

Report: Affordable policy that could stop fossil fuels causing global warming

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Imagine a single policy, imposed on one industry, which would, if enforced consistently, stop fossil fuels causing global warming within a generation. The Carbon Takeback Obligation could do just that. It

requires fossil fuel extractors and importers to dispose safely and permanently of a rising fraction of the CO₂ they generate, with that fraction rising to 100% by the year of net-zero. Critically, this would include carbon dioxide generated by the products they sell.

A groundbreaking study by the Universities of Oxford and Edinburgh, published Tuesday in the international energy journal *Joule*, explores the economic implications of imposing a [carbon](#) takeback obligation on the global fossil [fuel](#) industry, and shows it provides an affordable and low-risk route to net zero emissions, particularly if complemented by conventional measures to reduce near-term fossil fuel demand.

Oxford researcher Stuart Jenkins, lead author of the study, explains, "Despite the perceived high cost of [carbon dioxide](#) capture and storage, we show that the cost to the world economy of a Carbon Takeback Obligation, even if entirely passed on to fossil fuel consumers, is no higher than the cost of mitigation in conventional scenarios meeting similar goals driven by a global carbon price."

Professor Stuart Haszeldine of the University of Edinburgh, a report co-author, says, "Investment in carbon dioxide capture and geological storage has, to date, been dependent on state subsidies, and consistently far below what is required to meet Paris climate goals. Carbon Takeback provides the fossil fuel industry itself with the strongest possible incentive to make amends: survival."

Oxford's Professor Myles Allen, another co-author adds, "Carbon Takeback has consistently been dismissed by the climate policy establishment as much more expensive and risky than the alternative of driving down consumption by changing consumer behavior or through a global carbon price. But these options are hardly risk-free. Getting to net zero means carbon prices rising to \$1000 per ton of CO₂ by 2050: 100 times the hike that brought out the gilets jaunes."

Margriet Kuijper, an independent expert in [carbon capture](#) and storage who reviewed the work, comments, "A Carbon Takeback policy as proposed in this paper will provide a safety net to make sure we achieve net zero emissions even if we don't manage to reduce the use of [fossil fuels](#) quickly enough. It extends the responsibility of producers to take care of the waste generated by the use of their products. The polluter pays to clean up. And the costs are included in the product price. As it should be."

More information: Upstream decarbonisation through a Carbon Takeback Obligation: an affordable backstop climate policy, *Joule* (2021). [www.cell.com/joule/fulltext/S2542-4351\(21\)00489-X](http://www.cell.com/joule/fulltext/S2542-4351(21)00489-X)

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