

## **Kick-off Meeting**

Date: September 24, 2021

Time: 11AM - 12PM Eastern US/10AM - 11AM Central US

Location: Online (link to be shared)

## **Keynote speakers:**

**Dr. Steven Bryant,** Canada Excellence Research Chair in Materials Engineering for Unconventional Oil Reservoirs.

Having Your Carbon Cake and Eating It Too: Combining Negative Emissions Technologies with Energy Production



**Negative Emissions Technologies burst** 

onto center stage of climate action in late 2018, as a series of reports from the IPCC, Energy Frontiers Initiative, US National Academies and others concluded that avoiding emissions, for example by capturing CO2 from flue gas, remains essential for avoiding catastrophic climate change -- but no longer sufficient. Now, and for decades to come, more is required: we must also actively remove CO2 from the atmosphere.

Unfortunately, very few options for negative emissions are currently on the table. Society urgently needs more choices in order to allocate its resources to greatest effect. The idea of coupling emerging technologies to capture CO2 from the atmosphere with familiar technologies for injecting and producing fluids in subsurface reservoirs is therefore timely. This combination also addresses drawbacks of existing options.

Can the oil and gas industry provide this novel option? Christiana Figueres, the former executive secretary of the United Nations Framework Convention on Climate Change, framed this question more starkly during the UN Climate Action Summit in September 2019. She told a gathering of international oil company CEOs they have the power "to either put a nail in the coffin of global efforts [to mitigate climate change], or be the industry to deliver the solution."

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## **Kick-off Meeting**

**Dr. Birol Dindoruk**, American Association of Drilling Engineers Endowed Professor of Petroleum Engineering at University of Houston

## Energy Transition: Future Energy Mix & Role of Hydrocarbons

Demand for energy has continued to increase owing to worldwide industrial development. From a historical perspective, the significant demand for energy has been met through various energy sources, especially during and after the industrial revolution. Hydrocarbons, or



fossil fuels such as oil and gas, have been instrumental during this time frame for multiple reasons, from various market price points to their high energy density and abundance. Perhaps for nearly a century, many predictions and models were developed for the fate and the utilization of hydrocarbons. Many of these models have been incorrect to date, as the future is difficult to predict, given the many political, economical, social, and technological uncertainties that need to be taken into account. In addition, we also see a lot of attempts to save the world with powerpoint with motivational talks with no reality infused at scale, mostly using the same material from the web. This talk will focus on the current state of the global energy mix and a more realistic prediction of current and future energy alternatives. It is well known that the Human Development Index and primary energy use per capita are correlated. As future energy demand is expected to increase along with population, meeting this demand in a scalable manner poses many challenges. In terms for these challenges, we also see that it is hard to separate CO2, clean air and water from the integrated energy systems.

To register for the meeting and obtain the link for the virtual meeting, email: SouthernUSChapter@InterPore.org

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