



## **Geoscientist's Role in the Expanding Energy Complex**

Presenter: Patrick Elliott

Time: Doors open at 11:30 am, Talk begins at 12:00pm (MST)

Location: Calgary Petroleum Club, Devonian Room, Calgary AB

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### **ABSTRACT**

Today's energy complex attempts to balance the priorities of meeting global energy demand, maintaining affordability, providing energy security, and reducing emissions. All credible energy forecasts expect hydrocarbon production and consumption to be a significant part of the energy mix for decades to come. Yet hydrocarbon development has faced several challenges in the past decade, which has ultimately restricted its development. As a result, there is currently a strain on the energy complex to deliver the volume of energy demanded globally, which has stirred up geopolitical issues whose impact is just starting to be felt. Is Canada able to meet the challenge of providing abundant and reliable energy while simultaneously reducing associated emissions?

Canada is well positioned having both the talent pool and natural resources to meet these challenges. Carbon capture and sequestration (CCS) is a proven and relatively rapid mechanism that can impactfully reduce emissions from industrial activities relying on hydrocarbons for energy. Geothermal energy can produce baseload emissions-free power, while mining solutions will produce the critical metals required for battery technologies. Canada has the experience, a skilled labor force, a national fabrication industry and well-established regulatory pathways to position it as a global leader in these emerging industries. The Western Canadian Sedimentary Basin will continue to meet the national imperatives of providing energy security while generating trading wealth for Canada. However, it also represents an incredible opportunity for CO<sub>2</sub> storage, geothermal energy, and minerals extraction that will facilitate low emissions energy production to meet growing global demand.

Geoscience will continue to be at the heart of the development of Canada's existing petroleum energy systems. However, geoscience will play an equally important role in the future energy systems of CCS, geothermal, and minerals extraction. These emerging industries will provide a broader array of career choices that will hopefully inspire the next generation of geoscientists to continue to solve global energy and emissions challenges.



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## BIOGRAPHY

Prior to co-founding Carbon Alpha, Patrick was the Executive Vice President and co-founder of Jupiter Resources, a private Calgary-based energy company. From 2007 to 2014, Patrick was Vice President of Business Development and a co-founder of Canbriam Energy. Since 2018 Patrick has been an Associate at Creative Destruction Lab – Rockies and recently appointed as an Investment Advisor at UCeed Energy Transformation at the University of Calgary. Patrick has been involved in developing, acquiring, and managing natural resource assets and teams for more than 27 years and is passionate about leadership, entrepreneurship and technology innovation. He holds a BSc (Hons) in Geology from the University of Western Ontario and is a Professional Geologist with APEGA.