Among the many Trump Administration rollbacks of climate regulation, a big one is its decision to repeal the Clean Power Plan and to replace it with a rule that does almost nothing to reduce carbon dioxide emissions from fossil-fuel-fired power plants. The electricity sector has made significant progress in reducing climate pollution recent years, but remains a challenge: In 2018, the power sector emitted a quarter of all U.S. greenhouse gas emissions. Watering down federal rules aimed at controlling that pollution—which even this EPA concedes endangers public health—will cause many deaths and illnesses and is tremendously costly. It turns out it's also unlawful.

Last week, UCLA Emmett Institute faculty William Boyd, Ann Carlson, Charlie Corbett and I filed an *amicus* brief in the DC Circuit supporting challengers to the repeal of the Clean Power Plan and the promulgation of its far-weaker replacement, the Affordable Clean Energy (ACE) Rule. Our clients are a group of engineers with expertise in the operation, structure, economics, and reliability of the U.S. power system: Benjamin Hobbs, Brendan Kirby, Kenneth Lutz, and James McCalley. As they did to good effect in the original litigation over the Clean Power Plan, they are weighing in to aid the Court in understanding the physical features of electricity and the electric grid, as well as the ways that pollution controls have historically interacted with grid operations.

Their expertise is especially important because the legal standard at issue in this case, which derives from the Clean Air Act Section 111(d), requires EPA to adopt a rule based on the "best system of emission reduction" that has been adequately demonstrated for reducing CO_2 emissions from these sources, coal-fired power plants. Spoiler alert: EPA failed to do that. As we write,

The ACE Rule excludes emission-reduction measures that take advantage of grid operations and interconnectedness, such as generation shifting. It adopts a Best System definition that does not reflect real-world understandings of how best to reduce power-sector CO_2 . As discussed below, the consequence is that costs of achieving the targeted emissions reductions are much higher than necessary, and inexpensive opportunities to lessen emissions further are missed. This translates into more pollution, worsened health outcomes, and billions of dollars in net benefits forgone, as compared with a rule that reflected, rather than dismissed, grid operations and successful pollution-reduction strategies. . . .

A Best System would reduce CO₂ pollutants from regulated sources by building on the last decade's power-sector shifts rather than undercutting them. It could do this by recognizing that the easiest, cheapest, and most established method

for reducing emissions from coal-fired power plants is to continue the shift in generation away from those plants toward cleaner sources. Instead, the ACE Rule explicitly rejects crediting sectoral shifts toward cleaner energy sources. Worse, its approach will tend to make coal-fired plants more competitive by mandating heat-rate improvements, which will have the perverse effect of entrenching the use of these facilities beyond their current useful life. . . .

No coal-fired unit operates by itself. Each is a piece of a power plant that, in turn, is part of the grid. It is unreasonable for EPA to consider CO₂ emissions from the perspective of isolated coal units when these units, like all generators, are part of one big machine that delivers undifferentiated power to a unitary grid.

In filing this brief, we join many industry voices, public health experts, Clean Air Act mavens, NGOs, states, and others banding together to ask that EPA's unlawful approach be struck down. (I'll nod here to my colleagues Ted Lamm and Sean Hecht, who filed another amicus brief in this case-as well as to the surprising number of UCLA Emmett Institute alumni with their fingerprints, and sometimes names, on the petitioner filings.) We'll see how the D.C. Circuit receives these arguments, and-depending on how the Nov. 2020 presidential election goes-whether EPA itself rethinks its position sooner rather than later.