



Xcel Energy's Sherburne County (Sherco) Generating Station, a coal-fired power plant, near Becker, Minnesota, Tony Webster. Licensed under the Creative Commons Attribution-Share Alike 2.0 Generic license.

Over the weekend, the New York Times [reported](#) that EPA will soon release its proposal for replacing the Clean Power Plan, sharing some leaked details. Here's a quick reaction.

As a reminder, the Clean Power Plan is the regulation enacted by EPA, under President Obama, to limit emissions of carbon dioxide from existing fossil-fuel-fired power plants. It was, and remains, the only significant federal regulation that directly limits carbon dioxide pollution from this major sector. We have written pretty extensively about the rule on Legal Planet: see [here](#) and [here](#) for more background. Basically, the Clean Power Plan calculates reasonably achievable performance rates for existing coal, oil, and natural gas power plants across the country, and assigns an emission-reduction target for each state based on the composition of the state's power plant fleet. Each state must then develop a plan for how to reach its assigned target by 2030. Subject to EPA's approval, state plans can include a wide variety of flexible compliance measures, such as power plant efficiency improvements, burning natural gas instead of coal, adding new renewable or nuclear energy resources, improving demand-side energy efficiency, and participating in a multistate emission trading system. EPA projected that the rule would reduce carbon pollution from the power sector 32 percent below 2005 levels. (This summary borrows from the fabulous blog posts of my former Emmett Institute colleague Megan Herzog.)

Early in his tenure, President Trump issued an [executive order](#) directing EPA to reconsider the Clean Power Plan, and EPA obligingly [proposed its repeal](#). The rule formally remains stayed by courts and under review in the DC circuit, with the case on hold as EPA gets its alternative proposal together. For all intents and purposes, the Clean Power Plan is a dead letter under this administration.

The question is, what will Trump's EPA replace it with? It would be legal folly for EPA to ditch the Clean Power Plan without substituting in a new rule related to this same sector. As [Ann has explained](#), EPA is obligated to control climate pollution from power plants following the U.S. Supreme Court's holding that greenhouse

gases are pollutants under the Clean Air Act and the EPA's own endangerment finding, which concludes that these pollutants threaten public health.

So EPA is in the awkward position of proposing a rule to regulate an industry it would prefer to leave alone, aimed at addressing a problem that it refuses to acknowledge, climate change. From the New York Times leaks, it sounds like this dynamic will result in a weak-sauce rule. Whereas the Clean Power Plan defined state emission reduction targets by calculating reductions that could be achieved with a mix of measures, including power plant efficiency improvements, shifting generation from coal to natural gas, and adding new renewable energy sources, the replacement plan will apparently allow for consideration of only the first of these categories: on-site measures that improve power plant efficiency. This will limit pollution reduction to a small fraction of what it would have been under the CPP. The replacement plan may also stretch out regulatory timelines for industry, and even permit states to decline to regulate their power plants entirely.

Two fundamental questions should get a lot of attention. First, does this weak approach satisfy the requirements of the Clean Air Act? That statute, specifically its § 111(d) provision, gives EPA and the states shared responsibility for regulating existing sources of pollution. It requires EPA to publish emissions guidelines for restricting pollutants from existing sources, and those guidelines must reflect the "best system of emission reduction" that has been "adequately demonstrated." States then must respond with state-specific plans that are no less stringent than the federal guidelines. Although EPA has a fair amount of discretion in this scheme, it may find it hard to show why restricting emissions reductions to those that can be achieved only on-site is a reasonable approach to crafting the "best system of emission reduction." This task will be made harder by the clear counter-example provided by the Clean Power Plan and its significant administrative docket of supportive evidence (and by this administration's own tendency to shortchange record support). Likewise, if the proposed new rule gives states too much flexibility, including the ability to decline entirely to regulate, EPA will have to show why that scheme reflects the "best system of emission reduction" standard. All of these arguments will be made against the backdrop of EPA's own determination that carbon dioxide pollution is a danger to public health.

Second, as a policy matter, is it a good idea to limit power-plant emission reductions to those that can be achieved on-site, within the property lines of a single power plant? Here, the answer is clearly No. My colleagues and I have worked with a group of nationally renowned experts on the workings of the U.S. electricity grid to

evaluate the Clean Power Plan in light of the on-the-ground grid operations. They are clear on this question: The grids operate as giant interconnected machines in which generation is constantly shifting from unit to unit, and grid operators can and do respond to new pollution control rules by shifting electricity generation among sources of power. Rules to reduce carbon dioxide from the power sector should take this dynamic into account, and failing to do so makes regulation less effective and more expensive. Here's an excerpt from [a comment letter](#) that these grid experts submitted to EPA, along with my colleagues and me, earlier this year on this issue (relevant material is at pp.19-22 of the letter):

[I]t appears EPA will limit itself to considering only certain on-site measures for achieving pollution reduction. EPA appears to be considering only changes to the physical equipment at generating units, such as heat-rate improvements at coal-fired power plants, in [designing its new rule]. This would exclude from discussion other on-site measures, such as reduced utilization of the dirtiest plants and co-firing/fuel switching, each of which can be accomplished on site but gets little attention in EPA's proposal.

The limited on-site measures that EPA focuses on would not sensibly and economically reduce power-sector CO₂ emissions over the coming decades. Alone, they would influence the emissions intensity of individual units by only a few percentage points, and the precise amount of reduction would depend on the generators' marginal cost and resulting redispatch relative to other supply sources. In fact, use of heat-rate improvements alone could create an emissions "rebound effect," during which coal facilities implement emissions improvements but operate more frequently and for longer stretches, undermining pollution control efforts. [Cite.] Combining heat-rate improvements with incentives to reduce coal generation, as EPA did in the CPP, ensures more meaningful and cost-effective emissions reductions.

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It would make little sense for EPA to consider only CO₂ emissions reductions within the ephemeral boundaries of individual facilities when all facilities deliver undifferentiated power

to unitary grids. The CPP is a superior alternative to measures that are limited to individual sites because the CPP works with the grid structure, rather than against it, to achieve significant low-cost emission reductions.

The Clean Power Plan was crafted to reduce to a significant degree pollution that endangers public health, and to do so in a way that's cost-effective, sensitive to grid operations, and flexible. It looks like Trump's replacement rule may do none of these things.