

# No new fossil fuel projects needed in the transition to Net Zero, researchers say

May 31 2024

---



Credit: Pixabay/CC0 Public Domain

Existing fossil fuel projects are sufficient to meet projected energy demands in a global transition to net zero emissions, finds a new study by researchers from UCL and the International Institute for Sustainable

Development (IISD).

Their policy paper, [published in Science](#), argues that stopping new fossil fuel projects is a crucial step for countries to achieve their climate goals. It recommends that governments legislate to ban new fossil fuel projects as this is easier politically, economically and legally than closing operational projects early.

The researchers analyzed the projected future global demand for oil and gas production, and for coal- and gas-fired power generation, under a range of modeled scenarios that limit climate change to 1.5° Celsius above pre-industrial levels.

The team found that existing fossil fuel capacity is sufficient to meet the energy demands under these scenarios while the planet transitions to clean and [renewable energy](#)—and that new fossil fuel projects are not necessary.

The research extends work by the International Energy Agency which found in a [2021 report](#) ([updated](#) in 2023) that no new fossil fuel extraction projects are needed in the transition to net zero emissions by 2050.

The research team's new work expands on this by analyzing a broad range of scenarios compiled for the UN Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report that limit climate change to 1.5°C above preindustrial levels. Their analysis found that in addition to not needing new fossil fuel extraction, no new coal- and gas-fired power generation was needed.

The research comes at a time of growing contradictions between rhetoric and practice concerning the energy transition. In December 2023 at COP28, UN member nations announced that they agreed in principle to

work towards "transitioning away from fossil fuels in energy systems."

However, since that proclamation was announced, the global production and use of fossil fuels has continued to expand, with many governments and fossil fuel industry players claiming that new fossil fuel projects will be needed during the transition to Net Zero. The new UCL–IISD research contradicts that claim.

The researchers go on to recommend a 'no new [fossil fuels](#)' policy, that would mean preventing new projects for the exploration and extraction of any coal, oil or natural gas reserves. It would also prevent the construction of any new fossil fuel power plants.

Synthesizing evidence from economics, [political science](#), and law, the authors find benefits of this approach for the feasibility of the transition: stopping new projects is less costly, faces fewer legal hurdles, and is politically easier than trying to phase-out existing capacity early.

Drawing lessons from historical processes of social-moral norm change, the researchers find that governments, by banning new fossil fuel projects, and [civil society](#), by advocating such bans, can help to build a global norm against new fossil fuel projects.

Lead author Dr. Fergus Green (UCL Department of Political Science) said, "Our research draws lessons from past shifts in global ethical norms, such as slavery and the testing of nuclear weapons. These cases show that norms resonate when they carry simple demands to which powerful actors can be held immediately accountable.

"Complex, long-term goals like 'net zero emissions by 2050' lack these features, but 'no new fossil fuel projects' is a clear and immediate demand, against which all current governments, and the fossil fuel industry, can rightly be judged. It should serve as a litmus test of

whether a government is serious about tackling [climate change](#): if they're allowing new fossil fuel projects, then they're not serious."

Co-author Dr. Steve Pye (UCL Energy Institute) said, "Importantly, our research establishes that there is a rigorous scientific basis for the proposed norm by showing that there is no need for new fossil fuel projects. The clarity that this norm brings should help focus policy on targeting the required ambitious scaling of renewable and clean energy investment, while managing the decline of fossil fuel infrastructure in an equitable and just way."

Co-author Greg Muttitt (Senior Associate, IISD) said, "Our research draws on a large range of scientific evidence, including climate scenarios from the IPCC, but its message to governments and fossil fuel companies is very simple: There is no room for new fossil fuel projects in a 1.5°C-aligned world. Achieving the Paris Agreement goals means governments need to stop issuing permits for new fossil fuel exploration, production, or power generation projects."

Co-author Olivier Bois von Kursk (Policy Advisor, IISD) said, "No new fossil fuel projects are necessary to meet the 1.5°C-aligned energy demand. Representative 1.5°C scenarios show that a significant share of existing fossil fuel capital stock will become stranded if we are to reach net zero emissions by 2050.

"Establishing a 'No New Fossil' norm increases the likelihood of staying within the 1.5°C limit while minimizing the economic, political and legal challenges associated with 'stranding' fossil fuel capacity."

**More information:** Fergus Green et al, No new fossil fuel projects: The norm we need, *Science* (2024). [DOI: 10.1126/science.adn6533](https://doi.org/10.1126/science.adn6533)

Provided by University College London

Citation: No new fossil fuel projects needed in the transition to Net Zero, researchers say (2024, May 31) retrieved 20 June 2024 from <https://phys.org/news/2024-05-fossil-fuel-transition-net.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.