



IEA Ministerial Meeting 2019

Side-Event

Accelerating CCUS: New opportunities for deployment

Chairs' Summary

5 December 2019

Paris, France

Centre de Conférence Ministériel (CCM) Ministère
de l'Europe et des Affaires Étrangères 27 rue de la
Convention, 75015 Paris

International
Energy Agency





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CCUS poised for major contribution to energy and climate goals

Global energy leaders met on the margins of the 2019 International Energy Agency (IEA) Ministerial meeting to recognise substantial progress in advancing carbon capture, utilisation and storage (CCUS) and to identify the key enablers for near-term investment.

The critical importance of CCUS was acknowledged in the context of the persistent and growing gap between stated climate ambitions and energy-related CO₂ emissions. Delegates stressed that a portfolio of technologies, including CCUS, is needed to bridge this gap while supporting energy security, energy access and economic development goals.

Today, CCUS facilities around the world are capturing more than 35 million tonnes of CO₂ (MtCO₂) each year – equivalent to the annual CO₂ emissions of Ireland – with this contribution set to grow. Since the 2017 IEA Ministerial CCUS Summit, new policy incentives and strengthened climate policies have bolstered plans for CCUS deployment. This includes in the United States, where the [expanded 45Q tax credit](#) and complementary policies are spurring an unprecedented level of interest and investment in CCUS, and in the United Kingdom, Norway and Netherlands where the development of CO₂ transport and storage hubs are supporting the decarbonisation of industrial regions.

Recent announcements and commitments have the potential to more than double current global CO₂ capture capacity, but this would still fall well short of the scale-up needed. In the IEA Sustainable Development Scenario, CCUS delivers 9% of cumulative emissions reductions in the period to 2050 and requires a 20-fold increase in annual CO₂ capture rates from power and industrial facilities in the next decade. The IEA analysis underscores the need for strengthened international partnerships for CCUS deployment, recognising the important role that CCUS can play across sectors and economies globally.

The next generation of CCUS developments planned for the 2020s highlight new opportunities for deployment and the potential for CCUS to support emissions reductions across global energy systems, from hard-to-abate industrial sectors and new and existing power generation assets to low-carbon fuels and carbon removal. In particular:

- CCUS can facilitate an accelerated pathway for **low-carbon hydrogen production**. Today, virtually all hydrogen is produced from fossil fuels and the IEA has identified that up to 4.5 million tonnes of CO₂ is being captured each year from existing hydrogen production facilities. Recently announced CCUS projects in Europe aim to support low-carbon hydrogen production for power, industry and transport.
- Numerous new CCUS developments involve **industrial CCUS hubs**, including at major ports. These projects will capture CO₂ from multiple emissions sources with shared transport and storage infrastructure to reduce unit costs and facilitate an accelerated scale-up of CCUS. Plans for hubs involving offshore CO₂ storage received a significant boost in 2019, with the approval of

a Resolution for Provisional Application of the 2009 CCS Export Amendment under the London Protocol. This allows countries who have ratified the 2009 amendment to export and receive CO₂ for offshore geological storage.

- New pathways to **use or recycle CO₂** for the production of synthetic transport fuels, chemicals and building materials could provide a market for captured CO₂ while supporting emissions reductions. The potential contribution of these technologies was recognised in the 2019 G20 Osaka Leaders' Declaration under Japan's Presidency and at the Ministerial Conference on Carbon Recycling in Tokyo in September 2019.
- Significant progress in advancing **carbon removal** technologies has been achieved, with plans to commission a 1 MtCO₂ per year direct air capture facility in the United States and a pilot bioenergy with CCS plant now operating in the United Kingdom at the Drax power station.

While recent progress is encouraging, delegates emphasised the urgency of accelerating progress and ensuring that the next generation of facilities in planning are able to proceed to a final investment decision. This will require the implementation of targeted policies and programmes, analogous to the support provided for the successful commercialisation of other low-carbon technologies. New business models for CO₂ transport and storage infrastructure, with appropriate risk-sharing arrangements between governments and industry, will be important for early investments. The development of new financial products and enhanced engagement with investors to catalyse private financing will also be key to ensuring CCUS is positioned to make a major contribution to global energy and climate goals.

The 2019 IEA Ministerial side event builds on recent partnerships to support engagement between energy ministers, industry CEOs, and the finance sector to accelerate the deployment of CCUS. This includes the CCUS Summit held during the 2017 IEA Ministerial meeting, co-chaired by the United States, and the 2018 International CCUS Summit, co-chaired by the United Kingdom. These partnerships are designed to complement and reinforce other important international initiatives, particularly the Clean Energy Ministerial CCUS Initiative, Mission Innovation, and the Oil and Gas Climate Initiative.

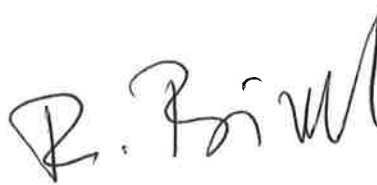
Participants recognised the leadership of the IEA and welcomed the announcement that the IEA's flagship technology publication, *Energy Technology Perspectives*, will be revamped in 2020 and will revisit the opportunities for CCUS as part of a portfolio of technologies for clean energy transitions.

As the Co-chairs of this CCUS side event, we would like to thank all participants for their active engagement and constructive contributions.

Signed:



Ted Garrish
Assistant Secretary, Department of Energy
United States of America



Fatih Birol
Executive Director
International Energy Agency