

Next Step for Addressing Climate Change: EPA Standards for Power Plant Carbon Pollution

The U.S. Environmental Protection Agency is developing carbon pollution standards for new power plants. These rules will ensure that new power plants meet strong, achievable standards that help reduce the nation's overall contribution to climate change. On September 20, 2013, the EPA released its draft rules for future plants. We support enactment of these rules and also look forward to EPA issuing carbon pollution standards for existing power plants. Maine has much to gain through these efforts to secure cleaner electricity generation nationwide.

Climate change poses a serious threat to Maine's economy, environment, and quality of life:

- Warmer and more acidic oceans endanger lobsters and other marine fisheries, jeopardizing the culture and economy of Maine's coastal communities.
- A rising sea level and more extreme weather events imperil coastal properties, roads and infrastructure, and wildlife habitat.
- Climate change is likely to increase smog and worsen public health with increased asthma, ticks that carry Lyme disease, and more.
- Climate change is already hurting our economy through impacts to winter recreation, forest products, Maine's farms, tourism, and much more.

Maine has everything to gain and little to lose through national power plant pollution standards. We are at the receiving end of air pollution from upwind states that burn large amounts of dirty coal. Maine and the Northeast have *already* taken major steps to reduce power plant pollution, including through the Regional Greenhouse Gas Initiative. **The EPA rules will help ensure that power plants across the country follow our lead.**

Limiting carbon pollution from power plants will **spur innovation and investment** in clean energy, strengthening Maine's economy and curbing the climate instability that could have devastating impacts on Maine's small businesses, economy, and quality of life.

America's existing power plants – especially those run on coal, oil, and natural gas – emit 40% of our nation's carbon pollution, our single largest source. The U.S. currently has no regulatory restrictions on carbon pollution from power plants, so **requiring that new power plants run cleanly is a critical step to addressing the risks of global warming.**

For Maine, climate solutions
– **like these proposed standards for power-plant carbon pollution** –
protect the jobs the Maine is famous for and grow our clean economy.

Climate Pollution Standards for New Power Plants: The Details

What do these proposed carbon standards require?

The EPA carbon pollution standards set limits for new power plants to slow the effects of dangerous climate change. Under the newly proposed standards:

- New large natural gas-fired turbines must meet a limit of 1,000 pounds of carbon dioxide per MWh (CO₂/MWh);
- New small natural gas-fired plants must produce less than 1,100 pounds CO₂/MWh; and
- New coal-fired units must emit no more than 1,100 pounds CO₂/MWh. Additionally, coal-fired plants will have an option to meet a stricter limit if they wish to average their carbon emissions over several years. This provision eases major investments in carbon-scrubbing technologies, like carbon capture and storage, which soaks carbon dioxide from a coal plant's emissions and pumps it underground.ⁱ

How much do power plants contribute to climate pollution?

Gina McCarthy, head of the Environmental Protection Agency, tells it straight (emphasis added):

“We know that carbon pollution is the most prevalent heat-trapping greenhouse gas, warming our planet and fueling climate change. In 2011, power plants and major industrial facilities in the United States emitted over 3 billion metric tons of carbon pollution, which is equal to the annual pollution from over 640 million cars. Annually in the U.S., carbon pollution from power plants accounts for one third of all greenhouse gas emissions, or 40 percent of total carbon pollution, surpassing industrial sources or the transportation sector. *That means power plants emit more carbon pollution than every boat, plane, train, and car in the U.S. combined.*”ⁱⁱ

How do these standards spur clean investment?



Image source: AmericanProgress.org.

With these proposed rules, the cleanest ways to power our grid – with efficient and renewable energy – become the most cost-effective, too. The rules will spur innovation that will help make these technologies even cheaper over time.

These standards will help capture the cost that society bears for health effects—including premature death and

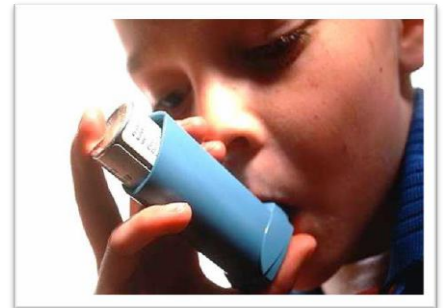
respiratory illnesses—caused by dirty power plants. For too long, coal-fired power plants in particular have escaped pollution controls, imposing environmental and health impacts on downwind communities.

How will cutting carbon pollution protect Maine’s jobs and create new ones?

Tackling climate change means protecting our thousands of Maine jobs that rely on a stable climate, from farming and forestry to fishing and winter sports. Moreover, stronger pollution standards drive innovation by requiring companies to invest in new technologies and practices, which generate more jobs. Specifically, the EPA’s new carbon pollution standard will “generate thousands of jobs in labor-intensive energy efficiency retrofits in buildings; the manufacture, installation, and operation of wind and solar power; and other investments necessary to slash this pollution,” according to a synopsis by Daniel Weiss.^{iv} Importantly, these are jobs that can’t be outsourced overseas.ⁱ

How will cutting carbon pollution save us money and even lives?

Power plants operate with limits on their emissions of mercury, sulfur, arsenic, cyanide, and lead, but there are currently no federal limits on the dangerous carbon pollution driving climate change. This means that big power plants assume none of the costs imposed by climate change on human health and the environment. Warmer temperatures spurred by carbon pollution worsen smog and pollen levels, leading to more asthma attacks and other respiratory problems – the nation’s asthma rates alone have doubled over the past 30 years.^v Moreover, Maine is already seeing the impacts of a warmer climate in the Lyme disease-carrying ticks spreading farther north.^{vi}



American asthma rates have double over the past 30 years. Image source: PublicHealthNewswire.org, Telegraph.uk.co.

Climate scientists predict an increase in extreme weather events, and we already see the costs to society of such events. Superstorm Sandy and 24 other extreme weather events in 2011 and 2012 caused damage in excess of \$1 billion each – \$188 billion overall – and left 1,100 people dead across the country. The number of these extreme weather events, as well as the price tag, has grown over the past three decades.

The benefits of EPA regulations have been well proven, and we know that the new carbon pollution rules will provide society with much higher benefits than costs. Since 1970, every \$1 invested to comply with Clean Air Act standards has returned \$4 - \$8 in economic benefits, and estimates show that by 2020, total benefits from the Clean Air Act will outweigh the costs by a ratio of 30 to 1.^{vii}

Doesn't Maine already have strong limits on our power plant carbon pollution?



The Regional Greenhouse Gas Initiative is a successful market-based program for reducing climate pollution.

Maine is reducing its carbon pollution as member of the Regional Greenhouse Gas Initiative (RGGI). EPA's national carbon pollution standards would require that all new power plants be as clean as Maine's.

Maine has participated in RGGI since 2007, a market-based approach reducing global warming pollution from power plants from Maine to Maryland by spurring investment in energy efficiency. RGGI has been very successful reducing pollution while measurably strengthening the Maine economy, reducing energy costs, and creating jobs. To date, the program has leveraged public investments to spur tens of millions of dollars in private investment in Maine's manufacturing sector. It's also providing significant benefits to Maine homeowners by supporting cost-effective energy efficiency improvements.^{viii}

Where are we now in the process of reducing power plants' carbon pollution?

The Supreme Court's 2007 decision in *Massachusetts v. EPA* ruled that Section 111 of the Clean Air Act covers climate change pollutants as a threat to public health. EPA Administrators under both Presidents Bush and Obama determined that greenhouse gas pollution endangers the health and welfare of the public by causing long-lasting changes in our atmosphere that can have a range of negative effects on human health and the environment. The Supreme Court's decision legally mandates the EPA to set carbon pollution limits on major industrial polluters.^{ix, x}

In April, 2012, the EPA released draft carbon rules for new power plants. More than 3.2 million Americans wrote to the Administration in support of these rules – more public support than on any other clean-air standard ever. The EPA has released an updated draft of those rules, which also are open for public comment before finalization. Next, the EPA is expected to release draft rules to address carbon pollution from existing power plants by the summer of 2014.

Why is congressional support necessary?

Although EPA has the authority to implement the new carbon pollution rules, we anticipate that some members of Congress will attempt to block these important steps to provide cleaner electrical power generation across the U.S.

Congressional support will be crucial for this important step towards climate stability, and Maine's Senators are uniquely positioned to take the lead.



Image source: ItsGettingHotInHere.org.

Sources

- ⁱ EPA, “2013 Proposed Carbon Pollution Standard for New Power Plants,” <http://www2.epa.gov/carbon-pollution-standards/2013-proposed-carbon-pollution-standard-new-power-plants>, (9/23/13).
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- ^{iv} Weiss, Daniel J., “10 Truths that Should Be Said at This Week’s House Climate Change Hearing,” Center for American Progress, <http://www.americanprogress.org/issues/green/news/2013/09/16/74181/10-truths-that-should-be-said-at-this-weeks-house-climate-change-hearing/>, (9/16/13).
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- ^{vii} McCarthy, Gina; (9/20/13).
- ^{viii} For more information on RGGI, see the Natural Resources Council of Maine at <http://www.nrcm.org/>.
- ^{ix} Weiss, Daniel J., (9/16/13).
- ^x US EPA, “New Power Plants: Basic Information,” <http://epa.gov/carbonpollutionstandard/basic.html> (as of 9/18/13)