

# WHY WE NEED A CLEANER, MORE EFFICIENT POWER SECTOR

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On June 2, 2014, the U.S. Environmental Protection Agency, under President Obama's Climate Action Plan, proposed a commonsense plan to cut carbon pollution from power plants. The science shows that climate change is already posing risks to our health and our economy. This proposal will maintain an affordable, reliable energy system, while cutting pollution and protecting our health and environment now and for future generations.

**Significant public health and climate benefits for future generations**—The proposed Clean Power Plan will cut hundreds of millions of tons of carbon pollution and hundreds of thousands of tons of harmful particle pollution, sulfur dioxide and nitrogen oxides. Together these reductions will provide important health protections to the most vulnerable, such as children and older Americans.

**Affordable, reliable energy**—The agency's proposal is flexible—reflecting that different states have a different mix of sources and opportunities to cut carbon pollution, and reflecting the important role of states as full partners with the federal government in cutting pollution. And it provides enough time for utilities to make changes without affecting reliability. Because of this flexibility, in 2030, consumers' electricity bills will be smaller.

**Drive investment and innovation that will assure American businesses have a competitive edge**—Cutting carbon pollution from power plants will drive investment and innovation that will keep American businesses at the forefront of the global movement to produce and consume energy in a better, more sustainable way.

**Proven, flexible approach**—The proposal builds on what states, cities and businesses around the country are already doing. They have set energy efficiency targets, increased their use of renewable energy, and made agreements to cut carbon pollution. These are the kinds of programs that states will be able to use to cut carbon pollution under this proposal.

## SIGNIFICANT PUBLIC HEALTH AND CLIMATE BENEFITS

- Climate change is not just a problem for the future – we are facing its impacts today.
  - Average temperatures have risen in most states since 1901, with seven of the top 10 warmest years on record occurring since 1998.
  - Climate and weather disasters in 2012 cost the American economy more than \$100 billion.
- Power plants are the largest concentrated source of carbon dioxide emissions in the United States, making up roughly one-third of all domestic greenhouse gas emissions. While the United States has limits in place for the level of arsenic, mercury, sulfur dioxide, nitrogen oxides, and particle pollution that power plants can emit, there are currently no national limits on carbon pollution levels.
- Nationwide, by 2030, the Clean Power Plan will help cut carbon pollution from the power sector by approximately 30 percent from 2005 levels. It will also reduce pollutants that contribute to the soot and smog that make people sick by over 25 percent.

- These reductions will lead to climate and health benefits worth an estimated \$55 billion to \$93 billion per year in 2030. This includes avoiding 2,700 to 6,600 premature deaths and 140,000 to 150,000 asthma attacks in children.
- These climate and health benefits far outweigh the estimated annual costs of the plan, which are \$7.3 billion to \$8.8 billion in 2030. From the soot and smog reductions alone, for every dollar invested through the Clean Power Plan, American families will see up to \$7 in health benefits.
- This flexible proposal protects children and other vulnerable Americans from the health threats posed by a range of pollutants and will move us toward a cleaner, more stable environment for future generations while ensuring an ongoing supply of the reliable, affordable power needed for economic growth.

## **AFFORDABLE, RELIABLE ENERGY**

- For 40 years, we have been able to both implement the Clean Air Act and keep the lights on. EPA’s proposed Clean Power Plan will not change that.
- States, cities, businesses and homeowners have been working for years to increase energy efficiency and reduce growth in demand for electricity. EPA projects that the Clean Power Plan will continue – and accelerate – this trend. Nationally, this means that, in 2030 when the plan is fully implemented, electricity bills would be expected to be roughly 8 percent lower than they would be without the actions in state plans. That would save Americans about \$8 on an average monthly residential electricity bill, savings they wouldn't see without the states' efforts under this rule.
- EPA’s analysis also shows that there will be enough capacity across the U.S. electricity system to meet the anticipated level of demand. Coal, oil and natural gas will continue to have an important role in a diverse U.S. energy mix for years to come—with coal and natural gas remaining the two leading sources of electricity generation, each providing more than 30 percent of projected generation in 2030.
- EPA will also continue to rely on our discussions with a broad variety of stakeholders – including utilities, Regional Transmission Operators, and State public utility regulators – to make sure reliability is appropriately considered and addressed.

## **DRIVE INVESTMENT AND INNOVATION**

- States, cities and businesses are already putting Americans to work modernizing the electricity sector—improving energy efficiency in commercial buildings, homes and factories, and building cleaner sources of energy.
- The average age today (2014) of the coal-fired generating fleet is 42 years old, and 11 percent of units are more than 60 years old. By 2025, that average age will grow to 49, with 20 percent of units 60 years or older. So, even without the agency’s proposal, states and utilities will continue to make plans to modernize the aging of current assets and infrastructure.
- The agency’s proposal reflects this and ensures that reducing carbon pollution is factored into the equation as states and the power sector make plans for the future.
- These trends are providing, and will continue to provide, good-paying American jobs for years to come. We will also see support for jobs related to demand-side energy efficiency, such as jobs for machinists to manufacture energy efficient appliances, construction workers to build efficient homes and buildings or

weatherize existing ones, service providers to do energy audits and install efficient technologies, and engineers and programmers to design and improve building energy management systems.

- The United States is a leader in the environmental technology field, which will help in the transition toward a more sustainable power sector. The Clean Power Plan will ensure that the United States maintains its competitive edge and continues to capitalize on the American ingenuity that states, businesses and cities have already tapped to turn the climate challenges we face today into the business opportunities of tomorrow. It will keep the United States—and more importantly our businesses—at the forefront of a global movement to produce and consume energy in a better, more sustainable way. And it will make the United States a world leader in addressing climate change.

## **PROVEN, FLEXIBLE APPROACH**

- Since last summer, EPA has collected extensive public input—including 11 public listening sessions and meetings with more than 300 groups from across the country. This input has helped guide the development of the proposed Clean Power Plan.
- During EPA’s nationwide outreach effort leading up to this proposal, states, cities and businesses across the country told us about how they are already taking action to address the risks from climate change.
- To date, 47 states have utilities that run demand-side energy efficiency programs, 38 have renewable portfolio standards or goals, and 10 have market-based greenhouse gas emissions programs. EPA’s proposal recognizes that these innovations are the key to getting significant reductions at power plants and accelerating the transition to a more sustainable electricity sector that is already under way.
- The Clean Power Plan also recognizes that the best and most effective ways for reducing carbon pollution look at the power system as a whole.
- This includes programs that help consumers and businesses use electricity smarter and more efficiently, programs that enhance the use of low-emitting and renewable power sources, and efficiency improvements at carbon-intensive power plants.
- EPA also recognizes that each state has different state policy considerations – including varying emission reduction opportunities and already existing state programs and measures – and that the characteristics of the electricity system in each state (e.g., utility regulatory structure, generation mix, electricity demand) also differ, with each state in the best position to understand these issues.
- Therefore, the proposal sets state-specific goals and provides states with options for meeting those goals in a flexible manner that accommodates a diverse range of state approaches. It allows states to work alone to develop plans or to work together with other states to develop multi-state plans. Giving states the flexibility to design programs to cut carbon pollution using these proven, common sense approaches will accelerate the trend toward a 21st century power system—one in which electricity is generated and used as efficiently as possible and which promotes a greater reliance on lower-carbon power sources.
- In addition, there are inherent flexibilities in the power sector that allow power companies, regional transmission organizations and other entities to adapt to changes in the market and other variables. The time-tested experience these groups have as well as the nature of the system they manage will ensure states reach the goals outlined in the proposal, while providing reliable, affordable energy for all Americans.

## FOR MORE INFORMATION

EPA will accept comment on the proposal for 120 days after publication in the Federal Register and will hold four public hearings on the proposed Clean Power Plan during the week of July 28 in the following cities: Denver, Atlanta, Washington, DC and Pittsburgh. The proposed rule, information about how to comment and supporting technical information are available online at: <http://www.epa.gov/cleanpowerplan> .