UK’s largest carbon capture project to prevent equivalent of 22,000 cars’ emissions from polluting the atmosphere from 2021

- £26 million awarded to accelerate rollout of carbon capture and storage as UK moves to a net zero emissions economy
- 40,000 tonnes of carbon dioxide – 100 times more than the UK’s current largest facility – to be captured each year at Tata Chemicals Europe in Cheshire
- emissions reduction is equivalent to 22,000 fewer cars on the road

The UK’s largest carbon capture project to date, removing 40,000 tonnes of CO2 from the atmosphere each year, could be up and running by as soon as 2021 thanks to government backing.

9 companies have secured £26 million of government funding, in addition to industry backing, to advance the rollout of carbon capture, utilisation and storage (CCUS) in the UK – a crucial step towards the UK’s net zero emissions and the end of the UK’s contribution to global warming. It is the next milestone for the government’s ambition for the UK to be a world-leader in the field as laid out in the Clean Growth Strategy and last November’s CCUS Action Plan.

Today’s awards will be announced by Energy and Clean Growth Minister Chris Skidmore on a visit to Tata Chemicals Europe’s plant in Winnington, Cheshire. The plant, which is the UK’s only manufacturer of soda ash and sodium bicarbonate, is being awarded £4.2 million toward the construction of a facility to capture and utilise 40,000 tonnes of carbon dioxide a year – the equivalent of 22,000 cars.

When fully operational in 2021 it will be the largest carbon capture plant in the UK, removing 100 times more carbon dioxide from the atmosphere than the country’s current largest facility.

Energy and Clean Growth Minister Chris Skidmore said:

> Carbon capture, usage and storage has an essential role to play in our efforts to tackle climate change, helping us to meet our ambition to end our contribution to global warming entirely by 2050.
>
> If we are to become a net zero emissions economy and end our contribution towards global warming, then innovative schemes like Tata Chemicals’ will be essential. Their plans demonstrate the enormous potential that CCUS has, reducing our emissions and

> helping companies to innovate and export products all around the world.
>
> The funding the government is awarding today puts the UK at the forefront of the rollout of this technology and demonstrates how our Clean Growth Strategy is delivering for all parts of the country.

8 more projects are being awarded between £170,000 and £7 million as part of 2 programmes – the £20 million Carbon Capture and Utilisation programme (CCUD) and the £24 million Call for CCUS Innovation programme.

Energy-intensive industries currently produce approximately 24% of global emissions. This potentially vital technology captures carbon from power stations and carbon heavy industries such as cement, chemicals, steel, and oil refining. Then, before it even enters the air, it can either be used for industrial purposes like manufacturing concrete or can be stored safely underground, reducing pollution and helping to tackle climate change.

Last November the government released its Carbon Capture Usage and Storage Deployment Pathway, setting out the next steps government and industry should take in partnership in order to achieve the government's ambition of having the option to deploy CCUS at scale during the 2030s, subject to costs coming down sufficiently.

Today's announcement also builds on the government's commitment for the first net-zero carbon cluster of industry by 2040 backed by up to £170 million funding to cut emissions.

The full list of projects which have secured funding is as follows:

Carbon Capture, Usage and Demonstration (CCUD)

The CCUD programme is designed to encourage industrial sites to capture carbon dioxide of up to 70,000 tonnes per year, which could then be used commercially in industrial applications. £20 million has been made available, of which nearly £5 million is being awarded today. It is intended to demonstrate how such projects can be replicated in the UK and Europe to deploy a pipeline of CCU projects for wide-scale deployment in the 2030s.

- Drax – Fuel Cell Biogenic Carbon Capture Demonstration, £500,000 towards a £1 million project
- Origen Power – Oxy-Fuelled Flash Calciner Project, £249,000 towards a £356,000 project
- Tata Chemicals Europe – Carbon Capture and Utilisation Demonstration,£4.2 million towards a £17 million project

Call for CCUS Innovation

In July 2018 a £15 million Call for CCUS innovation was announced to offer grant funding to projects which would reduce the cost or accelerate the rollout of CCUS in the UK and internationally. Following a review in January

2019 the amount of funding being made available was increased to £24 million.

- C-Capture – Negative CO2 emissions from BECCS, £4,915,070 towards an £11.1 million project
- Pale Blue Dot Energy – Acorn storage site, £4,795,017 towards an £8.1 million project
- TiGRE Technologies Limited – Integration of CCUS technology to a 200MW OCGT TiGRE Project located in the North Sea, £163,909 towards a £243,000 project
- Translational Energy Research Centre (PACT-2) – Led by University of Sheffield / Pilot-Scale Advanced Capture Technology (PACT), £7 million toward a £21 million project
- Progressive Energy – HyNet Industrial CCS, £494,626 toward a £765,500 project
- OGCI Climate Investments – Clean Gas Project, £3.8 million toward an £18 million project

Timeline

- October 2017 – government launches its Clean Growth Strategy, committing the UK to showing international leadership in carbon capture by collaborating with our global partners and investing up to £100 million in leading edge CCUS and industrial innovation to drive down costs.
- July 2018 – £15 million Call for CCUS Innovation announced to bring down the cost and accelerate the rollout of carbon capture in the UK
- November 2018 – £315 million Industrial Energy Transformation Fund announced in the autumn budget, helping businesses with high energy use to cut their bills and transition to a low carbon future through technologies such as carbon capture and storage.
- November 2018 – launch of the CCUS Action Plan, setting out the next steps towards the government’s ambition to deploy CCUS at scale during the 2030s
- January 2019 – the amounting of funding being made available in the Call for CCUS Innovation was increased from £15 million to £24 million