

June 2021 – CSUR Technical Webinar #3

CCUS IS A GAME CHANGING TECHNOLOGY, BUT AT WHAT COST?

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TECHNICAL WEBINAR SERIES



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CCUS IS A GAME CHANGING TECHNOLOGY, BUT AT WHAT COST?

PRESENTED BY

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JODI ANHORN - GLJ.

MICHAEL BELENKIE - ENTROPY INC AND ADVANTAGE ENERGY LTD.

As the Global Energy industry continues to search for its place in the changing and at times unforgiving demands of the ESG (Environmental, Social & Governance) Narrative, it also brings about or forces innovation to occur. Although the technology to inject CO₂ into reservoirs has been in place for decades and has most commonly been used for enhanced recovery (EOR) schemes throughout the world, CCUS appears to have taken on a much broader context over the last few years. The focus of the energy industry, and in fact all industries, has turned towards sustainability within this new ESG context. For the subject session, CSUR was pleased to have two panelists who are both considered key proponents of this technology and have a significant stake in both the industry & this technology: Craig Golinowski, President & Managing Partner – Carbon Infrastructure Partners and Michael Belenkie, President & CEO – Entropy Inc. and President & COO – Advantage Energy Ltd. The panel discussions were led by Jodi Anhorn, President & CEO – GLJ Ltd.

In navigating the session and the panel, the moderator initially took the time to introduce the topic, the objectives of the session, the dynamics of this technology, the mechanics & components for its success, and the selection of the panelists. With the carbon emission reduction commitments in place, discussions revolved around setting realistic goals &

targets, project scalability & sustainability, and piggybacking on existing infrastructure. In addition, discussions also evolved onto the policy / regulatory level and how governments must have consistent & complementary incentives in the form of tax credits or royalties to spur further innovations and investments. With the number of potential projects that could be kicked off almost immediately, the economics component was, to no one's surprise, the underlying concern and garnered many comments and questions from the panel and audience alike.

Based on respective comments and experiences of the panelists, it would appear that the current USA policies are more favorable, while Canadian projects appear to be on the riskier side. However, the Canadian Federal Government is in the process of evaluating potential policy changes to incentivize the energy industry and provide a more competitive landscape for CCUS and other emission reduction initiatives. Although technology will be the driving force, both panelists agreed that the overall economics will dictate how many projects actually get off the ground. Given the benefits and potential of this technology for Alberta and the local energy industry, the panel also indicated that a concurrent provincial incentive program would be a welcome boost and were puzzled why there wasn't one in place already.

The general consensus was that EOR projects would be relatively easy to implement with the right incentives and economics. The impact of these projects would have a double benefit: carbon storage to reduce emissions & up the ESG score and provide incremental recovery from mature fields. Although the CO₂ injection volumes in EOR projects would be much lower compared to specifically designed storage projects, a sustained wave of higher commodity prices could, on its own, be a sufficient impetus for many operators!

Summary

Fact: The demand for energy continues to grow.

Fact: The demand to decrease emissions across the energy industry, in fact all GHG emitting industries, continues to grow.

These facts may seem at odds with each other. Thus, in response many companies across North America have set aggressive targets to reduce GHG emissions and improve their ESG performance. One established technology to help them make this a reality is carbon capture, utilization and storage (CCUS). This is an important emissions reduction technology that can be applied across the energy system.

The Global CCS Institute states *"In the fight against climate change, carbon capture and storage (CCS) is a game-changer. Its ability to avoid carbon dioxide (CO₂) emissions at their source and enable large-scale decreases to CO₂ already in the atmosphere via CO₂ removal technologies, make it an essential part of the solution."*

Recent reports from the U.N. itself state that this is a key tool in any international climate agreement: *"This will thereby allow fossil fuels to become "part of the solution", rather than remain "part of the problem", and that "All technologies have a role to play in an energy system guided by rational economics."* We agree! Thankfully, these discussions around rational economics are already underway!

Please join our panelists, who are key stakeholders related to CCUS and carbon management, as we discuss the real opportunities in this space, along with the risks and economics of making CCUS a reality within Western Canada.

PRESENTERS: Craig Golinowski, President and Managing Partner from Carbon Infrastructure Partners | Jodi Anhorn, President and CEO from GLJ. | Michael Belenkie, President & CEO - Entropy Inc and President & COO - Advantage Energy Ltd.



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Craig Golinowski

President and Managing Partner
Carbon Infrastructure Partners

Craig has 18 years of experience in the financial and oil and gas industry and has been active in private equity fund management since 2007, when he joined JOG Capital, the predecessor to CIP. He has board of directors experience representing C\$437 million of invested fund capital. His primary responsibilities include deal sourcing and investment decision-making, as well as running CIP.

Craig is a member of the Fund's Investment Committee.

His wide-ranging experience includes structuring complex financial and legal transactions with an entrepreneurial approach, broad exposure to oversight roles involving the execution of large multi-faceted projects, and knowledge and experience of ESG planning, execution and monitoring.

Prior to JOG, he worked as an investment banker with RBC Capital Markets, where he focused on equity finance and mergers and acquisitions for domestic and international oil and gas, oil sands, and energy service companies.

Craig received his CFA charter in 2005 and holds an MBA from the University of Western Ontario and a Bachelor of Commerce degree, with a specialization in Finance and Economics, from the University of Alberta.

Jodi Anhorn

President & CEO
GLJ

Responsible for corporate evaluations including significant acquisitions and divestiture projects. His extensive experience includes reserves and resource evaluations, detailed field development studies including CCUS, rate transient analysis and has served as the project lead on multi-discipline asset teams providing buy side technical and economic analysis. Mr. Anhorn is an expert working with executive teams and the financial community in the preparation of domestic and international resource assessments, with the appropriate securities disclosure rules.

Mr. Anhorn is a strong supporter of industry education and has presented numerous workshops and courses throughout Canada, USA and Europe. The primary theme of these workshops is presenting on unconventional reservoirs, incorporating reserves and resources and approved disclosure used within COGEH (NI 51-101), SEC, SPE-SRMS/PRMS. Jodi holds an M.Sc. in Chemical Engineering from the University of Calgary. He is an active member of both the SPE and the SPEE as co-author in the recently published Canadian Oil and Gas Evaluation Handbook (COGEH).

Michael Belenkie

President & CEO - Entropy Inc,
President & COO - Advantage Energy Ltd.

Mr. Belenkie joined Advantage in October 2018 as Chief Operating Officer, and was promoted to President and Chief Operating Officer in October 2019; he has over 20 years of diverse experience in the oil and gas industry. Between 2012 and 2018, Mr. Belenkie founded and helped lead Modern Resources to become a highly efficient Deep Basin producer which included oversight on all aspects of the Corporation. From September 2008 to December 2011, Mr. Belenkie held



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roles of increasing responsibility at Painted Pony including Vice President of Reservoir Engineering and Corporate Development. Prior thereto, Mr. Belenkie held various roles at Talisman Energy (1995-2008) within their North American assets, including Team Lead of Montney and Northeast British Columbia.

During 2006 and 2007, Mr. Belenkie was a management consultant with RLG International, working with leadership teams in two major producers in Alaska and Canada, while on secondment from Talisman. Mr. Belenkie received his BSc. In Mechanical Engineering from University of Calgary in 1997 and is a registered professional engineer with APEGA.

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June 23rd, 2021 | 10:00am MT
pre-registration is mandatory

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