

Public attitudes to CCS

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Public attitudes to CCS



- National context
- CCS in the clusters
- BEIS CCUS Public Dialogue
- Looking forward: securing support in the clusters and beyond
- Snapshots: academic literature

Public attitudes to CCS



- Extensive body of research over past 20 years
- **Surveys** often part of wider survey
(BEIS climate change and net zero, BEIS public attitudes tracker, Eurobarometer, Cambridge CCS surveys.....)
- **Discursive** methods such as focus groups allow more in-depth discussion and provision of information
- Responses shaped by: geography, framing, trust, climate attitudes and values

National context



BEIS Climate change and net zero: public awareness and perceptions.

- Survey of 7000pp, 50% of participants believed the UK should pursue an equal mix of technological and lifestyle changes to reduce UK carbon emissions

BEIS Net Zero Public Dialogue

- 93 participants in 12 breakouts. *"CCS desirable and acceptable but little understood"* (and little information given)

Climate Assembly UK

- Presented CCS only in the context of fossil electricity; request to learn more about CCS
- Assembly members' key concerns leakage and safety (during transport and storage), CCS continuing use of fossil fuels, other solutions preferred.
- Greenhouse Gas Removal (BECCS / DACS): similar response and preference for "natural climate solutions"

CCS remains at the margins of the national debate

CCS in the clusters

- **Diverse applications:** different industries (steel, glass, chemicals) as well as power; Hydrogen (consequences for heat and transport); greenhouse gas removal (BECCS, DACS)
- **Wider context:** climate emergency, Net Zero, COP26, extreme weather and climate impacts - recognition of need for decarbonisation
- **CCS brings:** good jobs; inward investment; sustaining industries within regional and local economies; maintaining thriving communities, cultural heritage; UK as a global leader
- **Cluster plans:** developed collaboratively by industry, LEPs and local authorities, promoting regional benefits, funded by national government and industry

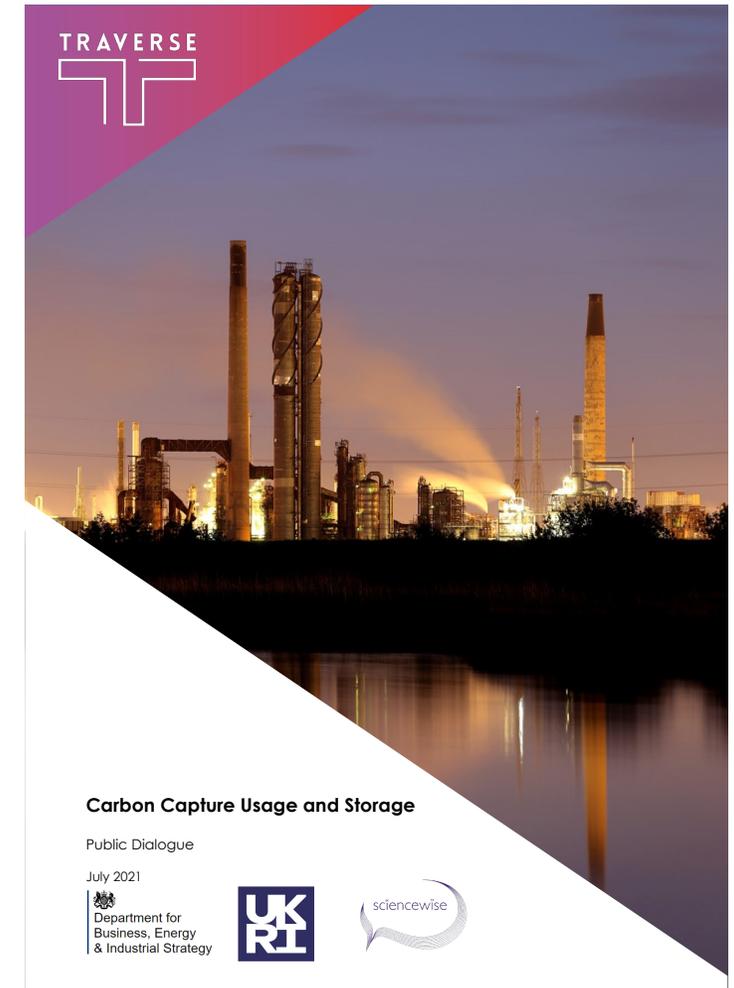
THE UK'S LARGEST CLUSTERS BY INDUSTRIAL EMISSIONS ONLY



BEIS CCUS Public Dialogue

- 112 participants in 5 locations (online autumn 2020)
- Broad support conditional on effectiveness (cost and CO2 reduction) and safety (storage and transport)
- Across all locations a few remained strongly opposed to CCUS
- Widespread concern about sustaining jobs for local communities:
 - Aberdeen / Teesside most positive
 - South Wales and Liverpool, more scepticism

Participants were typically more comfortable with the idea of CCUS being deployed nationally than they were about the idea of having it near where they live.



BEIS CCUS Public Dialogue

Criteria for implementation of CCUS

 <p>The entire CCUS process must be safe</p>	Guaranteed contribution to net zero 
Independent oversight and regulation 	 Cost-effective and timely
 Clear benefits for local communities	One of several measures to reaching net zero 
Meaningful local engagement 	 Limit damage to wildlife and the natural environment
 Minimise disruption to <u>local residents</u>	Transparency in funding and awarding of contracts 

Securing support in the clusters and beyond requires a more nuanced approach



- Multiple: scales, contexts, systems, applications, communities
- Which publics?
 - Local, regional, national publics
 - other stakeholders – influential NGOs; technology advocates; developers; experts; policy makers
- Dimensions of public acceptance:
 - Governance; Just Transitions; stakeholder interactions; wider contexts and values; how is it deployed (public / private) and regulated etc
- Role of CCS in energy and climate services
- DACS and BECCS:
 - new territory, new regulatory frameworks, who pays, how it is regulated, multiple trade-offs (land use, energy etc)

summary



- Recent public engagement still presenting CCS in very general terms
- Context is crucial
- Multiple publics , with different attitudes and perceptions, beliefs and values in relation to multiple applications and contexts
- IDRIC: work planned on skills, place-based studies, just transitions, social licence to operate....
- CCSRC Network+

Snapshots: academic literature



- In the clusters:
 - *Social Licence to Operate*: Gough et al, 2016; Gough & Mander (submitted))
 - *What role for CCS in delivering just transition: An evaluation in the North Sea region* (Swennenhuis et al 2020)
 - *Public views of Scotland's path to decarbonisation*: (Ostfeld & Reiner 2020)
- Review & international comparison:
 - *Framing effects on public support for carbon capture and storage* (Whitmarsh et al 2019)
 - *Beyond Social Acceptability: Applying Lessons from CCS Social Science to Support Deployment of BECCS* (Gough & Mander, 2019)
- Greenhouse Gas Removal:
 - *Contested framings of greenhouse gas removal and its feasibility: Social and political dimensions* (Waller et al, 2020)
 - *Public perceptions of carbon dioxide removal* (Cox et al, 2020)