



Position Paper | Carbon Capture and geological Storage

The European Federation of Geologists (EFG), and especially its panel of experts on Geothermal Energy and Carbon Capture and Storage, emphasizes that Carbon Capture and geological Storage (CCS) should be strongly promoted, as it is an important and direct path towards a fully sustainable energy future.

The EFG considers CCS to be a necessary option based on the following observations and arguments.

- The EFG recognizes the work of the IPCC and other organizations, and subscribes to the major findings that climate change is happening, is predominantly caused by anthropogenic emissions of CO₂, and poses a significant threat to human civilization.
- Anthropogenic CO₂ emissions come from fossil carbon sources, such as coal, oil, natural gas, limestone and carbonate rocks. Thriving and developing economies currently depend on these resources. Since geologists play a crucial role in their exploration and exploitation, we feel praised by the increasing welfare, but also implicated by the carbon curse.
- It is clear that major efforts are necessary to quickly and strongly reduce CO₂ emissions. The EFG strongly advocates renewable and sustainable energy production, including geothermal energy, as well as the need for increasing energy efficiency.
- However, even when renewable energy production grows rapidly, it will take time before it overtakes the world's growing hunger for energy. Until then, conventional energy production will continue to increase. Especially the current move towards coal is worrying, because of the high CO₂ intensity of this fuel.
- Since it will take time to make our economies independent of fossil carbon sources, EFG states that the technology of Carbon Capture and geological Storage is necessary for using these resources in the most sustainable and climate friendly way.
- CCS has the potential to avoid emissions from individual industrial sources by over 90%, by capturing the CO₂ from the flue gas and storing it in deep and safe geological reservoirs.
- Ideal CCS projects can lead to net storage of CO₂, such as when biomass is co-fired in power production or when CO₂ is used to enhance the production of coal bed methane.
- CCS should also be regarded as a bridging technology, facilitating the move towards a carbon free economy.

It is therefore essential that the support for the geological and technological development of CCS, is maintained and increased in order to see a fast and vast implementation of CCS. Given the proper freedom to deploy, CCS will gain us essential decades in the race for stabilizing climate change, and smoothen the track toward a decarbonised society.

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