

EPA's Proposed Clean Power Plan Repeal & Its Impact on Emissions

Background

EPA proposed on October 16, 2017 (82 FR 48035) to repeal the Carbon Pollution Emission Guidelines for Existing Electric Utility Generating Units (EGUs), commonly referred to as the Clean Power Plan (CPP), as promulgated on October 23, 2015.

EPA proposed the repeal based on its re-interpretation of section 111(d) of the Clean Air Act (CAA), on which the CPP was based. According to EPA, CAA section 111(d) requires the EPA to promulgate emission guidelines for existing sources that reflect the “best system of emission reduction” (BSER) consisting of technological or operational measures that can be applied to or at a single source.

EPA noted that the CPP provided for carbon dioxide (CO₂) emission guidelines for existing power plants that can only realistically be effected by measures that cannot be employed to, for, or at a particular source. Instead, the CPP encompassed measures that would generally require power generators to change their energy portfolios through generation-shifting (rather than better equipping or operating their existing plants), including through the creation or subsidization of significant amounts of generation from power sources entirely outside the regulated source categories, such as solar and wind energy.

Therefore, EPA stated that the CPP exceeds the Agency's statutory authority and therefore merits being repealed. EPA is seeking comments on the new interpretation addressed in the proposed rulemaking. The deadline for comments is January 15, 2018.

EPA is considering the scope of a replacement rule to regulate greenhouse gas (GHG) emissions from existing EGUs and is intending to issue an Advance Notice of Proposed Rulemaking (ANPRM) in the near future. However, the EPA is not soliciting comments on such information with this proposal.

Impact on Emissions

There would be significant reduction in emissions of NO_x, SO₂, and CO₂ resulting from the implementation of the CPP. Table 1 (A & B) shows the projected changes on emissions in the states upwind of the Washington region in 2025 based on the original Regulatory Impact Analysis (RIA) performed by EPA in 2015. The analysis projected that the CPP would provide annual emission reductions of 71,000 tons of NO_x and 66,000 tons of SO₂ in 2025 in upwind states. Annual CO₂ emissions were estimated to be reduced by 232 million short tons or 265 million tons based on rate-based or mass-based approach respectively in 2025. Nation-wide, the RIA projected 203,000 tons reduction in NO_x emissions, 185,000 tons reduction in SO₂, and 264 million tons reduction in CO₂ by 2025.

However, as shown below in Table 2, EPA's revised projected estimates of emission changes in the 2017 RIA for the proposal CPP repeal. The revisions lowered projected emission reductions of all three pollutants resulting from the CPP. Nevertheless, the 2017 RIA projected there would significant emissions reductions for all three pollutants were the CPP to be implemented. The

2017 RIA projects nation-wide annual reduction of 150,000 tons of NOx, 191,000 tons of SO2 and 210 million tons of CO2 in 2025. No state-by-state projections were provided so upwind state data is not available.

The projected increases in emissions due to repeal of the Clean Power Plan could result in increased ozone levels in the Washington region, although we have not seen modeling projecting the amount of change for the region.

Table 1 - Annual EGU Emissions Reductions in 2025 due to Clean Power Plan (2015 RIA)

A. NOx & SO2 Emissions (thousand short tons)

State	2025 Base Case		2025 Clean Power Plan Proposal		Emission Reduction from Proposed Clean Power Plan	
	NOx	SO2	NOx	SO2	NOx	SO2
Maryland	11	5	11	9	0	-4
Virginia	21	8	12	4	9	4
Ohio	63	105	60	102	3	3
Pennsylvania	106	67	71	47	35	20
North Carolina	35	36	23	33	12	3
South Carolina	13	19	8	12	5	7
New York	11	4	7	2	4	2
West Virginia	49	78	46	47	3	31
Total from Upwind States	309	322	238	256	71	66

B. CO2 Emissions (million short tons)

	Emissions in 2025 (million short tons)	Emissions Reduction in 2025 from Base Case (million short tons)	Percent Change from Base Case (%)
Base Case	2165		
Rate-based	1933	232	-11
Mass-based	1901	265	-12

Table 2 - Comparison of 2015 and 2017 RIA Emissions Reductions from Clean Power Plan

	CO2 (million short tons)			SO2 (thousand short tons)			NOx (thousand short tons)		
	2015 RIA	2017 RIA	Diff.	2015 RIA	2017 RIA	Diff.	2015 RIA	2017 RIA	Diff.
2020	82	17	65	54	-9	63	60	10	50
2025	264	210	54	185	191	-6	203	150	53
2030	413	384	29	280	423	-143	278	255	23

Major differences between two estimates are due to:

1. 2015 RIA did not include CSAPR Update rule
2. 2017 RIA includes AEO2017 projections
3. 2017 RIA includes CO2 benefits resulting only from within USA