

# NATIONAL FRAMEWORK FOR STATES

## SETTING STATE GOALS TO CUT CARBON POLLUTION

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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. Nationwide, by 2030, the Clean Power Plan will help cut carbon emissions from the power sector by 30 percent from 2005 levels, while starting to make progress toward meaningful reductions in 2020.

- **Setting state goals**—To set state-specific goals, EPA analyzed the practical and affordable strategies that states and utilities are already using to lower carbon pollution from the power sector. These include improving energy efficiency, improving power plant operations, and encouraging reliance on low-carbon energy. Together, these make up the best system for reducing carbon pollution because they achieve meaningful reductions, and create jobs by driving clean energy investment and reducing energy waste to save families money.
- **Goals give states flexibility**—Each state has the flexibility to choose how to meet the goal using a combination of measures that reflect its particular circumstances and policy objectives. While EPA identified a mix of four “building blocks” that make up the best system of emission reductions under the Clean Air Act, a state does not have to put in place the same mix of strategies that EPA used to set the goal. States are in charge of these programs and can draw on a wide range of tools, many of which they are already using, to reduce carbon pollution from power plants and meet the goal, including renewable energy portfolios and demand-side energy efficiency measures.

### SETTING STATE GOALS

- EPA is proposing state-specific emissions goals for reducing carbon dioxide (CO<sub>2</sub>) emissions from the power sector.
- These state goals are not requirements on individual electric generating units. Rather, each state has broad flexibility to meet the rate by 2030 by lowering the overall carbon intensity of the power sector in the state.
- The basic formula for the state goal is a rate: CO<sub>2</sub> emissions from fossil fuel-fired power plants in pounds (lbs) divided by state electricity generation from fossil-fuel fired power plants and certain low- or zero-emitting power sources in megawatt hours (MWh).
  - This approach factors in megawatt hours from fossil fuel power plants plus other types of power generation like renewables and nuclear, as well as megawatt-hour savings from energy efficiency in the state.
- State- and regional-specific information is plugged into the formula, and the result of the equation is the state-specific goal.
- Each state's goal is different, because each state has a unique mix of emissions and power sources to plug in to each part of the formula.

- EPA is proposing a two-part goal structure: an “interim goal” that a state must meet on average over the ten-year period from 2020-2029 and a “final goal” that a state must meet at the end of that period in 2030 and thereafter.

## GOALS GIVE STATES FLEXIBILITY

- Each state will choose how to meet the goal through whatever combination of measures reflects its particular circumstances and policy objectives. A state does not have to put in place the same mix of strategies that EPA used to set the goal, and there are no specific requirements for specific plants.
- EPA is proposing the state goal approach under Section 111(d) of the Clean Air Act, which requires that EPA identify the “best system of emission reduction ... adequately demonstrated” (BSER) that is available to limit pollution – and set guidelines for states to achieve reductions that reflect that system. States then make plans to get the reductions that would result from that system.
- In this case, EPA identified four sets of measures – or “building blocks” – that are in use today by many states and utilities and that together make up the best system for reducing carbon pollution.
- These building blocks recognize the interconnected nature of the power sector – looking broadly to find cost-effective and proven solutions.
  - For example, 47 states have utilities that run demand-side energy efficiency programs, 38 states have renewable portfolio standards or goals, and 10 states have market-based greenhouse gas programs.
- EPA analyzed historical data about emissions and the power sector to create a consistent national formula for reductions that reflects the building blocks. The formula applies the building blocks to each state’s specific information, yielding a carbon intensity rate for each state.

Building Block	Value Allocated in Goal-Setting Formula
<p><b>Make fossil fuel power plants more efficient</b></p> <ul style="list-style-type: none"> <li>• Improve equipment and processes to get as much electricity as possible from each unit of fuel</li> <li>• Using less fossil fuel to create the same amount of electricity means less carbon pollution.</li> </ul>	Average heat rate improvement of 6% for coal steam electric generating units (EGUs)
<p><b>Use low-emitting power sources more</b></p> <ul style="list-style-type: none"> <li>• Using lower-emitting power plants more frequently to meet demand means less carbon pollution.</li> </ul>	Dispatch to existing and under-construction natural gas combined cycle (NGCC) units to up to 70% capacity factor
<p><b>Use more zero- and low-emitting power sources</b></p> <ul style="list-style-type: none"> <li>• Expand renewable generating capacity, which is consistent with current trends.</li> <li>• Using more renewable sources, including solar and wind, and low-emitting nuclear facilities, means less carbon pollution.</li> </ul>	Dispatch to new clean generation, including new nuclear generation under construction, moderate deployment of new renewable generation, and continued use of existing nuclear generation

<b>Building Block</b>	<b>Value Allocated in Goal-Setting Formula</b>
<b>Use electricity more efficiently</b> <ul style="list-style-type: none"> <li>Reducing demand on power plants is a proven, low-cost way to reduce emissions, which will save consumers and businesses money and mean less carbon pollution.</li> </ul>	Increase demand-side energy efficiency to 1.5% annually

- EPA is also proposing to give states the option to convert the rate-based goal to a mass-based goal if they choose to in their state plans.
  - Adopting a mass-based goal would better allow a state or group of states to cap their tonnage of CO<sub>2</sub> emissions and set up a trading program if they choose that option.
- States can develop a state-only plan or collaborate with each other to develop plans on a multi-state basis to meet the goals outlined in the proposal.
- EPA is only proposing goals for states with fossil fuel-fired power plants. Vermont and Washington, DC are not included in this rule because they do not have fossil fuel-fired power plants.
- EPA is not proposing emission rate goals or guidelines for the four affected sources located in Indian country at this time. EPA will work with those tribes and sources to develop or adopt Clean Air Act programs.

## 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>