

Projects developing innovative carbon removal tech benefit from over £54 million government funding

- Development of new greenhouse gas removal (GGR) technologies backed by over £54m in government funding
- Tech removes carbon emissions from the atmosphere, vital for the UK to reach its climate change targets
- Funding will help develop new greenhouse gas removal industry in the UK, which could be worth billions to the UK economy and create new jobs

New developments in innovative technologies to remove greenhouse gases from the atmosphere will be taken forward by new government-backed projects across the UK – helping create new green jobs and put the UK at the forefront of this new industry, which could be worth billions to the UK economy.

A total of 15 projects right across the UK, from Edinburgh to Exeter, Swindon to Sheffield, will benefit from a share of over £54 million to develop technologies that remove carbon emissions from the atmosphere, the UK government has announced today (Friday 8 July). This government support will encourage further private investment into the UK, the creation of new green jobs in these regions, and help the UK meet its emission reduction targets.

The money will help projects further develop their greenhouse gas removal technologies, which include a machine that can pull carbon dioxide out of the air, a plant to convert household waste into hydrogen for use in the transport industry, and a system to remove carbon dioxide from seawater.

Energy and Climate Change Minister Greg Hands said:

This £54 million government investment announced today will help establish a greenhouse gas removal industry in the UK, which could be worth billions to our economy, bringing in private investment and supporting the creation of new green jobs.

The funding comes under Phase 2 of the [Direct Air Capture and Greenhouse Gas Removal technologies competition](#).

The competition is worth a total of £60 million: in phase one, 23 winners received a share of £5.6 million. Of those, 15 have progressed to phase two and will receive a share of the £54.4 million announced today to bring their technologies to life, taking their projects through to the demonstration phase, and towards the successful commercialisation of their technologies.

Some of the innovative projects receiving funding today include:

- Advanced Biofuel Solutions in Swindon will receive £4.75 million for a plant that can convert gas from household waste into low carbon hydrogen for use in the transport industry
- Mission Zero Technologies in London will receive £2.9 million to build a machine that can pull carbon dioxide out of the air
- SAC Commercial in Edinburgh will receive £2.9 million to develop technology that will capture methane produced from cattle, to reduce emissions from the livestock farming sector
- The University of Exeter will receive nearly £3 million to develop their 'SeaCURE' system to remove carbon dioxide from seawater

Greenhouse Gas Removal technology will be essential to meeting the UK's climate change target of net zero carbon emissions by 2050. While the government is working hard to decarbonise the UK and boost energy security by accelerating the move away from fossil fuels, these technologies will be necessary to offset emissions from hard to decarbonise areas, such as parts of the agriculture and aviation sectors.

Today's funding announcement will help establish a thriving Greenhouse Gas Removal industry in the UK. This week the government has also launched a [consultation](#) on Greenhouse Gas Removal business models, seeking views from stakeholders on how the government can help put the UK at the forefront of the sector, by supporting and encouraging investment into this developing industry.

Professor Paul Halloran, SeaCURE, University of Exeter said:

The UK has world leading academic and industrial expertise in marine science and technology. The BEIS GGR programme is allowing us to bring this together to deliver a novel climate change solution which builds on the ocean's natural capture of anthropogenic carbon.

Michael Evans, CEO, Cambridge Carbon Capture said:

The BEIS GGR programme provides vital support for early stage GGR technology companies, such as Cambridge Carbon Capture Ltd, by providing contracts enabling us to develop a pilot plant and business model necessary to attract further investment needed to scale and commercialise our technology.

Alex Clarke, Co-Founder & CEO, Black Bull Biochar said:

BEIS's DAC & GGR programme catalyses Black Bull Biochar to build a pathway that rapidly scales greenhouse gas removal. It enables us to bring together industry and agriculture on a pioneering platform that helps the UK overcome barriers to the creation and scale-up of a sustainable, effective biochar network. This will restore our

environment, remove carbon, regenerate depleted soils and thereby enrich our industrial and agricultural systems.

Notes to Editors

Funded through the BEIS [Net Zero Innovation Portfolio](#), the Direct Air Capture and Greenhouse Gas Removal technologies competition provides funding to develop technologies that enable the removal of greenhouse gases from the atmosphere in the UK.

Phase 2 of the programme was only open to applications from projects that were supported under Phase 1, as Phase 2 builds on Phase 1 to take projects from the design and feasibility stage to the demonstration phase.

[Read a full list of the Phase 2 projects.](#)

The programme provides support for four main types of greenhouse gas removal:

- Direct Air Carbon Capture (DACC) – DACC technology uses chemical reactions to capture carbon dioxide from the air as it passes through the system. The carbon dioxide can then be permanently stored or used in various products or applications.
- Bioenergy Carbon Capture and Storage (BECCS) – captures and stores carbon from organic materials, converting it into useful energy such as heat, electricity, liquid or gas fuels.
- Biochar – This is a form of charcoal produced when organic matter is burned without oxygen. The biochar is rich in carbon and can be used as a fertiliser.
- Seawater – The oceans naturally absorb carbon dioxide but because of a large increase in carbon dioxide emissions from our activities the oceans absorb more than previously. The result is that the oceans are becoming more acidic. Seawater GGR technology can remove CO₂ from seawater directly to help restore this natural balance.