080,511	6,991,631	7,013,959	6,284,671
Current Liabilities	4,756,957	4,404,265	4,772,280	5,186,143	4,634,580	5,499,794	4,237,140	4,211,907
Working Capital	4,227,145	4,202,564	3,808,504	3,255,365	2,445,931	1,491,837	2,776,819	2,072,764

The Company's cash position was $2,320,758 as at August 31, 2022, compared to $2,631,543 at May 31, 2022, representing a decrease of $310,785. The decrease was mainly due to cash used in operating activities of $124,965, in investing activities of $17,995 relating to the acquisition of property, plant and equipment, and cash used in financing activities of $201,084 relating to repayment of long-term debt and lease obligations, offset by and exchange gain on cash and cash equivalents of $33,259.

The net cash used in operating activities for the first quarter ended August 31, 2022 was $124,965, mainly due to net loss for the period of $508,501, income taxes paid of $6,341 and interest paid of $98,001, offset by add back of non-cash items of $148,963 and changes in working capital of $338,915.

The Company invested $19,928 in property, plant and equipment which was offset by proceeds received from the disposal of property, plant and equipment in the amount of $1,933 in the first quarter ended August 31, 2022.

During the first quarter ended August 31, 2022, the Company used net cash in financing activities of $201,084 which included repayment of long-term debt of $148,030 and repayment of lease obligations of $53,054.

The net carrying value of trade receivables is considered a reasonable approximation of fair value.
At August 31, 2022, $182,692 (9%) 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. $46,724 of trade receivables that was not over 90 days past due was also impaired.

At May 31, 2022, $137,584 (6%) of the Company's trade receivables balance was over 90 days past due. $46,599 of the past due balance was impaired at May 31, 2022. $75,250 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, 2022, provisions of $1,188 were made as expected credit losses and recorded under administrative expenses on the condensed interim statements of comprehensive loss ($22,996 – August 31, 2021). For the quarter ended August 31, 2022, $77,706 of the allowance for doubtful accounts was released due to the collection ($9,988 – August 31, 2021). Translation loss of $1,393 (loss of $657 – August 31, 2021) was recognized under exchange differences arising on translation of overseas operations.

The following table presents the contractual undiscounted and discounted cash flows for lease obligations as of August 31, 2022 and May 31, 2022:

	August 31, 2022	May 31, 2022
Less than one year	**$270,790**	$ 293,413
One to five years	**855,667**	837,294
Six to ten years	**695,781**	729,019
Total undiscounted lease obligations	**1,822,238**	1,859,726
Less: impact of present value	**(475,226)**	(488,846)
Total discounted lease obligations	**1,347,012**	1,370,880
Less: current portion	**(171,356)**	(193,298)
Long term portion	**1,175,656**	$ 1,177,582

During the quarter ended August 31, 2022, the interest expense on lease obligations was $26,624 and total cash outflow for leases was $83,571, including $3,893 for short-term leases.

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.

For the three months ended August 31, 2022 and 2021, 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.

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, 2022 and 2021, 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.

Segment information for the quarter ended August 31, 2022 and the comparative period are detailed in the table below:

	Thermal Energy Ottawa		Thermal Energy Bristol		Reconciling Items		Total	
	2022	2021	**2022**	2021	**2022**	2021	**2022**	2021
	$	$	**$**	$	**$**	$	**$**	$
Total revenue	**1,991,503**	2,079,501	**1,130,746**	1,799,755	**-**	-	**3,122,249**	3,879,256
Cost of sales	**(1,264,330)**	(1,369,732)	**(508,632)**	(865,807)	**-**	-	**(1,772,962)**	(2,235,539)
Gross profit	**727,173**	709,769	**622,114**	933,948	**-**	-	**1,349,287**	1,643,717
Other expenses	**(671,561)**	(668,442)	**(852,104)**	(814,765)	**(221,446)**	(239,649)	**(1,745,111)**	(1,722,856)
Net finance costs	**(25,443)**	(26,754)	**(1,181)**	(2,839)	**(76,462)**	(50,339)	**(103,086)**	(79,932)
Income (loss) before taxation	**30,169**	14,573	**(231,171)**	116,344	**(297,908)**	(289,988)	**(498,910)**	(159,071)
Tax (expense) recovery	**(6,342)**	2,068	**(3,249)**	(14,465)	**-**	17,588	**(9,591)**	5,191
Net income (loss)	**23,827**	16,641	**(234,420)**	101,879	**(297,908)**	(272,400)	**(508,501)**	(153,880)
Attributable to:								
Owners of the parent	**24,039**	16,890	**(238,788)**	74,127	**(297,908)**	(272,400)	**(512,657)**	(181,383)
Non-controlling interest	**(212)**	(249)	**4,368**	27,752	**-**	-	**4,156**	27,503

Reconciling items comprise the following:

	Three months ended August 31	
	2022	2021
	$	$
Corporate admin costs	**142,825**	166,062
Share-based compensation	**55,148**	53,842
Professional fees	**103,248**	85,729
Depreciation of property, plant and equipment	**32,273**	31,833
Amortization of intangible assets	**78,460**	74,220
Acquisition costs	**-**	21,099
Foreign exchange gain	**(190,508)**	(193,136)
Total	**221,446**	239,649

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, 2022 was $1,991,503, a decrease of $87,998, or 4.2%, from $2,079,501 in the same quarter of the previous year. The decrease was mainly due to the decreased revenues from direct contact heat recovery systems, offset by the increased revenues from custom equipment sales including condensate return systems and indirect contact heat recovery systems.

Gross profit for the quarter ended August 31, 2022 increased by $17,404 compared to the same period of prior year despite the decrease in revenues. The increase in gross profit was mainly due to the increased revenues from condensate return systems which carry a higher margin. As a percentage of revenue, total gross profit was 36.5% for the quarter ended August 31, 2022, compared to 34.1% achieved in the same period of last year.

Other expenses in this segment increased by $3,119 for the quarter ended August 31, 2022 compared to same quarter last year.

For the quarter ended August 31, 2022, the North America sector incurred income before taxation of $30,169, an increase of $15,596, from $14,573 achieved in the same quarter of last year. The increase was mainly due to the increased revenues and gross profit from condensate return systems.

Thermal Energy Bristol:

Revenue for the quarter ended August 31, 2022 was $1,130,746, a decrease of $669,009, or 37.2%, from $1,799,755 achieved in the same period of the previous year. The decrease in revenue was mainly due to decreased revenues in heat recovery systems.

Gross profit decreased in the first quarter of FY 2023 by $311,834, compared to the same quarter last year. The decrease in gross profit was mainly due to the decreased revenues on heat recovery systems. The gross profit as a percentage of total revenue increased from 51.9% to 55% due to the change in product mix.

Other expenses increased by $37,339 or 4.6% for the quarter ended August 31, 2022, compared to the same quarter of the previous year.

The resulting pre-tax loss was $231,171 for the quarter ended August 31, 2022, compared to income of $116,344 for the quarter ended August 31, 2021. The pre-tax income decreased by $347,515 mainly due to the decrease in gross profit of $311,834 as a result of decreased revenues.

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, 2022, the other expenses within reconciling items decreased from $239,649 to $221,446, a decrease of $18,203, compared to the same period of the previous year. The decrease was mainly due to the decrease in acquisition costs of $21,099.

4. Related Party Transactions

Directors and Senior Management Compensation

During the quarter ended August 31, 2022 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, 2022, total Directors' fees were $19,350. 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.

Compensation paid to Directors and Officers during the quarter ended August 31, 2022 (inclusive of the amounts described above but excluding share-based compensation) was as follows:

	Salaries and fees		Incentives		Other short-term benefits		Total	
	2022 $	2021 $	**2022 $**	2021 $	**2022 $**	2021 $	**2022 $**	2021 $
Directors								
M. Williams	**3,375**	3,375	**-**	-	**-**	-	**3,375**	3,375
J. Kelly(1)	**1,125**	5,400	**-**	-	**-**	-	**1,125**	5,400
W. Ollerhead	**4,725**	4,725	**-**	-	**-**	-	**4,725**	4,725
D. Spagnolo	**4,725**	4,725	**-**	-	**-**	-	**4,725**	4,725
W. White	**5,400**	3,375	**-**	-	**-**	-	**5,400**	3,375
Total	**19,350**	21,600	**-**	-	**-**	-	**19,350**	21,600
Senior Management								
W. Crossland	**63,600**	60,000	**-**	-	**-**	-	**63,600**	60,000
R. Triebe	**47,965**	45,250	**-**	-	**969**	826	**48,934**	46,076
S. Mawby(2)	**37,776**	38,845	**-**	-	**6,575**	6,295	**44,351**	45,140
J. Zhang	**33,125**	31,250	**-**	-	**969**	826	**34,094**	32,076
Total	**182,466**	175,345	**-**	-	**8,513**	7,947	**190,979**	183,292
Total Related Party Transactions	**201,816**	196,945	**-**	-	**8,513**	7,947	**210,329**	204,892

(1) Mr. Kelly passed away on June 28, 2022. He remained as a member of the Board till June 28, 2022.

(2) Mr. Mawby is compensated in UK Pound Sterling. Average exchange rate to Canadian dollar was 1.5588 and 1.7272 in Q1 2023 and Q1 2022, 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, 2022 were 1,250,000, of which 833,332 were exercisable. There were no warrants outstanding for Directors.

Options outstanding for Senior Management (including the CEO) as at August 31, 2022 were 6,500,000, of which 3,749,994 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, 2022 was approximately $6.0 million. As at October 20, 2022, the Company had an order backlog of approximately $12.3 million.

	2022 $ million	2021 $ million	2020 $ million
Order backlog as at August 31	6.0	6.3	6.0
Order backlog as at October reporting date	12.3	7.9	9.6

- On September 30, 2022, the Company announced that it has been commissioned by a Premium Beer Company to reduce the site's annual gas load by at least 27% offsetting more than 1,300 tonnes of CO2 per year, the equivalent of permanently removing more than 400 cars from the road. Valued at $2.8 million, this order covers all engineering, manufacturing, installation and training.

- On September 29, 2022, the Company announced that it has been commissioned by a Global Nutrition Company to deliver approximately $630,000 of annual fuel savings and offset in excess of 1,530 Tonnes of CO2 per year - the equivalent of permanently removing more than 300 cars from the road. Valued at $1.4 million, this order covers all engineering, manufacturing, installation, and training for the system.

- On September 20, 2022, the Company announced that it has received over $1.5 million GEM steam trap orders subsequent to the year-end of FY 2022.

- On September 13, 2022, the Company announced that it has been commissioned by a leading textile manufacturer to deliver its proprietary RBT® wastewater heat recovery system, a technology acquired through Sofame acquisition. This order totals almost $350,000 and includes $40,000 for additional GEM steam traps specified on new equipment at the plant and has a payback of approximately 2 years.

- On September 7, 2022, the Company announced that it has been commissioned by a leading meat producer to deliver a new innovative turn-key energy efficiency and carbon emission reduction solution. This project is expected to deliver a 27% reduction in fuel and offset approximately 550 tonnes of CO2 per year, the equivalent of permanently removing 115 cars from the road. Valued at approximately $800,000, this order covers all engineering, manufacturing, installation, and training for the system. The contract was received prior to the quarter-end and the project was about 9% 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 U.S. 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 cut its annual CO2 emissions by over 730 tonnes. The project was about 83% 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:
164,137,606 class A common shares.

Options:

	Options outstanding			Options exercisable	
Range of exercise prices	Number outstanding August 31, 2022	Weighted average remaining contractual life	Weighted average exercise price	Number exercisable at August 31, 2022	Weighted average exercise price
0.08-0.10	13,946,339	2.11	0.08	9,942,651	0.08
0.11-0.14	4,163,000	4.24	0.14	-	-
	18,109,339	2.60	0.10	9,942,651	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.

Valuation of 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.

Heat recovery solutions contract revenue

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, 2022.

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™**, indirect contact heat recovery solutions (**HEATSPONGE** and **SIDEKICK**), 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 ongoing 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.
- The impact of wars and conflicts; and
- The impact of inflation.

Management's addressing of the risks:

In FY 2020, 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 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. In FY 2022, the Company incurred a loss of $1,837,971. Cash balance decreased by $1,609,312 as a result of the loss. The loss was mainly caused by the decreased revenues from heat recovery projects as customers were delaying their purchase decisions on these projects in the light of uncertainties resulting from COVID. The loss was also caused by the increased Operating Expenses. Despite the loss, the Company maintained its pre-pandemic staff levels and its full production and project development capabilities anticipating order intake to return to pre-pandemic levels in the next 12 to 24 months. The Company applied subsidies from government agencies and received $340,566 during the year. The Company also received the second tranche of COVID loan in the amount of $1,300,000 in FY 2022 to support the Company's operations.

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.

On June 23, 2016, a referendum was held in the U.K., resulting in the decision to leave the European Union ("EU"). On December 24, 2020, a post-Brexit trade deal was reached between the EU and the UK. 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.

The Russia-Ukraine conflict has brought tragic losses of life and destruction across Ukraine. The crisis is also causing political and economic disruptions across the world, with businesses navigating conflict-related risks to their people, assets, operations, and supply chains in the region and globally. Thermal Energy has been monitoring the situation closely and assessing the potential effect of sanctions on our business. During FY 2022, We continued our dialogue with our trading partner and sought legal advice to ensure we were in compliance with the sanction requirements while we delivered work in this region.

Inflation rates have been rising during the global pandemic, and the current wave of inflation is driven by a range of factors including rising raw material prices, logistics and transportation bottlenecks and shortages of intermediate goods and labour. The surge in inflation has resulted in higher costs of sales for the Company's product lines. The Company is coping with the inflation impact by implementing new measures, including implementing price increases where warranted, making bulk purchases to increase its purchasing power and to lock in on purchase prices for raw materials, securing supplies by increasing inventory level to avoid ordering sporadically, and negotiating with customers to cover additional costs caused by inflation on long-term projects.

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, 2022 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.