

Energy Source



Ed
Crooks

In addressing the threat of global warming, capturing and storing the carbon dioxide emissions from fossil fuel power plants is widely seen as a necessity. Back in 2009, John Ashton, then the UK foreign secretary's special representative for climate change, argued: "There is no credible climate strategy that doesn't include a strategy to get very quickly to the point where carbon capture and storage becomes the universal standard for all new coal and, indeed, all new gas-fired power generation."

Nine years on, the plunging costs of renewable energy and battery storage have changed the debate. Those, such as Mark Jacobson of Stanford University, who argue that a 100 per cent renewable energy system is realistic are still in a minority, however, and there is widespread support for the idea that if the world is serious about cutting greenhouse gas emissions, carbon capture will have to be part of the solution. A group of 21 academics who published a critique of Mr Jacobson's analysis suggested that ruling out non-renewable technologies, such as carbon capture and

nuclear power, "could make climate mitigation more difficult and more expensive than it needs to be".

Despite the persistence of the case for carbon capture, Mr Ashton's goal does not seem much closer. There are 18 large-scale carbon capture projects in operation, two at power plants: Boundary

Dam in Saskatchewan and Petra Nova in Texas. Others, including the Kemper plant in Mississippi, have ended in failure. The idea that carbon capture could soon be established as the standard for all new coal-fired and gas-fired power plants seems wildly unrealistic.

The Accelerating Carbon Capture Use and Storage summit in Edinburgh last week acknowledged the problem. The Global CCS Institute, a think-tank backed by governments and businesses, highlighted the conclusion of the International Energy Agency that carbon capture was "not on track" to help contain rising temperatures. Fatih Birol, IEA executive director, teamed up with Claire Perry, a UK minister, to argue in the *Financial Times* that it is "increasingly urgent" for the world to solve the problem. Today's carbon capture plants represent less than 4 per cent of what would be needed by 2030 to stay on course for the Paris climate goal of global warming of less than 2C.

The attendance of the chief executives of BP, Royal Dutch Shell and Peabody Energy illustrated the continuing interest in the fossil fuel industries in the potential of carbon capture. The technology has also been one of the few areas in which Donald Trump's administration has shown any interest in addressing climate change. The lesson of the past decade, however, is that carbon capture will need a lot more momentum behind it if it is to make progress at anything like the rate the IEA suggests is needed.

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