
EPA's Proposed Carbon Rule

ACCCE asked NERA Economic Consulting, Inc. (NERA) to analyze the energy market impacts and costs of EPA's proposed guidelines ("Clean Power Plan") to reduce carbon dioxide (CO₂) emissions from existing fossil fuel-fired power plants. NERA analyzed the proposed guidelines using its NewERA model.ⁱ The analysis focused primarily on two scenarios for complying with EPA's proposal. In one scenario, each state is assumed to comply with EPA's emission targets in the most cost-effective manner possible, without encountering any technical, institutional, legal, or other constraints that would increase costs.ⁱⁱ The other scenario assumes that states face constraints or that EPA would be constrained legally when the agency imposes a Federal Implementation Plan on states. These are some of the results of NERA's analysis, along with other information.

EPA's proposal is the most expensive environmental regulation ever imposed on the electric power sector, costing at least \$41 billion per year.

NERA also projected annual costs of \$73 billion under a scenario that assumes constraints. EPA estimated that its proposed guidelines would cost up to \$8.8 billion per year.ⁱⁱⁱ NERA projects the total cost of the EPA proposal to be \$366 billion to \$479 billion over a 15-year period. EPA did not provide an estimate of total costs.

EPA's proposal is projected to cause double digit electricity rate increases in 43 states.

Nationwide, the EPA proposal will cause a 12% to 17% average increase in electricity prices. Fourteen states face peak year electricity price increases that could exceed 20%. A different analysis of EPA's proposal for the

National Mining Association estimates that 44 states will have double digit electricity price increases, with 17 states facing more than a 20% increase in prices.^{iv}

At least 45,000 *more* megawatts of coal-fired electric generating capacity are projected to retire under EPA's proposal.^v

Forty-five thousand megawatts (MW) is greater than the entire electricity supply of New England.^{vi} Most of these retirements are projected to occur within the next five years, further increasing the threat to electric reliability. Already, more than 70,000 MW of coal-fired generating capacity in 42 states have announced retirement, most of which are due to other EPA policies.^{vii} This is equivalent to shutting down almost the entire electricity supply of California.^{viii}

Higher electricity prices will be especially harmful to low-income, fixed-income, and middle-income families.

The U.S. has 60 million low-income and middle-income households. Over the past decade, real incomes for these households have *declined* by 22%, while real energy prices have *increased* by 27%.^{ix} In addition, the 29% of U.S. households that receive Social Security benefits include many fixed-income seniors who are among the most vulnerable to higher energy costs.^x EPA's proposal will have a disproportionate impact on families already struggling with high energy costs.

Despite its enormous cost, the EPA proposal will have no real effect on global climate change.

By 2050, the proposed guidelines would reduce sea level rise by 1/100th of an inch (the thickness of three sheets of paper) and reduce the average global temperature increase by less than 2/100th of a degree.^{xi} EPA attempts to justify the proposal by counting reductions ("co-benefits") in emissions of other pollutants already regulated by EPA.

NERA's analysis does not include all possible costs and, therefore, the impacts of EPA's proposal could be even greater.

NewERA, like similar optimization models, makes simplifying assumptions to represent the nation's complex electricity system, and presumes that policies can be implemented in a least-cost manner. Certain costs such as upgrades to the electric grid and new natural gas infrastructure are not included in NERA's projections. Therefore, compliance with the proposed guidelines could be even more expensive than projected by NERA.

So far, legislatures, governors, and attorneys general representing 30 states have expressed opposition to EPA's approach.

Nineteen states have passed, or are considering, laws or resolutions expressing opposition to EPA's approach.^{xii} Attorneys general from 20 states are on record as opposing EPA's approach. In addition, 15 governors sent a letter to the President stating that EPA does not have the legal authority to regulate CO₂ emissions from coal-fired power plants.

Other countries are abandoning their commitments to reduce CO₂ emissions.

Supporters of the EPA proposal argue that the U.S. must show leadership in reducing CO₂ emissions, and the Administration has urged other nations to take steps to reduce their emissions. However, many industrialized countries are not expected to honor their commitments to reduce CO₂ emissions (e.g., *Washington Post* blog headline: "All over the planet, countries are completely missing their emissions targets"^{xiii}), and other countries refuse to make commitments.^{xiv}

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ⁱ NERA Economic Consulting, *Potential Energy Impacts of the EPA Proposed Clean Power Plan*, October 16, 2015.

ⁱⁱ Real-world constraints include the need for state legislation to increase the use of renewable energy sources and to establish more aggressive end-use energy efficiency programs, as well as legal constraints if EPA imposes a Federal Implementation Plan on states.

ⁱⁱⁱ EPA, *Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants*, June 2014.

^{iv} Energy Ventures Analysis for the National Mining Association, *EPA Clean Power Plan: Costs and Impacts on U.S. Energy Markets*, August 2014.

^v NERA's analysis projects base case coal retirements of 51,000 MW and total coal retirements of 97,000 MW under the optimum compliance scenario. This is approximately one-third of the generating capacity of the U.S. coal fleet. NERA projects total coal retirements of 220,000 MW under the other scenario. This means more than two-thirds of the U.S. coal fleet would retire.

^{vi} EIA, *Electric Power Monthly*, Table 6.2.A, Net Summer Capacity of Utility Scale Units by Technology and State, July 2014 and 2013 (Megawatts).

^{vii} Most of the 70,000+ MW are retirements of existing coal units. However, the total includes some conversions from coal to natural gas. Coal retirements and conversions are based on company announcements, as of October 2014.

^{viii} EIA, *Electric Power Monthly*, Table 6.2.A, Net Summer Capacity of Utility Scale Units by Technology and State, July 2014 and 2013 (Megawatts).

^{ix} ACCCE, *Energy Cost Impacts on American Families, 2001-2014* (Feb. 2014) http://www.americaspower.org/sites/default/files/Trisko_2014.pdf

^x *Ibid.*

^{xi} ACCCE, *Climate Impacts of EPA's Proposed Carbon Regulations*, June 2014.

^{xii} Five states have passed laws and nine states have passed resolutions stating that carbon emission standards should be set based on inside-the-fence measures. By contrast, EPA's proposal is based on outside-the-fence measures including renewable energy and end-use energy efficiency. Five states have passed resolutions or legislation in either their House or Senate supporting inside-the-fence standards or explicitly opposing EPA's proposal.

^{xiii} Steven Mufson, *All over the planet, countries are completely missing their emissions targets*, (September 23, 2014) <http://www.washingtonpost.com/blogs/wonkblog/wp/2014/09/23/all-over-the-planet-countries-are-completely-missing-their-emissions-targets/>

^{xiv} For example, Australia, Canada, and Japan have been called "standouts in going backwards" in international climate talks, and Germany is expected to miss its 2020 emissions target despite a €1 trillion clean energy policy. Chinese emissions are expected to continue to grow through 2050, and India will not agree to an emissions reduction target for the foreseeable future.