



Roundtable event: The Potential Value of CCUS to the Political Economy, Edinburgh 28 November 2018

The Centre for Energy Policy held a Roundtable on the potential value to the political economy of carbon capture, utilisation and storage (CCUS), in the margins of the Global CCUS Summit held in Edinburgh. This note summarises discussions and reflects on next steps. Participants are listed in the appendix. This note does not attribute comments or views to particular participants.

Professor Graeme Sweeney chaired the Roundtable, with Professor Karen Turner, Director of the Centre for Energy Policy, kick-starting the discussion with a presentation on recent research on the potential value of CCUS to the political economy.

Karen Turner's Presentation

Professor Turner noted that we need a compelling narrative rooted in the political economy in order to move decision-making forward and ultimately deliver real-world outcomes. From the Centre's research it is clear that the question now is not one of whether we have sufficiently in-depth technical knowledge about the potential of CCUS as a suite of technologies, rather one regarding **how having CCUS in the economy may deliver benefits to society**, and how political decisions can be framed.

In this context, we need to think about decarbonisation not just as a climate policy challenge but also as an economic policy challenge. To avoid risking displacing investment, jobs and GDP, we need a clear understanding of what implications are of climate-driven policies. This was the message clearly set out in the recent [Zero Emissions Platform report](#): that we must **deal with emissions were they occur in order to deliver a just transition**. The just transition requires taking account of national development priorities (cf [the Paris Agreement, p.4](#)), and this means sustaining

existing sources of economic wellbeing. CCUS isn't going to be the only solution to this challenge, but it is broadly recognised as forming part of the solution. To focus in on understanding this challenge – diagnosing the problem – the Centre's research has considered the case of the German cement industry as a case study of what the implications may be of offshoring production. Our findings suggest that global CO2 would rise, alongside employment being lost in Germany, and across the EU, and the displaced industry becoming less productive.

Professor Turner summed up by offering two key elements of the narrative that emerges to support a 'just transition':

- The **need to retain and grow jobs and GDP** whilst meeting climate targets in the long term as the preferable outcome to job offshoring/GDP loss and not meeting targets in the short and long term.
- The need for **industrial decarbonisation where emissions, jobs and GDP are currently located**.

Discussion

Opportunities as well as Risks

Following Professor Turner's presentation, discussion opened up to consider the implications of the Centre's research and the next steps in developing an economic narrative that addresses wider political concerns about economic wellbeing and a just transition.

Participants **supported the call for developing an overarching economic narrative** and welcomed the Centre's work in this area. There was agreement that 'keeping current jobs at home' was an important political economy argument. And that being able to demonstrate the consequences of policy decisions is essential.

Some participants felt the economic narrative could be strengthened with greater emphasis on **opportunities arising**, as well as risks of displacement. For example, as well as the potential losses from displacement of activity overseas, the narrative could consider the value creation in the infrastructure required for decarbonisation, and opportunities for inward investment therein. A

further example is in the opportunities in the supply chains of global businesses that *have* adopted climate commitments.

Industry Focus

There was some discussion about the cement case study, and whether it might also be instructive to consider a more dynamic sector such as petrochemicals, plastics or steel. More dynamic sectors might be more willing to set sectoral targets.

It was pointed out that there are sectoral roadmaps, mostly from industrialised nations. But that these do not get close to the levels of CO₂ reductions required for a 2 degrees scenario. The narrative in these is still one of bottom-up cost and benefit, which results in CCS being very far down the priority list. In developing top-down narratives, what is needed is a vision, a clear ambition and leadership – facing up to the challenge, overcoming what was seen to be the social barrier to be the first mover and deciding *now* to implement a graceful transition to keep industries alive.

Different Narratives

Participants agreed that **narratives can usefully be adapted for different audiences**, with varying degrees of knowledge and interest. The developed narratives should align and be relatable to government bodies such as the HM Treasury, which may focus primarily on the economic impact of the implementation of any measures. At the same time, the narratives should be tailored to address the concerns of the general public, who may ultimately be seen as picking up the bill. Generally though there was consensus that a narrative has more power where there is a coalition of organisations all aligned behind it.

Discussion moved on to consider the value of jobs – the narrative needs to be about maintaining job opportunities and **retaining (or creating) high-value jobs**. This is so important for Scotland.

Standards and Sectoral Targets

There is a role for standards and sectoral targets. Public procurement (for example for large infrastructure projects) as well as regulated standards (such as the US federal fuel standards,

which have driven significant change) were cited as critical policy levers. The discussion explored ways in which **procurement, standards and trade rules** might be aligned to benchmark CO2 and drive change in industry. There may be ways of applying those standards at the right point in the value chain to reduce resistance (in this context, for example, it would be better to apply a standard to concrete than to cement).

There was some discussion of the merit in, and likelihood of, setting global sectoral targets/commitments, which could create more of a level playing field across industries - where CO2 reduction is part of their decision-making frameworks in a way that has not happened to date. Participants' views varied on the feasibility of such commitments, and the extent to which it is realistic to expect industries to adopt them without 'being forced to' by governments.

Incentivising Change

The discussion moved to consider how to incentivise change, where the view was that **the focus of public policy support should be on enabling infrastructure**. Participants had concerns that at present CO2 reduction is simply not incentivised through public policy nationally or internationally, with short term shareholder decisions trumping long-term CO2 decisions. This is where a public policy argument comes in, where industry is not going to act on its own. And in this situation, we are clearly going to be looking at the more difficult solutions. But once we have an understanding of the political economy problem – i.e. we can't afford not to do this – then we are into the realm of trying to understand which measures will work.

Going Forward

There was general agreement that we need to set out future scenarios that demonstrate what we have to gain as well as what may be lost. And we need to consider policies in light of how they would fare under a range of scenarios, to identify and prioritise those policies that deliver positive outcomes in the majority of scenarios. Narratives must consider those positive outcomes as well as identifying and considering the risks. Indeed they should focus on **value creation as well as retention**.

In terms of collaboration across the EU, there is a significant amount happening and the Zero Emissions Platform is leading this, for example finding solutions to issues such as how we leverage Germany's commitment to CCS whilst they do not have the capacity to store the CO2 themselves. On the other hand, Norway's narrative is clear: they want to provide a CO2 storage service in order to have a future use for their assets, with as many other parties paying for that as possible.

It was noted that there ought to be a way to capitalise on the commercial investment pressure that is building around capital investment and climate risk – e.g. if we could get to the point where CCS is seen as a safe investment for pension funds.

Conclusion

In concluding, Professors Turner and Sweeney noted that **the Centre's work has helped to diagnose the challenge**, but that we have not yet been able to devote research resources to assessing solutions. The work to date has considered opportunities (for example, for employment creation) as well as risks, but more could be done, including consideration of a range of scenarios and taking more sophisticated account of the ways in which the nature of employment and value are changing in the wider economy.

There was clear endorsement of the Centre's work to date, and agreement from participants that **developing the research further** in this direction would be extremely helpful.

Appendix - Participants

Name	Job Title	Organisation
Hannah Chalmers	Senior Lecturer	University of Edinburgh
Kate Chalmers-Deacon	CCUS Policy Officer	Scottish Government
Luca Corradi	Innovation Network Director	The Oil & Gas Technology Centre
Marine d'Elloy	Policy Officer	CCSA
Frans de Vries	Professor of Environmental Economics	University of Stirling
David Holman	Hydrogen & CCUS Strategy	Scottish Enterprise
Nigel Holmes	Chief Executive	SHFCA
Alan James	Managing Director	Pale Blue Dot Energy
Nick Bevan	Engineering Advisor - CCUS & Industry Innovation Team	Department for Business, Energy and Industrial Strategy
Stephen Kerr	Consultant	Avayl
Tom Mallows	Development Manager	Crown Estate Scotland
Philippa Parmiter	SCCS Business and Project Manager	SCCS
Julia Race	Reader in Subsea and Pipeline Engineering	University of Strathclyde
Andrea Ramirez Ramirez	Professor of Low Carbon Systems and Technologies	TU Delft
Luke Robertson	Senior Business Consultant	Pale Blue Dot Energy
Lesley Sloss	Principal Consultant	IEA Clean Coal Centre
Graeme Sweeney	Visiting Professor	Centre for Energy Policy, University of Strathclyde
Owain Tucker	Global Deployment Lead for CO2 Storage	Shell
Karen Turner	Director	Centre for Energy Policy, University of Strathclyde
Seonaid Vass	Head of Energy, Renewables	Scottish Enterprise
Luke Warren	Chief Executive	CCSA