

# SCCS Press Release

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For immediate release

Response to UK Public Accounts Committee report on Carbon capture and storage.

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On Friday 7th February 2025, the UK Parliament's Public Accounts Committee published its [Eighth Report on Carbon Capture, Usage and Storage](#)

This report paints a mixed picture of Carbon Capture and Storage (CCS) developments and government support in the UK. Because the report is based on evidence volunteered to the Committee, the evidence base is often sparse, sometimes contradictory, and sometimes simply states the opposite of established facts. Delivery of these CCS projects commenced under the Theresa May ministry in 2018 and are intended to be operating from 2027, several governments later.

These projects are an essential part of the UK plan to transition to Net Zero in 2050 (CCC, 2024). Some parts of that transition are now familiar – clean electricity from wind and solar, electrification of cars, trucks, and trains. The UK has become a world leader in moving to lower carbon whilst also growing the economy. Carbon dioxide emissions are half those of 1990, and the economy Gross Domestic Product has doubled.

The need for CCS is essential in this revolution. The Intergovernmental Panel on Climate Change (IPCC, 2023) states that CCS is essential in all pathways to a net zero future. And also, that delivery of CCS worldwide is very seriously delayed. That will adversely affect the world ambition to keep climate heating well below 2 °C. The IPCC will soon be toughening its guidance written in 2023, to require more progress on CCS and recapture of CO<sub>2</sub> from the air. The CCS projects examined by the PAC are part of the UK share of delivery to safeguard a stable climate. Government analysis in the UK also shows that investment in CCS pays a return of 5-7% per year, categorising it as a medium-to-good government investment.

These positive benefits have not been highlighted by the PAC report.

CCS projects examined by the PAC have evolved from first attempts to construct simple 'vertically integrated' projects from an emissions source to a storage site. These were too expensive because capture, pipeline transport, and geological storage infrastructure was built around a single project. The projects examined by PAC are clusters of multiple industries where several sources of CO<sub>2</sub> can be combined and sent offshore for geological storage – using shared pipelines and large storage sites. That decreases costs but requires much greater planning and coordination by Government. These are amongst the most complex engineering projects ever built in the UK.

Specific points made in the PAC report include:

**Unproven:** This point oddly focuses on a lack of examples in the UK, but also points to the National Audit Office (NAO) report reference to gas power CCS representing a significant increase in scale. However, the NAO seem to use coal-fuelled Kemper in the USA as the basis of their critique, where gasifier scale-up was the issue. Irritatingly, “CO<sub>2</sub> not behaving as expected” in Norway is also raised – our understanding is that this is a false claim placed by single issue campaign groups that has gained huge momentum. CO<sub>2</sub> storage in Norway has been monitored and verified to the highest standards by independent regulators for nearly three decades. The engineering outcome of permanent storage is exactly as expected. There are many tens, and soon to be hundreds, of operating CO<sub>2</sub> storage projects globally on the scale within the UK clusters. This is not new or unproven technology.

**Economics:** A lot of apparent contradictions are in this report. The report seems to call for a greater government stake in the projects in case companies make big profits, but that would presumably also expose government to even greater cost risk. There is little recognition of how regulated private returns will be made in the UK, particularly relative to other countries. There is a lot of concern about the cost burden on consumers - but then this is quickly forgotten when calling for more focus on the “no CCS” power pathway, despite it being highlighted as the more expensive option. What's the real priority here - lower costs or no CCS? Placing the cost burden on either the taxpayer or the consumer seems to be met with equal distaste - it would be more helpful to accept decarbonisation has a cost to society and advise on which is the more just method. If no CCS is undertaken, then all these foundation industries in the UK will be uncompetitive and likely bankrupted by increasing carbon tax prices. The age of free emissions allowances for UK and EU industry is over. There is no mention of the inevitable cost to industry or consumers from the increasing carbon price.

**Methane emissions:** There is confusion here over what liquid natural gas (LNG) is, leading to the misleading suggestion that LNG specifically will be used to “run several CCUS projects”. The evidence is not cited, but we assume the “new evidence” on methane leakage is the Howarth paper (Howarth, 2022). It's not news that LNG is GHG-intense due to compression and cooling for transport, and the growing proportion in the UK mix is a challenge for gas-based projects. The UK will need to enhance its environmental standards for procurement and drive down supplier emissions. The counterfactual of unabated gas is important to stress here, but also improvement is very possible through upstream best practice (Cownden & Lucquiaud, 2024).

**Biomass:** There is a technical assertion that biomass power with CCS is so unlike coal-fired capture as to be undemonstrated. This is not our understanding, and the statement is based on an anti-biofuel NGO submission not supported by evidence. Two large capture units are being built now in Denmark. For Drax, there appears to be some misunderstanding over carbon accounting, to the effect that the UK is essentially only benefiting because the wood is not grown domestically. These are biogenic emissions that can, in theory, be consistent with a sustainable forest sector sink, and the counterfactual is that they are emitted in the USA without being used to displace carbon-intensive power. The UK option is better.

On biomass with CCS, this is already being built and on track to be operated in Europe and the UK by 2030. An Energy from Waste (EfW) project in Stockholm Exergi has been approved for finance in January 2025 and is selling 48M Euro value of carbon removals during the 5 years to 2030. And in the UK, a Contract for Difference has been agreed with an EfW project from Encyclis near Runcorn as part of the Track1 HyNet cluster.

**Priority sectors:** It is right to ask for more clarity on how CCS can be applied to high-priority sectors like cement. Although the rest of the report seems to cast doubt on even lower-cost opportunities being viable or desirable. The current storage approach is targeted at seeding 'oversized' infrastructure with nearby volumes of CO<sub>2</sub>, so that continued scale-up during the next 30 years will be low risk.

In terms of the funding commitment, it is useful to note that the Netherlands has committed over 11 billion euros to CCS projects to date – for a smaller emissions base than the UK. The UK is not alone in recognising the need for CCS, with very significant funding also committed in Norway, Denmark, France, and Germany (subject to a new government) from the EU budget.

The biggest risk, which has delayed the development of CCS in the UK, is continually changing priorities and opinions from political leaders. For huge infrastructure projects – which fundamentally change the UK energy supply – it is important to evaluate completely through to the end point, allocate enough money to attract outstanding developers as partners, and to ration that money payment to reward successful and profitable delivery. Currently, most features of the UK CCS development through cluster sequencing are well planned and on track. Careful planning has strategically placed the UK to reap huge rewards in the immediate decades ahead. Delaying and dissembling now will jeopardise the UK industrial future and global climate action.

[PAC, 2025. Committee of Public Accounts, Carbon Capture Usage and Storage Report](#)  
[CCC, 2024. Climate Change Committee, Progress Report to Parliament](#)  
[Cownden & Lucquiaud, 2024. Assessing best practices in natural gas production](#)  
[IPCC, 2023. Intergovernmental Panel on Climate Change, Sixth Assessment Report](#)  
[Howarth, 2022. Methane Emissions from the Production and Use of Natural Gas](#)

An online webinar entitled 'Explainer / Mythbuster' on CCS will be delivered on 13<sup>th</sup> February 2025 with Mathieu Luquiaud, Sam Krevor, and Andrea Ramirez:

[CATF webinar: Clearing the Air on Carbon Capture and Storage, 13 February 2025](#)

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SH receives funding from UK research councils to be expert on CCS  
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