

GRIM NEWS FOR CLIMATE

EPA Rule Not Great For Clean Power

THIS summer the U.S. Environmental Protection Agency took steps that could slam shut the ability to use the federal Clean Air Act (CAA) to regulate greenhouse gas emissions (GHGs) from existing “stationary sources.” Inability to get climate change legislation enacted by a Republican Congress led the Obama Administration to establish the 2015 Clean Power Plan (CPP), using CAA regulatory authority to set broad, state-specific limits on carbon dioxide (CO₂) emissions from existing electric power plants. To achieve those limits the CPP would have allowed states (working with power generators) to use any mix of three “building blocks” — plant-specific efficiency upgrades, switching electricity generation from coal to cleaner natural gas, or switching such generation from coal and gas to burgeoning renewable power production.

The steps EPA took in July and August could, if upheld, eliminate EPA’s ability to effectively regulate existing source GHGs — and other pollutants — under the Act. They also could reduce flexible compliance options currently available to emitting sources, including purchase of emissions trading credits from anaerobic digestion (AD) and other renewable energy projects.

The Agency’s final Affordable Clean Energy (ACE) Rule [84 FR 32531 (July 8, 2019)] was developed to replace the CPP, which would have secured about 32 percent national reductions in baseline CO₂ emissions from existing (mostly coal-fired) electric power plants by 2030. ACE revoked the CPP, substituting modest “heat rate” efficiency improvements for individual electric generating units within each plant.

EPA’s Affordable Clean Energy Rule may drastically reduce environmental compliance flexibility — and revenues for anaerobic digestion projects.

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These measures were “modest” because EPA itself estimated that ACE efficiency measures would secure less than 1 percent nationwide reductions from baseline in 2030, not counting reductions that would happen anyway due to power generation shifts from coal to cheaper renewable energy and natural gas. Per EPA scorecards, the difference would be about 11 million direct CO₂ reduction tons under ACE, versus about 900 million direct reduction tons under CPP. Nevertheless, EPA counted those ongoing shifts in

how power is generated when announcing that ACE would yield “as much as 35 percent” overall CO₂ reductions, although reductions from such shifts were not addressed by ACE or enforceable under it.

Three weeks later EPA proposed a substantial change in the Clean Air Act’s New Source Review (NSR) program [84 FR 39244 (Aug. 9, 2019)]. For the first time in five decades, triggering “emission increases” from new plant modifications would be measured not by looking solely at emissions added by such changes, but by subtracting from those increases all in-plant decreases in the previous five years. By “accounting for” a host of potentially unrelated emission decreases, this would radically alter how EPA determines whether there has been a “significant increase” requiring NSR.

The proposal was driven partly by EPA concerns that even the modest ACE efficiency improvements could trigger stringent “New Source” requirements that might discourage their implementation. These concerns arose because most ACE efficiency measures — for example, replacing steam turbine blades or installing variable-frequency drives or new economizers — are “physical changes” that could increase annual emissions when more efficient units are operated more frequently.

But the proposal also could eliminate NSR at the threshold for many otherwise “major” plant changes that involve new equipment or production lines. It follows other recent EPA steps — e.g., proposing to count only hourly rather than annual (“mass”) emissions changes; proposing that increased emission concentrations outside a plant’s fence

Both actions could undermine sweeping emissions trading programs for clean air and water progress that EPA and states have put in place.

line shouldn't matter if "the general public" won't be exposed to them; authorizing utilities unilaterally to estimate without review what and by how much emissions will "increase"; proposing to bar environmental groups, citizens or communities from challenging individual new source permits before EPA's Environmental Appeals Board, while allowing permit applicants (i.e., industry) to continue to challenge them; and deciding to no longer treat as one "source" noncontiguous processes that operate together — which would, if upheld, have the same effect.

Neither action is surprising. Since taking office the current Administration has moved to reverse nearly all things Obama, asserting for example that "no single regulation [besides the CPP] threatens our miners, energy workers and companies more than this crushing attack on American industry" [Executive Order 13783 (March 28, 2017)]. Nor is it surprising these measures could forego reductions of millions of tons/year in CO₂ — plus thousands of tons/year in health-affecting pollutants like fine particles, sulfur dioxide or nitrogen oxides — to protect a shrinking coal industry the President has pledged to revive (see "Carbon Standards Re-Examined," Further Reading, in the online edition of this article).

THREAT TO COMPLIANCE FLEXIBILITY, RENEWABLE ENERGY REVENUES

More surprising is the threat posed by these actions to cost-effective compliance flexibility and renewable energy revenues. Briefly:

- ACE would define the emission "sources" it affects as *individual generating units within plants*, prohibiting even compliance by emissions averaging among such units. (Previous versions of ACE would have allowed such averaging.) If no extra reductions outside such narrow "sources" can be used for compliance, emissions trading (ET) flexibility under — and potentially beyond — ACE would be strangled in its crib.

- The NSR proposal could allow coal-fired and other power plants to more easily avoid requirements that emissions from triggering plant changes be "offset" with extra creditable reductions from sources like AD. Like EPA's other recent NSR steps, it would shrink state and regional offset markets.

Both actions could undermine sweeping ET programs for clean air and water progress that EPA and states have put in place since they began approving plant-wide existing source compliance

"bubbles" in 1979.

Why does this matter for AD and other renewable energy projects? Revenue streams from ET can be critical to finance projects and get them built.

Those revenues stem not just from marketable credits under, for example, state Renewable Portfolio Standards (solar and "regular" Renewable Energy Credits), EPA's Renewable Fuel Standard (RINs), and California or Oregon low carbon fuel standards. Under State Implementation Plans (SIPs) or the like, projects may secure such revenues (as new source offset or existing source compliance credits) for reducing emissions of conventional "criteria" or toxic pollutants.

Projects also may secure credits for CO₂ or CO₂-e reductions under programs like the 9-state Northeast Regional Greenhouse Gas Initiative (RGGI) or the multi-jurisdiction Western Regional GHG regime. AD projects which reduce methane that otherwise would be emitted from hog waste lagoons and manure spreading, or reduce the impacts of post-AD digestate containing nitrogen or phosphorus, may receive similar clean-air or clean-water credits. The value of all such credits flows from regulated entities' ability to use them for compliance that is less costly, precisely because they come from "outside." This is because other sites or processes often are configured in ways that allow them to reduce equivalent emissions beyond applicable requirements, at far less cost. Where methane reductions from, for example, AD or landfills are involved, credit values can be substantial — one ton of methane emissions avoided currently equals (and can satisfy) a requirement to reduce 28 tons of CO₂ — by some measures, up to 80 tons.

While CPP may no longer be with us as a regulation, its large estimated savings under statewide ET-type options — versus compliance costs that might have been incurred with more rigid approaches producing less emission reductions — illustrate the scope of these opportunities. For this reason, CPP remains a main argument for extending renewable energy tax credits. Proponents assert that the 2015 tax credit step-downs were acceptable only because the value of CPP reduction credits from renewable energy generators was expected to be an equal or greater

development engine.

ACE's shrinkage of compliance options to single emitting units within plants puts at risk these opportunities. It flies in the face of court decisions affirming that "sources" may comprise multiple stacks or outfalls and holistically can meet compliance obligations by equal or greater reductions secured elsewhere. It ignores numerous EPA precedents — notably including the Agency's "New Source Performance Standards (NSPS) Compliance Bubble Policy" [52 FR 28946 (Aug. 4, 1987)], which extended "equal or better" emissions trading to new sources covered by the same statutory provision as the existing electric utility sources addressed by ACE. These authorities apparently were inconvenient for an Administration bent on calling CPP an "unlawful overreach" because it treated integrated electric grids as "systems" for emission reduction as well as dispatch purposes.

ACE'S UNDERPINNINGS

The "source definition" risk might be minimized by legal or policy distinctions — except that it seems deterministically intentional and ACE claims it is entitled to ironclad deferential approval by the courts. Among other things, ACE:

- Rests on "Step 1" of the Supreme Court's decision in *Chevron USA v. NRDC* [467 U.S. 837 (1984)] — which ironically affirmed use of ET even in the dirtiest-air areas — by declaring its narrow definition of "source" to be "clear from the Act" and the only permissible interpretation. It does so despite CPP's conclusion (backed by a 50-page legal analysis) that the Act was more than sufficiently ambiguous to justify broad CO₂ regulation and compliance flexibility under "Chevron Step 2" (where courts must defer to reasonable agency interpretations).

Instead, ACE concludes that CAA language mandating the "best system of emission reduction" (BSER) for existing power plants means only those measures *that physically can be installed at individual generating units*. This result is difficult to square with the common meaning of "system," let alone Congress' intent that existing facilities be treated as nearly as feasible as new ones, to minimize incentives for older, high-emitting sources to keep operating indefinitely.

By implication, ACE also seems to insert this narrow definition into general EPA implementing regulations for any future existing source rules covering emissions under the pertinent CAA provision. Its "Step 1" approach is no accident: judicial approval of ACE's interpretation could foreclose more robust

EPA efforts to address utility CO₂ emissions. Perhaps more troubling, the ET edifice rests largely on courts' deference to EPA's "reasonable decisions." Though EPA must explain to judges why it changed its mind, if the agency "reasonably decides" otherwise, those flexible compliance principles may be swept away.



- Declares CPP revocation "independent" of the Rule's other actions, stating that "EPA would repeal the CPP today even if it were not yet prepared to [issue] these other regulations, or even if it knew those other regulations would not survive judicial review." This too seems strategic — it's meant to stop CPP being reinstated if ACE is struck down.

- Avoids the obvious route to CPP revocation — cancelling the Obama EPA's NSPS for carbon emissions from new major utility sources or modifications [80 FR 64510 (Oct. 23, 2015)], the statutory predicate for regulation of existing utility CO₂ sources. Instead, recognizing the strength of that NSPS' supporting record — and EPA's ongoing obligation to regulate GHG emissions unless it defensibly can conclude they do not "endanger public health and welfare" [Massachusetts v. EPA, 549 U.S. 497 (2007)] — ACE blandly notes the NSPS "is being reassessed."

- Disingenuously attempts to differentiate the few ET precedents it does not ignore. For example, ACE characterizes emissions trading under the Bush II Mercury/Air Toxics Rule as "overturned" (though that rule was invalidated on other grounds). It characterizes invalidation of a Nixon era asbestos rule as support for a ban on emissions

averaging (though that rule involved an "applicability bubble" allowing sources to avoid NSPS, rather than a "compliance bubble" requiring them to produce equal or greater reductions).

- Prohibits protectively inclined jurisdictions from adopting more stringent reduction measures than its recommended handful of efficiency steps, while seeking to

Articles for further reading
sidestep judicial review of this ban on grounds that EPA must decide whether to approve state-proposed "deviations" from ACE later, case-by-case. This appears meant to intimidate states like New York and California. It ignores settled law that the states generally remain free to go beyond EPA requirements — an example of how the Administration has tended to disregard "federalism" when convenient, while invoking it when expedient.

- Undercuts even its recommended measures by repeatedly declaring that states must take into account the "useful life" of affected coal units when applying ACE — a coded signal where aging coal plants house most of the "affected sources" involved. (The Act allows "remaining useful life" to be taken into account when determining the BSER, but neither mandates this in all cases nor requires ACE to reference "useful life" at least a dozen times. Nor does it require EPA to delegate to the states what constitutes BSER while — for the first time ever — not setting emission limits to guide those determinations.)

- Declares there would be no difference between GHG reductions after ACE and after CPP, notwithstanding this Administration's previous alarms

that CPP meant end-days for coal and the U.S. economy. It rests this conclusion on the electric utility sector's accelerating shift to natural gas and renewables — while maintaining the Act cannot take that shift into account.

- Disregards evidence that even without NSR "reforms" utility emissions will increase ("rebound") under ACE compared to "no regulation," because more efficient generating units are run more frequently. According to one recent analysis, in 2030 this increase over "doing nothing" could be as much as 2.9 million tons for CO₂, about 1,000 tons for sulfur dioxides, and over 2,000 tons for nitrogen oxides. And that would be in only some of the states subject to ACE. The analysis indicates these increases could quadruple if NSR "impediments" to ACE efficiency measures are removed.

EPA's actions are the next chapter of a thick novel that's far from complete — they're headed to years of litigation. But they already seem to have a message for their proponents: be careful what you wish for. ■

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