

CCS: Stop the industrial ramp-up!

5 May 2023/ General, Fields of action /by Christfried Lenz

The German government has decided to ramp up the controversial CCS technology. Billions of taxpayers' money are to flow to the gas industry for this. A "carbon management strategy" is currently being developed in an exclusive framework and is to provide an infrastructure plan and legal certainty for the industry by September 2023; no public discussion is planned.

There is probably a fear that the events of 12 years ago could repeat themselves, when well-founded clarification by citizens' initiatives led to a society-wide rejection and in several federal states to a ban on CCS technology.

Civil society must therefore relaunch the necessary public debate on this serious issue itself. We ask you to take note of and support the following statements:

CCS does not aim at climate protection, but at the continuation of carbon combustion for decades and would be the GAU for the energy transition.

In its article CCU/CCS: Building Block for a Climate-Neutral and Competitive Industry, the German government writes that CCS is to be used "primarily in industry and waste management", while in power generation renewable energies are to be "prioritised". Both formulations indicate that the use of CCS in energy generation is by no means ruled out. After all, Habeck has set the course for the energy industry in the direction of LNG and blue hydrogen, whose considerable CO₂ emissions must be glossed over by CCS.

Why CCS is only a whitewash

Underground CO₂ repositories are bound to leak. The depleted gas and oil fields into which CO₂ is to be injected are riddled with leaking wells, fractures and pathways. It is already assumed that methane (approx. 80 times the climate impact of CO₂) is leaking from around three quarters of the approx. 15,000 old wells in the North Sea. Increasing pressure by injecting CO₂ would intensify this and at the same time expand pathways for CO₂.

When CO₂ is injected into "saline aquifers" (formations filled with extremely salty water), it inevitably displaces the saline water. This gives way upwards, contaminating the usable groundwater and at the same time giving the CO₂ a path into the atmosphere.

The government claims that the CO₂ can be "safely stored over geological time" in the aforementioned formations. In the Sleipner "storage facility" near Norway, which is often cited as a prime example, only 80% of the injected CO₂ can be detected after just a few years. (See, among others, Prof. Wallmann, Geomar, in "Spiegel" of 25.09.2011).

Operators want to pass on the burden of perpetuity to the state

CO₂ leaks are so likely that the gas companies that operate the landfills do not want to be liable for their tightness. They argue that the state, which approved the CCS project, is also responsible. The perpetual burdens arising from CO₂ repositories under the North Sea or in northern Germany due to permanent monitoring and the consequences of leaks, the elimination of which is technically

completely unclear, are thus to be placed on the population. The federal government has not disclosed this!

Energy-intensive, expensive, CO₂ capture always partial

What the German government also fails to disclose is that the CCS process, from capture to transport to injection, requires about a third of the energy generated by a power plant. Already now, fossil power costs many times more than renewable power. The cost would double even further with CCS. In addition, it should be noted that the CO₂ from flue gases can never be completely captured: In most CCS power plants, the proportion is 50% so far. So even assuming that 100% of the CO₂ would remain underground for all time, CCS cannot bring about decarbonisation.

Negative emissions from biomass CCS, carbon capture and use

Negative emissions are possible if CO₂ is captured from the flue gases of wood-fired power plants and deposited, since this CO₂ has entered the wood from the air, according to the German government. What it does not reveal is that CO₂ capture from wood combustion is far more difficult than from coal flue gases.

At the world's largest wood-fired power plant in England, the aim is to capture and compress 8 million tonnes a year, but so far it has only been possible to capture 27 tonnes in 90 days.

The problem is similar for waste incineration: Norway's largest waste incineration plant (Hafslund Oslo Celsio) plans to capture 400,000 tonnes per year, but has so far only managed to capture about 1000 tonnes in about a year.

Not compressing the captured CO₂ but using it does not contribute to climate protection either, as the CO₂ is released back into the atmosphere after use.

Removing CO₂ from the atmosphere or from combustion gases is, incidentally, misguided from the outset: the carbon must be removed, but not the oxygen. Natural photosynthesis shows how it should be done.

Illogical patchwork that harms the climate and the environment

Technically and economically, the technology has failed internationally, despite billions in funding (in the EU alone). Only a tiny amount of 7.18 million tonnes a year, mainly from natural gas processing, is now dumped underground. The CO₂-equivalent methane quantities of 4 billion tonnes that are released into the atmosphere annually in the course of natural gas production before combustion are not captured by CCS anyway.

The solution: a complete end to carbon combustion

The German government must abandon the misguided path of CCS immediately. The immense funds thus freed up must be used for:

- Switching to 100% renewables in all sectors by 2030.
- Conversion of industry to climate-friendly processes
- Restoration of the atmosphere by using natural photosynthesis:

- Rewetting of peatlands and near-natural afforestation, which - in addition to climate protection - also serves to protect species and biodiversity.

You too can support our demands!

Organisations, initiatives, companies, functional personalities etc. are called upon to support this text and to communicate this via e-mail to presse@energiewende-2030.de. We thank you in advance for this!

After the collection of signatures has been completed, the text and the signatories will be sent to the Federal Chancellor, the Minister of Economics and the Minister of the Environment, as well as to the media.

We will send the corresponding document to all signatories for their information. Your e-mail address will not be used for any other purpose.

Keywords: CCS, CCUS, CO₂, CO₂ capture, CO₂ injection
Share entry

In this post

CCS: Stop the industrial ramp-up!

Why CCS is just a whitewash

Operators want to pass on the burden of eternity to the state

Energy-intensive, expensive, CO₂ capture always partial.

Negative emissions through biomass CCS, carbon capture and use

Illogical patchwork that harms climate and environment

The solution: a complete end to carbon combustion

Support our demands too!