

# Accelerating and Smoothing the Transition away from Coal

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To accelerate the country's transition away from coal, regulators should consider coal's full social costs when deciding whether to approve new mines on federal lands and how much pollution should be allowed from power plants. Further, regulators should address legacy environmental issues at these sites, while giving coal workers the opportunity to help clean up closed mines and plants in their communities.

## The Challenge

Coal makes up about a quarter of U.S. electricity generation today. And, despite competition from natural gas and the growth of renewable sources, it is projected to make up about 15 percent of power in 2050. However, the climate, environmental and health impacts from coal are severe. Coal combustion contributes to about half of U.S. electricity emissions, and, in doing so, emits pollutants that cause respiratory diseases. Coal ash, which contains arsenic, lead, and mercury, seeps into groundwater and surface waters and has been linked to cancer. Further, higher cancer and cardiovascular disease mortality rates, as well as higher rates of birth defects, are concentrated in areas where mountaintop removal is practiced. Left un-reclaimed, coal mines cause lasting harm to air, water and land.

## Policy Context

The Obama administration made some progress in reducing the harmful impacts of coal through the Clean Power Plan, protecting streams and groundwater through the Stream Protection Rule, and imposing groundwater monitoring and other protections for coal ash landfills through the Coal Ash Rule. The Trump administration reversed these

efforts, significantly lowering the social cost of carbon that would have reflected the true costs of coal in federal climate policies, and reversing water protections back to requirements from the 1980s. Meanwhile, the courts remanded the Coal Ash Rule and the Trump administration's rollback of it for insufficiently addressing the risks—leaving coal ash sites unprotected. The Surface Mining Control and Reclamation Act required companies to pay into a government-run fund (the Abandoned Mine Land fund) to clean up mining sites abandoned before 1977, but to date the fund has too little money to reclaim even those old sites. For newer sites, companies must pay to reclaim them themselves, but they are allowed to “self-bond,” or promise to cover the costs in future rather than buying bonds up front. These obligations are commonly liquidated in bankruptcy. With a significant portion of the total coal produced in the United States today—about 41 percent in 2018—mined on federal lands, this leaves puts the price of clean-ups on states, communities, and taxpayers.

# 45,000

NUMBER OF MINING JOBS

# \$1B

TAX REVENUE BROUGHT IN BY COAL

# 50%

SEGMENT OF EXPECTED CO<sub>2</sub> EMISSIONS FROM COAL COMBUSTION IN 2050

## Recommendations

Several changes to the current process can speed the transition away from coal and address legacy environmental issues.

Giving coal miners and coal-fired power plant workers priority for jobs generated by these activities would help to support the financial stability and independence of coal-mining communities during this transition.

- **The Department of Interior's Bureau of Land Management should review under what conditions, if any, to continue the leasing of federal lands for coal mining.** Incorporating the social costs of carbon and other air pollutants into a review would likely justify curtailing significantly—or even entirely—federal coal leasing given that one dollar of activity effectively creates six dollars of damages.
- **Impose new regulations limiting greenhouse gas emissions from existing coal-fired power plants.** Working with other federal entities such as the Federal Energy Regulatory Commission, EPA can develop a new version of the Clean Power Plan that reflects changes to energy markets and the present best available science.
- **Including the Social Cost of Carbon and other social costs when making permitting, leasing and other decisions.** If future leasing on federal lands continues, officials could be required to consider the full range of social costs—approving those that are net beneficial and rejecting those that are net negative.
- **Protect waters from mountain top removal mining.** While Congress has nullified the Stream Protection Rule, EPA can promulgate a new regulation that uses other approaches to protecting mountain streams or work with Congress to pass new legislation that achieves these objectives.
- **Eliminate self-bonding.** New legislation could require companies to provide financial assurance to clean up coal sites through third-party instruments like bonds or insurance. Financial markets would then be employed to assess the potential liabilities and risks, set the price, and provide the necessary funds for reclamation if a company fails to pay.
- **Change the bankruptcy code to make shedding environmental liabilities more difficult.** The bankruptcy code prioritizes administrative expenses over “legacy costs” like environmental cleanups. New legislation to change the bankruptcy code could give priority to public interest claims, increasing the amount of funds available for reclamation and coal ash cleanup.
- **Provide more funds for reclamation of abandoned lands.** Congress should urgently consider shoring up and expanding the use of the Abandoned Mine Land fund to cover more recent and future mine closures.
- **Establish stricter environmental requirements for coal-ash impoundments.** EPA should reconsider whether to regulate coal ash as a hazardous waste, which would give it the authority to regulate it rather than the states. Officials should regulate coal ash disposal sites more tightly, monitoring surface and groundwater more extensively, eliminating loopholes that allow existing operations to seek exemptions, and developing a Superfund-type program to address legacy sites.

### COURT FILING

#### Amicus Brief of Michael Greenstone in American Lung Association v. U.S. EPA

U.S. Court of Appeals for the District of Columbia Circuit

The Affordable Clean Energy Rule purported to reduce CO<sub>2</sub> emissions, but the Rule arbitrarily increased the discount rate, disregarded global benefits of CO<sub>2</sub> reductions, and did not provide information about high-impact, lower-probability outcomes, all major departures from accepted environmental economics practices.

### PUBLISHED RESEARCH

#### Bankruptcy as Bailout: Coal Company Insolvency and the Erosion of Federal Law

71 Stanford Law Review

Between 2012 and 2017, four of the largest coal companies in the United States succeeded in using the Bankruptcy Code to evade almost \$5.2 billion of congressionally imposed liability benefits to coal miners.