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**Re: Docket No. EPA–HQ–OAR–2025–0124**

Dear Ms. Thompson:

On behalf of the Competitive Enterprise Institute (CEI), we respectfully submit these comments on the Environmental Protection Agency’s (EPA’s) proposal<sup>1</sup> (hereafter, “Proposed Rule”) to repeal the Biden administration EPA’s greenhouse gas (GHG) emission standards for fossil fuel powerplants,<sup>2</sup> commonly referred to as “carbon pollution standards” (CPS).

CEI strongly supports the Proposed Rule—both the “primary proposal” and the “alternative proposal.” Our comments support and strengthen both proposals, which, although complementary rather than mutually exclusive, are severable. Neither proposal is dependent on the other and each one stands on its own legal merits.

## **I. Statutory, Legislative, and Litigation Background**

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<sup>1</sup> EPA, Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units; Proposed Rule; 90 FR 25752, June 17, 2025, <https://www.govinfo.gov/content/pkg/FR-2025-06-17/pdf/2025-10991.pdf>.

<sup>2</sup> EPA, New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule; Final Rule; 89 FR 39798, May 9, 2024, <https://www.govinfo.gov/content/pkg/FR-2024-05-09/pdf/2024-09233.pdf>.

*Note: We begin these comments by reviewing some key legal and policy debates over federal regulation of powerplant GHG emissions since 2009. Our aim is to help clarify the significance of the EPA's proposed action for general readers who may be new to these issues. Although this background may be well known to EPA staff, it may help them discern more clearly the patterns of regulatory overreach they now seek to uproot.*

Section 111(b) of the Clean Air Act (CAA) requires the EPA to list categories of stationary sources that “cause or contribute significantly” to “air pollution which may reasonably be anticipated to endanger public health or welfare” (hereafter, “dangerous air pollution”), and to establish emission performance standards for “new” (i.e. future) sources in those categories. Such standards are called new source performance standards (NSPS).

CAA § 111(d) requires the EPA, subject to certain exceptions, to prescribe regulations (called “guidelines”) under which each state must submit a plan to establish performance standards for “existing” (i.e. already built) sources in categories the EPA regulates under CAA § 111(b). Such state standards are called existing source performance standards (ESPS).

CAA § 111 performance standards, whether for new or existing sources, are to reflect “the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.”<sup>3</sup> For a best system of emission reduction (BSER) to be “adequately demonstrated,” the standards based upon it must be “achievable” taking “cost” and the other factors into account.

All CAA § 111 rules apply to stationary sources. CAA § 111(a) defines “stationary source” as “any building, structure, facility, or installation which emits or may emit any air pollutant.”

When campaigning for the White House in February 2008, candidate Barrack Obama told the *San Francisco Chronicle* editorial board that “under my plan of a cap-and-trade system, electricity rates would necessarily skyrocket.” He explained: “Because I’m capping greenhouse gases, coal powerplants, natural gas ... you name it, whatever the plants were, whatever the industry was, they would have to retrofit their operations. That will cost money. They will pass that money on to consumers.”<sup>4</sup> Obama further stated: “Whatever powerplants are being built, they would have to meet the rigors of that market and the ratcheted down caps that are placed

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<sup>3</sup> CAA § 111(a)(1).

<sup>4</sup> Rep. Darryl Issa, “Under my plan electricity rates would necessarily skyrocket.” YouTube.com, <https://www.youtube.com/watch?v=-NKzVvKIoLI> (accessed 8/3/2025).

on ... imposed every year. So, if someone wants to build a coal powerplant they can, it's just that it will bankrupt them because they're going to be charged a huge sum for all that greenhouse gas that's being emitted.”<sup>5</sup>

The Obama administration championed cap-and-trade legislation during the 111<sup>th</sup> Congress, notably H.R. 2454, the American Clean Energy and Security Act, sponsored by Reps. Henry Waxman (D-CA) and Ed Markey (D-MA).<sup>6</sup> The bill narrowly passed in the House in June 2009,<sup>7</sup> but then quickly became unpopular when exposed as a stealth tax on energy.<sup>8</sup>

President Obama held a press conference the day after House Democrats lost their majority in the 2010 mid-term elections—a defeat in no small part due to their embrace of cap-and-trade.<sup>9</sup> Asked how the election results would affect the prospects for climate policy, Obama remarked that cap-and-trade was “just one way of skinning the cat.” He vowed to find “other means” to address climate change.<sup>10</sup>

In his January 2011 State of the Union Address, President Obama proposed a “national clean energy standard,” whereby 80 percent of US power would come from “clean” sources by 2035.<sup>11</sup> In March 2012, Senate Energy and Natural Resources Committee Chairman Jeff Bingaman (D-NM) introduced a Clean Energy Standard bill based on Obama’s proposal. The bill would mandate a nationwide transition to 95 percent zero-emission electricity by 2050.<sup>12</sup> Bingaman held a hearing on the bill but declined to schedule a committee vote on it.

Seeing no legislative path for national climate policy, President Obama turned to administrative action. In April 2012, the EPA proposed, under CAA § 111(b), to determine that natural gas combined cycle (NGCC) is the best system of emission reduction for new fossil-fuel power plants. Based on that BSER determination, the EPA proposed a performance standard of 1,000

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<sup>5</sup> Erik Soderstrom, “Obama: If you want to build a coal powerplant, I will bankrupt you.” YouTube, <https://www.youtube.com/watch?v=fVW9g9JVCY4> (accessed 8/3/2025).

<sup>6</sup> Text available at <https://www.govinfo.gov/content/pkg/BILLS-111hr2454pcs/pdf/BILLS-111hr2454pcs.pdf>.

<sup>7</sup> Legislative history available at <https://www.congress.gov/bill/111th-congress/house-bill/2454/all-actions>.

<sup>8</sup> John M. Broder, “Cap and Trade Loses Its Standing as Energy Policy of Choice,” *New York Times*, March 25, 2010, <https://www.nytimes.com/2010/03/26/science/earth/26climate.html>, quoting CEI’s Myron Ebell: “We turned it into ‘cap and tax,’ and we turned that into an epithet.”

<sup>9</sup> Patrick Michaels, “IPCC Political Suicide Pill,” *National Review*, September 26, 2013, <https://www.nationalreview.com/2013/09/ipcc-political-suicide-pill-patrick-j-michaels/> (accessed 8/3/2025).

<sup>10</sup> Press Conference by the President, November 3, 2010, <https://obamawhitehouse.archives.gov/the-press-office/2010/11/03/press-conference-president> (accessed 8/3/2025).

<sup>11</sup> Obama’s State of the Union Transcript 2011, Politico, January 25, 2011, <https://www.politico.com/story/2011/01/obamas-state-of-the-union-transcript-2011-full-text-048181> (accessed 8/3/2025).

<sup>12</sup> EIA, Clean Energy Standard Act of 2012, <https://www.congress.gov/bill/> (accessed 8/3/2025).

lbs. CO<sub>2</sub>/MWh for new coal power plants, even though state-of-the-art ultra-critical pulverized coal powerplants were then emitting about 1,800 lbs. CO<sub>2</sub>/MWh.<sup>13</sup> The 2012 NSPS proposal was to become the first in a series of Obama and Biden administration initiatives calculated to kill off coal generation by imposing infeasible or unreasonably costly emission standards.

Granted, under the 2012 proposal, new coal plants would not have to meet the standard immediately. Rather, they would have to achieve an “average” emission rate of 1,000 lbs. CO<sub>2</sub>/MWh during the 30-year period after construction.<sup>14</sup> However, the requisite average emission rate could not be achieved unless at some point during the 30-year compliance period new coal plants limited their emissions to well below the NGCC-based standard.

Whether due to the blatant risks it posed to coal power plants or its downright weirdness, the proposed new source powerplant rule was never finalized. Performance standards are supposed to reflect the best “system of emission reduction.” But NGCC is not a system of emission reduction. It is a type of power plant. Or, if it is a system of emission reduction, it is only so for certain categories of gas-fired generation.

Claiming NGCC is the BSER for coal power plants is no more reasonable than claiming zero-emission hydropower is the BSER for NGCC. The 2012 proposal was the first time the EPA ever proposed a performance standard that one type of source could meet only by being a different type of source.

Besides, the shale revolution was already making new gas generation cheaper than new coal, so the Obama administration’s focus shifted to phasing out America’s existing coal fleet. In January 2014, the EPA proposed another new source rule for coal powerplants<sup>15</sup> but chiefly because CAA § 111 does not allow the agency to finalize an existing source rule without first (or simultaneously) finalizing a new source rule.

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<sup>13</sup> EPA, Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units; Proposed Rule, 77 FR 22392, 22394, 22417, April 13, 2012, <https://www.govinfo.gov/content/pkg/FR-2012-04-13/pdf/2012-7820.pdf>.

<sup>14</sup> 77 FR 22392, 22418-22419.

<sup>15</sup> EPA, Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units; Proposed Rule, 79 FR 1433, January 8, 2014, <https://www.govinfo.gov/content/pkg/FR-2014-01-08/pdf/2013-28668.pdf>.

That existing source rule was, of course, the October 2015 Clean Power Plan (CPP)<sup>16</sup>—President Obama’s marquee domestic climate policy<sup>17</sup> and regulatory centerpiece of his Paris climate treaty emission-reduction pledge.<sup>18</sup>

Unlike any previously adopted CAA § 111 rules,<sup>19</sup> the CPP set emission performance standards no individual source could meet by applying affordable facility-specific technologies. The CPP standard for existing coal powerplants—even those decades old—was 1,305 lbs. CO<sub>2</sub>/MWh. That is beyond the capability of new super critical coal, then estimated by the agency at 1,720 lbs. CO<sub>2</sub>/MWh. Similarly, the CPP standard for existing NGCC units (771 lbs. CO<sub>2</sub>/MWh) was 14 percent lower than the average rate of new units (895 lbs. CO<sub>2</sub>/MWh).<sup>20</sup>

To comply with the CPP, the owner or operator of a coal power plant had to average the emission rate of his facility with the rates of lower- or non-emitting generators to which he cedes output and market share. For example, a utility with coal generating units could purchase power from gas or renewable generators, invest in new gas or renewable generation, buy emission credits in a cap-and-trade scheme, reduce the facility’s hours of operation, or (by implication) simply shut it down.<sup>21</sup>

CPP “performance standards” were in fact non-performance mandates. The CPP purported to define such “generation shifting”—from coal to gas and from both to renewables—as BSER for fossil-fuel powerplants.<sup>22</sup>

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<sup>16</sup> EPA, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule, 80 FR 64662, October 23, 2015, <https://www.gpo.gov/fdsys/pkg/FR-2015-10-23/pdf/2015-22842.pdf>.

<sup>17</sup> EPA, FACT SHEET: Overview of the Clean Power Plan, <https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html> (accessed 8/3/2025).

<sup>18</sup> US Intended Nationally Determined Contribution, March 2015, <https://unfccc.int/sites/default/files/NDC/2022-06/U.S.A.%20First%20NDC%20Submission.pdf> (accessed 8/3/2025).

<sup>19</sup> As of 2015, the EPA had set 111(b) new source standards for 60 industrial source categories since 1971. The EPA had also promulgated 111(d) existing source guidelines for four pollutants from five source categories: fluoride emissions from phosphate fertilizer plants (March 1977), sulfuric acid mist emissions from sulfuric acid production plants (September 1977), fluoride emissions from primary aluminum plants (February 1979), total reduced sulfur from Kraft pulping mills (March 1979), and organic compounds from municipal solid waste landfills (March 1996). The BSER in every case was a specific technology, not an economic decision to decrease output or shut down.

<sup>20</sup> 80 FR 64662, 64667, 64594, 64618.

<sup>21</sup> 80 FR 64662, 64731-64732.

<sup>22</sup> 80 FR 64662, 64728-64729.

The Trump administration EPA’s July 2019 Affordable Clean Energy (ACE) Rule repealed and replaced the CPP.<sup>23</sup> ACE redefined BSER for coal plants as a set of affordable heat-rate efficiency improvements.<sup>24</sup>

ACE advanced two legal arguments. First, citing the agency’s consistent practice over four decades and the logic of a statute that defines “source” as an individual physical entity (a building, structure, facility, or installation, not an industrial sector or market process), ACE determined that BSER is limited to measures that can be applied by and at the individual facility. Consequently, the ACE Rule concluded, generation shifting—i.e. market transactions driven by regulatory requirements beyond the capabilities of individual facilities—is an unlawful BSER under the specific terms of CAA § 111.<sup>25</sup> Second, invoking the major questions doctrine, ACE determined that the CPP lacks clear congressional authorization for the costly, far-reaching, and controversial policy changes it purported to require.<sup>26</sup>

In 2021, the D.C. Circuit vacated the ACE Rule including its repeal of the CPP, because the Trump EPA asserted that its reading of CAA § 111 is “the only permissible interpretation of the scope of the EPA’s authority.”<sup>27</sup> A bizarre ruling—as if agencies must doubt themselves or argue inconclusively when interpreting the statutes they administer.<sup>28</sup> The Circuit Court missed the point. The CPP’s novel conception of “source” as the entire “North American grid”—a complex “machine”<sup>29</sup> in which individual powerplants are mere cogs, and which includes wind and solar stations that do not emit air pollutants—cannot be squared with CAA § 111’s definition of “stationary source.”

In June 2022, the Supreme Court reversed the Circuit Court’s decision.<sup>30</sup> Although the Supreme Court considered the ACE Rule’s facility-specific BSER argument “pertinent” to its analysis, it declined to “decide whether the statutory phrase ‘system of emission reduction’ refers *exclusively* to measures that improve the pollution performance of individual sources, such that all other actions are ineligible to qualify as the BSER.”<sup>31</sup>

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<sup>23</sup> EPA, Repeal of the Clean Power Plan; Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guidelines Implementing Regulations, 84 FR 32520, 32549, July 8, 2019, <https://www.govinfo.gov/content/pkg/FR-2019-07-08/pdf/2019-13507.pdf>.

<sup>24</sup> 84 FR 32520, 32532.

<sup>25</sup> 84 FR 32520, 32524.

<sup>26</sup> 84 FR 32520, 32529.

<sup>27</sup> 84 FR 32520, 32534.

<sup>28</sup> *American Lung Ass’n v. EPA*, 985 F.3d 914, 955 (D.C. Cir. 2021).

<sup>29</sup> 80 FR 64662, 64677, 64692, 64725-64726, 64739, 64740, 64768-64769.

<sup>30</sup> *West Virginia v. EPA*, 597 U.S. 697 (2022).

<sup>31</sup> *West Virginia v. EPA*, 597 U.S. 702 (2022).

Rather, the Court noted that it has been guided by “common sense as to the manner in which Congress [would have been] likely to delegate’ such power to the agency at issue.”<sup>32</sup> Applying the major questions doctrine, the Court held that the CPP is a plan to “substantially restructure the American energy market,” entailing a “transformative expansion” of the EPA’s regulatory authority, and that CAA § 111(d) does not come “close to the sort of clear authorization required” to “delegate authority of this breadth to regulate a fundamental sector of the economy.”<sup>33</sup>

The CPS Rule confronts Administrator Zeldin with a classic case of progressive policy double-down. The Rule establishes a 90-percent carbon capture and storage requirement and other non-performance mandates that will drive coal generation out of the nation’s electricity mix. Moreover, the Rule requires new natural gas baseload generation to install 90-percent carbon capture and storage by 2032, deterring investment in new NGCC.

Like the CPP, but even more aggressively (as explained below), the CPS purports to decide, without congressional authorization, the major question of whether coal and gas generation should be forced out of US electricity markets. The CPS is unlawful on major questions grounds and an eye-poke to the Supreme Court. We will return to *West Virginia* later, in our review of the alternative proposal. The EPA’s final rule should include a robust major questions doctrine critique of the CPS.

## II. Primary Proposal

The Proposed Rule summarizes its argument as follows:

In this action, the U.S. Environmental Protection Agency (EPA) is proposing to repeal all greenhouse gas (GHG) emissions standards for fossil fuel-fired power plants. The EPA is proposing that the Clean Air Act (CAA) requires it to make a finding that GHG emissions from fossil fuel-fired power plants contribute significantly to dangerous air pollution, as a predicate to regulating GHG emissions from those plants. The EPA is further proposing to make a finding that GHG emissions from fossil fuel-fired power plants do not contribute significantly to dangerous air pollution. The EPA is also proposing, as an alternative, to repeal a narrower set of requirements that includes the emission guidelines for existing fossil fuel-fired steam generating units, the carbon capture and sequestration/storage (CCS)-based standards for coal-fired steam generating units

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<sup>32</sup> *West Virginia v. EPA*, 597 U.S. 722-23 (quoting *Food and Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000)).

<sup>33</sup> *West Virginia v. EPA*, 142 S. Ct. 2587, 2616-2626 (2022) (Gorsuch, J. concurring).

undertaking a large modification, and the CCS-based standards for new base load stationary combustion turbines.<sup>34</sup>

In simplest terms, the primary proposal argues that GHG emissions from US powerplants do not “contribute significantly” to dangerous air pollution, hence are not subject to regulation under CAA § 111. Our comments on the primary proposal’s statutory argument support and strengthen it. If finalized, the primary proposal will not only repeal all GHG performance standards for power plants; it will also preclude the adoption of such standards in the future. We also provide complementary arguments, not specifically discussed in the Primary Proposal, supporting the conclusion that CAA § 111 does not lawfully apply to powerplant GHG emissions.

### **Primary Proposal’s Statutory Analysis**

#### **CAA § 111 requires a pollutant-specific significant contribution finding as a predicate for regulation.**

The Proposed Rule seeks comment on its interpretation that it is appropriate to regulate emissions of an air pollutant from a CAA § 111 source category only if those emissions contribute significantly to dangerous air pollution (**C—1, C—5**). In contrast, during the Obama and Biden administrations, the EPA held that regulation of any pollutant from a CAA § 111 source category is appropriate if the agency has a “rational basis” for doing so.<sup>35</sup>

The Obama-Biden interpretation holds that once the EPA has listed a source category under CAA § 111, it has made a judgment that the category contributes significantly to dangerous air pollution, hence no subsequent pollutant-specific significant contribution finding is required as a predicate for regulation.

That interpretation is, with all due respect, nonsensical. It would mean that the EPA may regulate any air pollutant from a CAA § 111 source category even if emissions of that pollutant do not contribute significantly to endangerment of public health and welfare.

The Obama-Biden interpretation clashes with regulatory history and even epistemological necessity. It is impossible to judge whether a source category contributes significantly to

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<sup>34</sup> 90 FR 25752.

<sup>35</sup> EPA, Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units; Final Rule, 80 FR 64510, 64529-64531, October 23, 2015, <https://www.govinfo.gov/content/pkg/FR-2015-10-23/pdf/2015-22837.pdf>.



dangerous air pollution without first analyzing the specific pollutants emitted by the category and their potential impacts on public health and welfare.

Interestingly, the first CAA § 111(b) rule for fossil-fuel steam electric generators, promulgated in 1971, does not even discuss the category's listing. Nor does it mention "endanger," "contribute significantly," or related words. Rather, it simply sets NSPS for coal powerplant emissions of particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), and nitrogen oxides (NO<sub>x</sub>).<sup>36</sup> But for the emission of those specific pollutants, there is no reason to suppose the EPA would have undertaken to regulate steam electric generators under CAA § 111(b).

The EPA's first NSPS rulemaking for natural gas combustion turbines further supports the Proposed Rule's interpretation. On October 3, 1977, the EPA added stationary gas turbines to the list of source categories that may contribute significantly to dangerous air pollution.<sup>37</sup> On the same day, the EPA proposed to establish NSPS for NO<sub>x</sub> and SO<sub>2</sub> emissions from the source category. However, the EPA specifically declined to propose NSPS for hydrocarbon (HC), carbon monoxide (CO), and PM emissions. The EPA explained that, even at peak operating load, combustion turbine HC and CO emissions are "relatively low," and PM emissions from the source category "are minimal."<sup>38</sup>

Clearly, in the EPA's view, what made combustion turbines a category contributing significantly to dangerous air pollution were the specific air pollutants it proposed to regulate, not all air pollutants, not even those (HC, CO, and PM) it regulates under other authorities or, as in the case of PM, under the same authority but from a different source category.

**GHG emissions from US electric generating units do not contribute significantly to dangerous air pollution.**

The Proposed Rule seeks comment on its proposed determination that GHG emissions from the EGU source category do not "contribute significantly" to dangerous air pollution under CAA § 111 (C-13). That determination is correct.

The EPA's 2015 NSPS Rule argued that it is appropriate to regulate any air pollutant emitted by a CAA § 111 source category if there is a "rational basis" for doing so. The rule purported to find

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<sup>36</sup> EPA, Part 60, Standards of Performance for New Stationary Sources, 36 FR 24876, 24878-24879, December 23, 1971, <https://www.govinfo.gov/features/digitized-federal-register-1970-1979>.

<sup>37</sup> EPA, Air Pollution Prevention and Control, Addition to the List of Categories of Stationary Sources, 42 FR 53657, October 3, 1977, <https://tile.loc.gov/storage-services/service/l1/fedreg/fr042/fr042191/fr042191.pdf>.

<sup>38</sup> EPA, Stationary Gas Turbines, Standards of Performance for New Stationary Sources, 42 FR 53782, 53783, October 3, 1977, <https://tile.loc.gov/storage-services/service/l1/fedreg/fr042/fr042191/fr042191.pdf>.

that basis in the fact that coal power plants emit almost one-third of US GHG emissions.<sup>39</sup> However “rational” that basis may seem at first blush, it is ultimately rational only if such emissions do in fact contribute significantly to endangerment. They do not.

The Proposed Rule properly examines the ordinary meaning of “significantly.” Citing Merriam-Webster’s dictionary, the EPA explains the term “significant[ ]” is defined as “having or likely to have influence or effect: important.” The EPA then goes on to explain “important” is similarly defined, in turn, as “marked by or indicative of significant worth or consequence: valuable in content or relationship.”<sup>40</sup> In other words, the contribution needs to be consequential—it must make a material difference.

The Obama administration EPA determined the significance of US powerplant GHG emissions from their quantity or percentage share of US or global GHG emissions. That is a rhetorical determination. The Proposed Rule correctly rejects “a purely quantitative measure of significance resting on the absolute volume of emissions from a source category.”<sup>41</sup>

If the EPA were merely expected to apply some threshold quantity or percentage, then Congress could have just set numbers in statute. Congress did not do so because it wanted the Administrator to use his judgement to determine whether specific pollutant emissions contribute significantly to dangerous air pollution.

Do GHG emissions from the US electric power sector make the associated “air pollution” more dangerous in a significant way? They do not.

Total elimination of US power sector emissions would avert 0.015°C of global warming by 2050.

<sup>42</sup> That is 7.3 times smaller than the standard deviation (0.11°C)<sup>43</sup> of the land/ocean surface temperature record. A temperature effect below the standard deviation is too small to be

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<sup>39</sup> 80 FR 64510, 64530.

<sup>40</sup> 90 FR 25752, 25765.

<sup>41</sup> 90 FR 25752, 25767.

<sup>42</sup> Brent Bennett, *The Materiality of U.S. CO<sub>2</sub> Emissions on Global Climate*, The Texas Public Policy Foundation, June, 2025, <https://www.texaspolicy.com/wp-content/uploads/2025/06/2025-06-LP-Materiality-of-US-CO2-Emissions.pdf>.

<sup>43</sup> . Hanson, R. Ruedy, J. Glascoe, and M. Sato, GISS analysis of surface temperature change, *Journal of Geophysical Research*, Vol. 104, No. 24, December 27, 1999, <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/1999JD900835>, cited by Benjamin Zycher, Comments on the EPA’s Proposed Rule: Repeal of Greenhouse Gas Emission Standards for Fossil Fuel-Fired Electric Generating Units, July 29, 2025, <https://www.aei.org/research-products/testimony/comment-to-the-us-environmental-protection-agency-on-the-repeal-of-greenhouse-gas-emissions-standards-for-fossil-fuel-fired-electric-generating-units/>.

detected or verified. The US power sector's contribution to global warming is, therefore, insignificant.

Note, further, it is not GHG emissions per se or even global warming per se that is hypothesized to endanger public health or welfare. Rather, the argument is that global warming induces changes in weather patterns that in turn induce changes in social and economic conditions that in turn induce changes in public health and welfare. But if the warming impact of US power sector emissions is undetectably small, even more so are the putative second, third, and fourth order effects of those emissions. Therefore, US power sector CO<sub>2</sub> emissions do not contribute significantly to dangerous air pollution.

In short, if emissions from a CAA § 111 source category have no detectable or verifiable impact on dangerous air pollution, such emissions cannot reasonably be said to contribute significantly to dangerous air pollution.

**Provisions not specifically discussed in the Proposed Rule reinforce the Primary Proposal's conclusion that powerplant GHG emissions are not subject to CAA § 111.**

The EPA seeks comment on the “textual requirements of CAA § 111(b), relevant context from the remainder of CAA section 111, and relevant structural arguments regarding the CAA more generally, including statutory provisions not specifically discussed in this proposal (C—6).”<sup>44</sup> CAA § 103(d) and the EPA's 1975 rule prescribing the process for states' adoption of CAA § 111(d) existing source performance standards provide auxiliary support for the primary proposal's conclusion that CAA § 111 does not authorize regulation of GHG emissions from US powerplants.

***CAA §103(g)***

The terms “greenhouse gas” and “greenhouse effect” appear nowhere in the text of the 1970 Clean Air Act, which also contains no title, section, or subsection on global warming or global climate change. The Supreme Court's implicit claim in *Massachusetts v. EPA* (2007) and explicit assertion in *American Electric Power v. Connecticut* (2011) that the 1970 Clean Air Act “speaks directly”<sup>45</sup> to the issue of CO<sub>2</sub> emissions and EPA regulation is unsupported by historical or statutory evidence.

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<sup>44</sup> 90 FR 25752, 25764, 25778 (C-6).

<sup>45</sup> *American Electric Power Co. v. Connecticut*, 564 U.S. 410 (2011).

The CAA did not address the issue of global climate change until the 1990 amendments, and then only obliquely. The CAA as amended mentions “carbon dioxide” — but only once, in §103(g), a provision authorizing EPA to develop “nonregulatory strategies and technologies” for reducing “multiple air pollutants ... from stationary sources, including fossil-fuel power plants.”

Lest anyone miss the drift, the word “nonregulatory” occurs six times. And lest anyone draw regulatory inferences from carbon dioxide’s inclusion in a list of “air pollutants,” the provision concludes: “Nothing in this subsection shall be construed to authorize the imposition on any person of air pollution control requirements.”

Similarly, the 1990 CAA mentions “global warming” only once, in another nonregulatory provision, CAA § 602(e), which requires the EPA to “publish”—i.e., estimate—the “global warming potential” of ozone-depleting substances. A similar admonition immediately follows: “The preceding sentence shall not be construed to be the basis of any additional regulation under this title [i.e., the CAA].”

Such caveats were necessary to clarify what powers the 1990 CAA Amendments did not grant to the EPA, because climate policy had been a bone of contention in Congress’s deliberations on the amendments.

S. 1630, the Senate version of the 1990 CAA Amendments, introduced in 1989, contained a provision (section 206) to establish CO<sub>2</sub> emission standards for new motor vehicles. The Senate Environment and Public Works Committee approved a bill called “The Stratospheric Ozone and Climate Protection Act,” envisioned as Title VII of the amended CAA. Title VII would have authorized EPA to regulate ozone-depleting substances based in part on their “global warming potential.” It would also establish CO<sub>2</sub> and methane emissions reduction as a national goal.<sup>46</sup>

The full Senate deleted the automobile CO<sub>2</sub> standards. House and Senate conferees subsequently discarded the other regulatory climate provisions. Instead of declaring a national goal to reduce CO<sub>2</sub> and methane emissions, the conference committee, chaired by Sen. John Dingell (D-MI), approved CAA § 103(g) and § 602(e). As noted, those provisions direct the EPA to develop climate policy options and policy-relevant information, but with clear instructions not to infer delegations of regulatory authority.<sup>47</sup>

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<sup>46</sup> Brief of Amicus Curiae of the Competitive Enterprise Institute, *West Virginia v. EPA*, Nos. 20-1530, 20-1531, 20-1778, 20-1780, December 17, 2021, pp. 4-5, <https://cei.org/wp-content/uploads/2022/06/West-Virginia-v.-EPA-CEI-amicus-ACE-Rule-filed-Dec.-17-2021.pdf>.

<sup>47</sup> John Dingell on Supreme Court regulation of CO<sub>2</sub>, YouTube, <https://www.youtube.com/watch?v=7TaWJ1N1m5E> (accessed 8/4/2025).

Congress did not ‘speak directly’ to the issue of powerplant CO<sub>2</sub> emissions until it enacted CAA § 103(g) in 1990. And what the provision clearly tells the EPA is: Do not regulate!

### ***EPA’s 1975 CAA 111(d) Implementation Rule***

The EPA’s November 1975 111(d) Implementing Rule<sup>48</sup> responds to CAA § 111(d)(1), which requires the EPA to “prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan” to establish performance standards for existing sources. The EPA proposed the draft Implementing Rule in October 1974, which means this rulemaking began within a few years of CAA § 111(d)’s enactment by the 91<sup>st</sup> Congress.

According to the Implementing Rule, one reason Congress enacted CAA § 111(d) is that some pollutants are “not emitted by ‘numerous or diverse’ sources as required by section 108.”<sup>49</sup> In other words, CAA section 108(a)(1)(b) limits NAAQS regulation to those pollutants whose presence in the ambient air “results from numerous or diverse mobile or stationary sources.”

Carbon dioxide is emitted by both numerous and diverse mobile and stationary sources. It is exactly the type of ubiquitous “air pollutant” Congress did not intend CAA § 111(d) to address.<sup>50</sup>

Putting the point somewhat differently, the Implementing Rule observes that CAA § 111(d) targets air pollutants with “highly localized” effects.<sup>51</sup> For such pollutants, proximity to the source—e.g., the fertilizer plant, the sulfuric acid production unit, the Kraft pulp mill, the primary aluminum plant, the municipal solid waste landfill—chiefly determines the associated health risks. In contrast, CO<sub>2</sub> emissions from power generation have no localized effects. Whatever impacts of CO<sub>2</sub> emissions may have on global average annual temperatures, or the latter may have on local weather patterns, the potential health and welfare risks are not affected by proximity to the source.

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<sup>48</sup> EPA, Final Procedures for Implementation of 111(d), November 17, 1975, 40 FR 53340, [https://archives.federalregister.gov/issue\\_slice/1975/11/17/53332-53349.pdf](https://archives.federalregister.gov/issue_slice/1975/11/17/53332-53349.pdf) (accessed 8/4/2025).

<sup>49</sup> 40 FR 53340.

<sup>50</sup> If we consider only the structural characteristics of NAAQS pollutants, i.e. their ubiquity due to the number and diversity of sources, CO<sub>2</sub> is the most NAAQS-like of all. Substantively, however, CO<sub>2</sub> is different from every other substance EPA regulates under the CAA. Carbon dioxide is non-toxic at many times ambient levels, is a natural constituent of clean air, improves plants’ water use efficiency, helps protect plant life from environmental stresses, boosts agricultural productivity, and is an essential building block of the planetary food chain. See Craig D. and Sherwood B. Idso, The Many Benefits of Atmospheric CO<sub>2</sub> Enrichment, Center for the Study of Carbon Dioxide and Global Change, February 2011, <http://www.co2science.org/education/book/2011/55benefitspressrelease.php>.

<sup>51</sup> 40 FR 53340, 53342.

Both structurally and substantively, CO<sub>2</sub> emissions and CAA § 111(d) are a complete mismatch. Regulating CO<sub>2</sub> emissions via CAA § 111(d) flouts the statutory scheme Congress created.

### III. Alternative Proposal

The EPA seeks comments on its numerous technical reasons for repealing CPS regulatory requirements. The most important of those reasons are the EPA's determinations that 90-percent carbon capture and storage (CCS), whether for existing coal baseload generation or new natural gas baseload generation, is not an adequately demonstrated BSER, has costs that are not reasonable, and is not achievable because 90-percent CCS depends on a far-flung system of CO<sub>2</sub> pipelines and storage facilities that is unlikely to be completed by the 2032 compliance deadline. Our familiarity with the long debate over CCS persuades us the Proposed Rule's BSER assessments are right on target.

#### **90-Percent CCS coal—Not adequately demonstrated**

The Proposed Rule seeks comment on its proposed conclusion that 90-percent CCS for existing baseload coal generation is not an adequately demonstrated system of emission reduction (**C—17**). We concur with the Proposed Rule's technical review. A historical perspective on CCS regulatory initiatives leads to the same conclusion.

The Obama EPA's track record in assessing CCS was dismal. In January 2014, the EPA proposed to determine that CCS was the adequately demonstrated BSER for new coal power plants, with an associated performance standard (emission limitation) of 1,100 lbs. CO<sub>2</sub>/MWh.<sup>52</sup> As evidence, the EPA cited a handful of projects, all subsidized, and none completed at the time. Critics warned the standard would halt investment in new coal generation, thereby undermining CCS deployment and innovation. One year and 10 months later, the final new source rule determined that "partial CCS" was adequately demonstrated and set a more lenient standard of 1,400 lbs. CO<sub>2</sub>/MWh.<sup>53</sup>

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<sup>52</sup> EPA, Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units, Proposed Rule, 79 FR 1430, 1433, January 8, 2014, <https://www.govinfo.gov/content/pkg/FR-2014-01-08/pdf/2013-28668.pdf>.

<sup>53</sup> 80 FR 64510, 64512.

Since then, despite billions in taxpayer support, not one of the U.S. flagship CCS projects touted in the 2014 proposed NSPS rule is producing commercial power and capturing CO<sub>2</sub> today. Mechanical problems, delays, cost overruns, and cancellations have been common problems.<sup>54</sup>

Petra Nova, cited in the EPA's October 2015 final NSPS rule,<sup>55</sup> is operational, although the COVID-19 pandemic shut it down for three years when low oil prices cratered demand for enhanced oil recovery (EOR) and, with it, demand for Petra Nova's compressed CO<sub>2</sub>.<sup>56</sup>

In fact, only one commercial CCS coal powerplant operates in North America—the Boundary Dam Project in Saskatchewan. The Proposed Rule seeks comment on its assessment that “the performance of the CO<sub>2</sub> capture system at Boundary Dam Unit 3 is not a sufficient basis for determining that 90 percent CCS is adequately demonstrated for coal-fired steam generating units (C–18). Although Boundary Dam Unit 3 has achieved 90 percent carbon capture, it has not done so on a consistent basis, which is what the CPS Rule requires.

In 2021, Boundary Dam had to shut down for weeks at a time to repair the carbon capture system. According to one report, the project's actual capture rate for that year was “less than 37 percent of the official 90 percent target.” After repairs were completed, the rate was 75-80 percent.<sup>57</sup> Note, too, that Boundary Dam 3 is a 115-megawatt unit providing power to 100,000 households.<sup>58</sup> Boundary Dam 3 is too limited a sample, and too small-scale a project, to draw firm conclusions about the cost and performance of CCS for powerplants large enough to power major metropolitan areas or locales with heavy industry or new data centers.

Here's the common sense of the subject. Emission control technology is generally more affordable when built into a new facility by design rather than retrofitted into an older unit nearing the end of its useful life. To mention only the most obvious point, a new unit has more years of service to recover its capital costs.

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<sup>54</sup> Steve Daniels, “FutureGen ‘clean coal’ plant is dead,” *Crain's Chicago Business*, February 3, 2015, <https://www.chicagobusiness.com/article/20150203/NEWS11/150209921/futuregen-clean-coal-plant-in-illinois-is-killed-by-obama-administration>; Kristi E. Swartz, “Southern Co.'s clean coal plant hits a dead end,” *E&E News*, June 22, 2017, <https://subscriber.politicopro.com/article/eenews/1060056418>.

<sup>55</sup> 80 FR 64510, 64551.

<sup>56</sup> Reuters, “Carbon capture project back at Texas coal plant after 3-year shutdown,” September 14, 2023, <https://www.reuters.com/business/energy/carbon-capture-project-back-texas-coal-plant-after-3-year-shutdown-2023-09-14/>.

<sup>57</sup> Karin Rives, “Only still-operating carbon capture plant battled technical issues in 2021,” *S&P Global*, January 6, 2022, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/only-still-operating-carbon-capture-project-battled-technical-issues-in-2021-68302671>.

<sup>58</sup> SaskPower, Boundary Dam Carbon Capture Project, <https://www.saskpower.com/our-power-future/infrastructure-projects/carbon-capture-and-storage/boundary-dam-carbon-capture-project> (accessed 8/4/2025).

For perspective, the BSER in the EPA’s 2015 CAA § 111(b) rule for new coal powerplants was “partial” CCS capturing 16-23 percent of the unit’s emissions.<sup>59</sup> The CPS Rule requires 90 percent CCS for existing coal powerplants. It is hard to believe that in a mere 10 years, retrofitting an aging coal plant to capture 90-percent of its CO<sub>2</sub> emissions has become cheaper than designing a new powerplant to capture 16-23 percent of its emissions.

### **90-Percent CCS gas—Not adequately demonstrated**

The EPA similarly seeks comment on its assessment that 90 percent CCS is not an adequately demonstrated system of emission reduction for base load stationary combustion turbine EGUs (C–34). That is a no-brainer. No utility scale natural gas CCS plant exists today. Only one small-scale facility was ever built: Florida Power & Light’s 40- megawatt CCS gas plant in Bellingham, Massachusetts.<sup>60</sup> When the unit closed in 2005, Bellingham had a population of 15,750.<sup>61</sup> A single, small, long-defunct natural gas CCS powerplant obviously provides no evidence that 90-percent CCS is an appropriate requirement for new gas generation in an era of data centers and rising electricity demand.<sup>62</sup>

### **CCS: Not achievable in all regions as required by *National Lime Association***

We turn now to a more fundamental problem. The Proposed Rule asks about the status and performance of CCS projects and technologies more generally, especially projects that inform the question of whether 90 percent CCS is adequately demonstrated (C–19).

NSPS are uniform, hence are intended to be achievable at reasonable cost by any new facility built anywhere in the United States. Accordingly, in *National Lime Association v. Environmental Protection Agency* (1980), the D.C. Circuit Court of Appeals held that NSPS must be “achievable” by the regulated “industry as a whole” under the “most adverse conditions” that may recur “anywhere in the country.”<sup>63</sup> An adequately demonstrated BSER, therefore, may not be geographically limited to certain regions or States.

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<sup>59</sup> 80 FR 64510, 64513.

<sup>60</sup> Power, Commercially Available CO<sub>2</sub> Capture Technology, August 1, 2009, <https://www.powermag.com/commercially-available-co2-capture-technology/>.

<sup>61</sup> Neilsberg, Bellingham, Population <https://www.neilsberg.com/insights/bellingham-ma-population-by-year/> (accessed 8/4/2025).

<sup>62</sup> Michael Copely, “U.S. electricity demand is set to explode. That will make it harder to cut climate pollution,” NPR, January 17, 2025, <https://www.npr.org/2025/01/16/nx-s1-5251454/electricity-demand-data-centers-climate-change-natural-gas-fossil-fuel>.

<sup>63</sup> *National Lime Association, Petitioner, v. Environmental Protection Agency and Douglas M. Costle, Administrator of Environmental Protection Agency*, 627 F.2d 416 (D.C. Cir. 1980).



The same reasoning applies to CPS's requirement that all long-term existing coal generation install 90-percent CCS. The requirement makes no sense if regional variations prevent its implementation.

CCS can significantly increase a power plant's water consumption. As one recent study observed:

- Carbon capture and storage involve large green and blue water consumption.
- Large-scale deployment of carbon capture and storage could double the water footprint of humanity.
- Trade-offs between climate mitigation benefits and water resources should be weighed.
- Carbon capture and storage should be prioritized in regions not affected by water scarcity.<sup>64</sup>

CCS's "nonair quality" environmental impacts on water consumption may render the technology unfit to serve as BSER for arid regions of the country.

A 90-percent CCS mandate is unworkable nationwide for an even more fundamental reason. A central feature in the business plans of almost every utility-scale commercial CCS powerplant ever built or proposed in North America is an arrangement to sell its captured CO<sub>2</sub> to companies engaged in enhanced oil recovery (EOR). Injecting CO<sub>2</sub> into older oil fields increases production by increasing field pressure while reducing the oil's viscosity. Thirty-eight states do not have EOR operations. That places a significant geographic constraint on the viability of CCS powerplants. Recall that Petra Nova shut down when the EOR market for its compressed CO<sub>2</sub> collapsed.

The Trump EPA's ACE Rule describes this problem in detail:

In addition, nearby EOR opportunities are not available for many EGUs, which, as a result, would incur higher costs for constructing and operating pipelines to transport CO<sub>2</sub> long distances. Throughout the country, 29 states are identified as having oil reservoirs amenable to EOR, of which only 12 states have active EOR operations. The vast majority of EOR is conducted in oil reservoirs in the Permian Basin, which extends through southwest Texas and southeast New Mexico. States where EOR is utilized include Alabama, Arkansas, Colorado, Louisiana, Michigan, Mississippi, Montana, New Mexico, Oklahoma, Texas, Utah, and Wyoming, whereas coal-fired generation capacity is located across the country. For example, Georgia, Minnesota, Missouri, Nevada, North Carolina, South Carolina, and Wisconsin have coal-fired generation capacity but do not have oil reservoirs that have been identified as amenable for EOR. In addition, some of the states with the largest amounts of coal-fired generation capacity have no active EOR

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<sup>64</sup> Lorenzo Rosa et al., The water footprint of carbon capture and storage technologies, *Renewable and Sustainable Energy Reviews*, 1-40, 2021, <https://www.sciencedirect.com/science/article/abs/pii/S1364032120307978>.

operations, including Illinois, Indiana, Kentucky, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. Even in states that are identified as having potential oil and gas storage capacity, the amount of storage resource varies by state. In some states, the total oil and gas storage resource is smaller than the annual energy-related CO<sub>2</sub> emissions from coal, including Indiana and Virginia.

The ACE Rule concludes: “The limited geographic availability of EOR, and the consequent high costs of CCS for much of the coal fleet, by itself means that CCS cannot be considered to be available across the existing coal fleet.”<sup>65</sup> Similar geographic mismatches between CCS powerplants and EOR markets could also preclude 90-percent CCS from being an adequately demonstrated BSER for new combustion turbines.

### **CCS may increase net CO<sub>2</sub> emissions.**

The Proposed Rule seeks comment on its proposed conclusion that 90-percent CCS is not an adequately demonstrated BSER (C—17). We concur. In fact, it is not clear that CCS in practice is a bona fide system of emission reduction, much less the adequately demonstrated best system. That is because some evidence suggests CCS in commercial practice increases CO<sub>2</sub> emissions on a lifecycle basis.

As indicated, the business plans of most CCS projects envision a partnership between the power plant and industrial consumers of its captured CO<sub>2</sub>, typically the EOR industry. Examples include Future Gen, Petra Nova, and Boundary Dam 3—CCS projects cited by the EPA’s BSER determinations during the Obama and Biden administrations. However, National Energy Technology Laboratory (NETL) data indicate that CCS + EOR leads to a net increase in emissions compared to a conventional coal powerplant.

In a 2011 report, NETL estimated that injecting 20 billion tons of CO<sub>2</sub> underground for EOR would increase U.S. oil production by 67 billion barrels.<sup>66</sup> According to EPA emissions data, combusting one barrel of oil emits, on average, 0.43 metric tons of CO<sub>2</sub>.<sup>67</sup> Plugging that conversion factor into NETL’s analysis, injection of 20 billion metric tons of CO<sub>2</sub> produces 67

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<sup>65</sup> EPA, Repeal of the Clean Power Plan; Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guidelines Implementing Regulations, 84 FR 32520, 32549, July 8, 2019, <https://www.govinfo.gov/content/pkg/FR-2019-07-08/pdf/2019-13507.pdf>.

<sup>66</sup> NETL, *Improving Domestic Energy Security and Lowering CO<sub>2</sub> Emissions with “Next Generation” CO<sub>2</sub>-Enhanced Oil Recovery (CO<sub>2</sub>-EOR)*, June 20, 2011, [https://www.netl.doe.gov/sites/default/files/netl-file/NextGen\\_CO2\\_EOR\\_06142011.pdf](https://www.netl.doe.gov/sites/default/files/netl-file/NextGen_CO2_EOR_06142011.pdf).

<sup>67</sup> EPA, Greenhouse Gas Equivalencies Calculator—Calculations and References, <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references>.

billion barrels of oil that, when combusted, emit 28.81 billion metric tons of CO<sub>2</sub>. In other words, CCS + EOR emits 1.41 tons of CO<sub>2</sub> for every ton injected underground.

In another report, NETL summarizes a Montana Tech University study of a potential CCS-EOR operation, which found that CO<sub>2</sub> flooding of Montana's Elm Coulee and Cedar Creek oil fields could result in the recovery of 666 million barrels of incremental oil and the storage of 109 million metric tons of CO<sub>2</sub>.<sup>68</sup> All the CO<sub>2</sub> would be supplied by a nearby coal power plant, equivalent to 7 years of the plant's emissions. That implies an even bigger net increase in emissions than NETL's 2011 report indicates—about 2.6 tons of CO<sub>2</sub> emitted for every ton stored underground.

We recognize that the CPS Rule determines compliance with its standards “exclusively by the tons of CO<sub>2</sub> captured by the emitting EGU,” and that tons “sequestered by the geologic sequestration site are not part of that calculation.”<sup>69</sup> Moreover, “CCS as the BSER ... is determined to be adequately demonstrated based solely on geologic sequestration that is not associated with EOR.”<sup>70</sup>

But that makes the CPS BSER determination even more problematic. Denying BSER status to CCS + EOR powerplants would significantly impair their revenues and profitability. On the other hand, allowing CCS powerplants to partner with EOR projects would undermine the CPS Rule as an emission reduction program. The Rule does not provide a clear resolution to this conundrum.

Indeed, the CPS Rule is incoherent. It cites CCS + EOR powerplants to determine that CCS is the adequately demonstrated BSER. But then it denies BSER status to those very same powerplants.

#### **45Q tax credits are costs.**

The Proposed Rule seeks comment on its proposed conclusion that the CPS unreasonably views IRC section 45Q tax credits as reducing CCS costs in the context of the BSER analysis (**C—21**).

The so-called Inflation Reduction Act expanded the IRC section 45Q tax credit for CCS powerplants from \$50/metric ton to \$85/metric ton. The proposed CPS Rule estimated that the tax credit exceeds the per-ton cost of installing and operating CCS. If a CCS powerplant has a 70

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<sup>68</sup> NETL, *Carbon Dioxide Enhanced Oil Recovery: Untapped Domestic Energy Supply and Long Term Carbon Storage Solution*, March 2010, p. 18, [https://www.netl.doe.gov/sites/default/files/netl-file/co2\\_eor\\_primer.pdf](https://www.netl.doe.gov/sites/default/files/netl-file/co2_eor_primer.pdf).

<sup>69</sup> EPA, New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy, Proposed Rule, 88 FR 33240, 33328, May 23, 2023, <https://www.govinfo.gov/content/pkg/FR-2023-05-23/pdf/2023-10141.pdf>; 89 FR 39798, 39951.

<sup>70</sup> 89 FR 39798, 39951.

percent annual capacity factor, the unit's costs are estimated to be a negative \$8 per ton of CO<sub>2</sub> reduced.<sup>71</sup>

However, the CPS Rule's reliance on subsidies undermines the validity of its BSER determination. How can an emission control technology be "adequately demonstrated" if it is not financially viable absent permanent taxpayer subsidies? The very need to increase subsidies that to date have failed to make less stringent CCS requirements financially bearable strongly suggests the technology is not adequately demonstrated.

The proposed CPS Rule argues that the section 45Q tax credit should weigh in favor of determining CCS to be adequately demonstrated "because it reduces the cost of the controls to the source, which has a significant effect on the actual cost of installing and operating CCS."<sup>72</sup> The proposed CPS Rule further claims CAA § 111(a) "makes clear that the cost that the EPA must take into account is the cost to the affected source of the system of emission reduction."<sup>73</sup> That is incorrect.

CAA § 111(a) requires the EPA to take account of three factors: "[1] the cost of achieving such reduction and [2] any nonair quality health and environmental impact and [3] energy requirements." The plain language of Factor 1 does not limit "cost" to expenses borne by the source. The term "cost" is not modified by "compliance" or "to the regulated facility." Rather, "cost" is broad in scope. Factor 1 is the "cost of achieving such reduction," which includes all associated costs.

The CPS fails to meet the cost analysis requirements of CAA §111(a) by ignoring the cost of the massive subsidies, without which "such reduction" would not be achieved.

If the agency may ignore all costs except compliance costs, absurd consequences ensue. If taxpayer (or ratepayer) subsidies are not costs under CAA § 111(a), then in principle the entire GDP could be deployed to finance a system of emission reduction, and it would still pass muster as BSER because the regulated entities pay nothing (or make out like bandits). There is no warrant in §111(a) to disregard costs to taxpayers, ratepayers, and other non-regulated parties.

Consider also that if the three factors were limited to the source, the provision would make no sense. Factor 2's examination of nonair quality health and environmental impacts inherently requires looking at issues beyond the sources, as does Factor 3's examination of energy requirements, such as impacts on the grid. Given that Factors 2 and 3 clearly require looking

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<sup>71</sup> 88 FR 33240, 33348.

<sup>72</sup> 88 FR 33240, 33300.

<sup>73</sup> 88 FR 33240, 33273.

beyond the individual source, it would be arbitrary and capricious to interpret Factor 1 as being unlike the others.<sup>74</sup>

The proposed CPS Rule also acknowledged that the cost standard, as interpreted by the D.C. Circuit Court of Appeals, precludes a cost that would be “greater than the industry could bear and survive.”<sup>75</sup> That, too, involves a broader perspective than the impact on an individual source.

Further, if the subsidies cease to exist or do not remain as generous (a genuine possibility), then the CPS Rule’s reliance on them to justify CCS becomes even more problematic. At that point, there could be little or no cost reprieve for regulated parties required to apply technology that has not been financially viable to date even with subsidies.

### **Unachievable Infrastructure Deadlines**

The Proposed Rule seeks comment on its proposed determination that 90-percent CCS for existing coal and new gas combustion turbines is not achievable because the requisite CCS infrastructure cannot be deployed by the January 1, 2032, compliance deadline (**C—23, C—39**). We concur. A Website called Climate Change Academy offers this sober assessment:

Development of this infrastructure faces chicken-and-egg problems: Without enough CCS projects, building extensive CO<sub>2</sub> pipelines is economically risky; without pipeline infrastructure, individual CCS projects face higher costs and complexity. This coordination challenge has slowed CCS deployment worldwide.

For context, the United States currently has approximately 5,000 miles of CO<sub>2</sub> pipelines, primarily serving enhanced oil recovery operations. Experts estimate that a comprehensive CCS system would require expanding this network by 10-20 times, representing an investment of hundreds of billions of dollars and decades of construction.<sup>76</sup>

### **Unlawful generation shifting—again**

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<sup>74</sup> It would be inconsistent with the canon of *Ejusdem Generis*. See, e.g., *Ejusdem Generis*, *The Law Dictionary*, <https://thelawdictionary.org/ejusdem-generis/>.

<sup>75</sup> 88 FR 33240, 33273.

<sup>76</sup> Climate Change Academy, *Limitations of CCS Technology: Challenges and Risks*, January 26, 2025, <https://climatechange.academy/mitigation-adaptation-to-climate-change/limitations-ccs-technology-challenges-risks/> (accessed 8/5/2025).

Under the CPS Rule, a coal power plant that commits to shut down before January 1, 2039, must co-fire with 40-percent natural gas by January 1, 2030.<sup>77</sup> The Proposed Rule asks if that requirement constitutes impermissible generation shifting under *West Virginia v. EPA* (C-28). It is hard to imagine how a 40-percent natural gas co-firing mandate is not unlawful generation shifting under *West Virginia*. However, the Proposed Rule seems to miss the bigger picture. The entire CPS program constitutes impermissible generation shifting.

Compare the CPS to the CPP, which the Supreme Court vacated in *West Virginia v. EPA*. The CPP projected a reduction in coal generation market share from 38 percent in 2014 to 27 percent in 2030. The Court deemed that impermissible generation shifting.<sup>78</sup> The CPS projects an 89 percent reduction in power sector coal use in 2045, relative to the current policy baseline.<sup>79</sup>

**Table 3-8 2028, 2030, 2035, 2040 and 2045 Projected U.S. Power Sector Coal Use for the Baseline and the Illustrative Scenarios**

		Million Tons				Percent Change from Baseline		
	Year	Baseline	Final	Alt. 1	Alt. 2	Final	Alt. 1	Alt. 2
Appalachia	2028	40	37	36	37	-7%	-8%	-7%
Interior		38	35	36	36	-7%	-5%	-4%
Waste Coal		7	7	7	7	0%	0%	0%
West		166	155	156	156	-7%	-6%	-6%
Total		251	234	235	237	-7%	-6%	-6%
Appalachia	2030	39	39	39	39	0%	1%	0%
Interior		35	36	36	34	1%	2%	-2%
Waste Coal		7	7	7	7	0%	0%	0%
West		141	113	113	133	-20%	-20%	-6%
Total		222	194	195	214	-13%	-12%	-4%
Appalachia	2035	32	19	19	19	-40%	-40%	-40%
Interior		19	25	25	25	30%	30%	30%
Waste Coal		7	3	3	3	-53%	-53%	-53%
West		89	63	63	67	-29%	-29%	-25%
Total		147	111	111	114	-25%	-25%	-22%
Appalachia	2040	19	19	19	19	1%	1%	0%
Interior		10	25	25	25	150%	150%	150%
Waste Coal		3	3	3	3	0%	0%	0%
West		61	56	56	59	-8%	-8%	-3%
Total		93	103	103	106	11%	11%	14%
Appalachia	2045	4	0	0	0	-100%	-100%	-100%
Interior		1	0	0	0	-100%	-100%	-85%
Waste Coal		3	0	0	0	-100%	-100%	-100%
West		20	3	3	3	-85%	-85%	-84%
Total		28	3	3	3	-89%	-90%	-88%

<sup>77</sup> 89 FR 39798, 39801.

<sup>78</sup> *West Virginia v. EPA*, 529 U.S. 732 (2022).

<sup>79</sup> EPA, Regulatory Impact Analysis for the New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, May 2024, Table 3-8, p. 3-22.

The Proposed Rule seems to get stuck on the fact that the CPP overtly defined generation shifting as its principal BSER. The CPS Rule is a far more aggressive plan to shift generation away from coal. Recall that the Court in *West Virginia* did not vacate the CPP because it failed to define BSER in terms of technologies that can be applied by and to the regulated facilities. Rather, the Court vacated the CPP because Congress did not clearly authorize the EPA to decide the major question of whether coal generation should be forced out of the nation's electricity market.

The core generation-shifting substance of the CPS Rule was more visible at proposal. The Biden EPA initially proposed BSERs for each of four subcategories of coal powerplants. Three of the four BSERs included enforceable commitments to cease operating before specific dates. The fourth subcategory, namely, power plants that would not make an enforceable commitment to shut down by January 1, 2039, would have to install 90-percent CCS<sup>80</sup>—an onerous requirement that itself would likely accelerate coal power plant retirements.

The final CPS Rule was a bit less blatant. It dropped<sup>81</sup> the most obnoxious non-performance mandate—a requirement that coal powerplants committing to cease operations by January 1, 2035, also reduce their output to 20 percent of annual rated capacity. It also removed the “BSER” label from the policy that coal plants can avoid new regulation if they commit to shut down by January 1, 2032.<sup>82</sup> Nonetheless, the final CPS Rule is transparently a plan to drive existing coal generation the brink of non-existence.

#### **IV. EPA's final rule should include a robust major questions argument**

The major-questions doctrine is a jurisprudence of political accountability. It seeks to ensure that elected officials, who alone are accountable to the people at the ballot box, decide major questions of public policy.<sup>83</sup> Further, the doctrine is specifically concerned about “a particular and recurring problem: agencies asserting highly consequential power beyond what Congress could reasonably be understood to have granted.”<sup>84</sup>

In *West Virginia*, the Court identified numerous factors that suggest an agency is exceeding its power, such as when an agency:

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<sup>80</sup> EPA, New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule 88 FR 33324, 33344-33345.

<sup>81</sup> 89 FR 39798, 39801.

<sup>82</sup> 89 FR 39798, 39804.

<sup>83</sup> *West Virginia v. EPA*, 142 S. Ct. 2587, 2616-2626 (2022) (Gorsuch, J. concurring).

<sup>84</sup> *West Virginia v. EPA*, 142 S. Ct. 2587, 2609 (2022)

- Claims to find, in a long-extant statute, an unheralded power to make decisions of vast economic and political significance.
- Asserts a transformative expansion of its regulatory power.
- Attempts to resolve a policy question Congress is still debating.
- Proposes to adopt a policy Congress has considered and rejected.
- Asserts policy leadership in an area not within its traditional expertise or one that is the particular domain of another agency or the States.
- Cannot identify a clear statement of congressional authorization in the rule's putative statutory basis, but instead infers authority from vague, ambiguous, or cryptic language even though Congress "does not ... hide elephants in mouseholes."<sup>85</sup>

The CPP hit all the major questions doctrine trigger points, and so does the CPS Rule.

In the CPS Rule, the Biden EPA claimed a power to remake the US electric power sector; anointed itself to the position the de-facto industrial policy czar for climate and electricity; attempted to resolve a major question Congress was still debating (i.e. the basic direction of national energy policy); adopted a policy Congress had rejected (the attack on fossil-fuel electricity by Obama's Clean Energy Standard and the Green New Deal-inspired Clean Energy Performance Program<sup>86</sup>); asserted leadership in an area (integrated electricity resource planning) outside the domain of its expertise; and all without a clear authorization from Congress.

To reiterate, Administrator Zeldin should not be beguiled by the CPS Rule's lack of generation-shifting terminology. Add-on controls and fuel-switching mandates can also be manipulated to restructure an industry or sector. As Justice Elena Kagan pointed out during oral argument, generation shifting via cap-and-trade is not inherently costlier than facility-specific technology requirements, which in principle "could drive the entire coal industry out of business tomorrow."<sup>87</sup>

Like the CPP, only more aggressively, the CPS Rule would force coal out of the nation's electricity fuel mix (see Table 3-8, above). Once again, only more extensively, the EPA would override states' traditional authority over electricity fuel mix within their borders—a power Congress denies to the Federal Energy Regulatory Commission (FERC), the expert agency authorized to regulate interstate energy markets and infrastructure.

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<sup>85</sup> *Whitman v. American Trucking Association*, 531 U.S. 457, 468 (2001).

<sup>86</sup> Ashley Lawson, *Clean Electricity Performance Program (CEPP): In Brief*, Congressional Research Service, R46934, October 7, 2021, <https://sgp.fas.org/crs/misc/R46934.pdf>.

<sup>87</sup> "And inside-the-fence, there are inside-the-fence technological fixes that could drive the entire coal industry out of business tomorrow. And an outside-the-fence rule could be very small or it could be very large." Justice Elena Kagan, Supreme Court of the United States, *West Virginia v. EPA*, Transcript Oral Argument, February 28, 2022, p. 15, [https://www.supremecourt.gov/oral\\_arguments/argument\\_transcripts/2021/20-1530\\_758b.pdf](https://www.supremecourt.gov/oral_arguments/argument_transcripts/2021/20-1530_758b.pdf).



Under all pre-CPP CAA § 111 rules, the Court observed, the EPA’s “role was limited to ensuring the efficient pollution performance of each individual regulated source.” Under the CPP’s conception of the statute, the EPA “can demand much greater reductions in emissions based on a very different kind of policy judgment,” namely, “that it would be ‘best’ if coal made up a much smaller share of national electricity generation.” On that unprecedented view of the EPA’s 111(d) authority, the Court explained, the agency “could go further, perhaps forcing coal plants to ‘shift’ away virtually all of their generation—i.e., to cease making power altogether.”<sup>88</sup> In footnote 3 of the opinion, the Court stated: “Section 111(d) empowers EPA to guide States in ‘establish[ing] standards of performance’ for ‘existing source[s],’ §7411(d)(1), not to direct existing sources to effectively cease to exist.”

Rather than heed that admonition, the CPS Rule would implement the same unauthorized policy judgement. Like the CPP, the CPS Rule is not regulating businesses so much as directing them to close. If Congress wanted to authorize the EPA to ban businesses, it would have stated that clearly. Any claim that Congress has granted such sweeping authority is unreasonable, and when it comes to CAA § 111, it is not supported by the plain language of the statute.

## V. Conclusion

The EPA has a chance by finalizing the Proposed Rule to ensure that the agency stops taking regulatory actions that go well beyond what is authorized by the CAA. The extreme nature of the Obama EPA’s Clean Power Plan and the Biden EPA’s CPS Rule have helped to reveal the inherent immoderation of regulatory climate policy. The Clean Power Plan drove the Supreme Court to entrench and flesh out the major questions doctrine. The Biden power plant rule is even worse and makes a mockery of statutory requirements like showing that a technology is a best system of emission reduction that has been adequately demonstrated. It also raises red flags about regulatory power in general by prioritizing business closures as the preferred option for compliance. That is not regulation. It is an agency deciding for itself what businesses should stay in operation and what businesses should cease to exist. This extremism makes repealing the Biden EPA rule more than justified. It is a moral, political, and economic necessity.

To its credit, the EPA is looking beyond this specific Biden rule. It is properly analyzing whether the agency has the authority to regulate GHGs from power plants in the first place. Regardless of the significant contribution analysis, the agency does not have such power under the major questions doctrine. Consideration of CAA §103(g) and the 1975 111(d) Implementing Rule provide additional support for that conclusion.

In any case, when analyzing whether the GHGs from power plants contribute significantly to dangerous air pollution, it becomes clear very quickly that the answer is a resounding no.

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<sup>88</sup> *West Virginia v. EPA*, 142 S. Ct. 2587, 2612 (2022).

Answering that question is not about arbitrary percentages but about whether the domestic electric sector GHG emissions make any difference whatsoever to the alleged harm caused by global GHG emissions. Nobody can demonstrate in any reasonable fashion that emissions having no measurable effect on temperature still cause harm arising from equally indiscernible second and third order effects. To find otherwise would be arbitrary and capricious.

We urge you to finalize the proposed rule, including both the primary and alternative proposals. Our nation needs an EPA that follows the rule of law and does not use the CAA to act like the nation's grid manager. Finalizing this rule will help to achieve these objectives.

Sincerely,

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