Oslo declaration on low carbon value chains

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Together for a competitive decarbonisation of our industry in Belgium

Carbon Capture, Transport, Usage and Storage (CCUS) is a technology aimed at reducing carbon dioxide emissions by capturing emissions from sources like industrial processes and power plants. The captured CO₂ can then either be stored permanently underground to prevent its release into the atmosphere or utilized in various other industrial processes to reduce overall emissions.

The International Energy Agency (IEA)¹, the International Renewable Energy Agency (IRENA)² and the Intergovernmental Panel on Climate Change (IPCC)³ have all recognized the major importance of rapidly scaling up CCUS in order to limit global warming. The European Commission estimates that CCUS needs to mitigate around 450 million tonnes of CO₂ per year by 2050 for the EU to reach climate neutrality by mid-century as set out in the EU Green Deal.

CCUS will also be pivotal for the decarbonization of the Belgian economy. According to Fluxys commercial exchanges with the industry, a potential demand for CCUS could amount to 10 to 20 million tons of CO₂ on an annual basis with a gradual build-up of volumes between 2027-2035 in Belgium. This corresponds to no less than 10% to 20% of total Belgian CO₂ emissions and hence holds the potential to achieve a major decrease in Belgian emissions in the short term. Kickstarting CCUS is therefore crucial for Belgian industry to withstand its competitive position in a global climate-neutral economy.

CCUS is an indispensable lever with which hardto-abate industry can structurally address their CO₂ emissions at scale in the short term. Furthermore, CCUS will play a crucial role in amongst others supplying Belgium with secure volumes of competitively priced low-carbon molecules such as 'blue' hydrogen which could be used both as feedstock and as fuel for our industry. Power plants that capture their CO₂ emissions could furthermore provide low carbon power supply even during periods of low wind & sun and peak demand.

Many important policy steps have already been taken to kickstart CCUS in Belgium. Both Flanders and Wallonia have adopted regulatory frameworks on the transport of CO₂. The federal and regional governments of Belgium furthermore concluded bilateral agreements with Denmark, The Netherlands and Norway, allowing for the cross-border transportation of CO₂ with the purpose of permanent storage. This comprehensive regulatory framework will contribute to positioning Belgium as a true frontrunner, further facilitating the development of CCUS projects by taking away legal uncertainty for the industry.

Emitters however still face key barriers to take final investment decisions in the near future, hampering the kick-off of a low carbon value chain in Belgium. Crucially, the ability to pass on the high additional costs for CCUS is unsure in a global, highly competitive market. As a result, there is a risk of delocalisation, instead of decarbonization, for European industry which would result in a loss of European wealth without achieving CO₂ reductions due to carbon leakage.

Infrastructure operators (transport, terminals, storage) on the other hand, are exposed to timing and volume aggregation uncertainty as emitters will connect to the infrastructure following different timelines. This impedes the operators' ability to develop their infrastructure dimensioned on expected future needs for CO₂ without charging first movers with very high tariffs.

¹Net Zero Roadmap: A Global Pathway to Keep the 1.5°C Goal in Reach? 2023 Update, IEA

² https://www.irena.org/Energy-Transition/Technology/Carbon-Capture

³Climate Change 2023: Synthesis Report, IPCC

Together for low carbon value chains: 5 key actions

Industry today is faced with a major challenge: how can we decarbonize whilst maintaining our international competitiveness? CCUS will be of key importance to meet this challenge. **To make a success of CCUS, all stakeholders need to reinforce cooperation: industry, energy producers, transport operators, CO**₂ **midstreamers, storage providers and policymakers.**

There is no time to waste: we have to move fast to achieve net zero by 2050. Industry is also preparing to roll out innovative flagship decarbonisation projects that will be essential for future economic growth and employment. To ensure those flagship projects are realised in Belgium, a targeted set of policy instruments at all policy levels are needed:

1. An intra-Belgian industrial deal

The next federal and regional governments should work out comprehensive & coherent action plans that complement an EU industrial deal as called for in the Antwerp Declaration. These plans should create favourable longterm conditions for industry in Belgium to be able to decarbonize competitively in a global economy.

The plan needs to include concrete actions to first and foremost improve international competitiveness but also to provide more legal certainty in general and with regards to permitting specifically as well as decrease unnecessary complexity in legislation & over-reporting.

Collaboration between all the different policy levels will furthermore be key to develop in a cost-reflective and cost-efficient way the infrastructure in the industrial CCUS value chain as well as to ensure a transregional and transnational interoperable CO₂ infrastructure on the basis of harmonized and balanced quality requirements agreed upon by the CCUS value chain.

2. A new spirit of law-making

EU, national and regional regulatory frameworks that facilitate a technology-neutral and market-based industrial decarbonisation. Too prescriptive a regulatory framework risks imposing inefficient decarbonisation pathways on our industry by imposing the use of specific technologies, to the detriment of Europe's international competitiveness. Industry should be able to choose which decarbonisation pathway to follow.

3. De-risking mechanisms to support early movers in CCUS value chain

OPEX & CAPEX based support mechanisms for industry such as well-designed Contracts for Difference (CFDs) to kickstart industrial CCUS and low carbon fuels. Such mechanisms can amongst others be financed via Belgian revenues stemming from ETS that should flow back in full to the ETS industry to reduce CO₂ emissions.

Support and de-risking mechanisms to allow transport operators to ensure acceptable tariffs for first users during an initial ramp-up phase

of the CCUS market. This will allow them to develop a cost-efficient CO₂ network that caters to the expected CCUS demand of a fully developed market.

Sufficient funding under the EU Innovation Fund for CCUS technologies to drive innovation, reduce costs, and enhance scalability, especially related to capture technologies. Robust funding will accelerate the deployment of CCUS, enabling European industry to lead in sustainable solutions for industrial practices and thereby helping to reduce emissions.

Sufficient funding for CO₂ infrastructure under the Connecting Europe Facility (CEF). As long as emitters have no viable way of transporting and storing their CO₂, they cannot take a final investment decision on their CCUS enabled decarbonisation projects.

4. Role of molecules in future energy system

Flexible energy availability in an integrated energy system will be crucial to cover expected energy consumption in a reliable way by 2050. Given the non-continuous nature of renewable energy generation, both industrial and power plants that operate on low carbon molecules can form an essential complement to a secure energy system.

5. North Sea Cooperation

A structural coordination & cooperation amongst countries around the North Sea to untap the full potential of CCUS. Collaboration between EU and non-EU countries around the North Sea is crucial to ensure the development of cross-border interoperable CCUS infrastructure and to connect CO₂ sources with sinks in an economical way. **Gert Jan ten Cate** Vice President Large Industries Northern Europe Air Liquide Industries

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