



**N**ear Fort Martin, WV, just miles from the Pennsylvania and Maryland borders, a new “crop” of an old variety is sprouting. A 695-megawatt coal plant under construction is aimed at meeting the growing demand for power not in West Virginia or Pennsylvania—which already produce much more electricity than they use—but in other Northeast and mid-Atlantic states. In fact, coal already fuels about half of all the electricity used in the United States, and its abundance and historically low price have made that power relatively cheap.

That low price, however, is misleading. Coal-burning power plants create serious adverse impacts, imposing high costs and risks on society. Coal burning is a leading source of mercury contamination and the pollutants that cause smog and acid rain. The process of cooling and scrubbing is water-intensive, accounting for a significant portion of the nation’s fresh water use, with attendant damage to aquatic ecosystems. Underground coal mining is dangerous, and both underground and

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**Individual RGGI states and the region as a whole must take critical steps to ensure that the very cap-and-trade system designed to limit global warming pollution does not end up undercutting itself.**

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surface mining can cause extensive damage to landscapes, water supplies, and ecosystems.

Yet coal’s greatest potential to inflict catastrophic harm lies in the fact that it is the most carbon-intensive fossil fuel, and thus a huge global warming threat. In fact, coal is responsible for one-third of all U.S. carbon dioxide (CO<sub>2</sub>) emissions from energy use—about the same amount as that from the country’s cars, trucks, buses, trains, and boats combined. Even new coal plants emit more than twice as much CO<sub>2</sub> per unit of electricity as new natural gas plants.

To help address this threat, 10 northeastern and mid-Atlantic states are committed to stabilizing and even cutting global warming emissions beginning in 2009, through the path-breaking Regional Greenhouse Gas Initiative (RGGI). This agreement begins to recognize the cost of climate change by capping CO<sub>2</sub> emissions, and by requiring owners of power plants in the region to buy “allowances” to emit such pollution. In September

2008, participating states auctioned off the first allowances, as a prelude to the launch of the nation’s first cap-and-trade system for global warming pollution.

Yet RGGI’s very approach threatens to expand reliance on coal-based electricity produced *elsewhere*—thus offsetting its global warming reductions. That is because RGGI puts a price on emissions only from power plants within the region, making electricity from plants outside the region less expensive. That, in turn, could spur electricity suppliers in RGGI states such as Maryland to import more power from coal-producing states such as West Virginia.

## The Carbon Math

The resulting higher emissions could undo many of the initiative’s promised gains:

- Use of the excess capacity of existing coal plants to the west and south of the RGGI region—the equivalent of 15 new coal plants—could produce heat-trapping pollution three and a half times the cuts expected under the initiative. These emissions would equal those from more than 9 million extra cars on the road.
- The six coal plants under or near construction in states near the Northeast could emit global warming pollution equal to 140 percent of RGGI’s reductions—the equivalent of emissions from 4 million more cars on the road.
- Several proposed projects would expand the transmission “highway”—the electricity grid that allows power to flow from west to east. That would enable more coal-based electricity to stream from Ohio, Pennsylvania, and West Virginia—states that have not joined RGGI—to Delaware, Maryland, and New Jersey: all states that have agreed to cap their emissions.
- A working group composed of environmental and energy staff



from RGGI states projected that rising CO<sub>2</sub> emissions in the Midwest could offset more than one-quarter of the emission cuts spurred by RGGI—even without new transmission lines that would enable more electricity to flow between regions.

- Increases in imports of electricity from coal plants outside the RGGI region that amount to less than 5 percent of today's demand inside the RGGI region would offset all the emission reductions mandated in the year of deepest cuts under the initiative.

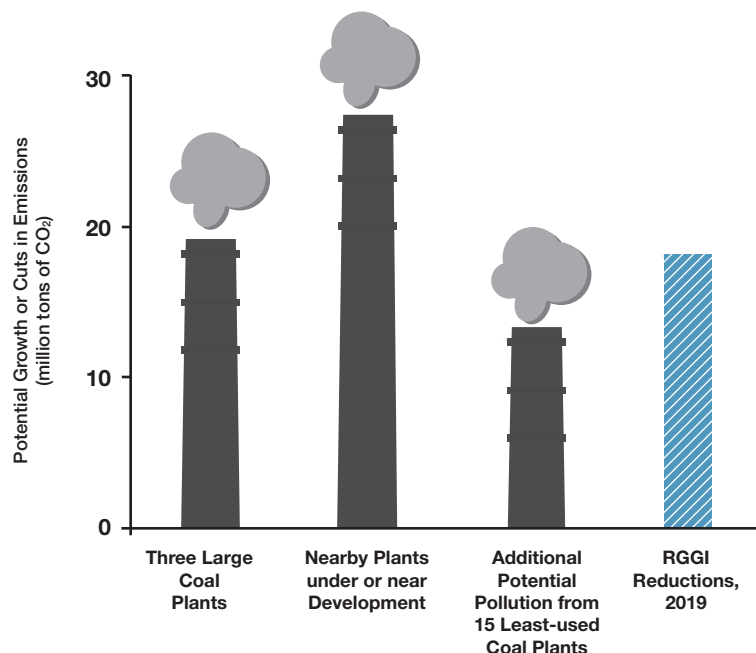
RGGI states have agreed to channel revenue from the auction of CO<sub>2</sub> allowances into energy efficiency and renewable energy. That will reduce demand for electricity and imported dirty power. However, those longer-term investments will not offset the immediate threat from greater reliance on coal-based electricity.

## Blocking Pollution Imports

Fortunately, RGGI states could tap a range of solutions to plug the leak:

- They could limit the ability of in-state electricity suppliers to contract for power from more polluting plants, whether inside or outside the region.
- They could cap global warming emissions from the entire portfolio of each local electricity supplier.
- Together or individually, RGGI states could require local electricity suppliers to account for global warming emissions from electricity produced outside the region as well as inside it, offsetting the advantage of imported coal power. States could, for example, require local suppliers to offset any increases in emissions linked to higher imports by expanding their investments in energy efficiency, renewable energy, or another public good.
- RGGI states could insist that proposed transmission projects to expand the flow of power from states with abundant coal consider the Northeast's goals for cutting global warming pollution.

Efforts to address global warming emissions in other regions point to the wisdom of such actions. California's nascent



### Coal vs. Climate

**A single year's CO<sub>2</sub> emissions from three large new coal plants, from plants now under or near development in nearby states, or from full use of the 15 nearby coal plants with the lowest capacity factors would cancel out most or all of the cuts in global warming pollution expected from RGGI.**

efforts to deal with such emissions have prompted the cancellation of at least one out-of-state coal plant project, by creating uncertainty about its economic viability. And regional efforts now in the planning stages—including the Western Climate Initiative and the Midwestern Greenhouse Gas Reduction Accord—are likely to consider the climate impacts of *all* the power used in the region, not just that produced in participating states.

The tremendous challenge of climate change demands swift and deep cuts in global warming pollution. The Northeast must act now to ensure that RGGI does not merely shift the coal industry's expansion plans to areas outside the region—and that the pioneering initiative achieves its full potential.

The full text of this report is available online at [www.ucsusa.org/clean\\_energy](http://www.ucsusa.org/clean_energy)

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