

A roadmap for 'the only practical way to preserve the planet'

April 30 2010



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The United States could completely stop emissions of carbon dioxide from coal-fired electric power plants -- a crucial step for controlling global warming -- within 20 years by using technology that already exists or could be commercially available within a decade.

That's the conclusion of an article published online today, along with a news article on the topic, in the American Chemical Society's semi-monthly journal [Environmental Science & Technology \(ES&T\)](#). Both are scheduled for the June 1 print edition of ES&T.

Pushker Kharecha and colleagues say that the global climate change problem becomes manageable only if society deals quickly with emissions of [carbon dioxide](#) from burning coal in electric power plants. "The only practical way to preserve a planet resembling that of the Holocene (today's world) with reasonably stable shorelines and preservation of species, is to rapidly phase out coal emissions and prohibit emissions from unconventional fossil fuels such as oil shale and tar sands," they state.

The authors outline strategies to make that phase-out possible. They include elimination of subsidies for fossil fuels; putting rising prices on carbon emissions; major improvements in electricity transmission and the energy efficiency of homes, commercial buildings, and appliances; replacing coal power with biomass, geothermal, wind, solar, and third-generation nuclear power; and after successful demonstration at commercial scales, deployment of advanced (fourth-generation) nuclear power plants; and carbon capture and storage at remaining coal plants.

Provided by American Chemical Society

Citation: A roadmap for 'the only practical way to preserve the planet' (2010, April 30) retrieved 23 April 2024 from <https://phys.org/news/2010-04-roadmap-planet.html>

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