

PRESS STATEMENT

Limits to Electrification and CO₂ Use Highlight the Urgent Need for CCS

Brussels, September 27 – The European Zero Emission Technology & Innovation Platform (ZEP) is today launching a new report on [“Climate solutions for EU industry: interaction between electrification, CO₂ use and CO₂ storage”](#). The report looks at the relative merits of electrification, Carbon Capture and Utilisation (CCU) and CCS as solutions to reduce industrial emissions across Europe. The report concludes that for CCU to contribute to climate mitigation, rigorous lifecycle analysis must be carried out and treating all forms of CCU as CO₂ abatement could have serious detrimental impacts on efforts to reduce emissions – such as CCS. Whilst electrification presents an interesting solution to decarbonising energy intensive industries in theory, the ZEP reports finds that the volume of low-carbon electricity required goes far beyond what is feasible.

Considering these challenges, the report recommends that CCU and electrification must be combined with large-scale permanent CO₂ storage, to meet required levels of decarbonisation and ensure the long-term sustainable future of key industries in a low-carbon Europe.

Commenting on the report, Dr. Graeme Sweeney, Chairman of ZEP, said:

“Whilst there is no silver bullet to meeting Europe’s 2050 climate change target, we need to be realistic about the potential of different options to deliver the necessary outcome. Solutions must be found that enable energy intensive industries to reduce their emissions cost-effectively whilst still remaining competitive.

CCU offers an attractive approach to managing emissions, however it is clear from ZEP’s report that not all CCU applications lead to climate mitigation. It is also worth noting that CCU will only be able to address approximately 9-20% of industrial emissions, and complementary measures are therefore needed.

On the other hand, we cannot put all our eggs in the electrification basket. Our report shows that attempting to decarbonise just the cement sector through electrification, would require the equivalent of all electricity produced in Poland today.

In 2011, the European energy intensive industries roadmaps to 2050 were published. Time has now moved on and these roadmaps are now out-of-sync with the necessary actions to meet European commitments and the Paris Agreement. Only last week, we heard that the EU Commission is intending to update its low-carbon economy roadmap for 2050 – including a goal of cutting emissions by 100% this century. The challenge has been set for the industrial roadmaps to follow suit.

If we are to have any hope of meeting the goals of the Paris Agreement, CCS is absolutely critical. Europe needs to urgently deliver the CO₂ transport and storage infrastructure that will service a large number of sectors and create industrial CCS clusters. Such clusters open up opportunities to link to hydrogen networks, CCU and the provision of negative emissions and will enable the lowest cost route to sustainable growth in key regions across Europe.”

Notes to Editors:[ZEP](#)

Founded in 2005, the European Zero Emission Technology and Innovation Platform (ZEP) is a unique coalition of European oil and gas companies, equipment suppliers, scientists, academics and environmental NGOs united in their support for CO₂ Capture and Storage (CCS) as a key technology for combating climate change. ZEP serves as advisor to the European Commission on the research, demonstration and deployment of CCS.

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