

Minutes from ECF/Bellona Workshop on Industrial CCUS

Meeting held under Chatham House rules
Kindly hosted by HeidelbergCement,
Brussels, 7th June 2016

Purpose of the workshop:

With support from ECF, Bellona Europa has been working on a new concept for facilitating the decarbonisation of key industrial regions in Europe, with a focus on roll-out of strategic infrastructure for CCUS, and with a view to break the current inaction induced by a deadlocked discussion around free allocations of EUAs under the EU ETS. A new impetus is required to move toward a solution-oriented approach that enables Europe to reconcile climate ambition with retaining and strengthening strategic industries. Bellona Europa will publish a report in this context this Autumn, and a workshop was convened on 7th June to gather input from key industrials, researchers civil society representatives.

The workshop was held under Chatham House rules and without the presence of political and media representatives to ensure a frank and open dialogue.

The attached slides were presented to outline the concept developed by Bellona Europa – initially as part of Bellona's [recommendations for a new CO2 economy in Norway](#), then further developed within ZEP as part of the '[Executable Plan for CCS in Europe](#)' prepared for Commission Vice President Sefcovic (Energy Union) and the follow-up [document](#) on key European CO₂ hubs – focussed around the concept of state owned or capitalised market maker(s) to enable a phased introduction of strategic CO₂ transport and storage infrastructure, to be shared by relevant industries and ensuring the lowest societal cost of decarbonisation. Given the purpose of the workshop, these minutes have an emphasis on the feedback from the industrial representatives.

Main takeaways, with a focus on feedback from the industrial participants:

- **Industry recognition that ETS will not drive basis for strategic CCUS. Risk finance is a central element that needs to be tackled**
- **Industrial companies across the board already do invest in (RD&D of) a range of capture technologies, but focusses on CCU options in the short term as there is no business case for transport and storage**
- Acknowledgement that **market for CCU will quickly be saturated** once capture is being scaled up, and that **utilisation options are not scalable to an extent that they can contribute to deep emission reductions overall** in industrial sectors. Hence acknowledgement that transport and storage will inevitably be required in the medium to long term, but given the policy framework (ETS) there exists no policy space for active engagement
- Naturally **no industrial company is prepared to invest in large-scale transport and storage infrastructure that lacks business case** whatsoever. As long as such infrastructure is not in place, industry has no rationale for investing in large scale-up of capture solutions (as there is no offtake for very large amounts of CO₂)
- A key point in the feedback was that **if pipelines were built to the close vicinity of industrial sites, with the assumption that the CO₂ would be taken care of by other entities from that point and with some operational support for capture, industry would be prepared to «fill**

the pipelines», i.e. industry would be prepared to invest in the scaling up capture solutions provided there is an offtake and no long-term liability

- The parallel was made to **North America**, where several **industries are extensively partaking in CCUS** activities, because the **infrastructure exists in many regions**, courtesy of decades of enhanced oil recovery operations that created the business case for roll-out
- **Industry** is clear that it **currently has no way to pass induced costs from capture** (let alone transport and storage) **onto consumers**. General scepticism from industry regarding governments' willingness to support development of infrastructure
- Notwithstanding, the **general feedback on** the concept of a **CO₂ market maker**, which would **decouple the CCS value chain elements** storage, transport and capture **and reduce the challenges related to counter-party risk** (see attached slides), was that **such an approach, if adequately funded and structured by public authorities** (be it regional, national, EU or a combination) **could enable a more constructive and solution-oriented dialogue with authorities**, and that companies that are currently not prepared to engage on CCS deployment would then be able to take part in discussions. **This is a key takeaway for the continued dialogue ZEP and Bellona have initiated with relevant DGs (CLIMA, ENER, REGIO, GROW) of the European Commission and MEPs, as well as for national and regional authorities** that acknowledge that CCS is a key tool for meeting the Paris Agreement objectives
- Industry representatives noted the **risk of market dominance** of stakeholders involved in the (transport and) offshore storage industry – likely to be dominated by major petroleum companies that possess the required expertise – and cited examples
- Moreover the **risk of competitive disadvantage for industry located in the parts of Europe that would lack access to the strategic transport and storage infrastructure** was noted, at least in the early phases of roll-out.
- A form of **portfolio approach** was discussed, which could enable industrial companies with sites far from the initial phase strategic CO₂ infrastructure roll-out to support such a phased introduction and, on basis of that support, retain a certain level of free EUA allocations for those sites. In this way, market distortion could be avoided regardless of geographic location. Various options for using EUA auctioning income to create funds for investments to enable industry access to CO₂ offtake, along with other potential financial mechanisms to support the scale-up of capture operations. Options discussed were e.g. output-based, such as a version of Contracts for Difference (CfDs, i.e. similar to the UK power sector scheme), or a form of tender-based cost-plus compensation for CO₂ captured, as outlined in the ZEP Executable Plan
- Acknowledgement that this concern actually **provides a solid case for a role for the EU** and for strategic EU investment, e.g. from structural, regional, cohesion funds, **to avoid unfair competition between regions** and support for industrial regions far from offtake options. This acknowledgement of the case for EU intervention on the infrastructure side, of course, does not reduce the required leading role for Member States in putting in place financial mechanisms to incentivise industrial CO₂ capture
- While industry currently focusses on seeking business cases and political support for CCU, there was an **acknowledgement of the point that, in the case of a publicly funded and driven roll-out of strategic infrastructure with access to CO₂ storage, this would also**

benefit CCU as marketable utilisation solutions could benefit from strategic infrastructure, and possibly help write off some of the cost of its development

- In other words, while CCU is generally seen as the feasible way to kick-start capture scale-up in the current market conditions, **a market maker driven development of infrastructure could turn CCS infrastructure roll-out into a supporter for the roll-out of CCU** as well

Possible (EU level) funding sources for infrastructure:

- **Agreement that regional funds are the most important** - Largest untapped funds: DG REGIO – ESIF. DG ENER and DG CLIMA have agreed to work with DG REGIO.
 - Several participants noted a certain change of mentality from the Commission – stronger focus on policy integration/coordination, and on supporting industries
 - ZEP has planned a meeting with DG REGIO to discuss possible regional fund financing of strategic industrial clusters and CO₂ hubs – postponed to after summer
 - It's clear that **to succeed with a strategy toward regional funds, bottom-up initiatives from industrial regions** (including industry itself, unions, civil society and local/regional politicians) **would be key**. DG REGIO might be prepared to support reaching out. ZEP and Bellona have initiated this dialogue, but **strong supportive industry voices would be required** to ensure progress both locally/regionally and on the EU level
 - The European Trade Union Council (ETUC) **has done some work**, partially coordinated with ZEP and Bellona's work, on **key EU industrial regions and decarbonisation**. Industry companies also have dialogues with their respective unions, notably on the risk of carbon leakage. Acknowledgement that **a closer alignment of those discussions with the solution-oriented approach outlined here could bear fruit** and possibly help **defuse conflict between employment concerns and EU climate ambition**
 - The **Teesside Collective** initiative in the UK **could serve as an example** of such a broad initiative
- **Connecting Europe Facility (CEF)**: for all infrastructure projects – as of 2012, related Projects of Common Interest (PCI) can apply to CO₂ transport infrastructure, but still **uncertainty on modalities**, notably to what extent can fund the entire project development
- A point was made on the **need to elevate the CCUS discussion all the way up to Juncker/Timmermans** in the Commission to ensure political support of any initiatives taken