

August 11, 2025

The Honorable Lee Zeldin
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Prime Mover Institute's Comment on the Proposed Rule Entitled: National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units 90 Fed. Reg. 25,535 [Docket ID No. EPA-HQ-OAR-2018-0794] (June 17, 2025)

Dear Administrator Zeldin:

On behalf of Prime Mover Institute ("PMI"), please accept these comments to the U.S. Environmental Protection Agency's ("EPA") June 11, 2025 proposed revisions to the National Emission Standards for Hazardous Air Pollutants ("NESHAP") for coal-and oil-fired electric utility steam generating units ("EGUs"), commonly referred to as the Mercury and Air Toxics Standards ("MATS") ("Proposed Rule").

The Prime Mover Institute is a new public interest organization dedicated to advancing energy dominance in America. We work with coalition partners to engage in rulemaking processes with technical information and legal arguments, calling attention to the impacts regulation has on citizens, the grid, and the rule of law.

America stands at a crossroads. A legacy of bad policy and worse ideas threatens the nation with blackouts and bill hikes, right as demand for energy rises. In order for America to scale up its energy production and avoid the worst-case scenarios, we cannot cling to the policies and procedures that got us here. Fortunately, both policymakers and the private sector realize the need for dramatic change. And courts have begun to look more skeptically at accretions of arbitrary power, accretions that government officials used to thwart energy production and use. This points the way to a future of streamlined regulation, taxpayer savings, and cheaper, more abundant energy for all.

The main obstacle to energy dominance is what Robert Bryce calls the "anti-industry industry," the non-profits and lawyers dedicated to defending the status quo. These groups have used litigation, regulatory comments, and intimidation to forestall change. They will no doubt keep at it. But, despite their vast funding, they will not be able to maintain a policy regime that's so far out of touch with the American public and their elected representatives. So long, that is, that the advocates of energy dominance show up to defend their ideas.

In the words of Vaclav Smil, “prime movers are energy converters able to produce kinetic (mechanical) energy in forms suitable for human uses.” In the same way, Prime Mover Institute helps convert insight into action.

For the reasons below, PMI fully supports EPA’s proposal to repeal the 2024 Rule and return the 2012 standards. To that end, PMI recommends EPA correct the multiple legal and factual deficiencies inherent in the 2024 Rule, update, finalize, and reaffirm the general findings of the 2020 Residual Risk and Technology Review (“RRTR”), and take steps to ensure future EPA regulatory activity is grounded in sound cost-benefit analysis as required by law. We hope PMI’s comments will assist EPA in its closely-related effort to “unleash American energy” per Executive Order 14151.

Respectfully submitted,

/Russell Greene/
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BACKGROUND & SUMMARY OF ARGUMENT

The Proposed Rule would repeal the 2024 revisions to the MATS, 89 Fed. Reg. 38508 (“2024 Rule”), reverting back to the 2012 MATS requirements.¹ More specifically, the repeal would reduce the regulatory burden on coal- and oil-fired EGUs by repealing: (1) new emission standards for filterable particulate matter (“PM”) emissions from existing coal-fired EGUs, (2) new emission standards for mercury (“Hg”) from lignite coal-fired units, and (3) new requirements for continuous emissions monitoring (“CEMS”) of PM for all MATS units.² Such requirements were found to be unnecessary in 2020, when EPA’s Residual Risk and Technology Review (“RRTR”) found that “the current NESHAP provides an ample margin of safety to protect public health and prevent an adverse environmental effect.”³ Repealing the rules will address serious concerns regarding technical infeasibility and save America’s energy industry about \$120 million annually,⁴ consistent with this Administration’s emphasis on reducing regulatory “compliance costs” and “the risk of costs of non-compliance.”⁵ This is crucial for a regulation that has already cost owners and operators of coal- and oil-fired EGUs over \$18 billion in compliance costs since 2012.⁶

Above all, PMI supports EPA’s return to a sound and analytical approach to cost benefit analyses, as described in EPA’s 2020 Reconsideration of Supplemental Finding and Residual Risk and Technology Review (“2020 Reconsideration”).⁷ The 2024 Rule moved away from this approach, embracing an unproven model that emphasizes co-benefits and more ancillary and uncertain secondary impacts. As set forth in more detail below, this flawed approach creates additional costs for consumers and power producers that are unnecessary to protect human health and the environment.

COMMENTS

1. The Clean Air Act Provides EPA With a Cautious and Limited Statutory Framework for Regulating Power Plants

Because of their fundamental importance to the national welfare, Congress did not allow EPA to regulate HAP emissions from power plants (i.e., “electricity utility steam generating units”), such as coal- and oil-fired EGUs, through the ordinary mechanisms of Clean Air Act § 112(c) and

¹ 90 Fed. Reg. 25,535, 25,537–38 (June 17, 2025) (the “Proposed Rule”).

² *See id.*

³ See 85 Fed. Reg. 31,286, 31,314 (May 22, 2020).

⁴ 90 Fed. Reg. 25,535, 25,538 (June 17, 2025).

⁵ 90 Fed. Reg. 9,065 (Jan. 31, 2025) (Exec. Order 14192 – Unleashing Prosperity Through Deregulation).

⁶ Comment, Edison Electric Institute (Apr. 11, 2022) at 2, Doc. No. EPA-HQ-OAR-2018-0794.

⁷ See 85 Fed. Reg. 31,286 (May 22, 2020).

(d).⁸ Instead, Congress “enacted a special provision,” § 112(n)(1)(A), to establish “a separate process by which the EPA was to determine whether to regulate emissions of HAP from EGUs under [§] 112.”⁹

Under these provisions, EPA was required to perform a thorough study of the “hazards to public health reasonably anticipated to occur” from coal- and oil-fired EGU emissions and then to regulate electric utility only if it determined regulation to be both “appropriate and necessary” according to its findings.¹⁰ Thus, the initial decision to regulate the nation’s coal- and oil- fired EGUs was not simply a mechanical action that proceeded as a matter of course once § 112 of the Clean Air Act was promulgated, but required the exercise of agency discretion in light of uniquely thorough study.

Separately, under § 112(d)(6), once an emission standard is promulgated under any part of § 112, EPA must “review, and revise as necessary (taking into account developments in practices, processes, and control technologies)” the standards. In conducting RRTRs, EPA has interpreted § 112(d)(6) to require the agency to “evaluate the risk to public health remaining after application of the technology-based standards” and to “revise the standards, if necessary, to provide an ample margin of safety to protect public health or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.”¹¹ However, it follows from the unique requirements for regulating electricity steam generating units in Clean Air Act § 112(n)(1) that EPA should carry out this process cautiously. A reasonable reading is that EPA should only tighten its standards for EGUs if the old standards are insufficient to protect public health-based standards with an adequate margin of safety.¹²

EPA carried out this precise analysis in the 2020 RRTR.

2. The 2020 RRTR Properly Assessed That Further Tightening of MATS Standards Was Unnecessary to Protect Human Health

In 2020, EPA’s RRTR conducted pursuant to Section 112(f)(2) concluded that the 2012 MATS requirements already provide an ample margin of safety to protect public health and that residual risks were acceptable.¹³ In light of real-world emissions data resulting from the 2012 MATS compliance requirements, EPA found that remaining MATS health risks were low. For instance,

⁸ See 84 Fed. Reg. 2,670, 2,673 (Feb. 7, 2019) (“Th[e] general Clean Air Act § 112(c) process of listing and regulation does not apply to EGUs.”).

⁹ *Id.*

¹⁰ 42 U.S.C. §§ 7412(n)(1)(a).

¹¹ 85 Fed. Reg. 31,286, 31,314 (May 22, 2020) (the “2020 MATS RRTR”).

¹² See 42 U.S.C. § 7412(f)(2).

¹³ 85 Fed. Reg. 31,286, 31,314 (May 22, 2020).

based on its estimates, EPA found the maximum individual cancer risk from power plant HAP emissions was about 9 in 1 million.¹⁴

This result was not surprising. By 2019, industry investments in reducing mercury and other HAPs had successfully minimized harmful emissions. As a result of the 2012 MATS Rule, many coal plants—nearly 88 GW worth of generation—installed activated carbon injection technology, flue gas desulfurization systems, baghouses, and other mercury and HAP controls to comply with the initial MATS rulemaking.¹⁵ By April 2016, virtually every coal- and oil-based EGU had installed MATS-compliant pollution controls.¹⁶ Some non-compliant EGUs were decommissioned, further reducing mercury emissions. As a result of these and other industry actions, EPA’s own data showed mercury emissions from power plants had dropped roughly 86% since 2010, and emissions of acid gases and other HAPs fell by 96% during that same period.¹⁷

The 2020 RRTR also found that no new control technologies or practices had emerged that would justify more stringent emission limits under Clean Air Act § 112(d)(6).¹⁸ In other words, the technology that industry had implemented to control MATS was still state-of-the-art in 2020, such that no updates could reasonably justify tightening MATS standards. In short, the 2020 RRTR found that the monetized benefits of increased MATS regulation—\$4 to \$6 million annually, as estimated in 2015—were not worth the total cost of compliance, which EPA estimated at \$9.6 billion.¹⁹ Nothing has changed since 2020 that would undermine this determination.

3. The 2024 Rule Relied on a Distorted Cost-Benefit Analysis when Reconsidering the 2020 RRTR

EPA’s 2020 RRTR notes that giving equal weight to monetized co-benefits or ancillary benefits of further MATS regulation “would permit those benefits to become the driver of the regulatory determination” and would not be “appropriate” within the meaning of the Clean Air Act. This is precisely what happened in 2024.

The cost-benefit analysis in the 2024 Rule is not a narrow, cautious assessment, consistent with EPA’s § 112(n)(1)(A) authority. The 2024 Rule eschews reliable scientific and economic data and

¹⁴ *Id.* at 31,317.

¹⁵ U.S. Energy Information Administration, *Coal plants installed mercury controls to meet compliance deadlines* (Sept. 18, 2017), <https://www.eia.gov/todayinenergy/detail.php?id=32952>.

¹⁶ Environmental Protection Agency, *Toxic Release Inventory National Analysis 2016* (January 2018), https://www.epa.gov/sites/production/files/2018-01/documents/tri_national_analysis_2016_complete_0.pdf.

¹⁷ *See* 84 Fed. Reg. 2,670, 2,689 (Feb. 7, 2019); *see also* 85 Fed. Reg. 31,286, 31,307 (May 22, 2020) (EPA finding mercury emissions decreased by “about 25 tons” from MATS-regulated units over the same period).

¹⁸ 85 Fed. Reg. 31,286, 31,317 (May 22, 2020).

¹⁹ *Id.* at 31,299.

pursues the policy-driven approach mandated in the Biden Administration’s 2023 OMB Circular A-4. As a result, EPA’s determination of what is “necessary” to protect human health in the 2024 Rule is unreliable, especially considering the importance of EGUs to the entire economy.

For example, the 2023 OMB Circular A-4 instructs agencies to artificially inflate the importance of co-benefits to rulemaking, like possible ancillary reductions in pollution or greenhouse gas emissions, allowing speculative future benefits to drive the analysis.²⁰ It states agencies “should look beyond the obvious benefits” of their regulations without any limiting principle—defining such additional benefits as those “unrelated to the main purpose of the regulation”²¹ But it has long been the consensus that “the distinction between primary and ancillary benefits is essential to an agency’s work, as all agencies are bodies of limited authority given to them by law.”²² In other words, agencies should not be invested in achieving goals and benefits beyond their direct statutory mandate. The 2023 OMB Circular A-4 encourages consideration of only the ancillary costs imposed “due to” or because of a regulation, while leaving consideration of ancillary benefits more open-ended.²³ In this vein, the 2023 OMB Circular A-4 asks agencies to consider potential future “alterations to the climate” and other speculative factors in its analytic baseline if the agency believes they will “significantly affect the estimated effects of the regulation.”²⁴ It states in addition that when considering uncertainty about a regulation’s effects, “a regulation with benefits that are positively correlated with baseline outcomes has a lower value than an otherwise identical regulation with benefits that are negatively correlated with baseline outcomes.”²⁵ In other words, the 2023 OMB Circular A-4 instructs agencies to regulate primarily based on a regulation’s perceived benefit, rather than cost.

The novel approach that the 2023 OMB Circular A-4 embraced also dramatically lowered the discount rate for future costs and benefits of any federal action within the next thirty years to a flat 2%, down from the traditional 3% and 7% dual rates.²⁶ This decision increases the present value of agency decisions with potential far-flung future benefits—for example, hypothetical climate gains or health co-benefits many decades out—making regulations with long-term payoffs appear far more cost-justified in the short-term.²⁷ As commenters noted at the time, the flat rate only makes sense “if it were applied to proposed rules with only pure public goods involved A single discount rate for the federal government is not economically rational.”²⁸ Such an “astonishing

²⁰ OMB Circular A-4 (Nov. 9, 2023) at 39–40.

²¹ *Id.* at 40.

²² Comment, U.S. Chamber of Commerce *et al.* (June 6, 2023) at 11, Doc. No. OMB-2022-0014-0001.

²³ OMB Circular A-4 (Nov. 9, 2023) at 40.

²⁴ *Id.* at 11.

²⁵ *Id.* at 73.

²⁶ *Id.* at 76–77.

²⁷ *See* Comment, Commonwealth of Virginia *et al.* (June 6, 2023) at 7, Doc. No. OMB-2022-0014-0001.

²⁸ Comment, Hudson Institute (June 15, 2023) at 5, Doc. No. OMB-2022-0014-0001.

reduction” to the rate “effectively force[s] future generations to endure lower incomes” and disregards opportunity cost of capital.²⁹

At the same time, the 2023 OMB Circular A-4 instructed agencies to incorporate distributional “weighting” that treated a dollar of benefit to some groups—for instance, lower-income or disadvantaged populations—as worth many times a dollar to others. OMB averaged different estimates of the rate of marginal utility decrease to arrive at 1.4.³⁰ This implies that a benefit accruing to a lower-income person should be weighed at six times the weight of the same benefit to a middle-income person, and forty times the weight for a high-income person. In effect, the 2023 Circular asked regulators to count the “redistributive effects” of rules as benefits—a value-laden policy judgment that exceeds any agency’s statutory authority without “clear Congressional authorization.”³¹

Such novel analytic techniques have untethered agency cost-benefit analyses from observable data. The impact of these approaches to the 2024 MATS is significant. As a result of using the 2023 OMB Circular A-4 approach, EPA was able to side-step a traditional cost-benefit analysis: “While the EPA does not believe benefit-cost analysis is the right way to determine the appropriateness of a standard under Clean Air Act § 112, the EPA notes that when all of the costs and benefits are considered (including nonmonetized benefits), this final rule is a worthwhile exercise of the EPA’s Clean Air Act § 112(d)(6) authority.”³² This unreasonably tilted the risk review in favor of additional regulation, disconnecting it from statutory authority. EPA should reject this approach.

Recognizing these issues, the current Administration has moved swiftly to nullify this guidance. The President instructed OMB to rescind the 2023 Circular A-4 in favor of the 2003 version at the beginning of his term.³³ Now, regulatory analyses must return to discounting future effects at conventional rates and focusing on costs and benefits based on empirical, near-term data—rather than an approach that injected subjectivity and uncertainty where real-world data should determine agency regulations.

4. The 2024 Rule Minimizes or Ignores Other Important Costs

EPA failed to consider several other direct and ancillary results of compliance when analyzing whether the 2024 Rule’s benefits truly outweighed its costs. In 2015, the Supreme Court struck down the initial MATS rulemaking on the basis that EPA did not perform a proper cost-benefit analysis. EPA originally did not consider cost because it interpreted the terms “appropriate and

²⁹ Comment, U.S. Chamber of Commerce *et al.* (June 6, 2023) at 15, Doc. No. OMB-2022-0014-0001.

³⁰ OMB Circular A-4 (Nov. 9, 2023) at 66–67.

³¹ *See, e.g., West Virginia v. EPA*, 597 U.S. 697, 723 (2022) (“We presume that Congress intends to make major policy decisions itself, not leave those decisions to agencies.” (quotation omitted)).

³² *See* 89 Fed. Reg. 38,506, 38,553 (May 7, 2024) (the “2024 Rule”).

³³ *See* 90 Fed. Reg. 9,067 (Jan. 31, 2025) (Exec. Order 14192).

necessary” in Clean Air Act § 112(n)(1)(A) to “not allow for the consideration of costs.”³⁴ The Court found this interpretation unreasonable under the then-controlling *Chevron* deference standard. According to the Court:

Read naturally in the present context, the phrase “appropriate and necessary” requires at least some attention to cost. One would not say that it is even rational, never mind “appropriate,” to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits. In addition, “cost” includes more than the expense of complying with regulations; any disadvantage could be termed a cost. EPA’s interpretation precludes the Agency from considering *any* type of cost—including, for instance, harms that regulation might do to human health or the environment. . . . *No regulation is “appropriate” if it does significantly more harm than good.*³⁵

Finding that “reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions,” the Court ruled that EPA erred by ignoring costs altogether in its rulemaking.³⁶

Guided by the 2023 OMB Circular A-4, the 2024 Rule’s analysis suffered from similar cost omissions. Below are five additional factors that should have been fully considered.

4.1. The 2024 rule fails to adequately assess the costs of surging electricity demand.

First, EPA failed to account adequately for surging electricity demand from data centers, electric vehicles and economic growth. American power demand—long flat—is expected to grow by 2.6-4.7% over the next five years.³⁷ The 2024 Rule Regulatory Impact Assessment (“RIA”) projects that the regulation will directly cause the retirement of nearly 84% of America’s coal-fired EGUs by 2035.³⁸ The RIA also unrealistically assumes a static or slow-growing demand profile. It employed EPA’s electric load assumptions in its data projections, which at the time only modeled a 41.8% increase in demand from 2023 to 2050.³⁹ As shown below, this is barely over half the demand that government and industry sources now expect, and were expecting when the rule was made.⁴⁰

³⁴ *Michigan*, 576 U.S. at 751 (quoting 76 Fed. Reg. 24,988 (2011)).

³⁵ *Id.* at 752 (emphasis added).

³⁶ *Id.*

³⁷ J. Wilson & Z. Zimmerman, *The Era of Flat Power Demand is Over* (Dec. 2023) at 3.

³⁸ 2024 Rule RIA at 3-19 (Table 3-10).

³⁹ *What is U.S. electricity generation by energy source?*, U.S. Energy Information Administration (2023) (total observed 2023 demand of 4,178 Twh); *EPA 2023 Reference Case*, U.S. EPA (2023) at 3-5 (Table 3-2) (showing projected 2050 demand of 5,928 Twh).

⁴⁰ *See, e.g. infra* at nn. 43, 45.

Department of Energy (“DOE”) studies projected in December 2024 that data center energy usage will double or triple between 2023 and 2028, potentially reaching 12% of total American electricity consumption.⁴¹ In July of this year, DOE estimated that 52 GW of average load from data center additions to the grid will require power by 2030, though they noted some reliable estimates place the figure near 109 GW.⁴² Best estimates from ICF state that U.S. electricity demand is expected to grow 25% by 2030 and 78% by 2050, fueling a residential retail rate increase between 15% and 40% by 2030.⁴³ The Brattle Group’s report further explains that “overall demand is growing at a faster rate than peak demand” due to “always-on” locations like data centers and industrial sites making up much of new demand sources.⁴⁴ Other drivers of new demand include cryptocurrency mining, electric vehicle use, and building electrification.⁴⁵ Rapid EV adoption in the U.S., fueled by government subsidies, may increase national power demand by 2.5–4.6% on its own.⁴⁶ All this increased demand means “a more electrified economy,” according to an economic bulletin from the Kansas City Federal Reserve Bank compiling data from the U.S. Energy Information Administration.⁴⁷ And increasing electricity demand is not just an American phenomenon: the International Energy Agency found that year-on-year global electricity consumption increased an estimated 4.3% in 2024.⁴⁸ Developing economies account for much of this growth, and China’s power needs alone account for 54% of total increased demand.⁴⁹

The data is clear and unanimous: the United States, and indeed the world, is entering an “Age of Electricity.”⁵⁰ Yet at the very moment when American energy demand is increasing by orders of magnitude, the 2024 Rule tightens MATS standards to a degree that will force retirement of many coal- and oil-fired EGUs that form the backbone of the Nation’s energy infrastructure, increasing rate costs for average Americans. EPA did not give sufficient weight to the harm of removing a large portion of the base-load power generation and replacing it with less-reliable sources will cause.

⁴¹ A. Shehabi *et al.*, *2024 United States Data Center Energy Usage Report* (Dec. 2024) at 5.

⁴² U.S. Department of Energy, *Evaluating the Reliability and Security of the United States Electric Grid* (July 2025) at 16.

⁴³ L. Batra *et al.*, *Rising current: America’s growing electricity demand*, at 3.

⁴⁴ *Id.* at 5.

⁴⁵ T. Bruce Tsuschida *et al.*, *Electricity Demand Growth and Forecasting in a Time of Change* (May 2024) at 16–27.

⁴⁶ A. Mathrani, *The rise of electric vehicles in the U.S.: Impact on the electricity grid* (Nov. 18, 2024) at 1.

⁴⁷ N. Melek & A. Gallin, *Powering Up: The Surging Demand for Electricity* (Sept. 25, 2024) at 3.

⁴⁸ *Electricity 2025: Demand* (Feb. 2025) at 13.

⁴⁹ *Id.*

⁵⁰ *Id.*

4.2. The 2024 Rule RIA underestimates the cost of replacing coal with less-reliable or subsidized alternatives.

Second, the 2024 Rule RIA underestimates the cost of replacing coal with less reliable or subsidized alternatives, failing to meaningfully analyze grid reliability impacts of the retirement of 85% of the nation's coal-fired EGUs. It effectively assumes that these sources can be replaced with alternatives without reliability tradeoffs and that federal subsidies for those alternatives will continue into the future based on EPA's baseline model.⁵¹ These assumptions are questionable.

Wind and solar power struggle with reliability issues, especially during peak times during winter months.⁵² Additionally, these subsidies artificially lower wholesale energy prices while markedly increasing them “during periods of high demand and low wind and solar generation,” and lead to increased transmission cost.⁵³ That is precisely why Congress passed the One Big Beautiful Bill Act (“OBBBA”), which phased out tax credits under Sections 45Y and 48E.⁵⁴ The President's subsequent Executive Order 14315, titled “Ending Market Distorting Subsidies for Unreliable, Foreign Controlled Energy Sources,” directs the implementation of that phase-out and the application of enhanced foreign entity of concern restrictions on further industry activities.⁵⁵ It would seem that future administrations would be unwilling to bring back these same subsidies, given: (1) their costs to taxpayers have been proven to far exceed initial projections⁵⁶ and (2) they have had a deleterious effect on energy pricing with demand forecasted to further rise. Many subsidies not phased out by the OBBBA (such as Section 45Q tax credits under the Inflation Reduction Act) are time-limited. EIA notes that the credits are available only “for projects that begin construction before January 1, 2033”⁵⁷ Assuming indefinite government assistance is not a deduction that can reasonably ground an assessment that rulemaking is “appropriate and necessary.” The RIA's optimism masks true costs that will emerge when subsidies are ended or expire, or when market conditions change.

⁵¹ 2024 Rule RIA at 3-5.

⁵² B. Bennett, *Forget About What Broke: The Texas Blackout Was Inevitable*, LIFEPOWERED (Mar. 3, 2021), <https://lifepowered.org/forget-about-what-broke-the-texas-blackout-was-inevitable/>.

⁵³ B. Bennett, *The Siren Song That Never Ends: Federal Energy Subsidies and Support from 2010 to 2023*, LIFEPOWERED (Oct. 2024) at 4.

⁵⁴ One Big Beautiful Bill Act, Pub. L. No. 119-21, §§ 70512, 70513 (2025).

⁵⁵ 90 Fed. Reg. 30,821 (July 7, 2025) (Exec. Order 14315) (seeking to “rapidly eliminate the market distortions and costs imposed on taxpayers” by subsidies).

⁵⁶ See, e.g., Travis Fisher & Joshua Loucks, *The Budgetary Cost of the Inflation Reduction Act's Energy Subsidies* (Mar. 11, 2025), available at <https://www.cato.org/policy-analysis/budgetary-cost-inflation-reduction-acts-energy-subsidies> (“Using a transparent budget scoring methodology, we estimate that the energy subsidies in the Act will cost between \$936 billion and \$1.97 trillion over the next 10 years, and between \$2.04 trillion and \$4.67 trillion by 2050.”).

⁵⁷ *Tax credits drive carbon capture deployment in our Annual Energy Outlook*, U.S. ENERGY INFORMATION ADMINISTRATION (“EIA”) (July 18, 2025).

Regardless of the future of these subsidies, they cannot be treated as reducing costs in this context. For cost-benefit purposes, the subsidies simply shift the cost of MATS compliance from specific utilities and their customers to taxpayers more generally.⁵⁸ They are better treated as hidden costs of the regulation.

4.3. The 2024 Rule did not adequately study the true costs of retiring smaller EGUs.

Third, the 2024 Rule discounted the value of small coal-fired EGUs that might be exempt or retired, without a full examination of whether those units support local reliability or critical services. The 2024 Rule RIA does not include a rigorous reliability study. Regulators have repeatedly cautioned that the pace of conventional generation retirements is outpacing integration of reliable replacement sources, leading to “resource capacity or energy risks” in the near-term.⁵⁹ NERC notes based on its data that “[r]apid, often disorderly, transformation” of the grid’s generation mix, given retirements of coal and other conventional EGUs and “incomplete replacement” of their dependable baseline generation, is a key factor in overall American grid reliability deterioration.⁶⁰ Due to projected retirements, power outage risk will increase a hundredfold by 2030.⁶¹ These retiring sources are expected to be replaced by new generation, but “only 22 GW would come from firm baseload generation sources.”⁶² By failing to account for these collateral issues even though such impacts are a foreseeable “ancillary result” of the retirement-by-regulation of the vast majority of conventional EGUs, the EPA engaged in unreasonable cost-benefit analysis when it promulgated the 2024 Rule.

4.4. The 2024 Rule did not adequately study the true costs of increasing U.S. electricity costs.

Fourth, the 2024 Rule did not assess the broader consequences of making American power generation more expensive. The increased rates caused by replacement of reliable coal-fired EGUs with less reliable renewable energy sources will cause many energy-intensive industries to consider relocation abroad. For example, American aluminum smelting giant Alcoa has closed existing American facilities due to, among other things, “declining market conditions and high

⁵⁸ See Fisher & Loucks, *supra* n.56; see also Hoover Institute, *Welfare for the Well-Off: How Business Subsidies Fleece Taxpayers* (May 1, 1999), available at <https://www.hoover.org/research/welfare-well-how-business-subsidies-fleece-taxpayers> (“Federal subsidies to U.S. businesses now cost American taxpayers nearly \$100 billion a year.”).

⁵⁹ North American Electric Reliability Corp. (NERC), *2023 Long-Term Reliability Assessment* (Dec. 2023) at 6.

⁶⁰ Statement of NERC, 2024 Reliability Tech. Conference (Oct. 16, 2024), FERC Docket No. AD24-10-000, [https://www.nerc.com/news/Headlines%20DL/NERC%202024%20RTC%20Statement%20FIN AL.pdf](https://www.nerc.com/news/Headlines%20DL/NERC%202024%20RTC%20Statement%20FINAL.pdf)

⁶¹ U.S. Department of Energy (July 2025) at 1.

⁶² *Id.*

input costs,”⁶³ shifting energy-intensive aluminum production overseas. Alcoa’s CEO recently explained that demand on the existing grid, mainly from data centers, increases energy rates and “puts pressure on reshoring aluminum capacity.”⁶⁴ Alcoa’s CEO was further reported as saying that for his company’s U.S smelting facilities to be competitive, energy rates would need to come down significantly.⁶⁵ Coal exports will likely follow if demand for the resource decreases in America, following demand overseas. IEA notes that “China’s influence in global coal market trends is unparalleled by any country for any type of fuel[,]” and that the country now consumes nearly 40% more coal than the rest of the world combined.⁶⁶ In China and other developing Asian countries, MATS emissions standards lag behind America. China and India both set a standard of 30mg/m³ for mercury emissions from new and existing coal-fired plants, which is nearly 19 times the corresponding standard of 1.6mg/m³ adopted by the U.S.⁶⁷ These relaxed overseas emission standards mean that North America accounts for only 1.8% global mercury emissions, while countries in East and Southeast Asia account for nearly 39% combined.⁶⁸ Further restrictions to mercury emissions in America that cause closure of coal-fired EGUs with existing strict emission controls will only lead to further emissions “leakage” and exacerbate this gap, undermining any purported climate benefits that supposedly form the basis for the 2024 Rule. The predictable result of the 2024 Rule is an increase in global mercury emissions, and EPA did not account for this ancillary effect when it performed its cost-benefit analysis.

4.5. The 2024 Rule did not adequately evaluate the impacts of the Rule on small businesses.

Fifth and finally, EPA did not properly evaluate small business impacts in the 2024 Rule, focusing narrowly on direct compliance costs for utilities. The Regulatory Flexibility Act (“RFA”) directs agencies to assess a rule’s impact on small entities when it will have a significant economic impact on them.⁶⁹ The 2024 Rule’s retirement of coal-fired EGUs will result in high replacement costs and elevated grid reliability risk, especially in the MISO region which includes significant data center and infrastructure growth.⁷⁰ That region’s independent system operator released a report

⁶³ *Alcoa Announces Closure of Intalco Smelter and Prepares Site for Redevelopment*, ALCOA (Mar. 16, 2023), <https://news.alcoa.com/press-releases/press-release-details/2023/Alcoa-Announces-Closure-of-Intalco-Smelter-and-Prepares-Site-for-Redevelopment/>.

⁶⁴ Andrea Hotter, *US tariffs reshaping global aluminum flows, Alcoa CEO says*, FASTMARKETS (July 18, 2025), <https://www.fastmarkets.com/insights/us-tariffs-reshaping-global-aluminium-flows-andrea-hotter/>.

⁶⁵ *Id.*

⁶⁶ International Energy Agency, *Global Energy Review 2025* at 19.

⁶⁷ *Comparison of coal power plant emissions standards*, CENTRE FOR RESEARCH ON ENERGY AND CLEAN AIR (last visited Aug. 6, 2025), <https://energyandcleanair.org/comparison-of-coal-power-plant-emissions-standards/>.

⁶⁸ *Global Mercury Assessment 2018*, UNITED NATIONS (2019) at 12.

⁶⁹ See 5 U.S.C. § 603.

⁷⁰ See Comment, North Dakota Transmission Authority (April 3, 2024) at 10–12, Doc. No. EPA-HQ-OAR-2018-0794.

projecting a 4.7 GW capacity shortfall by 2028, thanks in part to the 2024 Rule’s impact.⁷¹ Americans already average 5.5 hours of power interruption per year,⁷² and increased energy demand (especially during peak times caused by winter storm events, heat, and severe weather) will outstrip supply if most coal-fired EGUs go dark.

Unlike larger entities, small businesses typically cannot negotiate special utility rates and have thinner cushions to absorb cost spikes or outages. The cost of electricity and fuel for energy is “a top issue for small business owners” in recent polling data, representing a rising concern.⁷³ Over 93% of small business owners state that this increasing cost is a problem.⁷⁴ In Minnesota alone, the annual additional costs imposed by the state’s plan to retire its coal facilities and mandate zero-emission electricity generation by 2040 will peak at almost \$18,000 per business.⁷⁵ The rolling blackouts that will result from the incoming supply-demand mismatch caused by the 2024 Rule will disproportionately affect small businesses. Based on one recent study, only 22% of small businesses in Illinois, for instance, have backup power generation—compared to 71% of large businesses.⁷⁶ Small businesses rely on the grid and significant damage can result due to unreliability. The same study showed that a hypothetical 14-day outage affecting greater Chicago would result in a potential GDP loss of \$17.1 billion, with over 70% of total costs occurring due to resilience gaps—primarily among small businesses.⁷⁷ Real-world data for one small business in Colorado also illustrates this issue: Niwot Market, a small grocery store, lost \$1,458 per hour when utilities shut power off.⁷⁸

EPA’s 2024 Rule RIA did not analyze how anticipated rate increases due to costly retrofitting and generation shifting operations or potential grid reliability impacts would affect Main Street. It only performed a “sales test” for small energy utilities.⁷⁹ This inadequate assessment led EPA to overlook the substantial ancillary cost of the 2024 Rule on American small business and created an unreasonable rulemaking.

⁷¹ *Id.* at 12.

⁷² *U.S. electricity customers averaged five and one-half hours of power interruptions in 2022*, U.S. EIA (Jan. 25, 2024).

⁷³ Holly Wade & Madeleine Oldstone, *Small Business Problems & Priorities*, NFIB RESEARCH CENTER (2024) at 7.

⁷⁴ *Id.* at 9 (Table 1).

⁷⁵ I. Orr *et al.*, *The High Cost of 100 Percent Carbon-Free Electricity By 2040*, CENTER FOR THE AMERICAN EXPERIMENT (Sept. 2022) at 18 (Fig. 8).

⁷⁶ I. Wing *et al.*, *A method to estimate the economy-wide consequences of widespread, long duration electric power interruptions*, 16 NAT. COMMS. 3335 (2025) at 2.

⁷⁷ *Id.* at 8 (Table 4).

⁷⁸ Isaac Orr & Mitch Rolling, *Blackout costs Colorado business \$1458 per hour*, CENTER FOR THE AMERICAN EXPERIMENT (Apr. 15, 2024), <https://www.americanexperiment.org/blackout-costs-colorado-business-1458-per-hour/>.

⁷⁹ 2024 Rule RIA at 5-1.

Rescinding the 2024 Rule based on these myriad analytical flaws comports with *Michigan v. EPA*'s requirement that any rulemaking must consider compliance costs, and agrees with Clean Air Act § 112's mandate that EPA's administrator must assess whether tightening standards is appropriate and necessary.

5. EPA Should Expressly Abandon the 2024 Rule's Faulty Cost-Benefit Assessment for the Framework Described in the 2020 Reconsideration

Prompted by the Supreme Court's ruling in *Michigan v. EPA*, EPA's 2016 Supplemental Finding to the original 2012 MATS rule employed a "cost reasonableness test" in an attempt to justify the 2012 MATS regulations on a slightly different basis. To satisfy the Court's requirements for analysis under § 112(n)(1)(A), EPA undertook an alternative, formal cost-benefit analysis which included an evaluation of certain co-benefits—pollution reduction for non-MATS substances, for instance.⁸⁰ These projected co-benefits "comprised the overwhelming majority (approximately 99.9 percent) of the monetized benefits of MATS" and led EPA to conclude that because "MATS would increase economic efficiency, EGUs should be regulated."⁸¹

EPA proposed to reverse this determination in 2019, noting that *Michigan* does not suggest either (1) a reasonableness approach that does not "consider cost in a meaningful way relative to benefits" or (2) an analytical approach that gives marginal benefits the same weight as direct monetary costs.⁸²

Instead, *Michigan* suggests that EPA must determine, based on its comparison, whether a regulation "does more harm than good."⁸³ Accordingly, the 2019 proposed rule adopts "direct comparison of the rule's costs and benefits" as "a reasonable approach, if not the only permissible approach, to considering costs in response to *Michigan*"⁸⁴

In addition, the comparison suggested in *Michigan* "should focus primarily on benefits associated with reduction of HAP," where the agency action in question is performed under § 112 and is based on EPA's study that focused on whether HAP regulation specifically was "appropriate and necessary."⁸⁵ Focus on other benefits, such as reduction in criteria pollutants not regulated under § 112, "would be highly illogical"⁸⁶ Congress has already "established a rigorous system for setting standards of acceptable levels of criteria air pollutants" and Clean Air Act § 112 regulates HAP separately from that system.⁸⁷ Because "[t]he total cost of compliance" far exceeds "the

⁸⁰ 84 Fed. Reg. 2,670, 2,676 (Feb. 7, 2019) (explaining 2016 Supplemental Finding approach).

⁸¹ *Id.*

⁸² *Id.* at 2,675.

⁸³ 576 U.S. at 752.

⁸⁴ 84 Fed. Reg. 2,670, 2,676 (Feb. 7, 2019)

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.* at 2,677.

monetized HAP benefits” of the rule, EPA proposed that regulation was unnecessary.⁸⁸ EPA subsequently finalized this approach in its 2020 RRTR.⁸⁹

EPA’s interpretation of *Michigan*’s requirements is reasonable and more consistent with its authority under § 112. It also comports with the 2003 OMB Circular A-4, which differentiates between primary benefits—positive impacts from a rule that the statute clearly contemplates—and ancillary benefits, which are “typically unrelated or secondary to the statutory purpose of the rulemaking.”⁹⁰

Because the 2020 RRTR contains a reasonable cost-benefit framework for Clean Air Act § 112 decision-making that both incorporates the Supreme Court’s guidance in *Michigan* and follows the 2003 OMB Circular A-4 methodology, EPA should utilize this framework’s approach in its current rulemaking.

6. EPA Could Strengthen the Proposed Grounds for Rescission of the 2024 Rule

In this proposed rulemaking, EPA bases much of its decision to reconsider the 2024 Rule on its assessment that it would “impose large compliance costs or raise potential technical feasibility concerns” on owners and operators of coal- and oil-fired EGUs.⁹¹ The Proposed Rule’s reconsideration offered in part that these costs meant that the 2024 Rule was not “necessary” as required for revision of an emission standard under the Clean Air Act.⁹²

EPA’s proposal focuses only on the forward-looking compliance costs, which are admittedly significant. Analysis published in April 2024 stated that the total cost of replacement generation capacity caused by the MATS Rule would range between \$12.93 billion to \$16.76 billion, depending on compliance scenario—or up to \$14,250 per MWh.⁹³ Incremental costs from the coal-fired plant closures the 2024 MATS Rule would create are estimated to exceed \$3 billion from 2028 to 2037—exceeding the projected net present value benefit calculated by EPA in its RIA for the 2024 Rule.⁹⁴

But EPA’s proposed rescission of the 2024 Rule has stronger footing that EPA failed to mention. As summarized above, the 2024 Rule employed a flawed method of cost-benefit calculation that overstated speculative benefits. And to justify the 2024 Rule based on this analysis, it ignored

⁸⁸ *Id.*

⁸⁹ See 85 Fed. Reg. 31,286, 31,299 (May 22, 2020).

⁹⁰ OMB 2003 Circular A-4 at 26.

⁹¹ 90 Fed. Reg. 25,535, 25,537 (June 17, 2025).

⁹² *Id.* at 25,544 (referencing Clean Air Act § 112(n)(1)(A)).

⁹³ Comment, North Dakota Transmission Authority (April 3, 2024) at 31, Doc. No. EPA-HQ-OAR-2018-0794.

⁹⁴ *Id.* at 32.

significant direct and ancillary effects of its rulemaking that would cause equally significant economic cost.

EPA has all the necessary information, as provided in this comment and others, to update and finalize the approach to cost-benefit analysis for MATS regulation provided in the 2020 RRTR and its proposed rule. Based on this evidence, EPA can determine that the direct monetary HAP-specific costs of compliance outweigh the comparable HAP-specific benefits of further regulation, and that current regulations already “provide an ample margin of safety” under Clean Air Act § 112(f)(2) such that the 2024 rule could be deemed not “necessary.”⁹⁵

When making this cost-benefit comparison, EPA has a wealth of relevant data to consider. The docket for this rulemaking includes thorough public comments from as far back as 2018 that responded to the proposed rescission of the 2016 Supplemental Finding.⁹⁶ More recent comments on the 2024 Rule and related EPA activity in this docket also include updated analysis that EPA may find helpful. For example:

- Existing third-party research supports the consensus that minimal health benefits will result from further HAP emission reductions.⁹⁷ Moreover, current control systems are still considered the “best available control technology” for PM and SO₂ emissions, and therefore for HAPs regulated under MATS.⁹⁸
- The 2024 Rule “will increase compliance costs, raise electricity prices, and could lead to additional retirements of coal-fired EGUs” that raise “the potential for power shortages”⁹⁹ EPA’s technical analysis suffered from “inaccurate cost estimates,” and EPA’s cost data in the 2024 Rule is based on faulty underestimates of upgrade costs for fine particulate matter controls.¹⁰⁰
- EPA’s 2024 Rule bases its cost-benefit analysis “on quantified benefits from only reductions in criteria pollutants and greenhouse gases,” an “egregious” error that “does not meet the requirements associated with a proper regulatory cost-benefit analysis.”¹⁰¹

⁹⁵ Clean Air Act § 112(n)(1)(A).

⁹⁶ *See, e.g.* Comment, James E. Enstrom & UCLA and Scientific Integrity Institute (Apr. 17, 2019), Doc. No. EPA-HQ-OAR-2018-0794 (stating that “the EPA MATS rule . . . cannot be justified by use of alleged co-benefits tied to reductions in fine particulate matter”).

⁹⁷ Comment, American Public Power Association (Apr. 11, 2022) at 8, Doc. No. EPA-HQ-OAR-2018-0794 (noting 2018 technical report from Electric Power Research Institute).

⁹⁸ *Id.*

⁹⁹ Comment, America’s Power (June 23, 2023) at 1, Doc. No. EPA-HQ-OAR-2018-0794.

¹⁰⁰ *Id.*, Tech. Comments at 14–21.

¹⁰¹ Comment, Lower Colorado River Authority (June 23, 2023) at 9, Doc. No. EPA-HQ-OAR-2018-0794.

- The 2024 Rule fails to account for increasing alarm over “reliability issues and the amount of coal-fired generation being retired without sufficient new dispatchable generation[,]” and has not considered “the significant costs necessary to address the reliability impacts to the grid due to accelerated retirements” the 2024 Rule will create.¹⁰²

These data points and those presented within this comment strongly suggest that, taking into account the reduced health risks from HAP regulated under MATS and the high costs of upgrading functional and top-tier controls to industry that will be passed along to consumers, there was no need to tighten regulations further under Clean Air Act § 112(f)(2), and EPA should rescind the 2024 Rule on these grounds.

CONCLUSION

Preventing onerous regulation without a clear health justification is the very purpose of the cost-benefit analysis Congress required in Clean Air Act § 112(n)(1)(A). EPA should return to the 2020 RRTR’s traditional approach and incorporate a cost-benefit analysis that considers all direct and ancillary effects of compliance for this rulemaking and all others. This method of risk review satisfies the *Michigan* standard and focuses primarily on the costs versus benefits of further regulating the specific substance at issue, rather than assigning primary value to hypothetical co-benefits and allowing EPA to consider disconnected effects. Because the total cost of MATS compliance “vastly outweighs” any monetized benefits of the rule directly tied to HAP, giving speculative climate benefits of the rule equal weight would impermissibly “permit those benefits to become the driver of the regulatory determination”¹⁰³ Embracing a rooted and predictable regulatory approach, and entrenching it in all rulemaking per Executive Order 14192, will benefit all Americans by ensuring government policy reflects reality and not unmoored speculation.

¹⁰² Comment, Luminant Companies (June 23, 2023) at 14–15, Doc. No. EPA-HQ-OAR-2018-0794.

¹⁰³ 85 Fed. Reg. 31,286, 31,299 (May 22, 2020).