Carbon Cleanup: The Public is Paying, But Who is Profiting?

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Subventionen für CO2-Abscheidung sind verschwendetes Geld

Under the banner of climate mitigation, governments are subsidizing the commercial development of industrial-chemical methods of carbon capture on the premise that we can "remove" carbon dioxide that we emit and keep burning fossil fuels. Yet the two methods most widely funded by taxpayers put more CO₂ into the air than they remove. "Carbon capture and storage" (CCS) takes CO₂ from smokestacks and, most often, uses it for "enhanced oil recovery," adding to atmospheric CO₂. "Direct air capture" (DAC) which pulls CO₂ from ambient air, requires enormous energy input, and when it's supplied from fossil fuels, DAC is also net CO₂ additive. Studies show that these methods emit 1.4 to 4.7 more CO₂ than they remove, although the recondite research may have eluded U.S., U.K. and European legislators funding both, to the financial gain of oil companies and others promoting industrial carbon capture.

This is a problem. We have a collective *biophysical* need to reduce atmospheric CO₂. But that need is being addressed through *financial* incentives to market actors, on the view of CO₂ as a commercial ingredient for uses like synfuels or cement, or on the premise that businesses would bury CO₂ by the gigaton, and with no untoward effects. Neither premise is valid. Markets for potential uses of captured CO₂ are minuscule in relation to the need at a climate-significant scale. Ancillary harms associated with geologic storage (earthquakes, water contamination, blowouts) are well documented. Critics argue that carbon capture promotes fossil fuel lock-in and diverts from the hard work of decarbonizing our economies.

Solutions won't come from profit incentives. CCS can never reduce atmospheric CO₂ since you can't bury more than you capture from smokestacks. Thus, public subsidy is not justified. DAC may achieve net CO₂ reduction—when CO₂ is sequestered, not sold.

If carbon capture is essential (itself questionable) and must be publicly paid-for, two things must happen: 1. Policymakers need a tool by which to compare *all* methods—biological and industrial—in terms of resource inputs and biophysical results. I describe such a tool in "Assessing Carbon Capture: Public Policy, Science and Societal Needs," forthcoming in *Biophysical Economics and Sustainability*. 2. Carbon reduction must be seen as a public service, like waste removal or sewage disposal—not as a chance for private profit. The technology and technical expertise should reside in the public domain, and mission control rest in the hands of public servants whose job is to meet societal needs. Only then could carbon removal provide The People with the *biophysical* return on investment that they, and the planet, require.

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