The public comment period for proposed revisions to EPA's proposed emissions standards for fossil-fuel fired power plants under the Clean Air Act ended last week. Emmett Institute staff have submitted two comment letters on the rule (see Sean's post on one of the letters here; that letter itself is here).

The standards—called new source performance standards—apply to new, modified, and reconstructed power plants, and would retreat from the 2015 EPA determination that identified the Best System of Emissions Reduction ("BSER") as partial carbon capture and storage ("CCS") for new coal units. In setting that BSER, EPA was functionally mandating that new plants do not necessarily have to install CCS technology itself, but instead must emit carbon dioxide at levels that match those of a plant that had installed partial CCS. The proposed revisions would weaken these standards and result in more emissions. The EPA should not promulgate these revisions for reasons discussed in the comment letter submitted by four UCLA Law faculty, including Cara Horowitz, Ann Carlson, William Boyd, and I, on behalf of four experts on the U.S. electricity grid: Benjamin F. Hobbs, Brendan Kirby, Kenneth J. Lutz, and James D. McCalley. Our letter argues that the proposed revisions would increase pollution from new coal plants while failing to enhance EPA's stated goals of grid security and fuel diversification.

Two aspects of the proposed rule particularly trouble us by failing to consider fundamental characteristics of electricity grids and their operations. First, the EPA argues that identifying CCS as the standard would increase the cost of a new coal plant. Second, the EPA posits that CCS is not as viable as it found in 2015 because of new uncertainties about the availability of the geologic sites where plants must store captured carbon dioxide.

EPA expresses fears that identifying CCS as BSER would increase costs and therefore impede the installation of new coal plants. Even if this claim is true, EPA should maintain the 2015, CCS-based standard In fact, EPA's current concern for diversification appears to be a loosely disguised concern for maintaining coal's dominant market share. The claim that promoting coal for the sake of diversification or grid security simply does not hold water.

First, moving away from coal generation—the historically dominant fuel source for much of the country—and toward a robust mix of coal, natural gas, renewables, and other sources actually *increases* fuel diversity. Second, under the Energy Information Administration projections endorsed by EPA, coal will be a significant part of the generation mix for the foreseeable future, contributing 23.5% to

electricity generation in 2035.

Third, even if large reductions in coal generation occur, system reliability will be maintained; neither reliability nor electricity costs have been harmed from existing trends that have reduced coal's prominence and increased the amount of natural gas and renewable electricity. The Federal Energy Regulation Commission ("FERC") agrees. In denying a Department of Energy request that FERC provide special compensation for coal plants in the interest of resilience and reliability, FERC noted that "the extensive comments submitted by the RTOs/ISOs do not point to any past or planned generator retirements that may be a threat to grid resilience." Grids have proven capable of incorporating high levels of non-coal generation without adverse impacts. Renewables have even improved reliability in some circumstances, such as the 2014 Polar Vortex, during which wind generation was integral to maintaining service during high winter peaks.

Furthermore, the existing tools and procedures that industry and regulators use to ensure grid reliability would continue to function effectively in the face of reductions in coal generation. Groups like FERC, state public utility commissions, the North American Electric Reliability Corporation, and Independent System Operators all contribute to either overseeing reliability or maintaining it. All of these entities continuously incorporate changing economics and operational conditions into their planning processes and will continue to do so.

The second issue our letter addresses is the geographic availability of geologic sequestration. The EPA claims new uncertainties as to where geologic sequestration for CCS is possible, potentially limiting the places it could be used. Without arguing about the actual availability of sequestration sites, we note that reductions in the geographic availability of sequestration resources should not significantly affect the feasibility of CCS. Because each of the three grids spanning the continental U.S. is interconnected, electricity resources can be efficiently distributed throughout each grid. This means that new plants, using CCS and located near an available geologic sequestration site, need only be located within grid system to provide electricity via a "coal-by-wire" arrangement. CCS can still serve demand in places that do not have geologic sequestration sites by drawing energy near those and then delivering electricity through transmission lines.

Weakening these pollution standards is unnecessary and unwarranted. The EPA's new proposal fails to justify its promotion of coal as a power source and neglects to account for the capacity of the grids to compensate for EPA's stated concerns.

Therefore, the EPA should stick with its 2015 determination and keep partial CCS as the standard for new coal plants.