STF-JKA-2-10 Attachment B

Edison Electric INSTITUTE

Emily Sanford Fisher
General Counsel, Corporate Secretary,
and Senior Vice President, Clean Energy

April 11, 2022

Ms. Melanie King
Sector Policies and Programs Division (D243–01)
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Research Triangle Park, North Carolina 27711

RE: EEI Comments on EPA-HQ-OAR-2018-0794

[Submitted Electronically]

Dear Ms. King:

The Edison Electric Institute (EEI) appreciates the opportunity to submit comments to the Environmental Protection Agency (EPA) on the proposed rule, *Revocation of the 2020 Reconsideration, and Affirmation of the Appropriate and Necessary Supplemental Finding for EPA's Mercury and Air Toxics Standards* (Proposal). 87 *Fed. Reg.* 7,624 (Feb. 9, 2022).

EEI is the association that represents all U.S. investor-owned electric companies. EEI members provide electricity for more than 220 million Americans and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than seven million jobs in communities across the United States. EEI member companies invest more than $120 billion annually to make the energy grid smarter, cleaner, more dynamic, more flexible, and more secure; to diversify the nation's energy mix; and to integrate new technologies that benefit both customers and the environment. EEI members are united in their commitment to get the energy they provide as clean as they can, as fast as they can, while keeping reliability and affordability front and center, as always, for the customers and communities they serve. Across the nation, EEI member companies are leading a clean energy transformation, making significant progress to reduce greenhouse gas (GHG) emissions in our sector, while also creating good-paying jobs and an equitable clean energy future.

EEI's members have fully implemented the Mercury and Air Toxics Standards (MATS)—and electric companies already have invested more than $18 billion in doing so. EPA's proposal restores the legal underpinning of the MATS rule. EPA is correct to conclude that it is appropriate and necessary to regulate HAP emissions from electric generating units under CAA section 112, and the Agency should finalize this conclusion expeditiously to resolve any lingering uncertainty regarding the legal predicate for the MATS rule.

202-508-5616 | efisher@eei.org

EPA's proposal also seeks data or information that could assist in a future review of the Residual Risk and Technology Review (RTR). Revisions to MATS are likely to provide minimal additional benefits. Should EPA revise HAP standards, they must be consistent with the clean energy transition and providing reliable and affordable energy. EEI and its members look forward to working with EPA as it evaluates its path forward and addresses the power sector holistically.

Questions on these comments may be directed to Alex Bond (202-508-5523; abond@eei.org) or John Kinsman (202-508-5711; jkinsman@eei.org).

Sincerely,



COMMENTS OF THE EDISON ELECTRIC INSTITUTE ON NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: COAL- AND OIL-FIRED ELECTRIC UTILITY STEAM GENERATING UNITS-REVOCATION OF THE 2020 RECONSIDERATION, AND AFFIRMATION OF THE APPROPRIATE AND NECESSARY SUPPLEMENTAL FINDING; NOTICE OF PROPOSED RULEMAKING

Docket No. EPA-HQ-OAR-2018-0794

April 11, 2022

The Edison Electric Institute (EEI) appreciates the opportunity to submit comments regarding the U.S. Environmental Protection Agency (EPA or Agency) proposed rule on *Revocation of the 2020 Reconsideration, and Affirmation of the Appropriate and Necessary Supplemental Finding for EPA's Mercury and Air Toxics Standards* (Proposal or Proposed Rule). 87 *Fed. Reg.* 7,624 (Feb. 9, 2022).

EPA proposes to reverse the May 22, 2020, Agency findings[1] that had revised the legal basis for regulating mercury and other hazardous air pollutant (HAP) emissions from coal- and oil-fired utility steam electric generating units (EGUs) under the federal Clean Air Act (CAA). In addition, EPA retains the Agency's 2020 residual risk and technology review (RTR) findings[1] while seeking new information to support a later reexamination of the RTR.

EEI members have fully implemented the Mercury and Air Toxics Standards (MATS)—and electric companies already have invested more than $18 billion to meet the regulation. Per EPA's

[1] *See* National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review (2020 MATS Rule); 85 *Fed. Reg*. 31,286 (May 22, 2020).

own data, electric companies have reduced emissions regulated by MATS—mercury, acid gases and total HAPs—each by 95 percent.

EEI is the association that represents all U.S. investor-owned electric companies. EEI members provide electricity for more than 220 million Americans and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than seven million jobs in communities across the United States. EEI members invest more than $120 billion annually to make the energy grid smarter, cleaner, more dynamic, more flexible, and more secure; to diversify the nation's energy mix; and to integrate new technologies that benefit both customers and the environment. EEI members are united in their commitment to get the energy they provide as clean as they can, as fast as they can, while keeping reliability and affordability front and center, as always, for the customers and communities they serve. Across the nation, EEI members are leading a clean energy transformation, making significant progress to reduce greenhouse gas (GHG) emissions in our sector, while also creating good-paying jobs and an equitable clean energy future.

I. Electric Companies Continue To Lead The Clean Energy Transition.

EEI members are in the middle of a profound, long-term transformation in how electricity is generated, transmitted, and used. This transformation is being driven by a wide range of factors, including relatively lower prices for natural gas, particularly as compared to historic high prices, and renewable energy resources, energy efficiency and demand-side management, technological improvements, changing customer, investor and owner expectations, federal and state regulations and policies, and the increasing use of distributed energy resources. EEI members are well-positioned to continue to lead the nation's clean energy transformation. With the right policies

and technologies, a 100 percent clean energy future can be more than a goal, it can be a reality. Across the industry, companies are investing in a broad range of affordable, carbon-free technologies and approaches with the goal of finding the most cost-effective ways to deliver resilient clean energy.

The mix of resources used to generate electricity in the United States has changed dramatically over the last decade and is increasingly cleaner. 2016 marked the first year that natural gas exceeded coal as the main source of electricity generation in the United States. In 2021, natural gas powered about 38 percent of the country's electricity, compared to coal-fired generation at about 22 percent.[2] Renewables[3] generated approximately 21 percent of total generation.[4] In total, approximately 40 percent of America's electricity came from clean carbon-free resources in 2021, including nuclear energy, hydropower, solar, and wind.[5]

Energy storage is a key asset in helping the grid integrate increasing amounts of renewables and offering resilience and reliability. Electric companies are the largest users and operators of the

[2] *See* Energy Information Administration (EIA), *Electric Power Monthly: with Data for December 2021* 12 (Feb. 2022), https://www.eia.gov/electricity/monthly/current_month/february2022.pdf.

[3] Renewables here are defined as wind, hydroelectric, solar, biomass, and geothermal energy.

[4] *See* n. 2, *supra*.

[5] *See id.*

approximately 25 gigawatts (GW) of operational storage in the country—representing 96 percent of active energy storage projects.[6]

Renewable energy deployments will continue. By 2025, EIA projects approximately 125 GW of renewables capacity will be online.[7] Further, EIA projects that in the United States the share of renewables in the electricity generation mix will more than double by 2050.[8] EIA projects that wind will continue to be responsible for most of the growth in renewables generation through 2024, accounting for more than two-thirds of those increases in electricity generation during that period and that solar will dominate deployments thereinafter until 2050.[9]

---

[6] *See* EEI, Harnessing the Potential of Energy Storage (June 2021), https://www.eei.org/-/media/Project/EEI/Documents/Issues-and-Policy/Energy-Storage/Harnessing_Energy_Storage_Factsheet.pdf?la=en&hash=F1AB8CC768C880975C5AD28DA798B2AAF01DA2FF.

[7] *See* EIA, Annual Energy Outlook 2022: Reference Case Projections Tables – Table 16. Renewable Energy Generating Capacity and Generation (Mar. 3, 2022), https://www.eia.gov/outlooks/aeo/data/browser/#/?id=16-AEO2022&cases=ref2022&sourcekey=0.

[8] *See* EIA, Annual Energy Outlook 2022: With Projections To 2050 – Narrative 17 (Mar. 3, 2022), https://www.eia.gov/outlooks/aeo/pdf/AEO2022_Narrative.pdf. EIA estimates are intentionally conservative, focusing on policies currently on the books and not other potential drivers of increased renewable energy deployment, including a suite of clean energy tax credits currently being considered by Congress. These credits will drive reductions in the costs of a range of clean energy sources, increasing both deployment and emissions reductions relative to the EIA base case. *See, e.g.*, Michael Greenstone, et al., Assessing the Costs and Benefits of Clean Electricity Tax Credits, Build Back Better Act Policy Memo, Energy Policy Institute, University of Chicago, and Rhodium Group (Feb. 9, 2022), https://rhg.com/research/assessing-the-costs-and-benefits-of-clean-electricity-tax-credits/#:~:text=Building%20on%20previous%20modeling%20conducted,a%20scenario%20without%20these%20policies.

[9] *See id*.

These changes have profoundly decreased the sector's carbon dioxide (CO_2) emissions, the primary greenhouse gas emissions associated with electricity production. Preliminary full-year estimates are that electric power sector emissions were 36 percent below 2005 levels as of the end of 2021, their lowest level in nearly 40 years.[10] These reductions will continue. Fifty EEI members have announced forward-looking carbon reduction goals, two-thirds of which include a net-zero by 2050 or earlier equivalent goal, and members are routinely increasing the ambition or speed of their goals or altogether transforming them into net-zero goals.

In addition, the electric industry has significantly reduced air pollutants such as mercury, hazardous air pollutants (HAPs), sulfur dioxide (SO_2), and nitrogen oxides (NOx). As of 2021, SO_2 and NOx emissions have declined 94 and 88 percent, respectively, since 1990.[11] In addition, mercury emissions have declined by 90 percent since 2010,[12] and total HAPs—including all acid gas emissions—declined by 96 percent between 2010 to 2017.[13]

EEI's member companies see a clear path to continued emissions reductions over the next decade using current technologies, including nuclear power, natural gas-based generation, energy demand efficiency, energy storage, and deployment of new renewable energy—especially wind

[10] *See* EIA, Monthly Energy Review, Table 11.16—Electric Power Sector (Mar. 29, 2022), https://www.eia.gov/totalenergy/data/monthly/.

[11] *See* EPA, EPA Issues Power Plant Emissions Data for 2021 (Feb. 22, 2022), https://www.epa.gov/newsreleases/epa-issues-power-plant-emissions-data-2021.

[12] *See id.*; EPA, Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards 2-7 (Dec. 2011), https://www.epa.gov/sites/default/files/2015-11/documents/matsriafinal.pdf

[13] *See* 84 *Fed. Reg.* 2,670, 2,689 (Feb. 7, 2019).

and solar—as older coal-based and less-efficient natural gas-based generating units retire. These technologies will continue to enable significant, cost-effective carbon reductions. In addition, EIA notes that coal use will continue to decline with the retirement of most of the relatively old and inefficient coal-fired electricity generating units in the United States.[14]

In the long term, reaching net-zero carbon emissions also will require the deployment of next-generation, carbon-free, 24/7, dispatchable technologies not currently available commercially. Developing a broad range of advanced clean energy technologies can help further expedite the transition of the electric power sector to one that is low- or non-emitting while keeping electricity affordable and reliable for customers.

II. EPA's Conclusion That It is Appropriate and Necessary to Regulate Under Clean Air Act Section 112 Is Correct.

EPA proposes to reverse EPA's May 2020 determination that it was not in fact "appropriate and necessary" to regulate HAPs from EGUs after considering the costs associated with such regulation; the May 2020 action itself had reversed a 2016 EPA finding in which it determined, after a consideration of MATS compliance costs weighed against both the direct (*i.e.*, HAP-related) and indirect (*i.e.,* non-HAP-related) benefits of MATS, that it remained appropriate and necessary to regulate HAP emissions from coal- and oil-fired EGUs.[15] *See National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review* (the "2020 MATS Rule"); 85 *Fed. Reg*. 31,286 (May 22, 2020).

[14] *See* n. 7, *supra* at 18.

[15] *See* 81 *Fed. Reg*. 24,420 (April 25, 2016).

The "appropriate and necessary" finding was the legal predicate underlying the MATS rule, and was made or affirmed by the Agency on multiple separate occasions prior to the 2020 MATS Rule's revocation of the finding. EPA's proposal correctly reinstates the "appropriate and necessary" finding and restores the legal underpinning of the MATS rule. EPA is correct to conclude that it is "appropriate and necessary" to regulate HAP emissions from EGUs under CAA section 112, and the Agency should finalize this conclusion expeditiously to resolve any lingering uncertainty regarding the legal predicate for the MATS rule.

A. The Requirements of Section 112(n)(1)(a) of the CAA and its Regulatory and Litigation History.

CAA section 112 requires EPA to set standards to reduce HAPs emissions, including mercury, based on the maximum achievable control technology (MACT) available to an industrial sector. *See* 42 U.S.C. § 7412. For most sectors, EPA's obligation to issue MACT standards is automatic once the Agency concludes sources in that sector emit HAPs. For the electric industry, however, Congress added an additional step, requiring in CAA section 112(n)(1)(A) that EPA should regulate power plant HAP emissions under Section 112 "if the Administrator finds such regulation is appropriate and necessary." *See* 42 U.S.C. § 7412(n)(1)(A).

The critical term, "appropriate and necessary," is not further defined in the Act. EPA has published findings of whether it is "appropriate and necessary" to regulate under CAA Section 112 in 2000, 2012, 2016 and 2020, as well as in this Proposed Rule. EPA published its first "appropriate-and-necessary" finding in 2000 and reaffirmed that finding in 2012 when it issued

the final MATS rule.[16] In 2015 the U.S. Supreme Court held in *Michigan v. EPA* that EPA must "consider cost" in evaluating whether it is "appropriate and necessary" to regulate EGUs under Section 112 because that term necessarily invites consideration of the costs of regulating. *See Michigan v. EPA*, 576 U.S. 743, 750-51 (2015). The Court remanded the rule to EPA with no instruction regarding what that consideration must entail, noting that "[i]t will be up to the Agency to decide" how to consider costs "within the limits of reasonable interpretation." *Id.* at 759.

After the Supreme Court's 2015 ruling in *Michigan v. EPA* found that EPA erred by failing to consider costs,[17] EPA issued a Supplemental Finding in 2016 in which it reaffirmed its earlier determinations that it is both appropriate and necessary to regulate electric industry HAP emissions under CAA section 112 after a consideration of costs.[18] In 2020, EPA reversed the 2016 Supplemental Finding, which is the subject of this Proposed Rule. Current litigation of the 2020 action before the D.C. Circuit Court of Appeals is in abeyance.

CAA section 112(n)(1)(A) is silent with respect to which specific costs EPA can or should consider and how the Agency should assess them, which provides the Agency some flexibility in carrying out its statutorily-mandated task.[19] More importantly, CAA section 112(n)(1)(A) is a

[16] *See* 65 *Fed. Reg.* 79,825 (Dec. 20, 2000); 77 *Fed. Reg.* 9,304 (Feb. 16, 2012).

[17] *Michigan v. EPA*, 135 S. Ct. 2699 (2015).

[18] *See* 81 *Fed. Reg*. 24,420 (Apr. 25, 2016).

[19] *See Entergy v. Riverkeeper*, 129 S. Ct. 1498, 222 (2009) (Scalia, J.) (CWA's silence regarding the role of costs in identifying the "best technology available" can reasonably be viewed as a "refusal to tie the agency's hands" regarding how cost-benefit analysis should be conducted).

unique provision of the Act whose phrase "appropriate and necessary" exists nowhere else across the rest of the CAA—*nor in any other* environmental statutes. EPA proposes several different rationales—including a traditional benefit-cost analysis and a novel "totality of circumstances" judgement-based approach—to support its restoration of the "appropriate and necessary" determination here. Given the unique and limited precedential value of CAA section 112(n)(1)(a)'s terms regarding whether such consideration was "appropriate and necessary" to regulate, whichever rationale adopted by the Agency is necessarily limited to MATS.

B. EPA's Proposed Reinstatement of the Appropriate and Necessary Finding.

EPA's Proposal revokes the 2020 MATS findings and its conclusion that it was not "appropriate and necessary" to regulate power plant HAP emissions once costs were considered. The 2020 MATS findings reversed the 2016 determination, finding fault with the weight given to the value of non-HAPs "co-benefits" emission reductions—i.e., the health and environmental benefits resulting from reductions in emissions of non-hazardous air pollutants, such as particulate matter, that are a subsidiary result of efforts to reduce HAP emissions via MATS compliance. EPA in 2020 maintained that the health benefits that should be the focus under section 112(n)(1)(A) should be only those that result directly from reductions in HAP emissions.

EPA's Proposed Rule revokes the 2020 action and reaffirms the appropriate and necessary determinations the Agency made in 2000, 2012, and 2016. The Agency's Proposal lists and explains that under either of two frameworks—EPA's "preferred totality of the circumstances framework" or its "alternative formal BCA [Benefit-Cost Analysis] framework"—the information available to the Agency (both in 2012 and currently) supports its determination that it is appropriate and necessary to regulate HAPs from EGUs. EPA addresses numerous metrics

of both costs and benefits for both frameworks. In its updated analysis utilizing post-2012 information, EPA also specifically notes that the benefits of HAP-related emissions reductions alone—without accounting for additional, non-HAP co-benefits—outweighs the costs of implementing MATS. *See* 87 *Fed. Reg.* at 7,669. Citing EEI's comments on the Agency's 2019 proposal that became the 2020 Final Rule, EPA notes that companies' cumulative compliance costs with MATS were significantly lower than the original estimates in the 2012 rule, where the Agency had estimated $9.6 billion dollars in annual compliance costs. Ultimately, EPA concludes that its initial cost estimates were significantly inflated, and that an ex-poste analysis of costs strengthens both of EPA's approaches to determining that regulation was appropriate and necessary. *Id.* at 7,658.

The ultimate effect of EPA's Proposal is to work to strengthen the legal basis for its 2000, 2012, and 2016 findings that it is and remains appropriate and necessary to regulate HAP emissions from coal- and oil-fired EGUs. EPA proposes to conclude that the costs associated with MATS are justified by the benefits of MATS under a range of potential approaches (assessing costs as estimated in 2012, or assessing the much lower actual costs of implementing MATS; assessing those costs against only direct benefits; assessing those costs against both direct and co-benefits; assessing those costs against monetizable benefits alone; and assessing those costs against both monetizable and non-monetizable benefits). *See* Proposal at 7628-29, 7672. Regardless of the rationale selected, EPA has developed a supportable demonstration that regulation of HAPs emissions under MATS is appropriate and necessary.

C. Regulatory Certainty Through Restoring the Appropriate and Necessary Finding is Crucial for the Electric Power Industry.

Since MATS became effective in 2012, it is estimated that the owners and operators of coal- and oil-based EGUs have spent more than $18 billion to comply, via the installation of controls, as well as retiring some generating assets and investing in new, cleaner, replacement generation. These actions have resulted in significantly reduced mercury and other emissions. Restoring the appropriate and necessary determination—which serves as the legal underpinning of MATS and is a unique statutory provision of no enduring precedential value[20]—responds to the Supreme Court's decision in *Michigan* that EPA must consider costs in evaluating whether it is "appropriate and necessary" to regulate. It also enables electric companies to remain focused on getting the energy we provide as clean as we can as fast as we can, while maintaining the reliability and affordability that our customers value.

There had been significant concern that the 2020 determination to revoke the "appropriate and necessary" determination could put the underlying standards in MATS at risk, particularly as member companies achieved compliance with those rules several years ago. When it proposed what became the 2020 Final Rule, EPA also sought comment on the theory that MATS may—or even must—be rescinded once EPA reverses the "appropriate and necessary" determination because such a determination is a statutory prerequisite to EPA's authority to promulgate an EGU regulation under CAA Section 112(d). In the end, EPA decided that EGUs would remain

[20] As noted previously in these comments, CAA section 112(n)(1)(a) is a unique provision of the Act whose phrase "appropriate and necessary" exists nowhere else across the rest of the CAA or *all other* environmental statutes. Given the unique and limited precedential value of CAA section 112(n)(1)(a)'s terms regarding whether such consideration was "appropriate and necessary" to regulate, whichever final rationale chosen by the Agency is necessarily limited.

listed under Section 112(c)(1), since they can only be delisted through the Section 112(c)(9) delisting process, but it remained unclear whether EPA would have authority to promulgate regulations governing EGUs given the absence of the predicate appropriate and necessary determination. As noted in EEI's comments in 2019, companies already faced arguments in state commission rate reviews that MATS compliance costs should not be recoverable in electricity rates because MATS may be rescinded. While EPA itself did not rescind the MATS in the Final Rule, other stakeholders indicated they would challenge EPA's decision not to rescind MATS, possibly leading to a court mandated recission of the standards.

Just as the CAA uniquely applies an appropriate and necessary finding requirement for regulating HAPs from the electric industry, regulatory certainty regarding what is appropriate and necessary is crucial for the industry when complying with MATS. In addition to installing control technology to reduce emissions of mercury and other pollutants regulated under MATS, EEI's members have retired older, more costly, and less efficient assets, and have invested in new generation facilities.[21] As a result of these investments and changes in the generating fleet, and discussed *supra*, the EGU fleet has significantly reduced mercury and other HAP emissions and fully implemented MATS.

[21] Many of the costs incurred by utilities to retire non-compliant assets and build new, MATS-compliant facilities are capital costs. Electric companies amortize such costs differently on a plant-by-plant and company-by-company basis. Many of the other upfront costs incurred by EEI members were capital costs incurred as a result of the installation or upgrading of controls; ongoing O&M costs are included as well but are a small part of the annual cost of complying with MATS. In the end, the retirement of older coal generation—whether because of MATS requirements, gas and renewable generation prices, ongoing maintenance costs, electricity prices, state policies, or some combination of them—significantly *lowered* annual compliance costs for MATS.

EPA's conclusion in the Proposal—citing EEI comments from April 17, 2019 [22]—that undermining the threshold finding in order to pave the way to rescinding MATS would have grave economic and health consequences is the correct one. *See* 87 *Fed. Reg.* 7,668. EPA adds that numerous utilities reported that they rely upon the mandated status of MATS in order to recoup expenditures already made to comply with the rule before Public Utility Commission proceedings. *Id*. EPA states that its Proposed Rule would provide important certainty about the future of MATS for regulated industry, states, other stakeholders, and the American public. *Id.* at 7,672. EPA is correct and should finalize its proposal expeditiously.

III. Current Mercury and Air Toxics Standards Protect Public Health and Welfare and Existing Data Are Lacking to Revise the Standards.

EPA's Proposal also seeks data or information that could assist in a future review of the RTR, including: performance or cost of new or additional control technologies; improved methods of operation or other practices and technologies that may result in cost-effective reductions of HAP emissions from coal- or oil-first EGUs; improvements or upgrades to existing controls; the cost or performance of technologies and practices relating to monitoring of HAP emissions; and control of HAP emissions during startup and shutdown events. *Id.* at 7,672. The information collected in response to EPA's Proposal could inform a later RTR-related proposal.[23]

---

[22] *See* EEI, Comments of the Edison Electric Institute on National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review (Apr. 17, 2019), https://www.regulations.gov/comment/EPA-HQ-OAR-2018-0794-2267.

[23] *See* Reginfo.gov, EPA/OAR, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Review of the Residual Risk and Technology Review (Fall 2021), https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202110&RIN=2060-AV53.

As discussed *supra*, the clean energy transition underway and being led by EEI's members has resulted in a reduction of overall electric company HAPs emissions (for mercury, acid gases, and total HAPs) by 95 percent. In addition, EGUs may comply with MATS for non-mercury metals by using filterable particulate matter (PM) as a surrogate. EPA data on electric industry emissions of PM_{10} and $PM_{2.5}$ indicate that the sector has reduced emissions by 81 and 82 percent, respectively, from 2000 to 2020.[24] More importantly, electric industry emissions of PM_{10} and $PM_{2.5}$ represent a very small portion of U.S. total anthropogenic emissions. In 2020, the industry emitted only 0.8 percent of PM_{10} and 1.9 percent of $PM_{2.5}$ emissions per EPA data. *Id.*

A. Should EPA Revise HAP Standards, They Must Be Consistent with the Clean Energy Transition and Providing Reliable and Affordable Energy.

EEI's member companies are committed to getting the energy they provide as clean as they can, as fast as they can. Key to an orderly fleet transition is the need to align environmental rulemaking timelines across all media to accomplish the interrelated goals of building generation to replace a large portion of the fossil fleet and building transmission to interconnect more clean resources, which combined will reducing emissions, while maintaining affordability and reliability for customers.

Supportive timelines and frameworks, alongside regulatory flexibilities, can help us achieve these objectives. Numerous EGUs are scheduled for closure this decade, with many others evaluating accelerating or announcing closure consistent with the sector's ongoing transition and other upcoming EPA rulemakings.[25] At the same time, other units are approved by state Public

[24] *See* EPA, Air Pollutant Emissions Trends Data (Apr. 5, 2022), https://www.epa.gov/air-emissions-inventories/air-pollutant-emissions-trends-data.

[25] Forty-three are slated to retire between 2026-2029. *See* EIA, Preliminary Monthly Electric Generator Inventory (based on Form EIA-860M as a supplement to

Utility Commissions/Public Service Commissions to continue operating plans for an orderly transition to the cleaner energy future, because they provide important characteristics related to reliability and affordability. EPA should holistically weigh any new HAPs related requirements with approved state regulatory plans, electric company plans for retirement of the coal EGU fleet, and, critically, the other ongoing EPA rulemakings that are intended to address the sector's emissions profile.

B. Revisions to MATS Are Likely To Provide Minimal Additional Benefits.

The industry has reduced HAP emissions (for mercury, acid gases, and total HAPs) by 95 percent and the clean energy transition will reduce HAPs emissions further, with other CAA and environmental regulations contributing to the reduction of HAPs emissions now and in future years. Given the industry's progress, EPA's conclusion in its May 2020 RTR found that current standards are protective of human health with an adequate margin of safety and that there were no developments in practices, processes or standards warranting a revision of the standard.[26] EPA's conclusion that residual health risks from the coal- and oil-fired EGU source category are acceptable is appropriate, given that "cancer risks to the individual most exposed are well below . . . the presumptive limit of acceptability"; there is a "low likelihood of adverse noncancer effects from inhalation exposures"; and "there are also low risks associated with ingestion."[27]

Form EIA-860)-860M as a supplement to Form EIA-860) (Mar. 24, 2022), https://www.eia.gov/electricity/data/eia860M/.

[26] *See* 85 *Fed. Reg.* 31,314 (May 22, 2020).

[27] *See Id.* at 31,316.

The May 2020 RTR findings are consistent with those presented by the Electric Power Research Institute (EPRI) in a pair of June 2018 reports which concluded that inhalation and multi-pathway health risks from coal-fueled EGUs were well within EPA's established acceptable risk thresholds.[28] EPA's prior analysis corroborated by independent studies supports the findings of the 2020 RTR, that current standards are protective of human health and no new developments in practices, processes or standards warrant revising the standards. EPA would be justified to conclude that the 2020 RTR was appropriate and should be maintained given these facts.

EPA should of course continue to evaluate public health impacts while maintaining the RTR during that review. As the industry continues to retire assets as part of its transition—and, as the capacity factors and utilizations of the remaining units continue to drop as the industry's transition continues—the public health benefits will only continue to accrue and accelerate with any already minimal risks continuing to shrink. EPA should analyze and evaluate those increasing benefits and shrinking risks as it continues its work.

---

[28] *See* EPRI, *Multi-Pathway Human Health Risk Assessment for Coal-Fired Power Plants*, evaluating five "worst-case coal-fired power plants" for carcinogenic and non-carcinogenic risks for adults and children representing resident, farmer and angler populations. This risk assessment shows that cancer and non-cancer risks are, in all cases, below U.S. EPA's acceptable risk thresholds, viii-ix. https://www.epri.com/#/pages/product/000000003002013523/?lang=en-US. *See also* EPRI, *Hazardous Air Pollutants (HAPs) Emissions Estimates and Inhalation Human Health Risk Assessment for U.S. Coal-Fired Electric Generating Units: 2017 Base Year Post-MATS Evaluation* (evaluating inhalation risks from all coal-fired power plants at the individual plant level. This risk assessment found that inhalation health risks for each chemical individually, and all emitted chemicals combined, were well within EPA's established acceptable risk thresholds), https://www.epri.com/#/pages/product/000000003002013577/?lang=en-US.

C. Additional Data Collection May Be Needed Before Revising MATS.

Likewise, EPA should carefully consider the technical basis for any new standards given many different combinations of types of fuels used, generation technologies, and emissions controls. Fuels, generation technologies and emissions control technologies are used in numerous combinations. In addition, EGUs can be operated differently under varying electricity generation load profiles—whether 24-7, intermediate or in peaking mode—which significantly influences emissions rates at individual units.

While the existing RTR framework is sufficient and EPA is correct to maintain it, should EPA consider moving forward it may need additional information and analysis to consider the issues around combinations of fuels/generation technologies/emission controls and their operation, including emissions measurements and detection limits in setting any standards. EPA should consider whether it may need to develop additional suitable data upon which to consider revised standards.[29]

For example, many units comply with MATS by emitting at levels well below MATS requirements and are thus not required to report specific emissions data to EPA by EPA's own regulations.[30] These low emitting EGU (LEE) units must emit at less than one-half of a MATS standard to qualify, and afterward pass a performance test once every three years, except for

[29] If EPA considers whether to initiate an Information Collection Request to develop these data, it should also consider whether to avoid collecting information from units that are already slated to retire in order to avoid imposing additional costs on assets already moving towards decommissioning. Regardless, EPA should also consider the additional benefits of the ongoing impacts from unit retirements.

[30] 77 *Fed. Reg.* 9,371 (Feb. 16, 2012).

mercury. For mercury, a unit must document a potential to emit less than 10 percent of the applicable Hg emissions limit or emit less than 29 pounds of Hg per year, followed by a subsequent performance test on an annual basis to demonstrate that the unit continues to qualify.[31] Given the significant testing and high performance of LEE units, actual emissions for LEE units may not be as robustly available to analyze when considering revised standards.

In addition, data for filterable particulate matter are reported via pdf reports to EPA's WebFIRE platform. These data, which are important in any analysis of compliance with the current standards, are difficult to assemble to support a complete and robust analysis of whether standards should be revised. EPA has recognized the need for an electronic database and will work to assemble such a database in 2023. Finally, EPA must also address data completeness, since any analysis of the industry's compliance history with the current standards should be done using representative long-term records (i.e., at least four consecutive quarters of data). Analyses should consider different "subcategories" of generation types and control technologies, and also should consider different electricity generation load profiles—whether 24-7, intermediate, or in peaking mode. Operational mode significantly influences air emissions rates, as discussed *supra*.

Finally, in implementing the MATS rule since 2012, the electric sector has utilized numerous available control technologies and other methods in order to comply—incredibly successfully as discussed *supra*—with EPA's standards and has done so via numerous different combinations on controls and processes. This was in large measure made possible since EPA's standards provided

[31] *See Id*.

the ability for unit operators to utilize numerous different types of control technologies in order to meet the standards in the MATS rule—e.g., some units could install wet scrubbers and PM controls, while others could install PM controls and Activated Carbon Injection but not a scrubber and also meet the rule's requirements. This has led to significant variability across the EGU fleet in terms of unit performance given the variety of approaches allowed and taken. As a result, EPA should undertake a broad and complete analysis before moving forward with crafting any proposed new or revised standards. It is important that any such standards work in concert with EPA's holistic approach to regulating emissions from the electric sector.

Given these various data needs, EPA should strongly consider whether the existing clean energy transition and the benefits that brings along with the ongoing reduction in risk is sufficient to simply maintain the existing RTR.

IV. Conclusion.

EEI greatly appreciates the ability to comment on the proposed rule. EEI looks forward to working with EPA on this issue as well as regarding our clean energy transition and the key role our sector can play in helping to decarbonize the overall economy. Please contact Alex Bond (202-508-5523; abond@eei.org) or John Kinsman (202-508-5711; jkinsman@eei.org) if you have any questions regarding EEI's comments.