

CCS in a just, green post-Covid recovery

June 2020, Rebecca Bell, Policy & Research Officer

Carbon capture & storage in a just, green recovery

Carbon capture and storage (CCS) will be a crucial part of Scotland's just transition to a net zero economy. It enables industries to decarbonise deeply, retaining jobs in manufacturing across Scotland. It provides a good fit for repurposing the skills in the chemicals and oil and gas industries. It allows North Sea gas to be used to produce low-carbon hydrogen, and it enables essential materials, such as steel and cement, to be produced with low embodied carbon, supporting the construction industry. CCS requires carbon dioxide (CO₂) capture facilities at industrial sites; CO₂ transport by pipeline, ship, rail or road; and secure offshore geological storage. The resources and technologies for all of these already exist: they just need to be deployed at scale to help Scotland's hard-to-treat sectors to decarbonise.

Developing pipelines, port facilities, gas handling facilities and CO₂ storage sites is the kind of large infrastructure project that could stimulate economic recovery after Covid-19. Having this infrastructure would bring forward the availability of a CO₂ takeaway service for industrial CO₂ emitters, meaning that emissions targets for industry can be tightened and credible, green 'strings' can be attached to any bail-out or support package.

Investment in CCS infrastructure would deliver construction and engineering jobs across Scotland. This would support decarbonisation of Scotland's industry; provide the opportunity for bulk production of hydrogen to decarbonise heat and transport; and enable greenhouse gas removals to offset residual emissions. Scotland's CO₂ storage resource is such that it also has capacity for other parts of the UK and European Union, providing a new revenue stream for the Scottish economy.

Policy recommendations

Invest in developing CO₂ transport and storage infrastructure in Scotland: Delaying CCS investment while waiting for UK Government decisions on business models and roadmaps could mean more years of missed opportunities for deep cuts in emissions, as well as missed potential for supporting construction and engineering jobs.

Ensure business support aligns with net zero: Any businesses given support by the Scottish Government should be required to set and report on science-based targets that align with the Paris Agreement. Support this by making CO₂ transport and storage infrastructure available.

Use the Climate Emergency Skills Action Plan to set the framework for re-training workers in line with the Committee on Climate Change's recommendations. This must include making the most of skills and expertise in the oil and gas industry, identifying where workers can be re-deployed in CCS, hydrogen or renewables, and supporting them to re-train.

Make sure skills planning is fit for the technologies of the future, not just the technologies of today. CCS and hydrogen are not yet deployed at scale in Scotland but it is only a matter of time.

Grasp the supply chain opportunities of CCS and hydrogen: Avoid the mistakes made in offshore wind deployment and support investment in Scottish companies, which can be part of the CCS and hydrogen supply chain, before it is too late.

Set the framework for green growth through the land use planning system and public procurement. Reducing emissions from new development must be at the heart of the land-use planning system, and CCS-readiness requirements should be applied to all CO₂ emitters over a certain threshold, not just power generation. Use public procurement to stimulate demand for low-carbon products, particularly cement and steel in construction projects.

Develop a strategy and policy statement for CCS to set the direction of travel for deep decarbonisation, and give industry the confidence to invest.

Scottish Carbon Capture & Storage (SCCS) is a partnership of the British Geological Survey, Heriot-Watt University, the University of Aberdeen, the University of Edinburgh and the University of Strathclyde working together with universities across Scotland.

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