

CCS is a Necessary Investment for the UK's Net Zero Future

10 February 2025

Response to Public Accounts Committee – CCUS Inquiry Report

The UK Parliament's Public Accounts Committee inquiry, and its subsequent report, on Carbon Capture Usage and Storage (CCUS or CCS, for Carbon Capture and Storage), have raised concerns regarding Government investment in CCS. While the Institute recognises the challenges associated with the widespread, large-scale deployment of CCS, the facts are clear: CCS is a proven and essential solution for industrial decarbonisation, achieving net zero emissions and ensuring a just energy transition for workers and local communities dependent on emissions intensive industries.

CCS is crucial to net zero

Achieving net zero emissions targets requires a range of solutions, and CCS plays a vital role in decarbonising industries that have limited alternatives. Alongside other climate solutions like electrification, we need CCS to decarbonise critical sectors such as cement, steel and fertiliser production: industries that are indispensable yet produce emissions that are unacceptable.

The Committee on Climate Change has stated that CCS is "...a necessity, not an option."¹

The International Energy Agency has highlighted that "...reaching net zero will be virtually impossible without CCUS."²

CCS is proven and safe

CCS is a mature and proven climate solution, underpinned by technologies that have been available since the 1970s, along with decades of global research. Dedicated CO₂ storage facilities have been in operation since the mid-1990s, and the industry has extensive experience in CO₂ pipeline development and operation.

Currently, the project pipeline includes 50 commercial-scale CCS facilities worldwide in operation with the capacity to capture and store around 51 million tonnes (Mt) of CO₂ per year. Additionally, over 550 other CCS facilities are in various stages of

¹ [Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf](#)

² [CCUS in Clean Energy Transitions – Analysis - IEA](#)

development around the world.

CCS is a necessary investment

Addressing climate and clean energy goals requires building new infrastructure that can help reduce CO₂ emissions, drive economic development, and create new jobs. Large-scale infrastructure development has historically relied on government support, and CCS is no different.

The alternative to CCS is ongoing emissions and higher cost decarbonisation pathways, jeopardising both UK industry and climate targets – the real risk lies in not investing in CCS.

The costs of failing to meet global climate goals and the impacts of climate change far outweigh the investment required for proven technologies like CCS.

CCS paves the way for new low-carbon industries and economic benefits

The UK cannot afford to scale back its CCS ambitions. CCS plays a critical role in mitigating emissions from industry, stabilising power grids alongside renewables, enabling low-carbon hydrogen production, and supporting carbon removal technologies. Moreover, CCS sustains jobs, repurposes existing infrastructure, and provides an immediate pathway to industrial decarbonisation. Lowering ambitions now may place UK industry at a competitive disadvantage as other countries accelerate their CCS investments.

CCS momentum has surged. Now is the time to ramp-up ambition.

The commercial scale-up of CCS is currently accelerating. The Institute's 2024 Global Status of CCS Report identified 628 CCS projects at various stages of development across the CCS value chain with a cumulative capture capacity of over 416 million tonnes per annum (Mtpa) across the entire project pipeline, representing a 32% compound annual growth rate (CAGR) over the last seven years. Additionally, 44 projects have now reached Final Investment Decision (FID), and upon completion, these will double global operational capacity.

However, more progress is necessary as we are at a critical juncture for CCS deployment. Continued policy and funding commitments, along with tangible efforts made by government and industries to rapidly deploy CCS projects, will be critical to keeping our climate targets within reach.

The UK must continue to ensure that policies, funding, and regulatory frameworks support CCS deployment at scale, safeguarding both emissions targets and industrial competitiveness.