Entropy Inc. Provides Operational and Corporate Update

(TSX: AAV)

CALGARY, AB, June 5, 2023 /CNW/ - Entropy Inc. ("Entropy" or the "Corporation"), a subsidiary of Advantage Energy Ltd. ("Advantage"), is pleased to provide a corporate update, including new performance achievements at the Glacier post-combustion carbon capture and storage ("CCS") project in Alberta, Canada, and increasing activities in the United States.

Glacier CCS Phase 1a Operations Update

Following the previously announced high-performance benchmarks at Glacier (please see press release dated February 8, 2023), Entropy conducted a multi-month optimization protocol to further increase the efficiency of the Entropy modular CCS system. Highlights of the protocol results include:

- Phase 1a achieved a monthly capture and storage rate equivalent to 12,267 tonnes per annum ("tpa"), delivering 93% of budgeted capacity despite operational intermittency primarily related to host plant disruptions.
- Consistently reinforced the global efficiency benchmark of 2.4 GJ/tonne at 90% capture rate on 5.3% CO_2 flue gas.
- At 75% capture rate, achieved a 20% reduction to heat duty.
- At 95% capture rate, heat duty increased by only 8%.
- Established optimal operating range between 90% and 93% capture rates, with stable capture rates up to 98%.

All efficiency data was compiled at 10 second intervals from digital flow metering and control systems, and processed using EntropyIQ™, our digital data gathering and processing engine, with independent verification by University of Regina researchers.

Based on current performance, Entropy remains on track to achieve operating costs of approximately C$27/tonne at Glacier for Phase 1 and C$22/tonne upon completion of Phase 2, including capture, compression, transportation and storage.

Glacier Phase 1b and Phase 2 Update

Glacier Phase 1b is on schedule to be commissioned in Q4 2023, with all major equipment modules under construction. This project is the first deployment of Entropy's Integrated Carbon Capture and Storage™ (iCCS™) technology, which integrates Entropy's CCS technology into the design and fabrication of new industrial engines and boilers. Entropy's iCCS™ is expected to reduce total installed cost of capture by between 20% and 25% versus the cost of retrofitting a similar unit. Once commissioned, Phase 1b will have the capacity to capture an additional 16,000 tpa from a new 5,000hp gas-fired compressor engine, bringing the total emissions abatement for Glacier Phase 1 to approximately 60,000 tpa, including avoided combustion. Total installed cost of Phase 1b is expected to be $13.7 million.

Glacier Phase 2, which is planned to capture an additional 137,000 tpa, remains "shovel-ready" but awaiting additional clarity on carbon policy in Canada including specifics on the federal investment tax credit ("ITC") and carbon contract-for-differences ("CCFDs"). Once Phase 2 reaches final investment decision ("FID") it is expected to employ approximately 200 people across western Canada during construction, with a total investment of approximately $100 million.

Corporate Update

In addition to several previously announced projects that are progressing in Canada, Entropy has now entered into multiple agreements and memoranda of understanding with emitters in the United States. Projects now under development in the United States include gas-fired power generation, gas-fired steam generation and gas-fired compression, totaling approximately 1 million tpa in Texas, California and Pennsylvania.

About Entropy

Entropy is a privately-owned company, founded by Advantage, applying sophisticated science and engineering to develop commercial CCS projects. Entropy entered a strategic $300 million investment agreement with Brookfield Renewable in 2022 to scale up deployment of Entropy's CCS technology globally. Entropy's technology is expected to deliver commercial profitability with an industry-leading cost structure using proprietary modular carbon capture and storage technology. Entropy intends to deploy this technology in the global effort to reduce and eventually eliminate carbon emissions. Further information is available at www.entropyinc.com.

Forward-Looking Information and Advisory

All references in this press release are to Canadian dollars (C$) unless otherwise indicated.

The information in this press release contains certain forward-looking statements, including within the meaning of applicable securities laws. These statements relate to future events or our future intentions or performance. All statements other than statements of historical fact may be forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "anticipate", "continue", "demonstrate", "expect", "may", "can", "will", "believe", "would" and similar expressions and include statements relating to, among other things: the anticipated benefits to be derived from Entropy's multi-month experimental protocol at Glacier Phase 1a; the anticipated capital costs, operating costs and capture rate of Entropy's Glacier CCS project; Entropy's expectations that Glacier Phase 2 will reach FID, the anticipated total investment in connection therewith and the anticipated benefits to be derived therefrom; the anticipated total emissions captured from Entropy's projects under development in the United States; the anticipated benefits to be derived from Entropy's strategic investment agreement with Brookfield Renewable; and that Entropy will deploy its technology in the global effort to reduce and eventually eliminate carbon emissions. Entropy's actual decisions, activities, results, performance or achievement could differ materially from those expressed in, or implied by, such forward-looking statements and accordingly, no assurances can be given that any of the events anticipated by the forward-looking statements will transpire or occur or, if any of them do, what benefits that Entropy or Advantage will derive from them.

With respect to forward-looking statements contained in this press release, Entropy has made assumptions regarding, but not limited to: that Entropy's future operating results will be consistent with the results of its multi-month experimental protocol; that the long-term operating costs of Entropy's CCS projects will not be greater than anticipated; that Entropy's existing engagements, including with respect to its projects in the United States, will lead to completed projects; that Glacier Phase 2 will reach FID; that the government will provide additional clarity on the carbon policy in Canada including specifics on the federal ITC and CCFDs; conditions in general economic and financial markets; effects of regulation by governmental agencies; current and future commodity prices and royalty regimes; future exchange rates; royalty rates; future operating costs; availability of skilled labor; the impact of increasing competition; that Entropy will have sufficient cash flow, working capital, debt or equity sources or other financial resources required to fund its capital and operating expenditures and requirements as needed; that Entropy's conduct and results of operations will be consistent with expectations; that Entropy will have the ability to develop its technology in the manner currently contemplated; current or, where applicable, proposed assumed industry conditions, laws and regulations will continue in effect or as anticipated; and the anticipated benefits and results from Entropy's technology are accurate in all material respects. Readers are cautioned that the foregoing lists of factors are not exhaustive.

These statements involve substantial known and unknown risks and uncertainties, certain of which are beyond Entropy's control, including, but not limited to: the risk that Entropy may not realize the benefits anticipated from its CCS projects when anticipated, or at all; the risk that Glacier Phase 2 may not reach FID or be fully eligible for the federal ITC and CCFD structure; the risk that the capital costs and operating costs of Entropy's Glacier CCS project may be greater than anticipated; the risk that Entropy's future operating results may not be consistent with the results of its multi-month experimental protocol; the risk that Entropy's existing engagements, including with respect to its projects in the United States, may not lead to completed projects; the risk that Entropy's projects under development in the United States may capture less emissions than anticipated; the risk that the procurement and construction of Entropy's near-term projects may not be completed when anticipated, or at all; changes in general economic, market and business conditions; industry conditions; actions by governmental or regulatory authorities including increasing taxes and changes in investment or other regulations; changes in tax laws and incentive programs; changes in carbon tax and credit regimes; competition from other producers; the lack of availability of qualified personnel or management; intellectual property and patent risks; credit risk; changes in laws and regulations including the adoption of new environmental laws and regulations and changes in how they are interpreted and enforced; ability to comply with current and future environmental or other laws; stock market volatility and market valuations; failure to achieve the anticipated benefits and results of Entropy's technology; failure to achieve the anticipated benefits of Entropy's relationships with third parties; ability to obtain required approvals of regulatory authorities; and the ability to access sufficient capital from internal and external sources.

Management has included the above summary of assumptions and risks related to forward-looking information above in order to provide readers with a more complete perspective on Entropy's future operations and such information may not be appropriate for other purposes. Entropy's actual results, performance or achievement could differ materially from those expressed in, or implied by, these forward-looking statements and, accordingly, no assurance can be given that any of the events anticipated by the forward-looking statements will transpire or occur, or if any of them do so, what benefits that Entropy or Advantage will derive therefrom. Readers are cautioned that the foregoing lists of factors are not exhaustive. These forward-looking statements are made as of the date of this news release and Entropy and Advantage disclaim any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise, other than as required by applicable securities laws.

This press release contains information that may be considered a financial outlook under applicable securities laws about Entropy's potential financial position, including, but not limited to, the anticipated capital costs and operating costs of Entropy's Glacier CCS project; and Entropy's anticipated total investment in Glacier Phase 2; all of which are subject to numerous assumptions, risk factors, limitations and qualifications, including those set forth in the above paragraphs. The actual results of operations of Entropy and the resulting financial results will vary from the amounts set forth in this press release and such variations may be material. This information has been provided for illustration only and with respect to future periods are based on budgets and forecasts that are speculative and are subject to a variety of contingencies and may not be appropriate for other purposes. Accordingly, these estimates are not to be relied upon as indicative of future results. Except as required by applicable securities laws, neither Advantage nor Entropy undertakes any obligation to update such financial outlook. The financial outlook contained in this press release was made as of the date of this press release and was provided for the purpose of providing further information about Entropy's potential future business operations. Readers are cautioned that the financial outlook contained in this press release is not conclusive and is subject to change.

The following abbreviations used in this press release have the meanings set forth below:

GJ	*gigajoule*
mmtpa	*million metric tonnes per annum*
tpa	*tonnes per annum*

SOURCE Advantage Energy Ltd.

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