

# Memorandum on the proposal to repeal the Clean Power Plan and the proposed ACE Rule

October 11, 2018

This memorandum provides an outline of the arguments advanced in i) the proposal to repeal the Clean Power Plan (CPP) and ii) the proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, part of the Affordable Clean Energy (ACE) Rule. What follows is an extensive step-by-step layout of the legal arguments advanced in the two proposals. Block quotes from the two proposals are used to make it possible for the reader to see how EPA frames its arguments in its own words and sequences them. Brief comments on the vulnerabilities of the arguments are also provided.

Here are the key passages that capture the program the ACE proposal would create and how it would function:

- “To meet the requirements of the new proposed implementing regulations, EPA is proposing candidate technologies for HRI measures corresponding to a range of reductions and costs as information regarding the degree of emission reduction achievable through application of the BSER. Because affected EGUs in each state are different and the application of different HRI measures may take into account source-specific factors, EPA is providing expected ranges of HRIs.”
- “EPA expects that states can use the information that EPA provides on the degree of emission limitation in developing standards of performance for affected EGUs as part of establishing a standard of performance for inclusion in a state’s plan pursuant to the requirements of section 111(d)(1).”
- “...the ranges of HRIs are provided as guidance for states to use in evaluating the efficacy of implementing each measure identified as part of the BSER candidate technologies at each affected EGU. While the HRI potential range is provided as guidance for the states, the actual HRI performance for each of the candidate technologies will be unit-specific and will depend upon a range of unit-specific factors. The states will use the information provided by EPA as guidance, but will be expected to conduct unit-specific evaluations of HRI potential, technical feasibility, and applicability for each of the BSER candidate technologies.”
- “Once a state evaluates the HRIs identified as part of the BSER in establishing a standard of performance for a particular affected EGU, it is within the state’s discretion to take certain factors concerning that source, such as remaining useful life, into consideration when determining how the standard of performance should be applied.”

- “Additionally, the new proposed implementing regulations require that an emission guideline identify information such as a timeline for compliance with standards of performance that reflect the application of the BSER. See proposed 40 CFR 60.22a. However, given the source-specific nature of this proposed emission guideline and reasonably anticipated variation between standards established for sources within a state, EPA believes it more appropriate that a state establish tailored compliance deadlines for its sources based on the standard ultimately determined for each source.”<sup>1</sup>

## Repeal of the Clean Power Plan: Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units

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### Introduction

EPA “proposes to return to a reading of CAA section 111(a)(1) (and its constituent term, “best system of emission reduction”) as being **limited to emission reduction measures that can be applied to or at an individual stationary source**. That is, such measures must be based on a physical or operational change to a building, structure, facility, or installation at that source, **rather than measures that the source’s owner or operator can implement on behalf of the source at another location**.”<sup>2</sup> The agency provides five reasons that “[t]he EPA believes that this is the best construction of CAA section 111(a)(1)”:

- “First, it accords with the meaning and application of relevant terms and phrases in CAA section 111 as they are used in other, related sections of the CAA.”
- “Second, it aligns with the Congressional intent underlying CAA section 111 as informed by relevant legislative history.”
- “Third, it aligns with the EPA’s prior understanding of CAA section 111 as reflected in the Agency’s prior regulatory actions.”
- “Fourth, it avoids illogical results when considered in light of other provisions of the statute.”

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<sup>1</sup> 83 Fed. Reg. 44763.

<sup>2</sup> Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48035, 48039 (Oct. 16, 2017) (emphasis in bold supplied). Available at: <https://www.gpo.gov/fdsys/pkg/FR-2017-10-16/pdf/2017-22349.pdf>.

- Finally, it prevents a shift in the relationship between the states and federal government, avoids conflict with other federal statutes, and maintains proper separation of power.<sup>3</sup>

“First, it accords with the meaning and application of relevant terms and phrases in CAA section 111 as they are used in other, related sections of the CAA.”

EPA explanation:

- EPA offers its new interpretation as a reasonable one; the proposal does not argue that it is the only possible one, but that “this is the best construction...”<sup>4</sup> The agency declines to advance an argument that its interpretation of section 111(a)(1) is a *Chevron* issue.
  - The only reference to *Chevron* appears in the discussion of EPA’s ability to revisit existing regulations.<sup>5</sup>
- The interpretation of the phrase “system of emission reduction” is crucial to the range of measures that can be considered to establish emissions limits under section 111.
  - “An expansive interpretation of the phrase ‘system of emission reduction’ would yield a greater universe of measures that could be considered to establish emission limits; conversely, a narrower reading would have the opposite effect.”<sup>6</sup>
- The phrase should be read in context with the rest of the CAA.
- EPA points to some of the limitations of the phrase “system of emission reduction” highlighted during the development of the Clean Power Plan.
  - EPA stated that “the ‘system of emission reduction’ must be limited to a set of measures that work together to reduce emissions that are implementable by the sources themselves.”<sup>7</sup> EPA relied on a broad conception of “source” as “the ‘owner or operator’ of any building, structure, facility, or installation for which a standard of performance is applicable.”<sup>8</sup>
- EPA now states “Here, contrary to the conclusion in the CPP, the EPA is proposing to interpret the phrase ‘through the application of the best system of emission reduction’ **as requiring that the BSER be something that can be applied to or at the source and not something that the source’s owner or operator can implement on behalf of the source at another location.** Interpreting the statute as carrying this additional limiting principle ensures conformity with the statutory context and congressional intent.”<sup>9</sup>

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<sup>3</sup> Id.

<sup>4</sup> Id.

<sup>5</sup> Id. (“The authority to reconsider prior decisions exists in part because the EPA’s interpretations of statutes it administers ‘[are not] instantly carved in stone,’ but must be evaluated ‘on a continuing basis.’” *Chevron U.S.A. Inc. v. NRDC, Inc.*, 467 U.S. 837, 863–64 (1984).)

<sup>6</sup> Id.

<sup>7</sup> Id.

<sup>8</sup> Id.

<sup>9</sup> Id (emphasis in bold supplied).

- EPA draws a parallel between Section 111(d) and 111(b)(1)(B), focusing on the word “for” as it appears in both sections as support for the idea “that standards be established ‘for any existing source,’ (emphasis added) and not for other sources or entities.”<sup>10</sup>
  - “...the ‘for any existing source’ phrasing in CAA section 111(d) mirrors the ‘for new sources’ phrasing in the first sentence of section 111(b)(1)(B). In other words, as applied to both new source standards and existing source standards promulgated under CAA section 111, if standards must be set *for* individual sources, it is reasonable to expect that such standards would be predicated on measures that can be applied to or at those same individual sources.”<sup>11</sup>
- EPA states that the term “application” is used throughout the CAA, but in its standard-standing provisions, “it signals a physical or operational change to a source....”<sup>12</sup>
  - EPA cites uses of the word “application” with regard to MACT and BACT to arrive at the conclusion that “...the measures should be *applied to* the source itself (i.e., from the perspective of the source and not its owner or operator).”<sup>13</sup>

#### Vulnerabilities:

- EPA’s argument that section 111(d) and 111(b)(1)(B) should be read as mirroring each other and constraining section 111(d) to “inside the fence line” measures does not account for the differences between subsections (b) and (d) and the structure of section 111.
  - Section 111(b), by definition, applies to individual sources when a source is built or modified; in contrast, 111(d) applies to a class or category of sources and is generally implemented across that class or category on a roughly uniform schedule.
  - EPA ignores the fact that the standards of performance are set according to different processes by different entities under each provision, by EPA for 111(b) and by states for 111(d). The agency to address whether those distinctions could support different approaches.
  - EPA advances its proposed interpretation in part by explaining why the CPP interpretation should be abandoned. But the language, statutory scheme and legislative history EPA cites to support its proposed interpretation all fail to provide definitive evidence of its superiority.
- EPA looks at the use of “application” with regard to MACT and BACT very narrowly to support its narrow reading of “application” for section 111.
- Oddly enough, the word “application” in the definition of “standard of performance” refers to the application of the best system of emission reduction and does not precede a list of possible “...measures, processes, methods, systems or techniques...” as it does in

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<sup>10</sup> Id.

<sup>11</sup> Id (emphasis in original).

<sup>12</sup> Id. at 48039-40.

<sup>13</sup> Id. at 48040 (emphasis in original).

42 U.S.C. 7412(d)(2), for example, which establishes MACT in the context of Hazardous Air Pollutants.

- EPA does not address how the use of “application” before “best system of emission reduction” could result in a different interpretation, as compared with its appearance before a non-exhaustive list of ways of reducing emissions.
- A look at the full provisions<sup>14</sup> cited in the preamble reveals that BACT and MACT are arguably not as narrow as EPA suggests.

“Second, it aligns with the Congressional intent underlying CAA section 111 as informed by relevant legislative history.”

EPA explanation:

- “Even if the term ‘application’ did not denote a source-oriented ‘system of emission reduction,’ the term ‘system’ too is historically rooted in a physical or operational change to the source itself.”<sup>15</sup>
- EPA gleans congressional intent from the efforts to harmonize House bill and Senate bill during the 1970 CAA Amendments.
  - The Senate bill had a broader concept of standards of performance as encompassing “...latest available control technology, processes, operating methods and other alternatives.”<sup>16</sup>
    - EPA is quick to note that it views the phrase: “other alternatives” as not very broad in the first place and should be read *ejusdem generis* in line with the items in the list that precede it.
    - EPA uses this reading to conclude that there is no indication that “system of emission reduction” was intended to allow the agency to determine that BSER encompassed measures beyond the source itself.
- The 1977 Amendments do not change the meaning of the section, although Congress added the word “technological” to “system of emission reduction” to preclude the use of low-sulfur coal alone to comply.
- EPA notes that the addition of “technological” should not be read as limiting an expansive provision that allowed measures beyond the source for compliance.
- The 1990 CAA Amendments removed the term “technological” but EPA states “there is no indication that Congress intended to expand the phrase ‘system of emission reduction’ beyond a physical or operational change to the source.”<sup>17</sup>
  - The Acid Rain program was introduced in the 1990 Amendments which meant that the use of technological controls under section 111 was no longer required as long as the SO<sub>2</sub> cap existed.

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<sup>14</sup> 42 U.S.C. 7412(d)(2); 42 U.S.C. 7479(e); 42 U.S.C. 7521(a)(3)(A)(i) (applying technology available by model year for mobile sources); 42 U.S.C. 7521(a)(3)(D) (concerning rebuilding practices of heavy-duty engines).

<sup>15</sup> *Id.* at 48040.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

- Conclusion: “there is nothing in the statutory text or its legislative history to suggest that CAA section 111 standards may be based on something other than a physical or operational change to the source itself.”<sup>18</sup>

#### Vulnerabilities:

- EPA’s congressional intent arguments still come down to issues of interpretation.
- There are no statements from committee reports that clarify exactly how section 111 should be read.
- There is no definitive statement on whether Congress meant to limit section 111 to “inside the fence line” measures.
- The goal of this portion of the preamble seems to be to establish that the CPP’s interpretation is beyond the statutory authority of the CAA and EPA’s new interpretation is supported by Congressional intent. However, this discussion ultimately reveals that Congress did not directly address the precise question. EPA’s arguments here do not preclude the possibility that the new interpretation is a *Chevron* step 2 question.

“Third, it aligns with the EPA’s prior understanding of CAA section 111 as reflected in the Agency’s prior regulatory actions.”

#### EPA explanation:

- EPA has issued numerous rules under section 111 under (b) and (d).
- All previous rules limited BSER to physical or operational measures.
  - With the exception of one rule, the Clean Air Mercury Rule<sup>19</sup> which was vacated by D.C. Circuit because of the improper de-listing of Electric Generating Units (EGUs) from the section 112 list before promulgation of section 111(d) standards.
    - EPA describes CAMR in a footnote as consistent with an “inside the fence line” approach: “Even the cap-and-trade program promulgated in the since-vacated Clean Air Mercury Rule, was ‘based on control technology available’ for installation at individual existing sources. 70 FR 28617. It was not predicated on a BSER that encompassed measures that could not be applied at or to a particular source.”<sup>20</sup>
- In 1975, EPA interpreted “system of emission reduction” to be technology-based and source-focused for both 111(b) and (d).
  - Regarding the difference between section 111(b) and (d), “EPA explained that, [a]lthough the general principle (application of best adequately demonstrated

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<sup>18</sup> Id.

<sup>19</sup> Standards of Performance for New and Existing Stationary Sources: Electric Utility Steam Generating Units, 70 Fed. Reg. 28606 (May 18, 2005).

<sup>20</sup> 82 Fed. Reg. 48042, note 21.

*technology*, considering costs) will be the same in both cases, the degrees of control represented by the Agency's emission guidelines will ordinarily be less stringent than those required by standards of performance for new sources because the costs of *controlling existing facilities* will ordinarily be greater than those for control of new sources."<sup>21</sup>

- EPA also points to the agency's description of the legislative history of section 111 saying, "that Congress 'intended the *technology-based approach* of that section to extend (making allowances for the costs of *controlling existing sources*) to action under section 111(d). In this view, it was unnecessary . . . to specify explicit substantive criteria in section 111(d) because the intent to require a *technology-based* approach could be inferred from placement of the provision in section 111.' *Id.* at 53342 (emphases added); *see also id.* at 53343 ("[T]he approach taken in section 111(d) may be viewed as . . . [a] decision[ ] . . . [t]o adopt a technology-based approach similar to that for new sources.')." "<sup>22</sup>
- "The EPA believes that the Agency's historical interpretation of CAA Section 111(d) and the phrase 'system of emission reduction,' expressed at the point in time closest to when Congress enacted those provisions, is the most appropriate reading of the statute."<sup>23</sup>

#### Vulnerabilities:

- Although EPA frames CAMR here as falling in line with its interpretation of section 111, in the final preamble for CAMR itself, the agency stated that "...EPA believes that the term 'standard of performance' as used in CAA section 111 can include market-based programs such a cap-and-trade program. The EPA also believes that in the context of a cap-and-trade program, the phrase 'best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impacts and energy requirements) the Administrator determines has been adequately demonstrated' refers to the combination of the cap-and-trade mechanism and the technology needed to achieve the chosen cap level."<sup>24</sup>
  - EPA explained CAMR's approach in the final CPP preamble and stated: "Based on this analysis, EPA determined that the BSER 'refers to the combination of the cap-and-trade mechanism and the technology needed to achieve the chosen cap level.' To accompany the nationwide emissions cap, the EPA also assigned a statewide emissions budget for mercury."<sup>25</sup>
  - EPA also stated that "CAMR continues to be an informative model for a cap-and-trade program under CAA section 111(d)."<sup>26</sup>

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<sup>21</sup> *Id.* at 48041.

<sup>22</sup> *Id.* quoting from Final Procedures for Implementation of 111(d), 40 Fed. Reg. 53340, (Nov. 17, 1975).

<sup>23</sup> *Id.*

<sup>24</sup> 70 Fed. Reg. 28620.

<sup>25</sup> Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662, 64697 (Oct. 23, 2015).

<sup>26</sup> *Id.*

- EPA’s references to the statements from 1975 still rely on a mere inference - that Congress communicated its intent to constrain section 111(d) to technology-based approaches by placing it in section 111 - to support its desired interpretation.
  - If this is to be believed, then it calls into question the decision to add “technological” to section 111(a)(1) in 1977. If the entire section dictated a technology-based approach, then why was that addition necessary and what are the implications of the removal of the word in the 1990 Amendments?

“Fourth, it avoids illogical results when considered in light of other provisions of the statute.”

EPA explanation:

- Broader statutory context of CAA should be considered.
- The interpretation of section 111 as beyond-the-source “could have the unintended consequence of imposing greater emissions reductions under CAA section 111 than could be established as BACT under section 165, which relies on CAA section 111 standards as a floor.”<sup>27</sup>
- “Neither title IV nor the interstate transport rulemakings (e.g., the Cross State Air Pollution Rule) supports a different interpretation of CAA section 111.”<sup>28</sup>
  - Instead of viewing the Acid Rain program under Title IV and the various interstate-transport rulemakings as evidence of the viability of cap-and-trade programs for the utility power sector, EPA says that Congress explicitly authorized both of those activities, but did not do so for section 111.
    - “We think it unlikely that Congress would have silently authorized the Agency to point to trading in order to justify generation-shifting as a ‘system of emission reduction.’”<sup>29</sup>
    - Yet, EPA is comfortable with proposing an individual permitting program for existing sources under 111(d), which requires a level of silent authorization the agency purports to discover through new-found connections to 111(b) and the PSD program.

Vulnerabilities:

- The CPP’s interpretation of section 111 would not necessarily have the effect of creating greater emissions restrictions than BACT.
- We provide a more robust discussion of the relationship between section 165 and section 111 below where the ACE Rule proposal makes this argument in greater detail.
- See also the informative chart on the differences between section 165 and section 111 at the end of the document.

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<sup>27</sup> 82 Fed. Reg. 48041.

<sup>28</sup> Id. at 48042.

<sup>29</sup> Id.

“Finally, it avoids a policy shift of great significance for the relationship between the federal government and the states and avoids conflict with other federal legislation and interference with the separate role and jurisdiction of another federal agency, where there is inadequate indication that Congress intended to authorize the EPA to take actions leading to those results.”

EPA explanation:

- “The EPA notes that States, the regulated community, and other commenters identified potentially serious economic and political implications arising from the CPP’s reliance on measures that extend beyond those that can be applied at and to a particular, individual source, such as generation shifting, which in turn raised questions as to whether the interpretations underlying the CPP violated the ‘clear statement’ rule. *See Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427, 2444 (2014) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000)) (holding that, under certain circumstances, an interpretation that would have “vast ‘economic and political significance’” requires a clear statement from Congress assigning the agency that authority).”<sup>30</sup>
- EPA acknowledges that it is “...authorized to regulate emissions from sources in the power sector and to consider the impact of its standards on the generation mix in setting standards to avoid negative energy impacts...”, but believes that FERC is primarily responsible for regulating the energy sector and wants to “...ensure that CAA section 111 has not been construed in a way that supersedes or limits the authorities and responsibilities of the FERC or that infringes upon the roles of the states.”<sup>31</sup>

Vulnerabilities:

- EPA complicates the factual predicate for the “vast ... significance” argument and for reliability concerns by relying on business-as-usual projections forecasting dramatic reductions in CO2 emissions and increases in renewable energy generation with modest cost impacts and no indication of reliability problems.

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<sup>30</sup> Id.

<sup>31</sup> Id.

# Affordable Clean Energy Rule: Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program

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## Introduction

- In accordance with the interpretation of BSER and Section 111 proposed in the CPP Repeal, the ACE rule takes the next step of proposing BSER for GHGs from existing EGUs.
  - “This proposal relies in part on the legal analysis presented in the CPP repeal that was proposed on October 16, 2017, 82 FR 48035. In the proposed repeal, EPA asserted that the BSER in the CPP exceeded EPA’s authority because it established the BSER using measures that applied to the power sector as whole, rather than measures that apply at and to, and can be carried out at the level of, individual facilities. This proposed action aligns with EPA’s statutory authority and obligation because, as EPA has done in the dozens of [New Source Performance Standards] NSPSs issued to date, the BSER is to be determined by evaluating technologies or systems of emission reduction that are applicable to, at, and on the premises of the facility for an affected source.”<sup>32</sup>
- EPA references the Endangerment Finding for CO<sub>2</sub> and internalizing the negative externality of CO<sub>2</sub> emissions, what it calls “addressing market failure,” in order to justify the proposed rule.
- EPA views the reduction in CO<sub>2</sub> across the energy sector in recent years as a trend “...driven by market factors, reduced electricity demand, and policy and regulatory efforts.”<sup>33</sup>
- EPA seems to rely on the changing landscape of the energy sector to justify avoiding system-wide action or considering BSER from that perspective because the electricity sector is changing rapidly, making it too difficult to predict and regulate effectively.
  - “Because of the rapid pace of these power sector changes, it is difficult for sector analysts to fully account for these changing trends in near-term and long-term sector-wide projections. This means that regulatory decisions made today could be based on information that may very well be outdated within the next several years. If that is the case, work put in by federal and state regulatory agencies—as well as by the affected sources themselves—to address section 111(d) requirements could quickly be overtaken by external market forces which could make those efforts redundant or, even worse, put them in conflict with industry trends that are already reducing CO<sub>2</sub> emissions.”<sup>34</sup>

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<sup>32</sup> Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program, 83 Fed. Reg. 44746, 44748 (Aug. 31, 2018). Available at: <https://www.gpo.gov/fdsys/pkg/FR-2018-08-31/pdf/2018-18755.pdf>.

<sup>33</sup> Id at 44750.

<sup>34</sup> Id. at 44751.

- EPA notes that the promulgation of performance standards for new, modified, reconstructed EGUs under Section 111(b) triggered the need to regulate existing sources under 111(d).
  - The agency also adds: “That CAA section 111(b) rulemaking remains on the books, although EPA is currently considering revising it.”<sup>35</sup>

The balance of the proposed ACE rule has three sections:

- “First, EPA is proposing to determine the BSER for existing EGUs based on HRI measures that can be applied at an affected source.”
- “Second, EPA is proposing new implementing regulations that apply to this action and any future emission guidelines promulgated under CAA section 111(d). The purpose of proposing new implementing regulations is to harmonize our 40 CFR part 60 subpart B regulations with the statute by making it clear that states have broad discretion in establishing and applying emissions standards consistent with the BSER.”
- “Third, EPA is proposing to give the owners/operators of EGUs more latitude to make the efficiency improvements that are consistent with EPA’s proposed BSER without triggering onerous and costly NSR permit requirements. This change will allow states, in establishing standards of performance, to consider HRIs that would otherwise not be cost-effective due to the burdens incurred from triggering NSR.”<sup>36</sup>

This portion of the outline will cover the first section, specifically the “Legal Authority for Determination of the BSER”. The agency advances four arguments for its determination that the BSER for existing EGUs is composed of HRI measures that can be applied at an affected source. In doing so, it re-argues the questions of statutory interpretation surrounding its proposed “inside the fence line” -only approach, and extends significantly its arguments assimilating sections 111(d) and 165.

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<sup>35</sup> Id.

<sup>36</sup> Id. at 44748.

“First, as explained in the CPP preamble, reduced utilization ‘does not fit within our historical and current interpretation of the BSER.’”

EPA explanation:

- The agency quotes selectively from the CPP final rule preamble, “EPA has generally taken the approach of basing regulatory requirements on controls and measures designed to reduce air pollutants from the production process without limiting the aggregate amount of production.”<sup>37</sup>
- EPA admits that some measures, like scrubbers, have reduced production levels incidentally, but distinguishes that from generation-shifting by stating that “reduced utilization is directly correlated with a source’s output.”<sup>38</sup>
- “Moreover, predicating a CAA section 111 standard on a source’s non-performance would inappropriately inject the Agency into an owner/operator’s production decisions.”<sup>39</sup>

Vulnerabilities:

- The quote from the CPP final rule preamble is only a partial quote, which the proposal fails to denote with an ellipsis. It is also out of context. The sentences following the quote say: “This approach has been inherent in our past interpretation and application of section 111 and we maintain this interpretation in this rulemaking...[I]nclusion of building blocks 2 and 3 is consistent with our interpretation of the statutory requirements....”<sup>40</sup>
- Any regulation that increases the cost of operation arguably injects the agency into an owner/operator’s production decisions.
- Similarly, regulations such as the Cross State Air Pollution Rule, which are implemented via caps on emissions and tradeable allowances, encompass generation shifting from higher to lower-emitting sources or, via allowance trades, investment in emissions reductions at third party sources.

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<sup>37</sup> Id. at 44752. Full sentence from CPP Final Rule : “In interpreting these statutory requirements for determining the BSER, the EPA is consistent with past practice and current policy for both section 111 regulatory actions as well as regulatory actions under other CAA provisions for the electric power sector, under which the EPA has generally taken the approach of basing regulatory requirements on controls and measures designed to reduce air pollutants from the production process without limiting the aggregate amount of production.” 80 Fed. Reg. 64762.

<sup>38</sup> 83 Fed. Reg. 44752.

<sup>39</sup> Id.

<sup>40</sup> 80 Fed. Reg. 64762.

“Second, as explained in the proposed repeal notice, interpretative constraints that may apply to interpreting CAA section 111(a)(1) (i.e., determining what types of measures that may be considered as the BSER) for purposes of setting a new source performance standard under section 111(b) reasonably may be applied to interpreting the BSER for purposes of setting existing source standards under section 111(d) as well...”

EPA explanation:

- Quoting from the CPP repeal proposal, the agency asserts that “the BSER should be interpreted as a source-specific measure, in light of the fact that [Best Available Control Technology, or BACT] standards, for which the BSER is expressly linked by statutory text, are unambiguously intended to be source specific.”<sup>41</sup>
- EPA forges, at some length, a connection between section 111 and BACT in section 165 in order to import “additional interpretive constraints that may be applied to CAA section 111” from BACT guidance.<sup>42</sup>
  - Specifically:
    - “a BACT analysis ‘need not necessarily include inherently lower polluting processes that would fundamentally redefine the nature of the source proposed by the permit applicant.’”<sup>43</sup>
    - “BACT should generally not be applied to regulate the applicant’s purpose or objective for the proposed facility.”<sup>44</sup>
    - “EPA has recognized that the initial list of control options for a BACT analysis does not need to include ‘clean fuel’ options that would fundamentally redefine the source.”<sup>45</sup>
      - “[A]pplicants proposing to construct a coal-fired electric generator, have not been required by EPA as part of a BACT analysis to consider building a natural gas-fired electric turbine although the turbine may be inherently less polluting per unit product (in this case electricity).”<sup>46</sup>
- This purported connection between BACT and BSER opens the door for EPA to propose extending the “redefining the source” prohibition policy from BACT and PSD to BSER and section 111.
  - “Although in the CPP we believed that EPA’s ‘redefining the source’ policy was not relevant for purposes of section 111(d)...we now believe that such a policy is relevant in light of the relationship between BACT and BSER.”<sup>47</sup>

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<sup>41</sup> 82 Fed. Reg. 48042.

<sup>42</sup> 83 Fed. Reg. 44752.

<sup>43</sup> Id., quoting EPA’s PSD and Title V Permitting Guidance for Greenhouse Gases.

<sup>44</sup> Id.

<sup>45</sup> Id.

<sup>46</sup> Id.

<sup>47</sup> 83 Fed. Reg. 44752 (internal citations removed).

- EPA recites all of the distinctions between the PSD program and BSER that EPA provided in its response to comments accompanying the CPP:
  - “[T]he PSD program...involves the case-by-case review of the construction of an individual stationary source....”<sup>48</sup>
  - “...BACT is not applicable to unmodified existing sources nor is it applied on a source category basis.”<sup>49</sup>
  - “The CAA’s PSD program is administered primarily by state and local permitting authorities as [an] individualized preconstruction requirement under CAA section 165.”
  - Section 111(d) functions by EPA identifying “a list of adequately demonstrated control options in use by the industry, select[ing] the best of those control options after considering cost and other factors, then select[ing] an achievable limit for the category through the application of the BSER across the industry...”<sup>50</sup>
- EPA then disputes these differences:
  - “...it is the state, not EPA, that is tasked in the first instance with ‘select[ing] an achievable limit’ for existing sources—and section 111(d)’s emphasis on source-specific factors at the very least renders questionable EPA’s unqualified assertion that BSER for existing sources ‘is applied on a source category basis.’”<sup>51</sup>
- “In the instant proposal, EPA proposes to give full meaning to these textual and structural features of the existing-source program under section 111(d) that render it in important respects distinct from the new-source program under section 111(b) and similar to the source-by-source PSD program: Section 111(d), unlike section 111(b), is implemented in the first instance by the states, and it is expressly linked to source-specific factors.”<sup>52</sup>

#### Vulnerabilities:

- In comparing 111(d) to BACT, EPA applies arguments more suitable to the long-standing connection between 111(b) and BACT and to a significant extent ignores or mis-applies the distinction between 111(b) and 111(d).
  - The NSPS/111(b)-BACT nexus is applicable when an individual source is built or undergoes a major modification.
    - Section 111(d) applies to an entire category of existing sources expected to meet roughly uniform requirements contemporaneously across the category. The idea that requirements apply broadly to those sources is reinforced by the fact that section 111(d) requires EPA to promulgate a plan for a state when it fails to submit an approvable plan.

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<sup>48</sup> Id. at 44753, quoting from EPA’s Response to Comments documents for the Clean Power Plan.

<sup>49</sup> Id.

<sup>50</sup> Id.

<sup>51</sup> Id. at 44753.

<sup>52</sup> Id.

- Between the BACT-imported “interpretive constraints” EPA advances and the approach (as discussed below) that ACE proposes for state plans, the proposal transforms section 111(d) into a permitting program that sets loose technology-based parameters to be applied by states on a facility-by-facility basis and that allows wide variations for emissions requirements and compliance schedules across the source category.
  - In contrast, in order to give meaning to each section and avoid conflict between them, the CAA would normally be read as creating two distinct programs that function differently.
  - The relevant sections establish two different approaches.
    - Professor Dan Farber recently detailed the differences between CAA section 111(d) and section 165 in [a side-by side comparison](#). The comparison chart is also attached as Appendix A.
    - The definition of BACT states that the emission limitation should be set “on a case-by-case basis.”
    - Section 111 describes a scheme that relies on BSER set at the federal level for a category of sources with state implementation and enforcement.
  - EPA was eager to assert that all previous 111(d) rules limited BSER to “inside the fenceline” measures, but fails to cite precedent in those previous rules for its permitting program approach to 111(d).
- EPA’s interpretation seeks to erase the distinctions between the sections without explaining why Congress would so clearly establish a permitting program for individual sources in one section of the Act – section 165 – and then establish, as EPA argues, a similar program in such an ambiguous manner, especially when the logic underlying the individual source approach of section 165 is clear and yet not all clearly pertinent to the category-wide application of section 111(d). Contrasting section 111(d) with section 165 complicates rather than clarifies the conclusion that both sections aimed to establish two different permitting programs.
- In the course of its argument in this section, EPA’s invokes its decision “not to exercise [its discretion]” with respect to the reduced utilization approach of the CPP. This seems to be at odds with its approach in the CPP repeal proposal to demonstrate that the CPP interpretation is impermissible under a plain meaning reading of the statute.

“Third, notwithstanding the relationship between BACT and BSER, we believe that measures ‘redefining the source’ should be excluded from consideration for purposes of CAA section 111(d).”

EPA explanation:

- EPA bolsters its argument that a prohibition on “redefining the source” should be part of how section 111(d) is implemented.
- EPA states that for existing sources, it makes even more sense to prohibit redefining the source.

- “We propose to recognize that the BSER analysis need not include options that would ‘fundamentally redefine the source,’ irrespective of the application of that policy under PSD. For purposes of ACE, therefore, we did not consider natural gas repowering (i.e., converting from a coal-fired boiler to a gas-fired turbine) or refueling (i.e., converting from a coal-fired boiler to a natural gas-fired boiler) as a system of emission reduction for coal-fired steam generating units.”<sup>53</sup>

“Fourth, the legislative history underlying CAA section 111 confirms that Congress intended this provision to be source oriented.”

EPA explanation:

- EPA appears to reinforce the legislative history support it relied on in the CPP repeal proposal.
- The Senate Committee Report on Senate Bill 4358 explained that “[t]he provisions for new source performance standards...are designed to insure [sic] that new stationary sources are designed, built, equipped, operated, and maintained so as to reduce emissions to a minimum.”<sup>54</sup>
  - EPA reads this section as proof of intent to limit section 111 to measures that can only be applied at the source.
- “The proposed interpretive scope of the BSER is reasonable because it focuses the BSER on the performance of the emitting unit itself, rather than the performance of the emitting unit and the transmission system to which it belongs. EPA’s area of expertise is control of emissions at the source. EPA is not the expert agency with regard to electricity management.”<sup>55</sup>
- EPA then makes arguments about the importance of reliability and resilience in the electric system, discussing the need for baseload coal generation, strain on system infrastructure, and system challenges that make it inappropriate to push for larger changes and reinforce the reasonableness of EPA’s interpretation of BSER.
- EPA echoes the argument it made earlier regarding recent and ongoing changes in the power sector. “For this reason, establishing a BSER on assumptions for generation by various sources that accounts for the continuation of these trends into the future would create reductions from ACE if the actual trends once again prove to be stronger than projected.”<sup>56</sup>

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<sup>53</sup> Id.

<sup>54</sup> Id., quoting from S. Committee Rep. to accompany S. 4358 (Sept. 17, 1970), 1970 CAA Legis. Hist. at 415–16.

<sup>55</sup> Id. at 44753.

<sup>56</sup> Id. at 44754.

- EPA also argues that potential volatility in natural gas prices would raise the cost of a rule that assumes fuel switching from coal to natural gas.<sup>57</sup> This is meant to support the idea that switching to natural gas would have unpredictable results, yet EPA stated early in the preamble that, “The price of natural gas is expected to remain low for the foreseeable future as improvements in drilling technologies and techniques continue to reduce the cost of extraction.”<sup>58</sup>

Vulnerabilities:

- Language from 1970 discussing how the Act was designed does not seem persuasive in light of other sections of the Act that were designed to ensure the agency kept pace with technology in its regulations.
  - The close textual analysis of language in the legislative history to constrain interpretations of the statute today should be balanced with the broader spirit of the CAA and its approach of controlling emissions in accordance with the most up-to-date technology.
- With regard to FERC, EPA has a role in EGU regulation that could be seen as analogous to the division of authority between NHTSA and EPA in the CAFE process. There, EPA sets standards for emissions based on public health and the environment and NHTSA sets fuel economy standards based on energy conservation. Here, EPA can set BSER for CO<sub>2</sub> for existing EGUs which requires states to take into account the overall operations of the electricity sector in their states while FERC continues to regulate other aspects of the system like the wholesale market.
- The reliability and resilience arguments are not strong, especially given FERC’s decision earlier this year to decline a rulemaking on resilience at the behest of the Department of Energy.
  - The CPP included provisions addressing reliability and provided reliability analysis as well while basing BSER on grid-level measures.
  - Recent analysis suggests that concerns about reliability are not well-founded because as many as 40 states have already met, or are on track to meet, their CPP targets.

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<sup>57</sup> “From 2005 to 2008, gas prices experienced several unexpected peaks that were not anticipated. If this were to happen in the future, it would make any rule based on CPP-type assumptions significantly more expensive.” *Id.*

<sup>58</sup> *Id.* at 44750.

## EPA's discussion of other systems of GHG emission reductions:

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EPA ultimately did not include the following systems in the BSER and explains why it made those decisions. Yet, "EPA acknowledges that there may be other methods and technologies suitable for adoption at some specific sources, but states and sources are best suited to determine if those alternative measures and technologies are appropriate and/or allowable compliance measures."<sup>59</sup> It seems that EPA is leaving the door open for states to determine that measures beyond the HRI candidate technologies it identifies as BSER are appropriate as standards of performance in their plans.

### Carbon Capture and Storage (CCS)

- "EPA has previously determined that CCS (or partial CCS) should not be a part of the BSER for existing fossil fuel-fired EGUs because it was significantly more expensive than alternative options for reducing emissions and may not be a viable option for many individual facilities."<sup>60</sup>
- "...EPA must balance innovative technologies against their economic, energy, non-air health and environmental impacts."<sup>61</sup>
- "Similarly, EPA considered whether CCS or partial CCS should be the BSER for natural gas-fired stationary combustion turbines and have determined that, currently, the technology is exorbitantly expensive, has not been adequately demonstrated, and would not be available for a large number of existing sources."<sup>62</sup>

### Fuel Co-Firing

- "EPA has previously determined that co-firing of alternative fuels (biomass or natural gas) in coal-fired utility boilers is not part of BSER for existing fossil fuel-fired sources due to cost and feasibility considerations."<sup>63</sup>

### Natural Gas Co-Firing

- EPA admits that "[d]uring periods of natural gas co-firing, an EGU's CO<sub>2</sub> emission rate is reduced as natural gas is a less carbon intensive fuel than coal."<sup>64</sup>
  - "On the other hand, co-firing can negatively impact a unit's efficiency due to the high hydrogen content of natural gas and the resulting production of water as a combustion by-product. And...some boilers may be forced to de-rate (a reduction in generating capacity) in order to maintain steam temperatures at or within design limits, or for other technical reasons."<sup>65</sup>
- EPA eliminates natural gas co-firing on the basis of energy efficiency.

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<sup>59</sup> Id. at 44761.

<sup>60</sup> Id.

<sup>61</sup> Id. at 44762.

<sup>62</sup> Id.

<sup>63</sup> Id.

<sup>64</sup> Id.

<sup>65</sup> Id.

- “In evaluating BSER technology options, CAA section 111(a)(1) directs EPA to take into account non-air quality health and environmental impacts, and energy requirements...EPA notes that co-firing natural gas in coal-fired utility boilers is not the best, most efficient use of natural gas and, as noted above, can lead to inefficient operation of utility boilers.”<sup>66</sup>
- “[I]t would not be an environmentally positive outcome for utilities and owner/operators to redirect natural gas from the more efficient NGCC EGUs to the less efficient coal-fired EGUs in order to satisfy an emission standard at the coal-fired unit.”<sup>67</sup>
- EPA also points to the difficulty of access to natural gas at coal plants as another reason to eliminate co-firing from consideration.
  - “Moreover...delivery of natural gas via pipeline is essential for using natural gas at coal-fired EGUs. Many existing coal-fired plants, however, do not have access to natural gas transportation infrastructure and gaining access would be either infeasible (due to technical or timing considerations) or unreasonably costly.”<sup>68</sup>

### Co-Firing Biomass

- “The infrastructure, proximity and cost aspects of co-firing biomass at existing coal EGUs are similar in nature and concept to those of natural gas.”<sup>69</sup>
- “...biomass co-firing is more expensive and/or less achievable than the measures determined to be part of the BSER. As such, EPA is not proposing that the use of biomass fuels is part of the BSER because too few individual sources will be able to employ that measure in a cost-reasonable manner.”<sup>70</sup>

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<sup>66</sup> Id.

<sup>67</sup> Id.

<sup>68</sup> Id.

<sup>69</sup> Id.

<sup>70</sup> Id.

## Appendix A

Side by Side Comparison of CAA section 111(d) and section 165, from [Legal Planet](#):

	<b>Section 111(d)</b>	<b>Section 165</b>
<b><i>Purpose</i></b>	Prevent harmful emissions	Protect areas with excellent air quality
<b><i>Date</i></b>	1970	1977
<b><i>Pollution control requirement</i></b>	Best system of emissions reduction	Best available control technology
<b><i>Applies to</i></b>	Existing facilities only	New facilities or rebuilt facilities
<b><i>Scale of regulated facility</i></b>	All, from smallest to largest	Only “major” facilities
<b><i>Role of state government</i></b>	Create statewide plan	Issue permit for individual plant
<b><i>EPA role if it rejects state’s action</i></b>	Create federal statewide plan	Deny permit