

24007 Can Carbon Capture Live Up to the Hype?

NYTimes.com December 6th, 2023

World leaders at the annual United Nations climate talks have battled for years over whether they should “phase out” fossil fuels like coal or just phase them “down.”

Now, another phrase has taken center stage at this year’s summit in Dubai: Should countries agree to end the use of “unabated” fossil fuels?

That peculiar word choice might allow nations to continue to burn coal, natural gas or oil as long as they trap and bury the resulting carbon dioxide, and stop the gas from heating the planet.

One big dispute is over how big a role this technology, known as carbon capture and storage, should play in the fight against global warming. Some oil and gas producers say it should be central in planning for the future. Others, including many activists and world leaders, dismiss carbon capture as too unproven and too risky.

A few recent studies have found that carbon capture can be a valuable tool for curbing emissions from certain activities, like cement manufacturing. But its use is likely to be limited: It would be nearly impossible for countries to keep burning fossil fuels at current rates and capture or offset every last bit of carbon dioxide that goes into the air. The technology is expensive, and in many cases there are better alternatives.

Despite billions of dollars in investment, countries and industries have also struggled to get carbon capture projects up and running so far. Unless that changes quickly, experts say, the technology might not play more than a marginal role in climate efforts.

Even if carbon capture only ends up playing a supporting role in the battle against climate change, the technology would still need to expand very rapidly to do so.

Right now, it’s not on track.

Worldwide, industrial firms capture about 45 million tons per year, mostly from small natural gas processing plants. Over the past few years, spurred on by new incentives in the United States and Europe, companies have proposed an additional flurry of large new projects that, if built, would increase capture capacity to more than 400 million tons per year by 2030.

But that’s still well short of the 1 billion tons per year that countries would need to capture and store by the end of the decade in the International Energy Agency’s net zero road map.

“Carbon capture could be a critical technology,” said Fatih Birol, executive director of the International Energy Agency. “But its history to date has largely been a disappointment.”

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