***This post is the second in a series of posts offering some initial insights and observations, and posing several open legal questions related to EPA's proposed 111(d) rule.*** **(See *the first post here.*)**

***Over the course of this series of posts, I welcome our knowledgeable and insightful LegalPlanet audience to join the dialogue in the comments.*** **What strikes you about the proposed rule? What legal questions puzzle you? What are your thoughts on the below issues?**

In my first post compiling observations and questions about EPA's proposal to regulate existing power plants under Clean Air Act section 111(d), I discussed the legal vulnerability of a rate-based vs. a mass-based standard; the role of nuclear power, PUCs, and RTOs; and various enforceability challenges. Here, I turn to EPA's determination of the best system of emission reduction (BSER) and calculation of state goals.

**The state-specific goal calculation formula is designed to promote compliance flexibility, withstand legal challenge, and prevent states from proposing less stringent standards**. An E&E report has referred to the proposed rule as "50 Shades of Complexity," in reference to the proposal's list of state-specific emission reduction targets (note, however, that there are, in fact, only 49 targets–Vermont has no affected existing sources). Indeed, although the prose of the proposed rule is, for better or worse, far drier than last summer's bestselling bodice-ripper, the proposed rule is quite complex. Much of this complexity is in furtherance of promoting compliance flexibility, fencing states into a defined amount of meaningful emission reductions, and surviving inevitable litigation.

EPA determined that the best adequately demonstrated system of emission reduction (BSER) for power plant $CO_2$ is a combination of measures that fall into four "building blocks": **1)** plant efficiency improvements, **2)** redispatch, **3)** renewable energy generation, and **4)** demand-side energy efficiency. (Alternatively, EPA suggests BSER could be the combination of building blocks 1 and 2.) EPA's use of the four building blocks to calculate state-specific emission reduction targets cleverly promotes compliance flexibility while still

fencing states into a defined amount of emission reduction. States need not abide by the assumptions in EPA's calculation formula and would have the opportunity to achieve more or less reductions from each of the building blocks, so long as the state ultimately achieves the required $CO_2$ reductions at affected electric generating units (EGUs).

Some environmental groups have criticized EPA for not setting more aggressive targets, and these criticisms merit consideration. EPA noted that it could have, but deliberately chose not to propose a higher level of emission reductions in the state goals. The agency estimated "reasonable rather than maximum possible implementation levels for each building block in order to establish overall state goals that are achievable while allowing states to take advantage of the flexibility to pursue some building blocks more extensively, and others less extensively. . . according to each state's needs and preferences" (p. 155). In other words, EPA envisions that even if measures in one building block do not produce the expected level of emission reduction or are too difficult to implement in a particular state for whatever reason, a state could nonetheless meet the "reasonable" goal through deployment of measures in other building blocks (*see* p. 335).

This scheme cunningly avoids the potential problem of 40 C.F.R.§ 60.24(f), which allows a state plan to include an emission standard less stringent than the federal guideline if the state can demonstrate that controlling $CO_2$ from any EGU or class of EGUs is too expensive or otherwise infeasible. EPA confirms its intent to bind states in strong terms: "Due to the inherent flexibility in the EPA's approach to establishing the state-specific goals, and the flexibility provided to states in developing approvable CAA section 111(d) plans to achieve those goals, the EPA's guidelines contain no emission standards that the state must apply directly to a specific EGU; therefore, no relief for individual facilities would be needed" (p. 515).

Again, this is not to say that EPA could not adopt more stringent goals that are still reasonable and offer the same flexibility benefits as the proposed goals. *Do EPA's goals strike the correct balance between stringency and flexibility/reasonableness? Should they be more stringent? Will states still attempt to submit state plans with emission standards that are less stringent then the federal guideline?*

**Can EPA invoke *Chevron* authority to determine that a combination of building blocks including "beyond the fenceline" measures is a "system of emission reduction"?** As stated above, EPA concluded that BSER is the combination of all four building blocks (or, alternatively, blocks 1 and 2), as opposed to only "inside the power plant fenceline" measures that improve EGU heat rates (block 1). EPA considers the combination of all four blocks to be the superior way to achieve cost-effective emission reductions (p.

252), even though block 1 alone more resembles past BSER determinations and is arguably more legally defensible. As I mentioned in my previous post, the proposed $CO_2$ rule differs significantly from most of EPA's previous §111(d) rules. Prior rules (with two exceptions) have adopted emission intensity limits achievable through installation of a control technology or process changes. Given the relative novelty of emission guideline documents in general and the unique nature of this proposal in particular, EPA has worked to justify its reasoning.

EPA's decision to look "beyond the fenceline" for emission reduction opportunities is justified, in part, by the agency's concerns about a potential "rebound effect." EPA was worried that efficiency improvements at coal-fired steam power plants alone would make coal more competitive with lower-carbon electricity generation, thereby increasing $CO_2$ emissions (pp. 141, 251). The incorporation of other building blocks into the calculation of state goals avoids this effect.

EPA further relies on the integrated nature of the grid and cooperative federalism to justify its divergence from a traditional emission rate standard. Throughout the rule, EPA refers to "the particular characteristics of carbon pollution, the interconnected nature of the power sector and the manner in which EGUs are currently operated" to justify the breadth and flexibility of the proposed rule (p. 78). According to EPA, the reduction opportunities it identifies "exist in the power sector in ways that were not relevant or available for other industries for which the EPA has established CAA section 111(d) emission guidelines" (p. 79). EPA also refers to historical examples of cases where "state governments and the federal government have repeatedly taken advantage of the integrated nature of the electricity system when designing programs to allow the industry to meet the pollution control objectives in a least-cost manner" (p. 265). Significantly, EPA invokes the principle of cooperative federalism, "one of the foundational principles of the Clean Air Act" to support its flexible proposed rule (p. 392). These arguments surely are previews of litigation arguments to come.

EPA invokes *Chevron* Step I and Step II to support its selection of BSER, specifically referring to the statutory terms "system of emission reduction" and "standard of performance" (pp. 265-96). According to EPA, "in light of the importance of pollution prevention in the CAA, it is reasonable to interpret 'system of emission reduction' in section 111 to incorporate those measures [encompassed in building blocks 2, 3, and 4]." (p. 296-97). EPA refers to a variety of commentators, including Robert Nordhaus and Megan Ceronsky, who support a broad interpretation of "system of emission reduction" (p. 298, n.224). EPA acknowledges, however, that some stakeholders have questioned the legality of including "beyond the fenceline" measures in the BSER (p. 311), and specifically seeks

comment on whether measures that "involve actions by entities or at locations other than affected sources" can be included in a state plan (pp. 331-32).

Additionally, EPA has been careful to note the severability of its BSER findings, "such that in the event a court were to invalidate our finding with respect to any particular building block, we would find that the BSER consists of the remaining building blocks" (p. 330).

*Will EPA's determination about the need to avoid the "rebound effect" and its reasoning about the interconnected nature of the electricity sector shield EPA's BSER selection, which includes outside the fenceline measures, from legal challenge?*

**Can EPA invoke *Chevron* authority to determine that generation reduction is a "system of emission reduction"?** EPA has stated that "each of the building blocks independently merits consideration as part of the BSER" (p. 34), implying that EPA considers each of the blocks itself to be a "system of emission reduction" and a component of the BSER. Yet, EPA also has proposed an alternative formulation of BSER. In the second formulation, the building blocks serve as *the basis* for why a component—reduced utilization of higher-emitting affected EGUs—is adequately demonstrated (p. 140). Under this alternative formulation, EPA again invokes *Chevron* Steps I and II to support its interpretation that "system of emission reduction" incorporates reduced generation (pp. 314-15).

According to EPA, "Reduced generation in specified amounts is the 'best' system of emission reduction that is 'adequately demonstrated.' Reduced generation is technically feasible because of a source's ability to limit its own operations. In addition, the amounts of generation and emission reductions may be determined with precision through the application of building block 2, 3, and 4 measures for increased generation from low- or zero-emitting sources and increased demand-side energy efficiency" (p. 316). "First, the affected sources themselves could invest in new renewable energy resources and demand-side energy efficiency, as discussed above. Second, the states, as part of their plans, have mechanisms available to put these substitutes in place: they could establish requirements or incentives that would result in new renewable energy and demand-side energy efficiency programs, as also discussed above. Third, as also discussed above, regional entities in the electricity system can accommodate these substitutes" (pp. 318-19).

*Will EPA be able to defend successfully its alternative interpretation that "system of emission reduction" includes reduced generation? Is this alternative BSER formulation more or less defensible than EPA's preferred formulation?*

**Stay tuned for more insights, observations, and legal questions related to EPA’s proposed section 111(d) rule.**