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# Carbon Capture Usage and Storage (CCUS) policy: the Government's new approach

UKCCSRC Biannual Conference  
26 March 2018

  
Department for  
Business, Energy  
& Industrial Strategy



Department for  
Business, Energy  
& Industrial Strategy

# Industrial Strategy

## Building a Britain fit for the future

The Grand Challenges will direct the focus of Government and engage the private sector to ensure we take advantage of major global trends, improve people's lives and the country's productivity



### AI & Data Economy

We will put the UK at the forefront of the artificial intelligence and data revolution



### Future of Mobility

We will become a world leader in the way people, goods and services move



### Clean Growth

We will maximise the advantages for UK industry from the global shift to clean growth



### Ageing Society

We will harness the power of innovation to help meet the needs of an ageing society

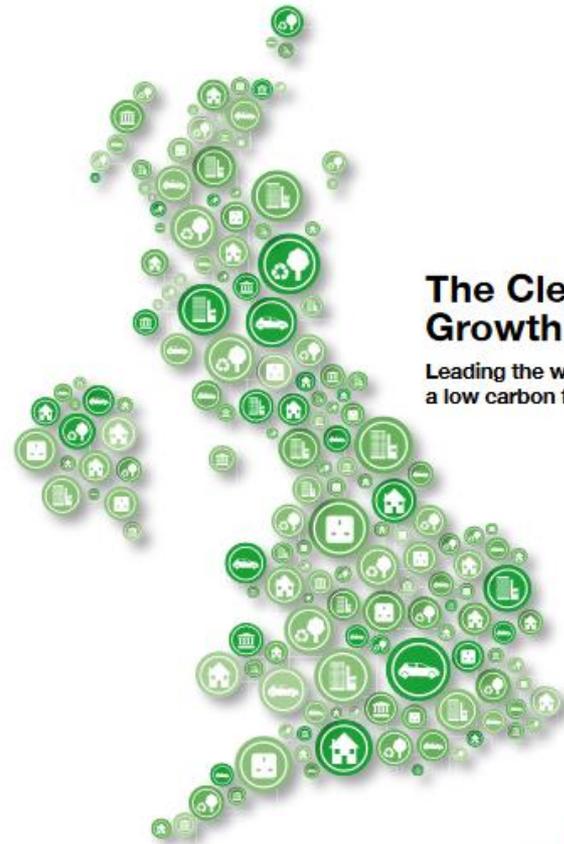


# Clean Growth Strategy

The Government's Clean Growth Strategy:

- an ambitious blueprint for lowering carbon emissions;
- protecting the environment;
- meeting our climate change obligations;
- while stimulating growth and prosperity, increasing earning power and creating and supporting thousands of jobs.

**Decarbonisation and transformation of UK's energy system as an industrial opportunity**



## The Clean Growth Strategy

Leading the way to a low carbon future

Building our  
Industrial Strategy



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# The Government's new approach to CCUS

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- CCUS is an important part of the Clean Growth Strategy, supporting decarbonisation across the economy and maximising economic opportunities
- It is why the Government wants the UK to become a global technology leader in CCUS and work internationally with industry and governments to bring about global cost reductions
- Ambition is to have *“the option of deploying CCUS at scale during the 2030s, subject to costs coming down sufficiently”*
- Three themes:
  - (1) Progress our commitment to deploying CCUS in the UK, subject to cost reduction;
  - (2) Collaborate with international partners to drive down the cost and accelerate deployment of CCUS; and
  - (3) Invest in CCUS innovation to support cost reduction and deployment in the UK.



# Delivery theme 1: Re-affirming our commitment to deploying CCUS in the UK

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**CCUS Cost Challenge Taskforce** to report to Ministers by middle of 2018 with a plan to reduce the cost of deploying CCUS in the UK

**Deployment pathway** for CCUS produced by end of 2018 on the steps Government intends to take to realise its ambitions for deploying CCUS in the UK

**Review the delivery and investment models** for CCUS in the UK covering industry projects; power projects; and CO2 infrastructure

**Test the development of CCUS industrial decarbonisation** clusters by working with ongoing initiatives in Teesside, Merseyside, South Wales, and Grangemouth

**Establish a Ministerial-led CCUS Council** to review our progress and priorities



# CCUS Cost Challenge Taskforce

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- Established February 2018, chaired by Charlotte Morgan from Linklaters.
- Four workstreams: (i) deployment options; (ii) delivery models; (iii) finance, risk and legal issues; (iv) innovation options.
- Report to be delivered to Government in summer 2018 to:
  - inform and propose a strategic plan for supporting the development of CCUS in the UK
  - focus on the value of CCUS to the economy and to wider society
  - cost reduction potential (through both commercial and technological changes) and opportunities for innovation
  - assess the impact of the future deployment of CCUS in the UK, including the potential consequences of not doing so



# CCUS Council

- Will be the primary forum for engaging the CCUS sector on key strategic issues to enable the Government's ambition for CCUS to be achieved
- Co-chaired by Minister for Energy & Clean Growth and James Smith, chair of Carbon Trust
- The Council will:
  - Advise on CCUS progress and priorities
  - Review the work of the CCUS CCTF and the Government's implementation of the CCUS CCTF's plan delivered to Government (once published)
  - Monitor CCUS costs and deployment potential (including on the Government's ambition for deploying CCUS at scale during the 2030s)



Dept for BEIS ✓

@beisgovuk

Follow

Energy & Clean Growth Minister [@claireperrymp](#) chaired the first meeting of the Council on Carbon Capture Utilization and Storage (CCUS). The council will offer specialist advice to government, review progress of our new approach to CCUS and commitments made for [#CleanGrowth](#)



8:53 AM - 29 Jan 2018



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# Delivery theme 2: International collaboration

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The Government will work with industry and other governments to drive down the cost and accelerate deployment of CCUS, including by:

Continuing to participate in **Mission Innovation** and its Carbon Capture Challenge;

Working closely with **private sector-led initiatives** such as the Oil and Gas Climate Initiative;

Developing **closer collaborative working** with countries such as Norway, the US, Canada, and Australia, including joint working on CO<sub>2</sub> transport and storage solutions, and working multilaterally through the CSLF and NSBTF;

Continuing to be **a global leader in CCUS investments** through the UK's £60 million international CCUS programme which has been running since 2012, by investing a further £10 million in the programme; and

Organising a **Global Carbon Capture Usage and Storage Conference** in 2018, with international partners.



# UK's International CCUS Programme

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- Since 2012, our international CCUS programme has **invested £70 million** to support the development and deployment of CCUS in emerging economies and developing countries
- Funds are used to support capacity building activities, CCUS Centres of Excellence, feasibility studies and **pilot CCUS projects**
- **£35 million** is provided through the Asian Development Bank's CCS Trust Fund to support activities in Indonesia and China
- **£35 million** is provided through the World Bank's CCS Trust Fund to support activities in South Africa and Mexico. This includes a £10 million extension approved in 2017
- Possible future work with Asian Development Bank includes:
  - Engaging with additional countries such as Bangladesh, India, Vietnam and Kazakhstan
  - Currently funding a US \$1 million feasibility study of CCUS in Pakistan
  - Focusing on CCUS in industry alongside the power sector



# Delivery theme 3: Investing in CCUS innovation

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The Government will spend **up to £100 million** from the BEIS Energy Innovation Programme to support industry and CCUS innovation and deployment in the UK, and support cost reductions.

£20 million of funding for a **CCU demonstration** programme

Supporting **next generation capture technologies**, with an aim to lower the cost of capture

Supporting **small-scale industrial capture demonstrations** to reduce the risks associated with CCUS on an industrial site

Supporting the application of CCUS in **low carbon hydrogen production**

Furthering our understanding of the **role of GGR technologies**, including BECCS

Supporting studies and technologies that **reduce costs of transporting and storing CO2**



# CCU Demonstration Programme

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- Allocating up to £20 million to design and construct CCU demonstration projects.
- Contributes to learning and development of capture technologies, reducing costs and risks. And provides opportunity for carbon dioxide to be utilised and new markets to be developed.
- Programme will be run in three phases:
  - Phase 1: being led by Wood who will work on BEIS' behalf with potential host sites, carbon dioxide users and technology suppliers to complete a scoping study
  - Provided phase 1 successful, up to £19 million will co-fund FEED studies (phase 2) and construction of the demonstration plants (phase 3).
- Industrial engagement day:
  - **19 April Church House, Dean's Yard, SW1P 3NZ, Westminster, London**



# 2018 will be important in putting us on the path to realise the CCUS ambitions in Clean Growth Strategy

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By the **end of 2018**, we will have:

Received a plan of action from the **CCUS Cost Challenge Task Force**

Progressed the **review of delivery and investment models**

The **CCU demonstration programme running** and announced more detail on other CCUS innovation support programmes

Established the Ministerial-led **CCUS Council**

Continued working with **ongoing initiatives** in Teesside, Merseyside, South Wales, and Grangemouth

Held a **Global CCUS Conference** with international partners

Strengthened international collaboration through Mission Innovation, bi-lateral work with Norway, the US, Canada, and Australia and through multi-lateral organisations such as CLSF and IEA

Published a **deployment pathway**

