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Technical background paper to the briefing: **Is the government wasting money on CCS?**

August 2025

Summary

Carbon capture and storage (CCS) includes a range of technologies that can capture carbon emissions, transport them by pipeline, or ship and then inject them underground for storage. The technology used to capture and transport carbon emissions already exists but is mostly used internationally to support further fossil fuel production. Understanding of how carbon behaves when injected deep underground is still developing. Monitoring of early projects from Norway has showed unexpected movements of the carbon underground, but no leaks.

Almost all pathways to net zero carbon emissions will rely on some CCS, including the UK Climate Change Committee's (CCC) latest advice on the seventh carbon budget (for the years 2038 to 2042). For some industrial sectors, including cement, lime and chemicals, it will be needed as there are no alternatives. However, for other sectors that could use CCS, such as hydrogen production and power, there are other existing technologies that could replace the need for CCS. The question is how fast this can happen and at what cost.

CCS is an expensive technology and will always represent an additional cost to business operations. It is not the same as swapping a gas power station for renewables; with the switch to renewable energy there was a direct substitution of fossil fuel energy. CCS is not a direct substitute; it is an additional cost to an existing plant. For this reason, its use should be minimised as much as possible and limited to sectors that have no other options to decarbonise. This is particularly relevant in a tight fiscal context for the government and a high cost of living context for the UK population.

The UK government has committed £21.7 billion of funding over 25 years to support the first five CCS projects at two industrial cluster sites, paid through dedicated business models. Roughly 75 per cent of this will be paid for by energy consumers, through levies on business and consumer energy bills. At a time when 2.2 million households are already struggling to pay their bills,

the burden of funding CCS should not increase the bills of poorer households.

The government should move to a policy framework based on polluter pays principles that places the cost burden of CCS costs onto the polluters, particularly oil and gas companies. It should also target CCS at the applications where it is genuinely needed, rather than short term applications that extend fossil fuel reliance, ensuring alternatives like electrification receive equivalent policy support.

Introduction

Carbon capture and storage (CCS) refers to a range of technologies that capture carbon emissions, transport them by pipeline or ship and then inject them deep underground for long term storage. There are different ways to capture carbon emissions and many different applications.

In this briefing, we set out to explain what CCS is, which applications are justified, which are problematic, how these technologies are being paid for and what government needs to do to ensure money isn't wasted on CCS.

Some CCS technologies already exist, but there are risks

There are three stages to CCS: carbon capture, transport and storage.

A range of different technologies exist to capture carbon emissions. Some are still in the early stage of development and are not yet ready at scale, but others are already in use. The catch is that these currently support fossil fuel production internationally. The oil and gas industry has used captured carbon to improve oil extraction for decades in the US, by injecting it into oil wells to push more oil out, in a process called enhanced oil recovery (EOR).[1] These technologies are now being tested in other applications which have the potential to reduce emissions, like cement production. Companies planning CCS projects claim to be able to capture 95 per cent of carbon emissions from new project sites, but no current project has consistently captured more than 80 per cent.[2]

Carbon emissions can then be transported by road, rail, pipeline or ship. Pipeline is currently the cheapest option. Large scale transport of carbon emissions, via pipelines, already happens in the US where 5,000 miles of pipeline is used to transport captured carbon to sites for EOR.[3] However, there have been leaks, exposing potential risks to public health and the environment. In Mississippi in 2020, 49 people were hospitalised when 31,000 barrels of CO_2 were leaked into the atmosphere.[4] Transporting CO_2 emissions via ship is already happening on a small scale for the food industry.[5] It has not yet been demonstrated on a larger scale, although the Norwegian Northern Lights CCS project says it has ships ready to go.[6]

The last stage is storage of carbon deep underground. This is done by injecting CO_2 into old oil and gas wells or saline aquifers. The storage needs to be permanent, to prevent emissions leaking or escaping back to the surface. The International Energy Agency (IEA) lists the most developed storage technology, saline aquifers, as commercially available but not yet operating at scale.[7] Even the most advanced, long running projects in Norway experienced unexpected movements of CO_2 underground, despite decades of geological studies of the sites.[8] The problems were resolved, there were no leaks and CO_2 storage now appears to be stable, but this demonstrates the uncertainty and risk associated with these new technologies. Long term maintenance and strong regulatory oversight will be needed. See Annex 1 for a detailed breakdown of technology maturity across capture, transport and storage.

Some CCS will be needed to reach climate targets, but it will be minimal

Almost all pathways modelled to reach net zero rely on the use of some CCS, including the UK Climate Change Committee's (CCC) latest advice to the government.[9] Its advice on the seventh carbon budget (for 2038-42) though, is very clear about the minimal role CCS will play, compared to direct electrification in every sector, including transport and heavy industry. It projects electrification will deliver 60 per cent of emissions reductions needed by 2040 across the whole economy, compared to ten per cent from CCS and hydrogen.[10] Proposed uses of CCS are limited to cement, lime and chemicals production in industry, 'blue' hydrogen production from fossil gas (down to 27TWh in 2040 compared to 88TWh in earlier projections) and engineered removals (sucking carbon out of the atmosphere), and this includes biomass and 'energy from waste' (EfW). The CCC leaves the door open to use in the power sector, saying either hydrogen or gas plants with CCS may be needed to provide flexible power.[11] Overall, it projects that less than 13 $MtCO_2e$ of CCS will be needed in 2030, under its balanced net zero pathway. This is far less than the previous government's target to store 20-30 $MtCO_2e$ through CCS by 2030.[12]

This is broadly in line with analysis from Bellona and E3G, who have ranked uses of CCS based on whether there are alternative technologies available, how much it could reduce emissions by and its feasibility. They found that use in the power sector is one of the least preferred options, with even less benefit for the climate nearer to 2050 and there is a risk of fossil fuel lock in. The most valuable applications of CCS were in heavy industries with unavoidable process emissions, like cement and lime, and in achieving net negative emissions through direct air carbon capture (DACC). Using CCS to produce 'blue' hydrogen is a medium ranked option for 2030 but, by 2050, its climate change benefit drops significantly.[13] This aligns with research from Carbon Tracker which has shown a high risk of stranded assets for blue hydrogen produced with CCS.[14]

Ultimately, we will need CCS for some sectors and the technology to eventually pull carbon from the atmosphere to stabilise the climate. But other sectors, like power and hydrogen production, could employ alternative technologies that could play the same role as CCS. The major question is how quickly they can be scaled up. For example, green hydrogen, produced using renewable energy, could replace the need for blue hydrogen from fossil gas, while also reducing the need for gas CCS plants in the power system. But producing it requires a rapid scaling up of renewables. According to the CCC, there are higher climate benefits from directly displacing fossil fuels used in power, heating and cars before using renewable power to produce green hydrogen. They do not anticipate large scale dedicated renewables being available for green hydrogen production until after 2035.[15]

The table below summarises four categories of CCS applications and our assessment of whether of CCS is a solution in each case. Our assessment is indicated on a colour scale from green to red, with green signifying fewest concerns and most confidence that CCS might be a solution, and red where there are significant concerns.

Category	CCS application	Sectors	Assessment of CCS as a solution
Chemical reaction	Enabling chemical	Cement, some	Alternative technologies to decarbonise these processes are

	processes that produce CO_2	chemical production	being researched, but they are not yet commercial.[16] Therefore, CCS will be needed, at least in the short to medium term.
Fossil fuel	Allowing continued use of fossil fuels as an energy source	Gas power plants with CCS, industrial gas boilers, blue hydrogen production	Sustains demand for fossil fuels, leading to continued extraction and upstream emissions.
Biomass and waste	Allowing the use of biomass or waste as an energy source	Bioenergy plants with CCS (BECCS), energy from waste (EfW) with CCS	There are sustainability concerns around burning biomass at scale and increasing waste burning, due to land use impact and the possible increases in demand for waste as a fuel, when we should be aiming to reduce waste generation in line with government targets.[17]
Engineered removal	Direct greenhouse gas removal	Direct Air Capture CCS (DACCS). BECCS and EfW CCS also claim to be in this category	This will be needed to achieve net negative emissions in 2050. But DACCS is high cost and there are sustainability concerns about BECCS and EfW CCS.

CCS is expensive, so we should avoid relying on it too much

There have been no reported cost reductions in carbon capture technology during decades of past use in gas processing, with some in fact reporting cost increases.[18] CCS will always represent an additional cost, as it requires additional infrastructure to be built and additional energy input to run, compared to a plant without CCS. If the price of emitting carbon (the carbon price) was higher than the cost of installing and operating CCS, companies would be incentivised to pay for it themselves. However, the carbon price is currently too low and too variable to incentivise investment in CCS in the UK.

With renewable energy, there is direct substitution of fossil fuel energy for renewables. CCS, on the other hand, is always an additional cost to an existing plant. Where this supports continued fossil fuel use, it embeds continued reliance on fossil fuel imports and volatile fossil fuel prices.

While it is possible that some aspects of CCS cost could fall over time as the technology is increasingly deployed and as risks are better understood by the financial sector, the fundamental point that it is an added cost will not change.[19]

Heavy industry is a good illustration of this point. The CCC's seventh carbon budget advice demonstrates that direct electrification of industrial processes will be cheaper than CCS wherever it is applicable. That will be the case for most applications in industry, with electrification delivering 57 per cent of emissions savings for heavy industry in 2040, compared to 17 per cent from CCS.[20]

Green Alliance analysis shows that electrifying industrial steam generation with heat pumps has a lifetime cost comparable to gas boilers with CCS and is much cheaper than hydrogen boilers. However, it currently receives far less policy and funding support than CCS and hydrogen production.[21]

Progress on CCS projects has been slow

CCS has a track record of delays. The previous Conservative government published a Carbon Capture, Utilisation and Storage (CCUS) Vision with a timetable for four industrial clusters deployed by 2030 and a target to store 20-30MtCO_2 per year by 2030.[22] This is equivalent to London's total annual emissions.[23]

In 2023, the CCUS investment roadmap announced two initial clusters, 'track-1' and 'track-2', with eight capture projects between them, aiming to deliver 9MtCO_2 of storage.[24]

Recent announcements from the present government have demonstrated just how slow progress has been in getting projects off the ground. In October 2024, Ed Miliband, the secretary of state for the Department of Energy Security and Net Zero (DESNZ) announced the approval of three capture projects out of the original eight proposed in track-1.[25] These include:

- two capture projects in Merseyside, in the HyNet industrial cluster: one energy from waste (EfW) plant and one blue hydrogen production plant;
- one capture project in Teesside, in the East Coast industrial cluster: a gas power CCS plant.

The potential capacity of the two transport and storage networks also approved would be 8.5MtCO_2 per year, down from the 9MtCO_2 per year originally planned.

At the spending review in June 2025, £9.4 billion was allocated to CCS capital funding over the next 3 years. This covers upfront capital costs only, not the ongoing cost of paying for the business models for approved projects. The precise allocation of costs to different projects is not clear, but the money is aimed to fill the 8.5MtCO2e storage networks already approved. This suggests further capture projects from track 1 or track 1 expansion, which would connect additional capture projects to the transport and storage networks in Merseyside and Teesside, may be approved. The government has announced five priority projects for connection to the HyNet cluster:[26]

- Connah's Quay Low Carbon Power, Uniper, Connah's Quay (North Wales)
- Ince Bioenergy with Carbon Capture and Storage (InBECCS), Evero Energy, Ellesmere Port (Cheshire)
- Protos Energy Recovery Facility, Encyclis, Ellesmere Port (Cheshire)
- Hanson Padeswood Cement Works Carbon Capture Project, Heidelberg Materials, Padeswood (North Wales)
- Hydrogen Production Plant 1 (HPP1), EET Hydrogen, Stanlow (Cheshire)

Development funding has also been promised to two further transport and storage networks, Acorn in Scotland and Viking in the Humber.[27]

Public money and levies on energy bills are funding CCS

The government has committed to invest up to £21.7 billion in CCS over 25 years, aiming to leverage £8 billion private investment.[28] That is a poor investment multiplier, with every £1 of government support attracting just 37p from the private sector. However, not all of the £21.7 billion promised is public money. Roughly 75 per cent of it is due to come from levies on businesses and consumers.[29]

The government has created five CCS business models (shown below) to help make the technology financially viable. These are designed to cover the additional costs of CCS so companies using it can remain competitive with those that do not. The five business models are outlined below.

CCS business models

Business Model	Sector	Funding Source	Features
Industrial carbon capture	Industry	Public funding via contracts for difference (CfD)	If the UK carbon price was high enough, it would incentivise CCS on its own. Currently, it is too low, so government plans to use public money to top up the difference between the carbon price and the cost of CCS, so plants with CCS can compete on cost with those without.[30]
Waste carbon capture	Energy from waste (EfW)	Public funding via CfD	Same as above

Power carbon capture	Power generation	Levy on electricity bills	Designed to enable gas CCS power plants to compete on cost with gas power plants.[31] Already enacted through legislation in November 2024.[32]
Hydrogen production	Blue and green hydrogen[33]	Proposed levy on gas shippers	The government has consulted on how to fund this business model. In the consultation it assumes 100 per cent of the cost will be passed onto gas bills.[34]
Transport and storage	Infrastructure	Public funding, regulated returns	As transport and storage is a monopoly, with no market competitors, an independent regulator sets the price they can charge for their services. Public money is used to top up the payment received from capture sites, to achieve agreed rates of return on investment.[35]

Two further business models are in development, one for supporting greenhouse gas removals and one for power BECCS. A detailed explanation of how the five published business models work and the differences between them can be found in Annex 2.

Is it good value for money?

The £21.7 billion the government has committed to spend only represents the money allocated to support the first track-1 projects approved in October 2024. Track-1 expansion and track-2 projects will require further funding. Analysis of the government's Subsidy Control Regime data shows that the government is projecting that the total costs for CCS business models could be as high as £54 billion, over the lifetime of the business models.[36] This ranges from 20 years for hydrogen production, to 76 years for transport and storage. This is a hypothetical maximum spend, including all costs to help projects get off the ground, such as grants, loans, guarantees and tax breaks.[37]

At a time when fuel poverty is rising, households struggling to pay their energy bills should not have to cover the cost of CCS. There are two risks to the current approach.

Firstly, under the hydrogen production business model, where the cost looks likely to be passed onto household gas bills, there are fairness concerns. As higher income households switch from gas boilers to heat pumps, the customer base paying the levy will shrink, placing the burden on those unable to afford the upfront cost of switching to electric heating. Secondly, adding charges to already high electricity bills under the power carbon capture business model is likely to be a disincentive to the electrification of heating, transport and industry.

Levies on energy bills and decisions about who pays for which costs need to be reviewed with these risks in mind. Introducing a social tariff on energy bills would be one way to protect poorer households, but it shouldn't be done in a way that disincentivises electrification by raising bills for other groups.

A fairer option would be to enact the polluter pays principle, by placing obligations onto the fossil fuel companies that have profited from extraction and selling of oil and gas for decades, to fund CCS. This could look like a carbon takeback obligation that places the burden of CCS onto fossil fuel companies, combined with inclusion in the Emissions Trading Scheme (ETS), or a levy on fossil fuel producers.[38]

Recommendations

The government is not being strategic in how it raises or spends CCS funding. In a tight fiscal context, funding should be targeted at applications where there are no other current options available to decarbonise, such as the cement industry. This is particularly critical when roughly 75 per cent of the cost of supporting initial CCS projects will be paid by consumers through their energy bills.

This should motivate government action in four key areas:

1. **Apply the polluter pays principle.** Set out a clear timeline to move rapidly to a polluter pays model for CCS funding, that places the cost on the polluters, such as oil and gas companies, instead of household energy bills. This could include a levy on fossil fuel producers, or an obligation on them to store an increasing fraction of the emissions they are responsible for, known as a 'carbon takeback obligation'.
2. **Protect households.** As part of a wider review of levies on energy bills, look to move the cost of CCS off poorer households while also creating an electricity to gas price ratio that incentivises electrification across the customer base. Options could include a social tariff – ie a discounted energy rate for low income and vulnerable households – to protect those least able to pay from high energy bills and moving a portion of policy costs to general taxation.
3. **Rebalance policy support towards other decarbonisation options.** Review whether track-1 CCS projects are good value for money, compared to other decarbonisation options and prioritise future government funding towards the best value options. This should include policy and funding support for industrial electrification, at least equivalent to the support offered for CCS and hydrogen.
4. **Prioritise CCS funding.** Direct further support for CCS towards applications with long term prospects with no better alternatives, such as the cement and chemicals industries, rather than prioritising projects that prolong fossil fuel use, such as power CCS and blue hydrogen production. This should include a review of the previous government target to store 20-30MtCO_2e by 2030, reflecting that the CCC's seventh carbon budget (for 2038-42) advice recommends less than 13MtCO_2e will be needed by that date.

Taken together, these four actions would support two core government objectives.

First, in shifting costs away from consumers and towards polluters and prioritising the most cost effective and unavoidable decarbonisation options, the government can ensure better value for public money, helping to address the UK's weak fiscal position.

Second, at a time when the political consensus on achieving net zero carbon emissions to reduce climate impacts is under threat and households are facing high bills, reducing consumer costs, particularly for the lowest income groups, would help maintain support for climate action.

Annex 1: CCS technologies and their maturity

The table below draws on the International Energy Agency Clean Technology Guide and therefore uses their definitions of Technology Readiness Levels (TRLs), a standard way of assessing how close a technology is to full deployment.[39] The more mature a technology, the higher the TRL. The maximum TRL on this scale is 11, when 'proof of stability is reached'. For reference, the full scale is provided below the main table.

Carbon capture technology	How it works	Applications	Technology Readiness Level (TRL)
Chemical adsorption	Reaction between CO_2 and a chemical solvent	Planned and current applications in power, steel, cement, energy from waste, fertiliser production across United States, Canada, Japan, Saudi Arabia, Norway, The Netherlands	Amine-based solvents are the most advanced technique for CO_2 separation (TRL 9-11)
Physical separation	Adsorption using a solid surface or absorption into a liquid solvent	Currently used in ethanol, methanol and hydrogen production in the US	Currently used (TRL 9-11)

Oxy-fuel separation	Combustion of fuel in near pure oxygen, producing CO_2 and water vapour only	Pilot projects for coal power generation in Australia and Spain, and for cement in Italy, Austria and Germany	Costs are very high. Large prototype or pre-demonstration stage (TRL 5 to 7)
Membrane separation	Membrane lets CO_2 pass through but no other gases	One existing plant for gas processing in Brazil	Varying TRL depending on the membrane, most advanced is TRL 6-7 in gas processing
Calcium looping	Lime captures CO_2 from a gas stream to form calcium carbonate, the process is reversed in a second reactor	Tested on cement and steel in Europe	Pilot stage TRL 5-6
Chemical looping	Similar to calcium looping, but using a metal such as iron or manganese instead of lime	Pilot projects for coal, gas, oil and biomass combustion	Pilot stage TRL 4-6
Direction separation	Indirectly heat limestone in cement production using a special calciner to strip CO_2 directly without mixing	Cement, pilot plant in Belgium	Pilot stage TRL 6

	with other gases		
Carbon transport technology	How it works	Applications	Technology Readiness Level (TRL)
Pipeline	CO_2 is compressed before pipeline transport. Can be gas, liquid, dense or supercritical form of CO_2	United States has 5,000 miles of CO_2 pipeline used for enhanced oil recovery	10
Shipping	CO_2 needs to be liquefied before shipping (similar to process for liquefied natural gas) and reverse at receiving port or injection site	Pilot phase in Denmark; Norwegian project Northern Lights has built four large ships	6
Carbon storage options	How it works	Applications	Technology Readiness Level (TRL)
Saline formation	CO_2 can be trapped via physical structures like ‘caprocks’, or geochemically, by dissolving in salt water or trapping in	Used in Norwegian projects Sleipner and Snøhvit, where CO_2 behaved unexpectedly despite decades of geological studies at the	9

	pore spaces in the rock[40]	sites, but no leaks have been detected[41]	
Mineral storage, superficial CO_2 injections	Minerals in the rock react with CO_2 to form carbonate materials	Very limited experience to date	3
Mineral storage, dissolved CO_2 injections			7
Depleted oil and gas reservoir	CO_2 can be trapped via physical structures like ‘caprocks’, or geochemically by dissolving into salt water, or trapping in pore spaces in the rock[42]	Planned for North Sea CCS projects in the UK	8
CO_2 enhanced oil recovery (note this is not being considered in the UK)	Some of the injected CO_2 may be stored underground, but most is recovered for re-injection[43]	Increases fossil fuel production	11

Technology Readiness Level scale

Stage	Technology Readiness Level (TRL)	Category	Explanation
Mature	11	Proof of stability reached	Predictable growth
Market uptake	10	Integration needed at scale	Solution is commercial and competitive but needs further integration efforts
	9	Commercial operation in relevant environment	Solution is commercially available, needs evolutionary improvement to stay competitive
Demonstration	8	First of a kind commercial	Commercial demonstration, full scale deployment in final conditions
	7	Pre-commercial demonstration	Prototype working in expected conditions
Large prototype	6	Full prototype at scale	Prototype proven at scale in conditions to be deployed
	5	Large prototype	Components proven in conditions to be deployed
Small prototype	4	Early prototype	Prototype proven in test conditions
Concept	3	Concept needs validation	Solution needs to be prototyped and applied

	2	Application formulated	Concept and application of solution have been formulated
	1	Initial idea	Basic principles have been defined

Annex 2: CCS business models

All of the capture business models cover the cost of transport and storage costs. The industrial and hydrogen business models are based on the support mechanism created for renewables, called a contract for difference (CfD). This mechanism provides price stability by ensuring that the producer company always gets a minimum price that covers their costs. The government agrees a minimum price, called a strike price, that enables investors to make a return on their investment.

Industrial carbon capture business model[44]

For the industrial business models, the strike price is compared to the carbon price as a reference. For the industrial business model the comparison is to a fixed trajectory carbon price. For the industrial waste business model the comparison is to a market reference carbon price. When the strike price is higher than the carbon price, as is the case now for industrial CCS installations, the government will top up the payment to meet the strike price. For most other CfD applications, if the strike price is lower than the reference price, the company would pay the difference back to the government. However, in the industrial CCS business model, this part of the mechanism does not exist, to reduce industrial emitters exposure to risk and international competition. This is similar to the approach in the Netherlands and Denmark. The industrial CCS business model is government funded, including potentially through a combination of the National Wealth Fund, the £1 billion CCUS Infrastructure Fund (CIF) and the Industrial Decarbonisation and Hydrogen Revenue Scheme (IDHRS).

Hydrogen production business model[45]

The hydrogen production business model is designed to support both ‘green’ (produced with renewable energy) and blue (produced using gas power) hydrogen production. The reference price for the CfD is based on the alternative fuel that would have been sold on the market, such as diesel or gas, depending on which fuel hydrogen is replacing. This is designed to enable hydrogen producers to sell hydrogen at a competitive price, while covering their higher production costs. There is also an additional top up subsidy, while demand for hydrogen is low, that enables producers to recover higher costs per unit sold initially. This is designed to taper off as demand volumes increase.

The government is currently consulting on how hydrogen production business model should be funded, but is minded to levy the cost onto gas shippers, under the assumption that they will ultimately pass 100 per cent of the cost onto gas consumers.[46] The consultation states that this will add "£2.60-£4.50 per annum to the average dual fuel household energy bill over the ten year period we have assessed (2028-2037)". However, this is likely to be an underestimate, as it is only based on the first round of hydrogen projects (called HAR1).

Given HAR1 only provides 125MW capacity for green hydrogen production and government has previously committed to achieving 6GW of electrolytic hydrogen production capacity by 2030, production capacity needs to increase 48 fold by 2030. If the costs associated with HAR1 are scaled up to meet the 2030 production target, the impacts on household bills by 2030 would be in the region of £125-£216 per year. While the costs of green hydrogen projects should come down, with costs for HAR2 likely to be lower than HAR1, there is also a further 4GW of blue hydrogen capacity targeted for 2030 which will require use of CCS.

Power carbon capture business model (also called the dispatchable power agreement)[47]

The dispatchable power agreement business model is designed to enable gas power plants with CCS to compete with unabated gas power plants. Power plants receive two types of payment under this scheme: availability payments and variable payments. The availability payment is a fee paid to ensure the plant is ready to supply power when needed, even if it isn't actually called upon to generate electricity. This ensures dispatchable capacity is on standby. The variable payment is only made when the plant is actively generating electricity and is designed to cover the additional cost of running a gas plant with CCS compared to a standard gas plant without carbon capture. This will mean continued reliance on volatile fossil fuel prices, even within a low carbon power system.

The cost of this business model is levied on electricity suppliers, who pass the cost onto consumer electricity bills, as is the case for renewables support schemes. An amendment to the Energy Act 2013 that enables the cost of the power CCS model to be covered by these levies was passed in November 2024.[48]

Transport and storage[49]

For the transport and storage of CO_2, the business model is based on the Regulated Asset Base (RAB) model that has been used to support infrastructure in the water and power sectors. It is designed to incentivise infrastructure construction for natural monopolies, where only one company will provide the service and there is no potential for market competition on price. This means an economic regulator has to control how much companies can charge, so they can make a fair profit without overcharging and profiteering.

For more information, contact:
Heather Plumpton, head of research, Green Alliance
hplumpton@green-alliance.org.uk

Endnotes

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The government is planning to build transport and storage networks capable of handling not just carbon captured in the UK, but also imports of carbon from overseas, to be transported and stored in the UK. This could help with economic viability of the networks, and reduce reliance on government subsidy, as overseas companies pay for their captured carbon to the stored in the UK. See: Vivid Economics, October 2019, *Energy innovation needs assessment, sub-theme report: carbon capture utilisation, and storage*
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