U.S. News & World Report

Study: Clean Power Plan Could Save Thousands of Lives

Limits on carbon dioxide emissions could yield big health benefits, researchers say.

The stacks of a coal-burning power plant dwarf a nearby home in Cheshire, Ohio, in 2012. An EPA proposal to reduce emissions from fossil fuel-burning power plants could also produce significant health benefits, a new study finds.

By Alan Neuhauser | May 4, 2015 | 4:55 p.m. EDT + More

The first federal measure to limit carbon dioxide emissions from existing power plants could prevent thousands of premature deaths and trips to hospital emergency rooms a year, a new study from researchers at Harvard and Syracuse universities finds, further strengthening supporters' arguments that the rules will save lives and potentially billions of dollars in health care spending.

"The stakes in terms of health are high and very much depend on the policy choices that are made," says study co-author Jonathan Buonocore, a research fellow at Harvard's Center for Health and the Global Environment.

Environmental Protection Agency Administrator Gina McCarthy has repeatedly touted the health benefits of the agency's proposed – and controversial – Clean Power Plan. Formally announced June 2 and expected to be finalized this summer, the plan seeks to cut carbon dioxide emissions from the U.S. power sector nearly 30 percent from 2005 levels by 2030.

[**MCCARTHY:** "Changes Will Happen" in Clean Power Plan]

The targets: the 2,417 coal-, oil- and natural gas-fired power plants in the U.S., which together generated 39 percent of the country's carbon dioxide emissions in 2012, according to the EPA – the most by any single sector.

Carbon dioxide itself does not pose immediate health risks. But by forcing states to curtail power plant emissions – either by shutting down certain fossil fuel plants or converting them to cleaner-burning natural gas or renewables like wind and solar – the Clean Power Plan would bring about sharp reductions in more potent pollutants, supporters say, such as sulfur dioxide and nitrogen oxide.

Monday's study, published in the journal Nature Climate Change, appears to corroborate those arguments. It says the plan, if implemented as proposed, could avert as many as 3,500 premature deaths a year.

"The more the standards promote cleaner fuels and energy efficiency, the greater the added health benefits," lead author Charles Driscoll, a professor of environmental systems engineering at Syracuse University, told The Washington Post.

The EPA, which did not participate in the study or interact with its authors, Buonocore says, roundly welcomed the findings.

"Not only would the Clean Power Plan take important steps to protect our climate by reducing carbon pollution from power plants, our nation's largest emitters – this new study also supports EPA's findings that reducing carbon pollution will result in significant health benefits," EPA spokeswoman Liz Purchia said in a statement.

Every dollar invested through the plan will yield up to $7 in health savings, she added, echoing similar remarks by McCarthy.

The study did not estimate potential financial savings from the Clean Power Plan.

[**ALSO:** Chemical Safety Overhaul Clears Hurdle as Boxer Threatens Filibuster]

"It's in progress," Buonocore says, declining to offer an estimate.

Work on the paper began even before the EPA unveiled the Clean Power Plan. Researchers reviewed a range of potential policy scenarios, eventually examining three developed by the Bipartisan Policy Center – a nonpartisan think tank – and the Natural Resources Defense Council, an environmental advocacy group.

The team then harnessed a complex computer modeling program that calculated the simulated emissions under each policy for each hour of every year through 2020 (10 years ahead of the EPA's deadline), determining the expected air quality for each region of the U.S.

Of the three scenarios, the one that mostly closely compared to the Clean Power Plan yielded strong results, Buonocore says, not only closely paralleling the EPA's actual policy proposals, but also indicating it would have a robust effect on health.
"When you try to compare apples to apples, our results were very consistent," Buonocore says.

Nonetheless, fossil fuel groups and conservative lawmakers have vigorously opposed the plan, claiming it will cripple electric reliability, drive up utility rates and slash coal jobs by forcing power plants offline.

"While these academics are hypothesizing about unprovable consequences, what's known is that families are struggling to pay their monthly bills and companies are struggling to stay in business – and any increase in energy costs will burden them unnecessarily," Laura Sheehan, senior vice president for communications at the American Coalition for Clean Coal Electricity, declared in a statement.

[**MORE:** EPA to Complete 'Clean Power Plan' Carbon Rules by Summer]

Other Clean Power Plan opponents – citing a model on the relationship between unemployment, lost income and early mortality developed by epidemiologist Harvey Brenner – argue plant shutdowns could

cause thousands of early deaths in their own right.

However, a March report by The Brattle Group, commissioned by a nonprofit that supports renewable power sources like wind and solar, concluded that the Clean Power Plan would not threaten reliability or significantly raise costs. The report also said a prior analysis by the North American Electricity Reliability Corp., frequently cited by plan opponents, ignored recent changes to the grid such as the expansion of ever-cheaper wind and solar power.

The Clean Power Plan attracted more than 4.3 million public comments to the EPA. Even ahead of its being finalized, it has faced legal challenges from states and industry groups opposed to the plan.

Report: EPA Power Plant Rules May Aid Health

Inform

TAGS: EPA, global warming, McCarthy, Gina, environment, energy policy and climate change, pollution, health, coal, electricity, oil, natural gas, greenhouse gases, renewable energy

+ More

Alan Neuhauser is an energy, environment and STEM reporter for U.S. News & World Report. You can follow him on Twitter or reach him at aneuhauser@usnews.com.