

Enertopia Announces Solar PV Heat Recovery Patent Issuance from USPTO

Kelowna, British Columbia--(Newsfile Corp. - February 11, 2025) - **Enertopia Corporation** (OTCQB: ENRT) (CSE: ENRT) ("Enertopia" or the "Company") an energy company focused on building shareholder value through a combination of our intellectual property, pending patents in the green technology space, along with our Nevada lithium claims, is very pleased to provide the following Patent updates.

Heat Recovery System Patent Issued - #12224704

The United States Patent Trademark Office (USPTO) has notified the Company that patent number 12224704 was issued today, February 11, 2025.

Our Heat Recovery System uniquely addresses a systematic problem in the solar industry; the overheating of panels, which leads to lower electrical output and shorter panel lifetimes.

3rd party engineering studies by Thermal Energy System Specialists, LLC. Indicated from their Oct 2021 report that energy production increases of up to 13.8% on a yearly basis and up to 19.9% on a monthly basis depending on time of year can be achieved by the implementation of Enertopia's heat extractor device, not to mention the expected years of increased PV production due to lower levels of thermal stress.

The Current Problem:

Photovoltaic panels, such as solar panels, absorb solar energy and convert the solar energy into electrical energy. However, photovoltaic panels can become very hot. Operating at such high temperatures can cause the photovoltaic panels to rapidly degrade, and to inefficiently convert the solar energy into electrical energy.

The photovoltaic panels are rated to convert the solar energy into electrical energy at a rate of 15-20% effectiveness. The remaining solar energy (e.g., the solar energy that is not converted into electrical energy) is converted into heat, which will reduce performance of the photovoltaic panel, while simultaneously degrading and shortening the lifespan of the panel.

The optimal temperature for the face of a photovoltaic panel is 77 degrees Fahrenheit, and for every degree F above or below 77 degrees the current output of the panel is reduced by approximately 0.26%. Of the extra heat that is produced, half of it dissipates off the face of the panel, while the remaining half is transferred to the back of the panel, where temperatures can exceed 140 degrees Fahrenheit.

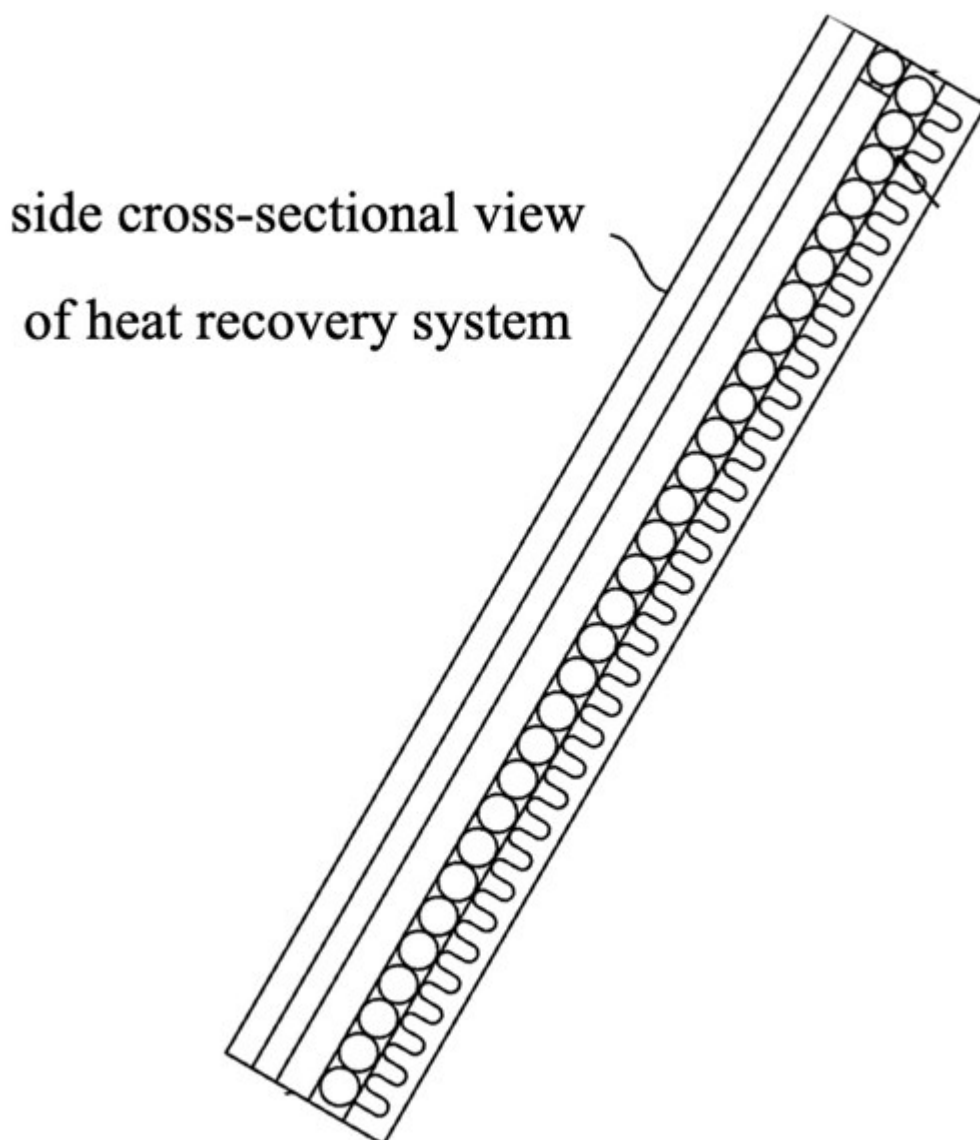
Enertopia's Patented Solution:

Generally, moisture that exists in air is measured as grains of moisture per pound of dry air. At the point of saturation (e.g., dew point), water forms on cool surfaces. This process generally occurs at night. During the heat of the day, as ambient hot air pulls moisture from surrounding environments, moisture will also form on cool surfaces, with our heat recovery system taking advantage of these conditions to collect and retain the moisture formed at dew point temperatures.

The moisture collection layer is positioned between the photovoltaic panel and the liquid transfer system to facilitate the rapid transfer of heat from the photovoltaic panel to the liquid transfer system. In some instances, during periods when, due to surrounding ambient conditions, moisture will not naturally form, the heat recovery system described herein may employ a controlled water emitting means to insure saturation of the moisture collection layer.

Thus, the heat recovery system may rapidly and efficiently take advantage of ambient environment and temperatures to facilitate and improve heat transfer from the photovoltaic panel, thereby improving efficiency, reducing degradation of the panel, and improving the overall panel lifespan. Additionally, the moisture collection layer may feed an agricultural or drip system that allows for irrigation of plants, in environments where a large amount of water for irrigating the plants is limited.

A potential issue with thermal heating and cooling systems is that the photovoltaic panels may undergo thermal shock when they come into contact with a cool liquid transfer system, causing them to fail. Our patented process addresses this issue by providing an open loop system that helps to prevent or limit thermal shock, and thus failure. The open loop system separates the liquid transfer systems that may include a cool liquid from the photovoltaic panel, while still rapidly encouraging and/or extracting heat from the photovoltaic panel and directing the heat to the liquid transfer systems.



Heat Extractor

To view an enhanced version of this graphic, please visit:

https://images.newsfilecorp.com/files/840/240309_41d8b64f545668dd_001full.jpg

Rainmaker Patent Update:

"Enertopia expects to hear back from the USPTO in the coming weeks on our third patent approval. We look forward to the next steps of solving real world energy and water problems and expect to announce further news shortly." States President Robert McAllister

For additional project details please visit our website at <https://enertopia.com/technology>

About Enertopia

Defines itself as an Energy Solutions Company focused on modern technology through a combination of our intellectual property patents and pending patents in green technologies to build shareholder value.

Enertopia shares are quoted in the United States and Canada under ticker symbol ENRT. For additional information, please visit www.enertopia.com or call Robert McAllister, the President at 1-888-ENRT201.

This release includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Statements which are not historical facts are forward-looking statements. The Company makes forward-looking public statements concerning its expected future financial position, results of operations, cash flows, financing plans, business strategy, products and services, potential and financing of its mineral exploration or technology projects, growth opportunities, plans and objectives of management for future operations, including statements that include words such as "anticipate," "if," "believe," "plan," "estimate," "expect," "intend," "may," "could," "should," "will," and other similar expressions that are forward-looking statements. Such forward-looking statements are estimates reflecting the Company's best judgment based upon current information and involve a number of risks and uncertainties, and there can be no assurance that other factors will not affect the accuracy of such forward-looking statements., foreign exchange and other financial markets; changes in the interest rates on borrowings; hedging activities; changes in commodity prices; changes in the investments and expenditure levels; litigation; legislation; environmental, judicial, regulatory, political and competitive developments in areas in which Enertopia Corporation operates. There can be no assurance that the solution testing will result in an economic deposit or have any positive impact on Enertopia. There can be no assurance that the pending patent and the Energy Management System patent or Heat Extractor patent will have a positive impact on Enertopia. The User should refer to the risk disclosures set out in the periodic reports and other disclosure documents filed by Enertopia Corporation from time to time with regulatory authorities.

The OTC Markets and the CSE have not reviewed and does not accept responsibility for the adequacy or accuracy of this release.

Enertopia Corporation

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