

## **Entropy Inc. Provides Corporate Update and Announces Passing of Rick Bower**

**(TSX: AAV)**

CALGARY, AB, Sept. 28, 2023 /CNW/ - Entropy Inc. ("Entropy" or the "Corporation"), a subsidiary of Advantage Energy Ltd. ("Advantage"), provides a corporate update and announces with deep sympathy the passing of Rick Bower, Entropy's Chief Technology Officer.

### **Corporate Update**

Entropy continues to expand our focus on the United States, with three projects advancing through engineering phase under commercial agreements. Preliminary front-end engineering and design ("pre-FEED") has been completed on two American projects: a gas-fired steam generation facility in California and a gas-fired power generation project in Texas. Both projects are continuing to advance towards final investment decision ("FID"), with the next major milestones being the receipt of Environmental Protection Agency Class VI disposal permits and final commercial agreements. Engineering is now underway for a third American project, located in the U.S. Midwest, to capture post-combustion CO<sub>2</sub> at an ethanol facility from gas-fired boilers. In aggregate, these projects are intended to capture and store over 1.4 million tonnes per annum ("TPA").

Entropy has been awarded three additional pre-FEED contracts in Canada: a large industrial emitter in Ontario, gas-fired boiler project in Alberta and a gas-fired steam generator in Saskatchewan. This design work is in addition to the pre-FEED work that has been completed on Glacier Phase 2 and Athabasca Leismer. In aggregate, the first phases of these five projects are intended to capture and utilize or store over 4 million TPA.

### **Introducing iCCS™ Standardized Designs**

Entropy is pleased to announce the evolution of our carbon capture technology into three standardized process designs, each integrating state-of-the-art advancements custom engineered for different styles of post-combustion emissions. Each of the three process designs are based on modular technology which is fabricated in controlled environments to deliver higher energy efficiency, lower total installed cost and predictable quality control. Scalability is a key benefit of Entropy's design enabling rapid, low-cost deployment.

For boilers and steam generators, iCCS Thermal™ is designed to optimize carbon capture and storage ("CCS"), seamlessly integrating with boilers to curb emissions. For industrial engines, including compressors, iCCS Recip™ is based on innovative designs which have already been deployed and are currently operating at the Glacier Gas Plant in Alberta. Most significantly, Entropy has developed iCCS Turbine™, which is a standardized, optimized design to capture emissions from gas-fired turbines with low CO<sub>2</sub> concentrations of around 4% and can be applied worldwide at any power generation installation.

By standardizing these three applications, Entropy is now prepared to deliver CCS solutions with minimal new process engineering. Any gas-fired boiler, engine or turbine is a suitable target for iCCS™ and all new installations of these industrial emitters can be fabricated with minimal additional cost to be "iCCS™ ready".

### **Glacier CCS Phase 1a, Phase 1b, and Phase 2 Update**

Glacier Phase 1a was commissioned in July 2022 with industry-leading performance and reliability. The operational experience that Entropy is gathering by operating this commercial CCS plant continues to build our competitive advantage, demonstrating global leadership in this vital technology.

Construction of Glacier Phase 1b remains on-schedule to be commissioned in Q4 2023, with all major equipment modules expected on-site by mid-October. Phase 1b involves the capture and storage of an additional 16,000 TPA using iCCS Recip™, at an expected total installed cost of approximately \$14 million.

As previously disclosed, all major Canadian projects remain on pause pending advancement in Canadian carbon policy including clarity on the federal investment tax credit and carbon price certainty. We remain optimistic that, with the numerous emerging policies and supportive government-sponsored entities, positive FID will be reached on several projects.

### **Founding of the University of Regina Entropy Research Chair**

Entropy is pleased to announce the founding of the Entropy Inc. Research Chair in Carbon Capture Technology

at the University of Regina (the "University"). For decades the University has been a global leader in carbon capture technology research and development and a source of great innovation. The Research Chair has been awarded to Dr. Raphael Idem, an internationally recognized leader in the space. Further, Entropy has established a Fellowship in Carbon Capture Technology which has been awarded to Dr. Paitoon Tontiwachwuthikul. Entropy looks forward to continued collaboration and further innovation with these leading researchers.

## **The Passing of Rick Bower**

The Entropy team is sad to announce the passing of Rick Bower, co-founder and Chief Technology Officer of Entropy, as well as co-founder and principal of Allardyce Bower Consulting Inc. ("ABC"). Rick was a key driver of innovation and technology behind Entropy's business, including the integration of state-of-the-art research derived from the Clean Energy Technologies Research Institute at the University of Regina. Rick developed a legendary reputation throughout industry for innovative modular designs that resulted in unmatched operational performance and cost structures.

Mr. Michael Belenkie, President and Chief Executive Officer of Entropy, stated "We want to extend our deepest condolences to Mr. Bower's family, and it is with great sadness that we say goodbye to such a tremendous friend. It was an incredible honor to work with Rick as a part of his illustrious 5 decades in the industry. Although Entropy's business will continue to thrive thanks to the legacy of Rick's vision and innovations and the talented individuals he mentored, Rick will be sorely missed by all."

## **About Entropy**

Entropy is a privately-owned company 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](http://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: Entropy's position, strategy and development plans and the benefits to be derived therefrom; Entropy's expectations that its pre-FEED projects in the United States will continue to advance towards FID and that they will receive Environmental Protection Agency Class VI disposal permits and advance their commercial agreements; the anticipated total emissions captured from Entropy's projects under development in the United States and in Canada; the anticipated benefits to be derived from Entropy's three iCCS™ standardized designs; that Entropy will be able to deliver CCS solutions with minimal new process engineering; Entropy's expectations that it is poised to revolutionize carbon capture across various sectors and the anticipated benefits to be derived therefrom; the anticipated timing of when Glacier Phase 1b will be commissioned and when all major equipment modules will be on-site; Entropy's expectations that Glacier Phase 2 will reach a positive FID; 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 and Canada, will lead to completed projects; that Glacier Phase 2 will reach FID; that the government will provide additional clarity on the federal investment tax credit and carbon price certainty; 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 Entropy's pre-FEED projects in the United States may not reach FID or receive Environmental Protection Agency Class VI disposal permits; the risk that the total emissions captured from Entropy's projects under development in the United States and in Canada may be less than anticipated; the risk that Entropy's three iCCS<sup>TM</sup> standardized designs may not lead to the benefits anticipated; the risk that Entropy may not deliver CCS solutions with minimal new process engineering; the risk that Entropy may not revolutionize carbon capture across various sectors; the risk that Glacier Phase 1b may not be commissioned or have all major equipment modules on-site when anticipated, or at all; the risk that Glacier Phase 2 may not reach a positive FID; the risk that Entropy's existing engagements, including with respect to its projects in the United States and in Canada, may not lead to completed projects; 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.*

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

*CO<sub>2</sub> carbon dioxide  
tpa tonnes per annum*

SOURCE Advantage Energy Ltd.

For further information: Mr. Michael Belenkie, President & CEO, Entropy Inc., 1-866-393-0393, info@entropyinc.com, www.entropyinc.com, 2200, 440 - 2nd Avenue SW, Calgary, Alberta T2P 5E9, Phone: (403) 718-8000, Fax: (403) 718-8332, Toll free: 1-866-393-0393

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