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Concrete ideas to divert attention

Debunking industrial carbon removal claims: Cembureau

Removing carbon from the atmosphere as a concept is gaining traction around the world. While some form of it will likely be needed to keep global temperature rise below 1.5 degrees, cutting pollution must remain the immediate priority.

As industry struggles to imagine or operationalise net-zero emissions plans by 2050, some look for easier ways out than cutting their pollution. They are using the upcoming revision of the EU climate policies to push for more support for carbon removals (or things that look like it - but are not it) as an easy way out.

In this article series, Carbon Market Watch assesses industry positions and debunks misleading claims about carbon removals.

Cembureau represents the large energy- and emission-intensive cement industry that has increased its emissions in Europe by 7% since 2013. The cement lobby group's response to the European Commission's public consultation on the EU ETS review focuses on carbon capture and storage/utilisation (CCUS) technologies to "help the sector reach carbon neutrality".

Some of Cembureau's proposed solutions are at best naive, at worst creative accounting that would cause more damage to the climate. We unpack some of the claims and proposals below.

Carbon capture and storage, or just delayed emissions?
The cement industry wants to be compensated for investments in carbon capture through the lowering of their obligations under the EU carbon market - "whether that CO2 goes on to be stored, mineralised or converted into other uses such as synthetic fuels."

On the one hand, the storage and mineralisation of CO2 can potentially slow down the climate breakdown by mitigating emissions from the cement sector. Storage means that CO2 is captured at the cement plant, and then stored underground in geological formations. Mineralisation refers to storing CO2 in the produced cement itself, or in other products that can be used as, among others, building materials.

However, the GHGs do still come from an industrial installation and, if stored, they would take up valuable and limited storage space. The storage capacity is better used for technologies that

actually suck carbon out of the atmosphere (potentially Direct Air Capture). This is what we will have to do if we - as it seems likely - don't reduce our emissions sufficiently in the coming decades. At the moment, there is a limited scientific basis for assessing the realistic sustainable storage capacity for CO2 in the EU and across the globe. The NEGEM project (of which Carbon Market Watch is a part) will hopefully fill that void.

On the other hand, Cembureau lumps storage and mineralisation together with synthetic fuels. Using these fuels means burning them and releasing all captured CO2 into the atmosphere one step further down the value chain. Synthetic fuels cannot therefore be considered storage but rather delayed emissions. In this sense, capturing the carbon and using it again ("CCU") is not a climate solution. A real climate solution is to replace fossil fuels with zero-carbon energy carriers (e.g. electricity or renewable energy-based hydrogen).

Off the hook when it comes to the cement sector's own emissions

Cembureau wants the EU to reward the above-mentioned investments through "fair accounting rules for CO2 capture and re-use".

This translates into no longer being held liable for delayed emissions from synthetic fuels under the EU carbon market. Cembureau would like to pass on the responsibility to the users of the fuel or the operators of the storage facilities. In this context, it is important to remember that the cement sector also doesn't pay for its own massive emissions since it gets its pollution permits for free.

In its response to the Commission consultation, Cembureau doesn't provide any details as to how these 'fair accounting rules' would work in practice. Perhaps they envisage not surrendering emission permits for stored or used CO2 (whether or not it stays out of the atmosphere)? If so, who then pays an effective price for this pollution?

Cement production volumes determine the cement industry's free pollution permits. If cement producers are no longer responsible for captured and stored or used carbon, as Cembureau advocates for, they should receive fewer pollution permits. But Cembureau doesn't say this in its consultation response.

If they don't receive fewer allowances, they could receive free pollution permits to cover CO2 emissions that either don't take place anymore - or, at worst, are released downstream. Cement plants could then potentially profit twice: selling their CO2 to fuel producers **and** selling more free emission permits. Already with the current over-generous free pollution permits, the sector has been making windfall profits (worth 5 billion euros between 2008-2015).

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Who pays for it?
Carbon capture and storage/utilisation technologies are extremely expensive, mainly due to high up-front investment costs and massive energy consumption. In its consultation response, Cembureau proposes that taxpayers foot the bill for both the development of these technologies, building the CO2 storage and transport infrastructure, and the running of the CCUS machinery (paid for through EU carbon market funds and so-called Carbon Contracts for Difference).

However, billions of taxpayer euros have already been spent on these technologies in the past decade in Europe. And with very little to show for it. CCUS remains a risky investment area. Governments should first funnel public funds to areas with higher climate pay-backs such as renewable energy and zero-carbon fuels - especially as carbon storage capacity is likely to prove limited after all. Industry should not be rewarded for maintaining highly emitting processes that will need to be transitioned anyway if Europe is to reach its climate targets.

Way forward
Captured and stored emissions only have a beneficial climate impact if they are kept out of the atmosphere and monitored for centuries. However, Cembureau proposes to use carbon market revenues to pay for unproven, expensive and risky technologies while seeking more exemptions from the EU emissions trading scheme.

The European cement sector still has a lot of homework to do to reduce its own carbon pollution first. Diverting attention to these technologies could end up just delaying emissions, obfuscating responsibility for them or filling up CO2 storage capacity that will likely be both limited and necessary to achieve CDR to bring atmospheric CO2 concentrations down.

If industry wants to move forward with these risky technologies, it should bear the costs and risks themselves. They should pay for the infrastructure and be liable for any downstream emissions and leaks from storage sites. In the middle of a climate crisis, governments must use their resources wisely to support no-regret solutions that are proven to drive industrial decarbonisation.