

Insights

BEYOND THE £22BN PLEDGE: WHAT THE UK NEEDS TO DO TO DEVELOP ITS CARBON CAPTURE, USAGE AND STORAGE INDUSTRY

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Last week, the UK Government pledged £22 billion towards the development of the carbon capture, usage and storage (CCUS) industry in the UK. This is a significant step towards achieving net-zero emissions by 2050. Whilst a significant milestone, in this article we look at the additional measures and considerations which will be necessary to fully realise the potential of CCUS and to ensure its long-term viability as a UK industry.

1. REGULATORY FRAMEWORK AND POLICY SUPPORT

The establishment of a clear and robust regulatory framework by the UK Government is essential to provide clarity and stability for investors, developers and stakeholders. This includes:

- **Clear Guidelines:** Establishing comprehensive regulatory guidelines for the development, operation, and decommissioning of CCUS projects. The current legal and regulatory framework lacks detailed provisions for managing CCUS risks, from capture to storage. Given that CCUS is a relatively nascent technology, clear guidelines on long-term liability and stewardship of CO₂ storage will need to be developed to ensure safety and accountability. Development of regulations governing the capture process are also necessary to ensure that the capture process meets environmental standards, with a particular focus on ongoing monitoring and reporting of emissions and capture efficiency which will help strengthen CCUS transparency and demonstrate the technologies compliance with environmental standards.
- **Incentives:** Offering tax incentives, subsidies, and grants to encourage private investment and innovation in CCUS technologies. The current framework lacks a robust market mechanism to incentivise investment in CCUS – carbon pricing and credits are a mechanism the UK Government could consider utilising to make CCUS investment more attractive, for example ensuring that businesses utilising CCUS to reduce their emissions can benefit financially from schemes already in place such as the UK ETS and the Carbon Price Support. Government financial support through subsidies and grants will help de-risk investments and encourage private sector participation.

- **Long-term Policies:** Ensuring long-term policy commitments that transcend political cycles to maintain investor confidence. Long term policy commitments are important for ensuring investment security. Funds are likely to be more forthcoming for projects which have clear and sustained government support. Consistent policies also help drive innovation and technological advancements – which is likely to be crucial for reducing costs and improving efficiencies of CCUS technology over time.

2. INFRASTRUCTURE DEVELOPMENT

Beyond financial pledges, developing the necessary physical infrastructure will be crucial for the success of CCUS in the UK. This involves:

- **Transport Networks:** Building pipelines and transport networks to carry captured CO₂ from emission sources to storage sites. The development of transport networks will be essential for the success of the UK CCUS industry.
- **Storage Facilities:** Developing secure and efficient storage facilities will also be essential. The UK is uniquely placed in the world to take advantage of developing CCUS technology by being able to utilise the UK's North Sea geological formations, which have the capacity to store up to 78 billion tonnes of CO₂ according to UK Government estimates^[1].
- **Integration with Existing Systems:** Ensuring that CCUS infrastructure can be integrated with existing industrial and energy systems will be crucial in maximising efficiency and reducing costs. This will both ensure the UK is on track to achieve its net zero goals by 2050, by capturing emissions from existing fossil fuel facilities, and will contribute to the protection of existing assets, by enabling owners to retrofit existing plants (thereby reducing their emissions).

3. RESEARCH AND INNOVATION

Commitment to continuous research, development and innovation is also vital for improving CCUS technologies and reducing technology costs. This includes:

- **Funding for R&D:** Allocating funds for research and development to advance CCUS technologies and to explore new methods of carbon capture and utilisation, ultimately leading to more efficient and cost effective, scalable, CCUS technologies and making investment more viable.
- **Pilot Projects:** Supporting pilot projects to test and demonstrate new technologies and approaches in real-world conditions to ensure that technology and projects are effective and reliable before large scale deployment. This enhances the identification and mitigation of risks associated with CCUS, ensuring safer and more efficient implementation.

4. PUBLIC ENGAGEMENT AND EDUCATION

Gaining public support will also be essential for the successful implementation of CCUS projects throughout the UK. This could be achieved by the UK Government through a range of initiatives, including:

- **Awareness Campaigns:** Conducting public awareness campaigns to educate citizens about the benefits and safety of CCUS, including education communities on the positive economic and social impacts that the adoption of CCUS can bring.
- **Community Involvement:** Involving local communities in the planning and decision-making processes to address concerns and build trust. This approach increases acceptance of projects, enhances social cohesion and can result in more effective, locally tailored solutions.
- **Transparency:** Maintaining transparency about the environmental and economic impacts of CCUS projects.

5. International Collaboration

By encouraging international collaboration between academia, industry and governments, with the aim of fostering innovation and knowledge sharing, the UK can benefit by:

- **Sharing Best Practices:** Engaging with other countries to share best practices and technological advancements in CCUS, leading to scalable and cost efficient technologies.
- **Joint Ventures:** Participating in joint ventures and international projects to leverage global expertise/resources and de risk projects.
- **Global Standards:** Contributing to the development of global standards and regulations for CCUS to ensure international consistency and safety.

CONCLUSION

While the £22 billion pledge is a significant milestone, the development of the UK's CCUS industry requires a multifaceted approach. By addressing regulatory, infrastructure, research, public engagement, and international collaboration needs, the UK can position itself as a global leader in carbon capture and storage, paving the way for a sustainable and low-carbon future. BCLP's global energy practice regularly works on all aspects of the CCUS value chain, with significant expertise in the sector. If you would like to discuss any aspect of a CCUS project, please get in touch.

[1] Department for Business & Trade:

www.great.gov.uk/international/content/investment/sectors/carbon-capture-usage-and-storage/

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MEET THE TEAM



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