

UK CCS workshop – CCS Policy (*including public engagement*)

Web meeting hosted by UKCCSRC

Date 3rd February 2022, 10 am - 12 pm

Chaired by Carys Blunt, UKCCSRC

Presenters: Nick Bevan, BEIS; Georgina Katzaros; CCSA, Mark Lewis, Teesside Cluster and Simon Gant, HSE

Key UK research needs highlighted through workshop

Research needs identified in the January/February 2022 workshop:

- To support any remaining research needs of the Track-1 and Track-2 CCUS deployment projects and clusters up to 2030
 - What is the economic impact of CCS and related decarbonisation products: support mechanisms, impact on regional economies and engagement with smaller emitters
 - Supply chain capability and development: what policies would improve the UK position
 - Freeport: what is the impact of and options in the context of industry and power CCS and understanding the impacts of clustering around Freeports for UK emissions
 - COVID-19: what are the short term and long term impacts both nationally and internationally
 - What is the best practice/communications strategies across the clusters?
- To develop novel or next-generation CCUS technology
 - Technologies that meaningfully reduce the cost or are an improvement of currently available technology (commercially ready by 2030 (or earlier))
- To research application (or sectors) that have received less attention
 - CCUS on Industry and Waste
 - Impact on infrastructure requirements and how best to deliver productivity enhancement for construction sector and exploit advancements in ICT
- Developing and commercialising CCUS knowledge, technology and services that the UK can export
 - Skills for CCS: transitioning occupations between sectors and models for regional skills development
 - Approaches to raising awareness of opportunities within CCS at early stage of deployment
- Communicating CCUS including technical knowledge
 - How best to communicate the complete picture
 - Public perception of ant attitudes towards pipeline and capture projects (in contrast to storage)
 - Environmental concerns related to storage/leakage and sub-surface
 - Better understanding of capture rates
 - Messaging from the research community/academics viewed as trustworthy sources
 - Are the public sufficiently engaged in decisions on deployment of CCS technologies?
 - Achieving a just transition: the impact on households
 - What needs to be communicated on a national or local level
 - Non-Governmental Organisations (NGO's) – research with NGO's that may be hesitant about CCUS technologies
 - How could better public engagement improve the cost of CCS?

- Understanding how we can engage community leaders/members and wider stakeholders that don't have CCUS as a priority/interest
- **Showcasing & learning lessons from other project**
 - Technology viability: Demonstrate that this is not new technology & point to projects currently in operation
 - Understanding feedback from populations around existing CCUS projects
 - Climate Assembly: have there been any changes since the work was completed and what progress has been made based on the recommendations or implications
- **Building national and local pride**
 - National pride in the CCUS success story post COP26
 - Local pride in the community located in the vicinity of a CCUS project: retaining vital industries and creating/retaining jobs and regional growth links to levelling up agenda
- **Environmental impacts**
 - Wind and CCS overlap: what frameworks might be needed to manage
 - Low carbon products: how is CCS applied to the production and what are the impacts on UK trade
 - Environmental protection: what is the impact of CCS on various regions?
 - Environmental monitoring, participatory monitoring and public perception/social license to operate
- **Other**
 - Storage liability - legal research into how leakage is dealt with and can be insured for
 - CO₂ imports for storage (cross-border policy / support issues)
 - Role of GGR/CDR/H₂ in a net zero economy
 - The role of carbon accounting: clarity as to what counts in what way to net zero, what is really carbon neutral/negative;
 - Wider economic consequences of a carbon management industry

Research needs identified in the March 2021 workshop that were categorised as high priority in 2022:

- Life cycle analysis
 - How to quantify this in cluster sequencing
- The benefits of clusters for low-carbon technologies
 - How to maximise the regional/local benefits
- Public perception of CCUS
 - Follow up work on public attitudes and concerns
 - Evaluating the poor public perception of other technologies
 - Communicating the wider aspects of CCS
 - Developing a cohesive and simpler picture, not one technology vs another

Research needs identified in the March 2021 workshop that were categorised as medium priority in 2022:

- Environment Agency risk assessment review
 - Identified risks and the control measures in place, including visibility of these controls
- Water demand for CCS (including hydrogen)
 - Analysis of water usage at CCS plants for clarification of public messaging

Research needs identified in the March 2021 workshop that were categorised as lower priority in 2022:

- Stakeholder analysis
 - Refreshed analysis of influential stakeholders
 - What are their stated and non-stated positions on CCS/H₂/GHG
 - Who are the broader stakeholders that the public trust
- Business/Cost Models
 - What would a carbon tax or equivalent CCS support mechanism look like (nationally and internationally)
 - What are the trade flow options for CCS
 - What are the costs/enhanced levelised costs for CCS