

US EPA ARCHIVE DOCUMENT

## EPA FACT SHEET: Proposed Carbon Pollution Standard for New Power Plants

On March 27, 2012, the Environmental Protection Agency (EPA) proposed a Carbon Pollution Standard for New Power Plants. This common-sense step under the Clean Air Act would, for the first time, set national limits on the amount of carbon pollution power plants, built in the future, can emit.

EPA's proposed standard reflects the ongoing trend in the power sector to build cleaner plants that take advantage of American-made technologies. The agency's proposal, which does not apply to plants currently operating or new permitted plants that begin construction over the next 12 months, is flexible and would help minimize carbon pollution through the deployment of the same types of modern technologies and steps that power companies are already taking to build the next generation of power plants. EPA's proposal would ensure that this progress toward a cleaner, safer and more modern power sector continues.

Power plants are the largest individual sources of carbon pollution in the United States and currently there are no uniform national limits on the amount of carbon pollution that future power plants will be able to emit. Consistent with the US Supreme Court's decision, in 2009, EPA determined that greenhouse gas pollution threatens Americans' health and welfare by leading to long lasting changes in our climate that can have a range of negative effects on human health and the environment.

### FUTURE POWER PLANTS

- The nation's electricity comes from diverse and largely domestic energy sources, including fossil fuels, nuclear, hydro and, increasingly, renewable energy sources. The proposed standard would not change this fact, and EPA put a focus on ensuring this standard provides a pathway forward for a range of important domestic resources, including coal with technologies that reduce carbon emissions.
- The proposed rule would apply only to new fossil-fuel-fired electric utility generating units (EGUs). For purposes of this rule, fossil-fuel-fired EGUs include fossil-fuel-fired boilers, integrated gasification combined cycle (IGCC) units and stationary combined cycle turbine units that generate electricity for sale and are larger than 25 megawatts (MW).
- EPA's proposal reflects the ongoing trend in the power sector—a shift toward cleaner power plants that take advantage of modern technologies that will become the next generation of power plants. EPA's proposed rule would ensure this progress continues.
- New plants can choose to burn any fossil fuel to generate electricity, including natural

gas as well as coal with the help of technologies that reduce carbon emissions..

- The proposal would not apply to:
  - Existing units including modifications such as changes needed to meet other air pollution standards
  - New power plant units that have permits and start construction within 12 months of this proposal; or units looking to renew permits that are part of a Department of Energy demonstration project, provided that these units start construction within 12 months of this proposal. These units are called “transitional” units.
  - New units located in non-continental areas, which include Hawaii and the territories.
  - New units that do not burn fossil fuels (e.g., burn biomass only).

#### **PRACTICAL, FLEXIBLE, ACHIEVABLE**

- EPA’s proposed standard reflects the ongoing trend in the power sector to build cleaner plants, including new, clean-burning, efficient natural gas generation, which is already the technology of choice for new and planned power plants.
- At the same time, the rule creates a path forward for new technologies to be deployed at future facilities that would allow companies to burn coal, while emitting less carbon pollution.
- EPA is proposing that new fossil-fuel-fired power plants meet an output-based standard of 1,000 pounds of CO<sub>2</sub> per megawatt-hour (lb CO<sub>2</sub>/MWh gross).
- New natural gas combined cycle (NGCC) power plant units should be able to meet the proposed standard without add-on controls. In fact, based on available data, EPA believes that nearly all (95%) of the NGCC units built recently (since 2005) would meet the standard.
- New power plants that are designed to use coal or petroleum coke would be able to incorporate technology to reduce carbon dioxide emissions to meet the standard, such as carbon capture and storage (CCS).
- Some states, including Washington, Oregon and California, currently limit GHG pollution. Other states, including Montana and Illinois, currently require CCS for new coal generation.

- As part of our focus on ensuring continued use of a diverse range of domestically produced fuel sources, the proposed standard provides flexibilities for new power plants to phase in technology to reduce carbon pollution. New power plants that use CCS would have the option to use a 30-year average of CO<sub>2</sub> emissions to meet the proposed standard, rather than meeting the annual standard each year.
  - Plants that install and operate CCS right away would have the flexibility to emit more CO<sub>2</sub> in the early years as they learn how to best optimize the controls.
  - A company could build a coal-fired plant and add CCS later. For example, a new power plant could emit more CO<sub>2</sub> for the first 10 years and then emit less for the next 20 years, as long as the average of those emissions met the standard.
  - CCS is expected to become more widely available, which should lead to lower costs and improved performance over time.
- EPA, DOE, and industry projections indicate that, due to the economics of coal and natural gas among other factors, new power plants that are built in over the next decade or more would be expected to meet this proposed standard even in the absence of the rule.
- Because this standard is in line with current industry investment patterns, this proposed standard is not expected to have notable costs and is not projected to impact electricity prices or reliability.

#### **POWER PLANT CARBON POLLUTION IMPACTS PUBLIC HEALTH AND THE ENVIRONMENT**

- This standard ensures that power companies investing in long-lived new fossil fuel fired power plants will use clean technologies that limit harmful carbon pollution.
- Carbon pollution stays in the atmosphere and contributes to climate change, which is a threat to public health and the environment for current and future generations.
- EPA is taking common-sense steps to limit these emissions, by addressing emissions from fossil-fired power plants, which are the largest new sources of carbon pollution.
- Unchecked greenhouse gas pollution threatens Americans' health and welfare by leading to long-lasting changes in our climate, with impacts that could include:
  - Increased ground level ozone pollution, otherwise known as smog. Exposure to ground level ozone is linked to asthma and premature death.
  - Longer, more intense and more frequent heat waves.
  - More intense precipitation events and storm surges.
  - Less precipitation and more prolonged drought in the West and Southwest.

- More fires and insect pest outbreaks in American forests, especially in the West.
- The health risks from climate change are especially serious for children, the elderly, and those with heart and respiratory problems.

#### **OPEN, TRANSPARENT PROCESS**

- In early 2011, EPA held several listening sessions to gain important information and feedback from key stakeholders and the public before initiating the rulemaking process to set Carbon Pollution Standard for new power plants. Each listening session included a round table discussion and public comments. EPA also solicited written comments. EPA considered these comments when drafting this proposal.
- The EPA will accept comment on this proposed rule for 60 days following publication in the Federal Register.
- EPA will hold public hearings on this proposal. The dates, times, and locations of the public hearings will be available soon. They will be published in the Federal Register and also listed on [www.epa.gov/carbonpollutionstandard](http://www.epa.gov/carbonpollutionstandard)

#### **BACKGROUND**

- On April 2, 2007, in a landmark decision in *Massachusetts v. EPA*, the Supreme Court determined that greenhouse gases, including carbon dioxide, are air pollutants under the Clean Air Act and EPA must determine if they threaten public health and welfare.
- On December 15, 2009, the EPA Administrator found that the current and projected concentrations of greenhouse gases endanger the public health and welfare of current and future generations.
- On December 23, 2010, EPA announced a proposed settlement agreement to issue rules that would address GHG pollution from certain fossil fuel-fired EGUs. This agreement addressed, in part, EPA's September 2007 remand of its February 2006 final decision not to set standards for boilers.

#### **HOW TO COMMENT**

- EPA will accept comment on the proposal for 60 days after publication in the Federal Register. Comments on the proposed standard should be identified by Docket ID No. EPA-HQ-OAR-2011-0660. All comments may be submitted by one of the following methods:
  - [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.

- E-mail: Comments may be sent by electronic mail (e-mail) to a-and-r-Docket@epa.gov.
- Fax: Fax your comments to: 202-566-1741.
- Mail: Send your comments to: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460.
- Hand Delivery or Courier: Deliver your comments to: EPA Docket Center, Room 3334, 1301 Constitution Ave., NW, Washington, DC, 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.
- EPA will hold public hearings on this proposal. The dates, times, and locations of the public hearings will be available soon. They will be published in the Federal Register and also listed on [www.epa.gov/carbonpollutionstandard](http://www.epa.gov/carbonpollutionstandard)

#### **FOR MORE INFORMATION**

- The proposed rule called "Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units" is posted at: [www.epa.gov/carbonpollutionstandard](http://www.epa.gov/carbonpollutionstandard).