Hogan Lovells

Environmental, Social, and Governance

Carbon capture, utilization, and storage

Mission statement

The transition from fossil fuels to net zero greenhouse gas (GHG) emissions is a significant challenge for all sectors. Carbon capture, utilisation, and storage (CCUS) is a key technology that may be set to play a major role in energy transition. CCUS involves the capture of CO2 from fossil or biomass-fuelled power stations, industrial facilities or directly from the air. The CO2 is then transported (by ship, road, or pipeline) to either be used (applications include fuels, chemicals, and building materials) or stored permanently in underground geological formations (onshore or offshore).

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Summary

There are efforts to drive decarbonization across all regions and industries. Where actual reduction of carbon emissions is not possible to achieve – especially in the short term – carbon offsetting and trading are important drivers and financers of the global energy transition.

As carbon markets mature, there is more regulation of, and transparency around carbon trading and the underlying accreditation of the credits.

However, there remain concerns around legal issues related to double-counting of greenhouse emission reductions, human

What we do

We understand carbon capture and storage (CCS), the commercial context, what it means for the best solution, project outcomes and financial returns: We have advised on a huge range of low carbon, renewable and carbon capture technologies.

We support our clients engaging in, and affected by, the green energy transition as they develop new and innovative solutions and adapt their businesses toward transformation of the global energy sector from fossil-based to low- and zero-carbon energy sources. We advise many clients on reducing their carbon footprint while ensuring regulatory and legislative compliance.

Long before CCS projects became popular in the U.S. and the 45Q tax credit gained broad recognition as a potential funding/ revenue source for CCS projects, Hogan Lovells was assisting clients developing CCS projects in the U.S. and with 45Q tax credits.

Our lawyers helped draft the original 45Q tax credit legislation in 2008. Following the enactment of that original legislation, we helped oil and gas exploration companies and CO2 emitters explore the potential and requirements for earning and monetizing the 45Q tax credit. In 2018, our lawyers were involved in the lobbying effort that resulted in amendments and significant expansion of the 45Q tax credit.

Our impact

- JX Nippon on its acquisition of full ownership of Petra Nova Parish Holdings, the operator of a project to harness carbon dioxide emissions from a Texas coal-fired power plant, the world's largest carbon capture and storage facility with capacity to capture and separate 1.6m tons of carbon dioxide annually.
- Drax in relation to its investment in C-Capture, the designer of world-leading and innovative chemical processes for carbon dioxide removal.
- Ofgem in relation to the design and delivery of the RAB economic regulatory model to be applied to CCUS transport and storage.
- One of the largest carbon dioxide producers in the U.S. in regulatory and environmental strategic matters related to their emissions and the evaluation of dedicated sequestration opportunities.
- A coalition of companies planning CCS EOR projects to convince the IRS and EPA to be more flexible in application of the SDWA / UI requirements.
- The White Rose consortium on the development of a £2bn, 426 MW ultra-supercritical oxy-fuel coal-fired power plant with full chain carbon capture and storage.
- A developer of a CCS project in connection with hydrogen production.
- The Crown Estate on the award of a landmark agreement for the development of a carbon capture and storage project.

Useful links

Climate Change

Development

Renewable Power

Energy Regulatory

Energy Legislation and Power

Our ESG Offering