



EPA and Greenhouse Gases 101

Why the Agency Needs to Be Allowed to Reduce Carbon Pollution

Jake Caldwell | February 2011

Shortsighted members of Congress dropped legislation this week to block the Environmental Protection Agency, or EPA, from regulating greenhouse gases under the Clean Air Act. The EPA's enforcement of clean air laws—which is already underway—will reduce pollution, stabilize our climate, and protect the health and welfare of the American people. Preventing EPA from doing this work is flat-out dangerous and goes against the letter of the law.

Let's examine why enforcement of clean air laws is necessary to protect us from the impacts of climate change, what the law permits EPA to do, and what actions the EPA has already taken to mitigate carbon pollution. The agency is clearly taking a cautious and common sense approach that values the public's input and takes the effects of regulation on businesses and power suppliers into consideration.

Climate change is a serious problem

The scientific evidence is clear and substantial that global climate change is occurring. Greenhouse gases, such as carbon dioxide and nitrous oxide, are emitted from power plants, industrial facilities, and other sources, and released into the atmosphere. As the gases linger in the atmosphere they trap heat radiating back from Earth and the surface temperature of our planet rises. The nation's fossil fuel power plants and oil refineries are collectively responsible for 40 percent of U.S. greenhouse gas emissions per year.

The atmospheric concentration of carbon dioxide—a major greenhouse gas—is at its highest point in 650,000 years. Global carbon dioxide levels are climbing at an unprecedented pace and steadily drawing global temperature upward. The 2010 calendar year was the hottest on record. And in the last decade the Earth has experienced 9 of the 10 hottest years since data has been recorded.

As the atmosphere is destabilized, irreversible damage to our economy and our environment will occur from rising sea levels, increased rainfall, floods, drought, wildfires, and severe storms. This past year's brutal wildfires and crippling drought in Russia, and devastating flooding in Pakistan, Brazil, and Australia are likely only the beginning of future extreme weather events to come. Add to that the fact that as the global population surges to 9 billion by 2050 our fresh water supplies and worldwide capacity to grow enough food will be severely challenged.

The longer we delay taking action to stabilize the climate, the more difficult and expensive the solutions will be. Actions taken today by EPA in accordance with U.S. law can help reverse this course and slow climate change's devastating impacts.

What the law says

The Clean Air Act of 1970 requires EPA to set standards to curb the emissions of any air pollutant that “may reasonably be anticipated to endanger public health or welfare.” The Clean Air Act was last amended in 1990 with widespread support from Republicans, Democrats, and President George H. W. Bush.

The act has an impressive track record protecting public health, providing certainty to business, and delivering economic value. Since its enactment it has reduced overall air pollution while U.S. gross domestic product has risen 207 percent. In 2007 alone, environmental firms and small businesses produced \$40 billion in exports and supported 1.6 million jobs. The benefits to the American people of Clean Air Act rules—mostly health benefits, including asthma reduction, lower lung cancer rates, greater productivity—are expected to reach nearly \$2 trillion in 2020, exceeding any costs by more than 30 to 1.

The Supreme Court ruled in the 2007 case *Massachusetts v. EPA* that greenhouse gases are a chemical substance emitted into the air and are air pollutants. EPA then issued an “endangerment finding” in December 2009 stating that greenhouse gases are a threat to public health and are expected to endanger “future public health, public welfare, and the climate.” The finding relied exclusively on science to inform its actions.

What this finding means is that EPA is required under the Clean Air Act to take action to reduce the pollution contributing to climate change since greenhouse gases are found to be pollutants that endanger public health and welfare. This is

the law of the land. Any effort, even by Congress, to stall or block EPA from following the law is counter to the original intent of our clean air laws and Congress. Stopping EPA from doing its job represents a victory for the lobbyists of big polluters and a retreat from cleaner air and improved public health.

EPA should continue taking action under the law

The first phase of EPA's establishment of safeguards for greenhouse gas emissions from power plants (stationary sources) went into effect on January 2, 2011. The regulations will require developers of new (and substantially upgraded) power plants, refineries, and other high-emitting industrial facilities to obtain permits to limit their greenhouse gas emissions.

EPA publicly announced it had established a timeline for the regulation of greenhouse gas emissions from existing power plants and oil refineries in a separate action on December 23, 2010. These regulations will focus on improving the efficiency of these facilities. EPA will not issue final standards for existing facilities until May 2012 (power plants) and November 2012 (oil refineries). Industry has had—and will continue to enjoy—ample time to prepare for these standards to go into effect. And these new rules for power plants and industrial facilities will improve air quality, create jobs, and spur innovation in pollution reduction and clean energy technologies.

EPA has also taken significant action on improving the fuel economy and reducing greenhouse gas pollution from cars and light trucks, or mobile sources. The Clean Car Agreement has garnered support from the auto industry, states, and federal officials, and it will reduce our dependence on oil and greenhouse gas emissions. It aims to establish an average fuel economy standard of 35.5 mpg by 2016, which will lead to 1 billion tons of emissions reduced over the life of these cars.

President Barack Obama wrote that the new EPA standards were a “victory for car companies that wanted regulatory certainty; for consumers who will pay less at the pump; for our security, as we save 1.8 billion barrels of oil; and for the environment as we reduce pollution.”

EPA is also simultaneously engaged in numerous *non-greenhouse gas* rulemakings in addition to activities directly addressing greenhouse gas emissions. These rules relate to coal fly ash and the reduction of mercury emissions and toxic pollutants from industrial boilers and power plants.

The Industrial Boiler Air Toxics Rule and the Power Plant Air Toxics Rule will result in significant public health benefits as well as substantial reductions in greenhouse gas emissions as dirty, old coal-fired power plants are retired due to weak demand and lower power prices, and replaced by natural gas and renewable electricity from wind, solar, and biomass. (See CAP's "The Power of the President")

It's important to point out that EPA is not rushing to regulate. It is offering numerous opportunities for public participation and comment, and taking a cautious, flexible, and balanced approach that will reduce costs, protect public health, and ensure the reliability of our energy supplies. EPA has been careful and willing to delay issuing rules before proceeding if more scientific data is needed to inform decisions.

The agency is working with states and power plant and refinery owners on a case-by-case basis to find the most energy efficient means and best available technology to achieve greenhouse gas reduction goals. In most cases, the "off-the-shelf" technology exists today to make meaningful reductions in sulfur, nitrogen, and mercury pollution immediately while generating electricity more cleanly and efficiently.

Further, every state (with the exception of Texas) says they are prepared to enact EPA safeguards and take the initial steps toward reducing greenhouse gas pollution. Many responsible industrial operators have already made substantial investments in pollution reduction technologies and should not be penalized by the go-slow approach of industry laggards.

On stationary sources, EPA has attempted to limit the application of Clean Air Act greenhouse gas rules to only the largest (greater than 100,000 tons per year) new and modified power plants and industrial facilities in the country by issuing the threshold "Tailoring Rule." This will cover nearly 70 percent of the sources of greenhouse gas emissions throughout the country. No farms, no restaurants, and no small businesses will be subject to EPA rules. Only the largest commercial and industrial facilities will be covered by the Clean Air Act at this time.

The majority of new EPA rules on greenhouse gas emissions will focus on reducing pollution by improving the energy efficiency of power plants and industrial facilities. EPA and the Department of Energy have noted that refineries can reduce greenhouse gas emissions and cut costs substantially by investing in energy efficiency. On average, refineries can recover any up-front costs of newly installed energy efficient measures in six months.

Several recent studies also indicate that EPA will be able to issue well-designed rules reducing pollution, and utilities will be able to meet these standards while providing a reliable supply of electricity to American homes and businesses.

Conclusion

EPA's actions to reduce pollution from the biggest power plants, industrial facilities, and other sources are the latest in a series of steps the agency is taking as part of its *legal obligations* under the Clean Air Act to regulate greenhouse gases as an air pollutant. EPA's open and transparent actions will protect public health and welfare, provide certainty for consumers and business, and ensure strong economic growth now and in the future. Politicians need to stop their obstructionist tactics and let the agency do its duty to guard the public and the planet from harmful pollutants.

Jake Caldwell is the Director of Policy for Agriculture, Trade and Energy at American Progress.