

Consultation on the list of candidate Projects of Common Interest in cross-border carbon dioxide transport infrastructure

*Response from the Zero Emissions Technology and Emissions Platform (ZEP)
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The European Zero Emission Technology and Innovation Platform (ZEP) is the European Technology and Innovation Platform (ETIP) established to provide advice to the European Commission on the research, demonstration and deployment of CCS and CCU technologies.

Support for PCIs for CO₂ Transport

Carbon capture and storage deployment in Europe has progressed slower than expected due to a variety of factors, but the need for CCS remains greater than ever given the ratification of the Paris Agreement. Unlocking investments in CO₂ infrastructure can, in turn, remove the barriers to investments in CCS seen by many energy intensive industries and power sector emitters.

Meeting the objective and aspirations of the Paris Agreement will require CO₂ transportation infrastructure networks that can serve multiple sectors of the economy. Infrastructure planning is essential to secure and protect the future of emissions intensive industries and encourage investments in these economically important sectors, especially as CO₂ emissions become increasingly constrained.

In Europe, many emissions intensive industries (industrial and power) are located in tight geographical areas e.g. Teesside (UK), Rotterdam (NL), Herøya (NO), Ruhrgebiet (DE), Grangemouth (UK) and Antwerp (BE). In addition, some industrial and manufacturing clusters are close to excellent and extensive geological CO₂ storage opportunities and existing pipelines, e.g. the North Sea Basin and co-located with power generation facilities (with large source of emissions).

With the development of a shared network of CO₂ transportation infrastructure, CO₂ emitters located in close proximity to each other can benefit from using a strategically sized infrastructure. Therefore, multiple sources of CO₂ in a tight geographical location make infrastructure planning easier and less costly. CO₂ transportation infrastructure networks built with spare capacity allows for investment decision to be de-risked for the emitter, ultimately supporting the transition towards a low-carbon economy.

ZEP has highlighted through various reports the economic challenges for investments in CCUS infrastructure projects, in particular CO₂ transport and storage.

In its 2014 report on a Business Case for Commercial CO₂ Transport and Storage¹ ZEP identified the need for innovative business models, which align commercial interests across the entire CCS chain; and given the long lead times – 6 to 10 years for both pipelines and storage sites – demonstrated the need for developments to start now, ahead of wide-scale deployment. The report was followed by An Executable Plan for CCS in Europe², which built on the earlier concept of CO₂ “Market Makers” to support the deployment of CCS by de-risking infrastructure investments.

In your opinion, is a proposed project significantly contributing to market integration/sustainability/security of supply/competition and therefore needed from an EU energy policy perspective?

ZEP believes that all five proposals contribute to the criteria set out for CO₂ transport projects under the TEN-E regulations. Developing shared infrastructure for CO₂ transport and storage will increase security by allowing interconnection between stores and emitters. Resources can be used most efficiently by developing economies of scale through shared transport and storage infrastructure.

CCS is vital to enabling reduction of CO₂ emissions in key sectors of the EU economy, contributing to the long- term sustainability of Energy Intensive Industries; and can further provide a cost effective method of decarbonisation in heat, transport and power. Given that some areas of Europe are strategically better placed to develop CCS than others, cross- border transportation of CO₂ will be vital to ensure efficient use of resources so that benefit can be shared between regions.

All five project proposals submitted will significantly contribute to the sustainability of European industries in a low carbon future. Furthermore, the development of CO₂ transport infrastructure can contribute significantly to security of supply in Europe, allowing the continued use of a wider range of energy sources.

Developing strategic CO₂ transport infrastructure will enable a CO₂ market to develop between Member States, enabling industries located in multiple Member States to benefit from CCS, and contributing to wider market integration and competition.

¹ <http://www.zeroemissionsplatform.eu/downloads/1523.html>

² <http://www.zeroemissionsplatform.eu/downloads/1545.html>