

World-first study aims to keep emissions targets on track

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Credit: University of Queensland

A simple method to determine if fossil fuel producers are on track to meet global emission reduction targets has been developed by University of Queensland researchers.

The method results from research that investigated a sample of 20 world-leading investor-owned and state-owned entities and compared fossil [fuel](#) extraction rates with global [climate](#) goals.

UQ Business School researcher Saphira Rekker said two key elements in

tackling climate change had been largely resolved—a safe limit of greenhouse gas concentration in the atmosphere and a corresponding remaining [carbon budget](#).

"Combustion of current fossil fuel reserves has the potential to push global average temperatures higher than 2°C by 2050, however it is far from clear how the remaining carbon budget could be reasonably allocated across [fossil fuels](#) producers," Ms Rekker said.

Recognising the need for transparent methods to measure [climate change](#) obligations, researchers translated the global fossil fuel remaining carbon budget into a burnable fossil fuel allowance for individual producers.

A 40-year allowance was set for each of the 20 sampled producers for the years 2011–2050, based on 2010 fossil fuel reserves and production rates. The study demonstrated that different methods of allocation had different "winners and losers".

UQ Business School researcher Associate Professor Jacquelyn Humphrey said allocating the remaining carbon budget was necessary to track the performance of individual producers against global climate targets.

"One of the challenges is that the current measures of corporate sustainability don't necessarily map to science-based targets," Dr. Humphrey said.

Associate Professor Kate O'Brien from UQ's School of Chemical Engineering said the research was an important example of scaling down global sustainability indicators to individual players in the economy.

The research is published in *Nature Climate Change*.

More information: Saphira A. C. Rekker et al. Comparing extraction rates of fossil fuel producers against global climate goals, *Nature Climate Change* (2018). [DOI: 10.1038/s41558-018-0158-1](https://doi.org/10.1038/s41558-018-0158-1)

Provided by University of Queensland

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