

Comment on EPA's Proposed Repeal of the Clean Power Plan
(In reference to Docket ID No. EPA-HQ-OAR-2017-0355)

We are writing on behalf of Concerned Scientists @ IU, a grass-roots, non-partisan community organization consisting of over 850 members—scientists, students, and supporters of science—from the south-central Indiana region. While many of our members are faculty, students or staff at Indiana University, our organization does not officially represent the University. Concerned Scientists @ IU is dedicated to strengthening the essential role of science in public policy and evidence-based decision making. We believe that EPA's proposed repeal of the Clean Power Plan (CPP) is not justifiable in light of the strong scientific evidence on the contribution of fossil fuel combustion to Earth's global climate balance. We find the proposed repeal to be based on unconvincing legal arguments, without appropriate consideration of the scientific evidence for human-induced climate change and the potential for mitigation through greenhouse gas reductions.

The EPA's offered justification for repealing the CPP in its entirety hinges on a narrow, technical misreading of the Clean Air Act, in contradiction to past Congressional records, court decisions and the EPA's own regulation history. It is a misreading favored by some fossil-fuel energy proponents, but which is not in the best public interest in light of clear and voluminous evidence that the emission of greenhouse gases from fossil-fuel burning is a strong contributor to ongoing climate change.^{1,2} The repeal proposal contests neither the Supreme Court's decision in *Massachusetts v. EPA* that the Clean Air Act's protections encompass greenhouse gas emissions, nor the EPA's own previous science-based determination³ that these climate-destabilizing emissions endanger public health and welfare.

Rather, the repeal proposal chooses to interpret the words "best system of emission reduction" (BSER) in Section 111 of the Clean Air Act as allowing consideration for existing power plants *only* of "measures that can be applied to or at the source." The proposal argues that the CPP "established performance standards for coal-fired plants assuming a uniform emissions rate well below that which could be met by existing units *through any retrofit technology of reasonable cost* available at the time" (emphasis added). This narrow interpretation conflicts with the explicit Congressional rejection of terms more restrictive than the quite general "best system of emission reduction." Furthermore, the Congressional Conference Committee that agreed on 1977 Amendments to the Clean Air Act clarified explicitly "that standards adopted for existing sources under section 111(d) of the act are to be based on available means of emission control (not necessarily technological)."

"Available means of emission control" for power plants and greenhouse gases can be gleaned from the actions being pursued by the many States that are currently on track to meet or exceed the CPP standards by 2030. Those means include: technological efficiency improvements at fossil-fuel fired power plants; increasing the use of energy generation involving reduced carbon emissions (e.g., based on natural gas) or zero carbon emissions (renewable energy sources); and/or investing in efficiency improvements on the demand side, rather than at the source. All of these approaches address the same goal of reducing greenhouse gas emissions from fossil-fuel burning plants and should be considered as part of a meaningful BSER. The EPA cannot meet its Clean Air Act statutory responsibility to offer a "best system" if its hands are tied by an unreasonably narrow interpretation that ignores most actions that a majority of States are already undertaking to meet the emission reduction standard in cost-effective ways.

The courts have also weighed in to favor a broad interpretation of the statute. In the D.C. Circuit Court 1981 decision in *Sierra Club v. Costle*, the opinion allowed EPA to weigh “cost, energy and environmental impacts in the broadest sense at the national and regional levels and over time, as opposed to simply at the plant level in the immediate present.” That decision furthermore noted that EPA’s choice of BSER should encourage the development of systems that achieve greater emission reductions at lower costs and deliver energy and non-air-related health and environmental benefits.

The CPP repeal proposal states that: “Notwithstanding the CPP, all of the EPA’s other CAA section 111 regulations are based on a BSER consisting of technological or operational measures that can be applied to or at a *single source*.” That statement appears to explicitly ignore the EPA’s 1995 section 111(d) emission guidelines for existing municipal waste combustors, which allowed states to establish averaging and trading programs to meet standards for nitrogen oxide emissions. The same sort of averaging over multiple installations, sources, approaches and even regions provides States with the flexibility to meet the CPP standard in cost-effective ways. The repeal proposal’s narrow interpretation of BSERs would remove that flexibility from the States, and hence, would not allow definition of a meaningful BSER for greenhouse gas emission reductions.

The CPP’s three “building blocks” define a best *system* for reducing greenhouse gas emissions from power plants, precisely by allowing States to engage in the same sort of emission averaging that previous EPA regulations have promoted. As required by the Clean Air Act, the CPP identifies emission reductions achievable with the published BSER, but allows States the flexibility to come up with their own plan to meet that reduction standard. According to a 2017 analysis by the Rhodium Group research firm, that flexibility, combined with market forces, have 25 States currently on track to *exceed* the CPP standard, with an additional 10 States likely to come at least close to meeting the standard by the 2030 deadline.

A 2016 analysis by PJM, the country’s largest power grid operator, supplying electricity to 13 States plus the District of Columbia, examines seven different “pathways” to assure CPP compliance. The PJM analysis concludes that all of the considered pathways would allow States to ensure electricity supplies meeting demand at wholesale costs that rise only between 1.1 and 3.3 percent, depending on whether the States choose to meet the CPP targets individually or in regional cooperation with other States. The available scientific and economic analyses^{3,4} indicate that the long-term national benefits of greenhouse gas reductions would far outweigh those modest cost increases.

The availability of such analyses, together with the success a majority of States have already had in reducing greenhouse gas emissions, casts serious doubt on the warnings issued by “regulated entities and other stakeholders ... that the CPP threatened to impose massive costs on the power sector and consumers.” We disagree strongly with the EPA review that “raised substantial concerns that the CPP is not consistent with the policy articulated in Section 1 of the Executive Order” 13783. That order requires that efforts “to promote clean and safe development of our Nation’s vast energy resources” should avoid “regulatory burdens that unnecessarily encumber energy production, constrain economic growth, and prevent job creation.” There is no evidence that the CPP, as written, would impose such unnecessary burdens. Rather, the narrow misreading of section 111 now promoted by EPA would go out of its way to *enhance* the burdens, precisely to make them inconsistent with EO 13783, in opposition to the public interest.

It is normal for regulated businesses to strongly overestimate the costs of meeting regulations and to underestimate the benefits. Job growth in the coal industry is certainly endangered, but far more by the low price of natural gas than by the CPP. There are currently far more jobs and much faster job growth nationally in the renewable energy sector than in fossil fuel-based energy production. The CPP would *enhance* net job growth by encouraging the lagging States to promote renewable energy more aggressively. Economic analyses^{5,6} have found that environmental regulations that may increase compliance costs in the short term often lead to technological innovation (as measured, for example, by patents on new environmental technologies) and economic growth over a longer term. In contrast, repeal of the CPP may slightly reduce the immediate rate of job loss in the coal industry, but is likely to suppress net job creation in the energy generation industry more generally, allowing other countries to reap the lion's share of the economic benefits from the blossoming renewable energy sector.

In conclusion, we believe that the proposed repeal of the CPP would further erode U.S. leadership in combating global climate change, would likely lead to net job loss in the energy generation industry, and would conflict with regulatory traditions supported by the Congress, the courts and the EPA's own past history. Such repeal is not in the public interest and we strongly oppose EPA's proposed repeal of the CPP.

Citations:

1. **USGCRP**, 2017: *Climate Science Special Report: Fourth National Climate Assessment, Volume I* [D.J. Wuebbles, D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 470 pp, doi: [10.7930/J0J964J6](https://doi.org/10.7930/J0J964J6) (available at <https://science2017.globalchange.gov/>).
2. IPCC (Intergovernmental Panel on Climate Change). 2013. Climate change 2013: The physical science basis. Working Group I contribution to the IPCC Fifth Assessment Report. Cambridge, United Kingdom: Cambridge University Press. www.ipcc.ch/report/ar5/wg1.
3. EPA 2017 Summary of Climate Change Impacts, <https://19january2017snapshot.epa.gov/climate-impacts.html>.
4. M. Ruth, D. Coelho, and D. Karetnikov, "The U.S. Economic Impacts of Climate Change and the Costs of Inaction," *Review and Assessment by the Center for Integrative Environmental Research (CIER) at the University of Maryland, 2007*, <http://www.cier.umd.edu/climateadaptation> and references therein.
5. A. Jaffe and K. Palmer. "Environmental Regulation and Innovation: A Panel Data Study," *Review of Economics and Statistics* 1997, 610-9.
6. P. Lanoie, M. Patry, and R. Lajeunesse, "Environmental Regulation and Productivity: Testing the Porter Hypothesis," *Journal of Productivity Analysis*, 2008, 30, 121-8.