

FORM 51-102F3
Material Change Report

Item 1 Name and Address of Company

Thermal Energy International Inc. (the "Company")
36 Bentley Avenue
Ottawa, Ontario K2E 6T8

Item 2 Date of Material Change

December 5, 2017

Item 3 News Release

News release attached as Schedule "A" was disseminated via newswire on December 5, 2017.

Item 4 Summary of Material Change

The Company has been engaged by Resolute Forest Products to design, develop and implement an \$11 million energy efficiency improvement and greenhouse gas reduction project.

Item 5 Full Description of Material Change

See news release attached as Schedule "A".

Item 6 Reliance on subsection 7.1(2) of National Instrument 51-102

N/A

Item 7 Omitted Information

N/A

Item 8 Executive Officer

William Crossland, the Company's President and CEO, is knowledgeable about the material change and this report. His business telephone number is (613) 723-6776.

Item 9 Date of Report

December 15, 2017

SCHEDULE “A”



Thermal Energy Announces \$11 Million Energy Efficiency Project with Pulp & Paper Customer

Resulting emissions reduction expected to be equivalent to preventing the burning of more than 21 million kilograms of coal per year

OTTAWA, ONTARIO– December 5, 2017 – Thermal Energy International Inc. ("[Thermal Energy](#)" or the "Company") (TSX-V: [TMG](#)), a global provider of industrial and institutional energy efficiency solutions, has been engaged by an existing pulp and paper customer to design, develop and implement a major energy efficiency improvement and greenhouse gas reduction project. The project includes the installation of two of Thermal Energy's proprietary [FLU-ACE®](#) Heat Recovery Systems and the conversion of the mill's steam traps to Thermal Energy's proprietary [GEM™](#) Steam Trap system.

Once completed, the \$11 million project is expected to provide the customer with annual natural gas savings of more than 35%, while reducing its annual greenhouse gas emissions by more than 20%, or approximately 43,000 metric tonnes.

"Pulp and paper is one of the most energy intensive sectors and our energy efficiency solutions represent a win-win scenario," said William Crossland, CEO of Thermal Energy. "We have been working in partnership with this customer over the past year to develop a turn-key project that meets both their energy savings and greenhouse gas reduction goals. This resulted in our largest single order to date and a project that can serve as a blueprint for other large energy users around the world looking for an optimal solution for fighting climate change, by providing significant reductions in carbon emissions and energy use while, at the same time, delivering a high return on investment"

The estimated annual reduction in greenhouse gas emissions resulting from the project, once complete, is equivalent¹ to:

- Removing 9,208 passenger vehicles from the road
- Preventing the burning of more than 21 million kilograms of coal
- The benefit from installing 11 large scale wind turbines with an estimated cost of about \$47 million²

This project represents Thermal Energy's largest heat recovery and largest GEM orders to date and is expected to be substantially completed and revenue earned over the next 18 months.

¹ United States Environmental Protection Agency's Greenhouse Gas Equivalencies Calculator: www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

² The Cost of Wind Energy in the US: www.awea.org/falling-wind-energy-costs

About Thermal Energy International Inc.

Thermal Energy International Inc. is an established global supplier of proprietary, proven energy efficiency and emissions reduction solutions to the industrial and institutional sectors. We save our customers money and improve their bottom line by reducing their fuel use and cutting their carbon emissions. Our customers include a large number of Fortune 500 and other leading multinational companies across a wide range of industry sectors.

Thermal Energy is also a fully accredited professional engineering firm and by providing a unique mix of proprietary products together with process, energy and, environmental engineering expertise, Thermal Energy is able to deliver unique turnkey projects with significant financial and environmental benefits for our customers.

Thermal Energy's proprietary products include; [GEM™](#) - Steam traps, [FLU-ACE®](#) - Direct contact condensing heat recovery, and [Dry-Rex®](#) - Low temperature biomass drying systems.

Thermal Energy International Inc. has offices in Ottawa, Canada as well as Bristol, U.K., United States, Germany, Italy and China. The Company's common shares are traded on the TSX Venture Exchange (TSX-V) under the symbol TMG.

For more information, visit our website at www.thermalenergy.com and follow us on Twitter at <http://twitter.com/GoThermalEnergy>.

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This press release contains forward-looking statements relating to, and amongst other things, based on management's expectations, estimates and projections, the anticipated effectiveness of the Company's products and services and the timing of revenues to be received by the Company. Information as to the amount of heat recovered, energy savings and payback period associated with Thermal Energy International's products are based on the Company's own testing and average customer results to date. Statements relating to the expected installation and revenue recognition for projects, statements about the anticipated effectiveness and lifespan of the Company's products, statements about the expected environmental effects and cost savings associated with the Company's

products and statements about the Company's ability to cross-sell its products and sell to more sites are forward looking statements. These statements are not guarantees of future performance and involve a number of risks, uncertainties and assumptions. Many factors, some of which are outside of the Company's control, could cause events and results to differ materially from those stated. Fulfilment of orders, installation of product and activation of product could all be delayed for a number of reasons, some of which are outside of the Company's control, which would result in anticipated revenues from such projects being delayed or in the most serious cases eliminated. Actions taken by the Company's customers and factors inherent in the customer's facilities but not anticipated by the Company can have a negative impact on the expected effectiveness and lifespan of the Company's products and on the expected environmental effects and cost savings expected from the Company's products. Any customer's willingness to purchase additional products from the Company is dependent on many factors, some of which are outside of the Company's control, including but not limited to the customer's perceived needs and the continuing financial viability of the customer. The Company disclaims any obligation to publicly update or revise any such statements except as required by law.

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