

# CLIMATE CHANGE

Heat-trapping air pollutants, most notably carbon dioxide, are changing the Earth's climate. The amount of carbon dioxide in the Earth's atmosphere has increased by 40 percent since the start of the industrial era, primarily due to emissions from burning coal, oil, and natural gas. Temperatures have risen around the world as a result: The 1980s were the hottest decade on record globally until surpassed by the 1990s, and then by the 2000s. 2012 was the hottest year on record in the United States and 2013 was one of the top 10 hottest years worldwide with 600 daily records broken in the United States.

Climate change threatens the health of our families, our communities, and our planet. According to the 2014 National Climate Assessment,<sup>1</sup> the consequences already include more severe storms, floods, and droughts, and increased illness and death from more severe heat waves and worsened pollution. Climate change is predicted to change where crops can grow and to spread insect-borne diseases. Weather disasters such as Hurricane Sandy, and severe droughts, which many scientists believe are worsened by climate change, will exact a continuing toll on federal, state, and local budgets. The Pentagon views climate change as a major national security threat because of the many ways it can increase global geopolitical instability.

## I. MAJOR CONCERNS

Scientists agree that unless we act soon to cut carbon pollution, we will face increasingly calamitous threats to Americans' health and well-being. Temperatures will continue to rise, weather will get more extreme, and other impacts will worsen throughout our lifetimes. Children, the elderly, and communities living in poverty are among the most vulnerable. Because the United States is one of the world's largest carbon-emitting nations, actions we take are critical to slowing climate change around the world. U.S. leadership is also essential to catalyze parallel action by the world's other large emitting nations.

## II. PRIMARY STATUTES

### Clean Air Act

The Supreme Court ruled in 2007 that the Environmental Protection Agency (EPA) is required to limit carbon pollution under the Clean Air Act if the agency concludes that heat trapping gases endanger public health and welfare. The EPA issued such an "endangerment finding" in 2009. Under the Clean Air Act, that means the EPA must limit carbon pollution from motor vehicles, power plants, and other major industrial sources.



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### III. MAJOR POSITIVE ACTIONS

#### Clean Car Standards

Carbon pollution from cars and light trucks is being cut by technology that also increases mileage, saving consumers billions of dollars at the gas pump. In 2010 and 2012, the Obama administration issued standards under both the Clean Air Act and fuel economy laws that will cut new vehicles' carbon pollution in half and double their average fuel economy (to 54.5 miles per gallon) between 2012 and 2025.

#### The President's Climate Action Plan

In June of 2013, President Obama released his Climate Action Plan, a suite of policies designed to address the pollution that's driving climate change. The plan includes a variety of actions under existing law based on three key pillars:

1. Cut carbon pollution in America
2. Prepare the United States for the impacts of climate change
3. Lead international efforts to combat global climate change and prepare for its impacts.

### IV. UPCOMING ISSUES

#### New power plants

The EPA proposed carbon pollution standards for new power plants in September 2013, as provided in the President's Climate Action Plan. The carbon emissions rates that each new coal or gas plant will need to meet are technically feasible and economically reasonable, as required by law. The EPA, the Department of Energy, utility executives, and industry analysts all forecast that the nation's needs for new electricity supplies over the next two decades will be met by a combination of natural gas plants, renewables such as wind and solar, and possibly nuclear energy—all of which can meet the proposed standard. Power companies also can meet this standard with new coal-fired plants that use carbon capture and storage (CCS) technology.

#### Existing power plants

The nation's fleet of existing power plants releases more than 2 billion tons of CO<sub>2</sub> each year, 40 percent of total U.S. emissions. Under the President's Climate Action Plan, the EPA will propose carbon pollution standards under the Clean Air Act in June 2014. In preparation, the EPA began an unprecedented state and stakeholder engagement process in fall 2013. After further public comment and engagement, the EPA is scheduled to issue final standards in June 2015. States will then develop State Implementation Plans (SIPs) on how they will meet the standards, which must be submitted to the EPA by June 2016. The EPA is required to put forth a federal plan for a state only if the state does not submit a viable plan of its own.

Standards under the Clean Air Act can achieve huge health and climate benefits at surprisingly low cost. NRDC has developed a flexible proposal under which the EPA would set standards for each state reflecting its current mix of coal and gas generation.<sup>2</sup> Power plant owners would have a broad array of flexible and cost-effective compliance options: cleaning up existing units, shifting generation towards cleaner plants (including gas, renewables, and nuclear), and investing in customer energy efficiency. This plan would achieve huge climate protection and public health benefits adding up to \$28 to \$63 billion in the year 2020 while holding power bills down and triggering huge job-creating clean energy investments. While the EPA has not released any details about the upcoming standards, it has said that it would include flexible compliance options.

Standards to clean up carbon pollution from dirty power plants enjoy tremendous public support. The Environmental Protection Agency has received a record three million public comments backing strong carbon standards for both new and existing power plants.

<sup>1</sup> U.S. Global Change Research Program, National Climate Assessment, May 2014, <http://nca2014.globalchange.gov/>.

<sup>2</sup> Lashoff & Yeh, *Cleaner and Cheaper: Using the Clean Air Act to Sharply Reduce Carbon Pollution from Existing Power Plants, Delivering Health, Environmental, and Economic Benefits*, NRDC, March 2014.