

Greenhouse Gas Emissions: The Clean Power Plan

In June 2013, President Barack H. Obama published the Climate Action Plan. The plan, which is designed to reduce the amount of energy consumed by American families, consists of three key pillars: (1) reduce carbon pollution in the United States by utilizing clean energy and deploying strategies that promote fuel economy and energy efficiency; (2) prepare the United States for the impact of climate change by establishing policies that promote and support community-based preparedness, including science and research germane to preparedness and resilience and the protection of critical infrastructure and public resources; and (3) lead international efforts to combat global climate change (while also preparing for its impact) by establishing international initiatives with major emitting countries that are focused on spurring concrete action and forging global responses to climate change via international negotiations.

The Overarching Plan: By 2030, Reduce Nationwide Carbon Emissions from the Power Sector by 30% Below 2005 Emission Levels

In response to President Obama's Climate Action Plan, in June 2014, the U.S. Environmental Protection Agency (EPA) proposed the "Clean Power Plan." The plan, which applies to existing power plants, outlines a mixture of the four "building blocks" (*i.e.*, make fossil fuel power plants more efficient; use lower-emitting power plants more frequently; expand renewable power sources; and use demand-side energy more efficiently) that make up the best system of emission reductions under the Clean Air Act. Under the Clean Power Plan, EPA estimates that, by 2030, carbon emissions from the power sector will decline by 30% below 2005 carbon emissions levels.

The Clean Power Plan gives each state a specific target goal to help reduce carbon pollution from the power sector. Although the overall emissions reduction target is relative to 2005 baseline emissions, the carbon pollution standards under the Clean Power Plan are based on each state's 2012 energy mix, and the ability of each state to reduce carbon emissions below 2012 levels. The state target goal, which reflects the pollution-to-power ratio that a state must meet by 2030, takes into account carbon dioxide emissions from fossil-fuel fired power plants, state electricity generation from fossil-fuel fired power plants, and certain low- or zero-emitting power sources. The Clean Power Plan does not impose specific requirements on individual fossil-fuel fired power plants nor does it outline a specific set of mechanisms that a state must use to reduce carbon pollution. Rather, the plan affords states with the flexibility to lower their pollution-to-power ratio by preparing and implementing state plans that fit their specific circumstances.

If a state fails to submit a plan or if a plan is not approved, it is likely that EPA will develop, implement, and enforce a federal implementation plan to meet the emissions reduction targets. EPA is currently requesting comments on what consequences should apply if a state-approved plan fails to achieve the interim or final goal.

Implementing the Clean Power Plan in Maryland

The Clean Power Plan proposes a final target goal of 1,187 pounds of carbon dioxide per megawatt hour for Maryland. This represents a 36.5% reduction in carbon emissions from 2012 levels, which is in line with the reductions proposed for other states in the region, including Delaware, Pennsylvania, and Virginia. Interim and baseline emission levels are summarized in **Exhibit 1**.

Exhibit 1 Maryland: Proposed Carbon Emission Reductions

	<u>Emission Rate*</u>	<u>Percent Reduction from Baseline</u>
Baseline (2012)	1,870	n/a
Interim Target (2020-2029)	1,347	28.0%
Final Target (2030)	1,187	36.5%

*pounds carbon/dioxide per megawatt hour

Source: U.S. Environmental Protection Agency

Efforts to curb greenhouse gas emissions are already underway in Maryland. In 2007, the State established a Commission on Climate Change, tasked with developing the State's first comprehensive Climate Action Plan. The plan was released in 2008, and it addressed the impacts of climate change through participation in the Regional Greenhouse Gas Initiative (RGGI), increases to the State's renewable energy portfolio, and the adoption of the EmPOWER Maryland initiative. The State has already established a goal of achieving a 25.0% reduction in annual greenhouse gas emissions by 2020, compared with 2006 levels. As of 2013, the State has reduced emissions by 9.7%.

Maryland's current climate change initiatives put the State in a good position to comply with the federal Clean Power Plan once it becomes final. As previously noted, the State already participates in RGGI, a cap-and-trade program established in conjunction with eight other Northeastern and Mid-Atlantic states. Maryland expects to demonstrate compliance with the federal rule through its participation in RGGI – *i.e.*, through the establishment of RGGI's regional emissions cap, which accounts for reductions in emissions due to the State's existing portfolio of energy programs. Whether, and to what extent, the State will need to strengthen any of these programs or deploy additional measures to meet federal emissions targets is undetermined at this time.

Implementation Costs

EPA estimates the total nationwide cost of reporting and recordkeeping requirements under the Clean Power Plan to range from \$68.3 million per year during the early stages of implementation to \$8.9 million per year during the later stages of implementation. However, given that Maryland has already incurred many of these costs through its participation in RGGI, the additional costs to the State are expected to be low. EPA projects that retail electricity prices may increase anywhere from 3.2% to 8.6% in the Mid-Atlantic region, depending on how states choose to implement the Clean Power Plan. Average electricity bills are expected to decrease by as much as 8.7% by 2030, however, as states adopt measures to promote energy efficiency.

Next Steps: Implementation Timeframe

Comments on the Clean Power Proposed Rule must be received by EPA by October 16, 2014. During this time, states have an opportunity to comment on the rule and argue for an adjustment in their proposed targets. Maryland currently plans to submit two separate sets of comments – individually, to address State-specific issues, and together with the other RGGI states to address a broader range of concerns. EPA is expected to finalize the clean power regulations in June 2015, and the State will have until June 2016 to prepare and submit its implementation plan for EPA review. Once the State has submitted its plan, EPA will review the plan and make an approval determination within 12 months through a notice and comment rulemaking process.