To: The Editors of the Guardian

December 18, 2023

OPEN LETTER: Carbon Capture is Critical to Addressing the Climate Challenge and Reaching Net-Zero Emissions

Nina Lakhani's article *"At least 475 carbon-capture lobbyists attending COP28"* published on December 8th in the Guardian newspaper paints a misleading profile of carbon management technologies as well as the organizations and individuals who are working towards achieving net-zero emissions alongside thousands of COP28 attendees who are dedicated to addressing climate change.

Carbon Capture and Storage (CCS), a technology which the article calls 'unproven' and 'marginal' is underpinned by technologies that have been available since the 1970s coupled with decades of global research, development, and intergovernmental collaboration. There are currently more than 40 facilities in operation around the world with the capacity to mitigate 50 million tons of CO_2 emissions per year. This is roughly equivalent to taking more than 25 million passenger cars from the road in the UK, which can hardly be called marginal in terms of the scale of abatement it provides. [1]

The article refers to Intergovernmental Panel on Climate Change (IPCC) and wrongly quotes it as stating that "CCUS and other unproven niche technologies are a delaying tactic and a distraction". This is not mentioned in any of the reports from the IPCC. In fact, IPCC's Special Report on Global Warming of 1.5 °C included major use of CCS in three of its four pathways to get to net-zero emissions by the middle of the century. IPCC in its sixth assessment report (AR6) released in March 2023 refers to the technology as a critical CO_2 mitigation option for the power sector, along with cement and chemical production.

In addition to the IPCC, a plethora of science and climate organisations recognise the need for increased deployment of CCS as being critical, including the International Energy Agency which in its in its most recent net-zero roadmap estimates that we will need a gigatonne of carbon capture by 2030 and multiple gigatonnes by 2050. The UK Committee on Climate Change calls CCS "a necessity, not an option".

CCS is a versatile climate technology that can help us address CO_2 emissions in almost every sector across the economy, including sectors that are still growing around the world such as heavy-emitting industry and power generation. Steel, cement, and fertiliser are commodities and materials that our modern society relies on to sustain crops and maintain safe and reliable infrastructure. Whilst we continue to need and rely on these key commodities and materials, we cannot live with the emissions produced - CCS is one of the only key technologies available today to deeply decarbonise these sectors.

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[1] *Assuming 160 gr/km and 12,000 km in a year. Source: https://www.statista.com/statistics/1233337/carbon-footprint-of-travel-per-kilometer-by-mode-of-transport-uk/*

If we are to reach net-zero emissions, we will need to deploy all the options and technologies available, including including transitioning from fossil fuels as agreed upon at COP28, increasing efficiency, expanding renewable and nuclear power generation and capturing and storing emissions.

The Carbon Management Challenge, first introduced during the Major Economies Forum in April and discussed during COP28 last week brings together currently 20 countries - including the UK, the US, Canada, the EC, Brazil, Indonesia, and others- who aim to accelerate the deployment of this critical climate technology. As the signatories to this letter, we applaud the mission and the ambition of the initiative and stand ready to support it.

Carbon Capture and Storage Association	CCSA
Global CCS Institute	GLOBAL CCS INSTITUTE
IEA Greenhouse Gas R&D Programme	ieaghg
International CCS Knowledge Centre	INTERNATIONAL CCS KNOWLEDGE CENTRE
Professor Niall Mac Dowell, Imperial College London	
Zero Emissions Platform	zep zero emissions platform