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Blog Post

Innovation and Investments in Carbon Capture, Utilization, and Storage

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On February 24, 2021, we posted a link to the video for the first “sustainable” fireside chat in Kirkland’s ESG & Impact Webinar Series. The topic was Innovation and Investments in Carbon Capture, Utilization, and Storage (CCUS). The webinar was hosted by Kirkland ESG & Impact practice leader Alexandra Farmer with special guest Dr. Julio Friedmann, Senior Research Scholar at the Center for Global Clean Energy Policy at Columbia University. The conversation highlighted the burgeoning interest in CCUS, driven by the critical role it is expected to play in attaining the goals of the Paris Agreement, and potential opportunities in the CCUS market.

The Paris Agreement and Interest in CCUS

The Paris Agreement establishes a goal of limiting global warming to 2 degrees Celsius (preferably 1.5 degrees) relative to the pre-industrial era. To attain this goal, the Paris Agreement signatories aim to reach global peak greenhouse gas emissions as soon as possible and net zero greenhouse gas emissions by 2050. CCUS is expected to play a critical role in achieving net zero by mid-century, especially in industries where physical emission reductions may otherwise be difficult to accomplish (e.g., the oil and gas, heavy industrial, or construction industries).

CCUS Market Opportunities

Growing investor and regulatory pressure to achieve net zero has generated significant interest in CCUS, provided certain potential hurdles to growing the market can be overcome. Dr. Friedmann noted the following potential hurdles for CCUS projects:

- a lack of physical infrastructure for CCUS projects (particularly CO_2 pipelines capable of transporting captured CO_2 to storage sites);
- potential opposition from environmental activist groups, which may view CCUS as an extension of the traditional energy industry; and
- a nascent support infrastructure for CCUS projects, including for financial, legal, and technical professionals.

However, regulatory incentives and governmental commitments to scaling CCUS projects are expected to lower these barriers to entry and increase the commercial viability of CCUS projects in the coming years. For example, Wyoming recently announced the Wyoming Pipeline Corridor Initiative, which designates 2,000 miles of corridors across private, state, and federal lands in Wyoming for future use for CO_2 pipeline development. Similarly, various local, state, provincial, and federal governments across the world have implemented or are considering implementing policy-based incentives for CCUS project development, such as carbon taxes or credit-based trading schemes for carbon reduction from CCUS projects. According to Dr. Friedmann, the maturing policy and regulatory market will present excellent commercial opportunities for CCUS projects, particularly:

- projects with a pure (95%+) CO_2 stream, such as ethanol or blue hydrogen facilities;
- projects with high concentration (30-60%) CO_2 streams, such as cement or steel facilities; and
- electric generating stations in markets where rate recovery is available and there is existing infrastructure for CCUS projects, such as California and Illinois.

Kirkland & Ellis' CCUS team assists clients with all aspects of CCUS projects, such as bank and tax equity financing, private fundraising, joint venture and other structuring arrangements, project-level diligence, and regulatory and permitting counseling. Inquiries can be sent to carboncapture@kirkland.com.

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