

Towards a global CCS breakthrough: Lessons from abroad and a plan for the EU

European Parliament hearing on Carbon Capture and Storage (CCS)

Brussels, 12/11/2015, Kris Welkenhuysen & Vanja Biševac

On 12 November 2015, MEP's Theresa Griffin and Krišjānis Kariņš hosted a European Parliament Hearing on the latest developments and application of CO₂ capture and geological storage (CCS) technology in and outside the EU. This event clearly frames in the onset towards the UNFCCC COP21 in Paris, where hopes are set on a binding climate agreement. Testimonies from (nearly) operational projects around the world show the potential of this technology for different industries. The leading stakeholders provided their opinion on the development and importance of CCS in Europe, and during the presentations and following discussion, a number of key messages came forward.

CCS is important for the EU, and further investments are needed. The EU used to be leader in CCS research and development, but is now falling behind in deployment. To keep up with forerunners such as the US, Canada and some Middle-Eastern and Asian countries where several new projects have started, deployment needs to be accelerated. Apart from the climate change abatement potential, CCS also provides knowledge development, job creation and energy security.

The technical feasibility of large-scale CCS is proven; the current obstacles relate to financing and politics. Costs are expected to be reduced with ongoing research, technology learning and clustering of CCS chains. It is a technology that can and needs to be implemented as soon as possible. Political consensus is however needed to provide the necessary incentive and economic security for large-scale and long-term deployment.

CCS is not competing with renewable or other mitigation options. It is part of the same, most cost-effective solution as a portfolio including renewables and energy efficiency. Without CCS, the costs for reaching the CO₂ reduction target for the power sector in the EU will rise with at least € 1.2 trillion (1¹²), and the target for industry cannot be achieved.

The North Sea is seen as best the best option in the EU for geological storage. Onshore storage is still a difficult matter in the EU, which implies that longer transport lines and offshore storage are preferable. Apart from solely storing CO₂, large quantities can be turned into good use before storage for CO₂-enhanced oil recovery (CO₂-EOR). As natural gas is now frequently used for this purpose, a change to CO₂ would allow a fuel switch from coal to the additionally available natural gas. The recently launched H2020 GATEWAY project for example will develop a pilot case for an integrated European CO₂ transport infrastructure.