**PGEN COMMENTS ON EPA'S PROPOSED REVOCATION OF 2020 RECONSIDERATION AND AFFIRMATION OF 2016 SUPPLEMENTAL APPROPRIATE AND NECESSARY FINDING**

**Docket ID No. EPA–HQ–OAR–2018–0794**

The Power Generators Air Coalition ("PGen") respectfully submits these comments to the U.S. Environmental Protection Agency ("EPA" or the "Agency") on its proposed rule entitled "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" ("Proposed Rule" or "Proposal").[1] This action proposes to retain the Mercury and Air Toxics Standards ("MATS") rule, without change, which sets standards for hazardous air pollutants ("HAPs") from coal- and oil-fired electric steam generating units ("EGUs").[2]

PGen is an incorporated nonprofit 501(c)(6) organization whose members are diverse electric generating companies – public power, rural electric cooperatives, and investor-owned utilities – with a mix of solar, wind, hydroelectric, nuclear, and fossil generation. PGen is a collaborative effort of electric generators to share information and expertise in the interest of effectively managing air emissions to meet and exceed environmental laws and regulations and in the interest of informing sound regulation and public policy.[3] Our members include leaders in the fundamental transition to cleaner energy that is currently occurring in the industry. PGen as an organization does not participate in legislative lobbying or litigation. PGen and its members work to ensure that environmental regulations support a clean, safe, reliable, and affordable electric system for the nation.

PGen members own and operate EGUs that are directly regulated by the MATS rule. PGen is uniquely qualified to comment on aspects of the Proposal because its members have owned and operated EGUs for decades and are subject to various provisions of the Clean Air Act ("CAA" or the "Act"). PGen members have committed substantial resources to meet and maintain compliance with MATS. PGen submits these comments to communicate the perspective of its members on EPA's Proposal.

In PGen members' experience, the MATS rule has resulted in significant reductions in emissions of HAPs from EGUs. Since the rule's promulgation in 2012, EGU owners and operators have invested significant resources to achieve compliance with MATS while maintaining electric power grid reliability. PGen believes it would be counterproductive and disruptive to rescind MATS.

Further, it would be counterproductive and disruptive to significantly change the MATS rule at this point in time. Modification of the rule would add little value. The EGU category has already undergone a risk and technology review ("RTR") that showed very small residual risk from this

[1] 87 Fed. Reg. 7624 (Feb. 9, 2022).

[2] The MATS rule is codified in 40 C.F.R. Pt. 63 Subpt. UUUUU.

[3] Additional information on PGen and its members can be found at PGen.org.

source category and no technology developments have occurred since promulgation of MATS. As such, preparing a new RTR for the EGU source category is unwarranted. Finally, these comments address aspects of EPA's benefit-cost analysis for the Proposed Rule, as they may impact future rulemakings in which such analysis is warranted.

## I. The MATS Rule Has Led to Significant Reductions in Hazardous Air Pollutant Emissions from Electric Generating Units.

The Proposed Rule discusses at length the quantity of HAP emissions from EGUs before MATS. Electric generating companies' implementation of MATS has resulted in significant reductions of HAP emissions since the standards' promulgation in 2012.[4] Based on data available in 2019, EPA notes in its Proposal that, compared to pre-MATS levels, EGUs have reduced their mercury emissions by 86 percent, acid gas HAP emissions by 96 percent, and non-mercury metal HAP emissions by 81 percent.[5] EPA's most recent National Emissions Inventory ("NEI") also shows that mercury emissions from coal-fired EGUs are now a much smaller portion of total mercury emissions, with the source category only accounting for 4.4 tons of the cumulative 32.8 tons emitted for the relevant year.[6]

More recent data show even greater HAP reductions from EGUs. According to EPA's Emissions Reduction Progress Report, sources regulated under MATS emitted a combined 2.6 tons of mercury in 2020, down from 29 tons in 2010.[7] While the most drastic reductions in mercury emissions occurred around the compliance deadline for MATS, EPA data show that mercury emissions from EGUs continue to steadily decline even absent revised standards. From 2017 to 2020, for example, mercury emissions declined annually by 0.5 tons per year.[8] These figures are consistent with levels of emission reductions that PGen members have experienced since the implementation of the MATS rule. We expect HAP emissions from the EGU sector to continue to decline as part of the ongoing energy transition.

## II. MATS Should Remain In Place Unchanged; Rescinding MATS Would Cause Unnecessary and Substantial Disruption to the Industry.

Under MATS, regulated EGUs were required to achieve compliance with the standards by April 16, 2015. Some sources within the industry requested an additional year to comply with the rule,

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[4] *See* National Emission National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, 77 Fed. Reg. 9304 (Feb. 16, 2012).

[5] 87 Fed. Reg. at 7632 (internal citations omitted).

[6] EPA, 2017 National Emissions Inventory: January 2021 Updated Release, Technical Support Document, at 2-17 (Feb. 2021).

[7] EPA, Emissions Reductions Progress Reports, available at https://www3.epa.gov/airmarkets/progress/reports/emissions_reductions_mats.html#figure1.

[8] *Id*.

and thus compliance throughout the source category was largely achieved by April 2016. In 2020, when EPA revoked the 2016 Supplemental Appropriate and Necessary Finding underpinning the MATS, the Agency explained that it was not removing coal- and oil-fired EGUs from the Section 112(c)(1) source category or rescinding MATS.[9] As a result, EGUs have been in continuous compliance with MATS for many years.[10]

Owners and operators of regulated EGUs, including PGen members, undertook significant efforts to comply with MATS. These efforts included, primarily, the installation of state-of-the-art pollution controls, as well as meeting extensive testing and measurement requirements. In practice, the rule also resulted in retirement of units and in some generation shifting. For instance, the U.S. Energy Information Administration ("EIA") estimated that between January 2015 to April 2016 alone, approximately 87 gigawatts ("GW") of coal-fired plants installed pollution controls equipment for MATS compliance and nearly 20 GW of coal capacity retired.[11]

These HAP reductions, however, did not come cheaply. A large portion of the costs incurred by the industry were upfront capital expenditures. For instance, from December 2014 to April 2016, coal-fired EGUs incurred upfront capital expenditures for retrofits totaling $4.45 billion.[12] The financial cost is even greater after factoring in reoccurring operations and maintenance costs. With these additional costs, EPA estimates that the industry has already cumulatively invested more than $18 billion to comply with MATS.[13] Notably, this figure does not include the cost associated with the retirement or shifting of generation to other sources attributable to MATS.

Given these circumstances, PGen believes there is no reason to rescind or significantly amend the MATS. Doing so would upend a regulatory landscape that has been settled for a decade and subject the industry to regulatory uncertainty and disruption of reliable operations. This is particularly inappropriate here, where owners and operators have already invested large amounts of capital to install control technology and other measures to comply with the existing standards, which have already resulted in a dramatic reduction in HAP emissions. Rescinding MATS could also have unintended consequences, such as making cost recovery for MATS-required controls more difficult. While it may be intuitive that controls that were legally required at the time they were installed are justified, rescinding MATS at this time would provide unnecessary fodder for unreasonable arguments against such cost recovery.

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[9] EPA, 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, 85 Fed. Reg. 31,286, 31,312-13 (May 22, 2020).

[10] 87 Fed. Reg. at 7650.

[11] EIA, *Coal Plants Installed Mercury Controls to Meet Compliance Deadlines*, (Sept. 18, 2017), available at https://www.eia.gov/todayinenergy/detail.php?id=32952#:~:text=Based%20on%20data%20recently%20published,just%20prior%20to%20compliance%20deadlines.

[12] *Id*.

[13] 87 Fed. Reg. at 7651.

## III. Undertaking a New RTR Rulemaking for EGUs is Unwarranted.

EPA's plan to undertake a new RTR rulemaking for EGUs is unwarranted. EPA states that it is doing so to comply with President Biden's Executive Order 13990.[14] That order instructs EPA to review in particular a list of agency actions, which includes the combined reconsideration of the 2016 Supplemental Finding and the RTR issued by EPA in 2020.[15] EPA's review has evidently resulted in this Proposal to reverse the 2020 reconsideration of the 2016 Supplemental Finding. EPA goes further however, and without any indication that its review of the 2020 RTR resulted in a decision to revise it, EPA solicits information that appears directed at undertaking a new RTR. EPA thus requests information on 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-fired EGUs.[16] This type of information, however, was already submitted to and evaluated by the Agency in the 2020 RTR. There is no additional, substantial information from the intervening two years that would materially inform a new RTR rulemaking.

As a preliminary matter, PGen notes that Executive Order 13990 does not require EPA to undertake a new RTR for EGUs, but merely requires the Agency to review the 2020 RTR. Likewise, there is no statutory obligation to redo its 2020 RTR at this time under Section 112. The CAA requires EPA to conduct a residual risk review within eight years of promulgating standards for a source category listed under Section 112.[17] For the EGU source category, EPA has fulfilled this statutory requirement as part of the 2020 action. Beyond the lack of a legal obligation to do so, PGen believes there are compelling reasons to forgo conducting a new RTR for EGUs at this time.

Importantly, the 2020 RTR rulemaking included a thorough risk assessment that showed very small risk from EGUs post-MATS. EPA does not question these findings in the Proposed Rule, and there is no evidence that suggests that there have been significant intervening developments to change EPA's previous findings, which were issued less than two full years ago. Among other things, EPA considered the results of its chronic inhalation risk assessment, which determined that the maximum individual cancer risk from any EGU facility is 9-in-1 million, with the major contributor being nickel emissions from oil-fired EGUs.[18] The maximum chronic non-cancer target organ-specific hazard index is 0.2 (driven by cobalt and nickel emissions from oil-fired

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[14] *Id.* at 7672.

[15] Exec. Order 13990, 86 Fed. Reg. 7037 (Jan. 25, 2021).

[16] *Id*.

[17] 42 U.S.C. § 7412(f)(2).

[18] 85 Fed. Reg. at 31,315. Oil-fired units are a minority of units in this source category. The vast majority of EGUs are coal-fired units, so the risk level described above is not representative for this source category. For instance, oil-fired EGUs made up less than 1 percent of total electricity generation in 2016. *See* EIA, *Oil-Fired Power Plants Provide Small Amounts of U.S. Electricity Capacity and Generation*, (May 16, 2017), available at https://www.eia.gov/todayinenergy/detail.php?id=31232.

EGUs), well below EPA's threshold of 1.[19] Inhalation risks from "allowable" and facility-wide emissions are similar. The worst-case hazard quotient ("HQ") from acute emissions is 0.09, driven by emissions of arsenic, also well below (by an order of magnitude less than) EPA's threshold of 1.[20]

EPA also conducted a multipathway (inhalation plus non-inhalation exposures) risk assessment. EPA's screening assessment found that the highest-risk facility presented a cancer risk of 50-in-1 million at the "Tier 3" level.[21] Because this value was sufficiently below the Agency's presumptive threshold for "acceptable" risks of 100-in-1 million, and EPA expected actual risks to be much lower than this very conservative screening value, EPA did not perform further assessments of multipathway cancer risks.[22] For non-cancer risks, the facilities with the highest risk values did not "screen out" due to their mercury emissions.[23] A refined assessment, which EPA states "likely represents the maximum hazard for Hg through fish consumption for the source category," yielded a mercury HQ of 0.06, well below (more than an order of magnitude less than) EPA's threshold of 1.[24]

The fact that the 2020 RTR revealed relatively little risks from EGUs post-MATS is largely attributable to the fact that the industry already has well-established control technologies that have led to significant reductions in HAP emissions as a result of the MATS.[25] As explained by the Agency in 2020, since the promulgation of MATS, there have been no developments in practices, processes, and control technologies that justify revisions to the standards.[26] This is not surprising. This is a mature industry that has been the subject of CAA regulation since the inception of the Act, more than 40 years ago. The types of controls that were well-established in 2012, when EPA promulgated MATS, are the same as those that existed in 2020, when EPA promulgated the current RTR rule. Certainly, there have been no changes in the last two years either. PGen members, whose business requires the installation and operation of the controls required to meet MATS, are unaware of any new cost-effective practices, processes, or control technologies that would make a new technology review warranted at this time.

Additionally, conducting a new RTR for EGUs is particularly unwarranted because the industry is engaged in a substantial transition. In 2022 alone, it is projected that 85 percent of retired

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[19] *Id.*

[20] *Id*.

[21] *Id.* at 31,316.

[22] *Id*.

[23] *Id*.

[24] EPA, 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 Proposed Rule, 84 Fed. Reg. 2670, 2698 (Feb. 7, 2019).

[25] *See supra* Part I.

[26] 85 Fed. Reg. at 31,314.

generating capacity will come from coal-fired power plants.[27] This merely continues a trend in the industry that has taken place over the last decade. Accordingly, overall HAP emissions from the sector will continue to decrease below already low levels, even absent any revision to the MATS.

Given the above, EPA would be better served in allocating its resources to the myriad RTR rulemakings for a number of other industries that the Agency must still complete, including many with court-imposed deadlines. Conducting an RTR is an arduous and time-consuming process. And EPA has already conducted a thorough RTR for EGUs. It is unnecessary to revisit that RTR, which verifies that MATS has worked well, resulting in a very small residual risk (if any) and no new technologies.

## IV. EPA's Approaches for Considering Costs and Benefits are Problematic.

For the benefit of future rulemakings, PGen offers the following comments on the cost-benefit analysis. The consideration of costs and benefit is relevant to most rulemakings, save very few circumstances in which the statute precludes it. For example, cost has always been a consideration in RTR rulemakings. PGen believes that neither of EPA's proposed cost-benefit frameworks in this rulemaking should be used in future rulemakings, including in an RTR reconsideration for EGUs, for the following reasons.

### A. EPA's Preferred Benefit-Cost Framework is Inconsistent with *Michigan* Because it Fails to Assess Whether the Costs of Its Decision Outweighed the Benefits.

EPA proposes to consider the costs under a "totality-of-the-circumstances" approach that attempts to incorporate all costs and benefits to society that regulation presents.[28] Under this "preferred" approach, EPA considers all advantages of reducing emissions of HAPs, regardless of whether those advantages can be quantified or monetized and all the disadvantages of regulation, principally in the form of the costs incurred to control HAPs.[29] What EPA's approach does not do, however, is compare in any way – much less set off – the benefits of the action against its costs. EPA's preferred totality-of-the-circumstances approach fundamentally conflicts with the Supreme Court's decision in *Michigan v. EPA*.

In *Michigan v. EPA*, the Supreme Court explained that "[c]onsideration of cost reflects the understanding that reasonable regulation ordinarily requires paying attention to the advantages *and* disadvantages of agency decisions."[30] The Court faulted EPA's refusal to "consider whether

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[27] EIA, *Coal Will Account for 85% of U.S. Electric Generating Capacity Retirements in 2022*, (Jan. 11, 2022), available at https://www.eia.gov/todayinenergy/detail.php?id=50838#.

[28] 87 Fed. Reg. at 7627.

[29] *Id.* at 7627-28.

[30] 576 U.S. 743, 753 (2015) (emphasis in original).

the costs of its decision outweighed the benefits,"[31] stating that "[o]ne would not say that it is even rational … to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits."[32] The Court thus made clear that EPA must consider costs in relation to benefits.

EPA appears to have ignored the Court's decision in *Michigan* because the Agency's proposed approach merely evaluates whether the industry – or the public at large, since the costs of making a product are invariably passed on to customers and ratepayers – can afford the regulation. EPA nowhere compares those costs to the benefits of the proposed action. Instead, EPA assesses in this proposed rulemaking compliance costs based on various metrics (e.g., compliance costs as percent of power sector sales; compliance expenditures compared to power sector's annual expenditures; impact on retail price of electricity; impact on power sector generating capacity) that are unrelated and not compared to benefits.[33]

However, the proper analysis is not whether the industry (or society at large) can afford the costs of compliance, but whether the costs of compliance are worth it based on the total benefits derived from regulation.[34] Under *Michigan*, EPA cannot justify imposing new requirements on sources simply because it believes that the industry in question (or the American economy) could afford to foot the bill of increased regulation. The utility sector is a large industry, and the American economy is probably the largest in the world. EPA would be hard-pressed to find the American economy and the utility sector cannot afford the cost of virtually any regulatory action, especially when such action is viewed in isolation. That conclusion, however, does not mean the benefits of the regulation justify its costs. In short, a benefit-cost framework requires a comparison of benefits and costs, not just affordability of the costs.

In its Proposal, EPA does not explain why and how the non-monetized benefits of the action outweigh the costs. EPA states that it considers "all of the advantages of reducing emissions of HAP … regardless of whether those advantages can be quantified or monetized, and we explain why almost none of those advantages can be monetized."[35] Even if benefits cannot be monetized, EPA must evaluate and explain whether the specific benefits the Agency identified are worth the cost it estimated. Instead, EPA summarily states that "[a]fter considering and weighing all of these facts and circumstances … the Administrator proposes to conclude that the substantial benefits of reducing HAP from EGUs … are worth the costs."[36] A single sentence conclusion does not meet the standard set forth in *Michigan*.

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[31] *Id.* at 750.

[32] *Id.* at 752.

[33] 87 Fed. Reg. at 7656-58.

[34] *See Indus. Union Dep't AFL-CLO v. Am Petroleum Inst*., 448 U.S. 607, 668 n.4 (1980) (Powell, J., concurring in part and concurring in judgment) ("The cost of complying with a standard may be 'bearable' and still not reasonably related to the benefits excepted.").

[35] 87 Fed. Reg. at 7627.

[36] *Id.* at 7668.

We ask that EPA conduct a more complete cost-benefit analysis in future rulemakings, including any potential RTR rulemaking.

### B. EPA's Alternative Benefit-Cost Approach Should Also Not Be Used In Future Rulemakings Because it is Based on the "Co-Benefits" of Reducing Pollutants Other than Those Targeted by the Proposed Regulation.

PGen is equally concerned with the alternative benefit-cost analysis EPA offers, and believes it should not be used in future rulemakings. Under the alternative formal benefit-cost analysis[37] ("BCA") approach, EPA proposes to justify a program designed ostensibly to regulate HAPs based on – indeed almost completely relying on – benefits attributable to reducing other, non-HAP pollutants.[38] Specifically, EPA proposes to reverse its 2020 position and again seeks to rely on the quantification of benefits associated with reductions in $PM_{2.5}$ to justify a program intended to regulate wholly different pollutants (i.e., HAPs).[39] PGen disagrees with this proposed approach relying on co-benefits.[40]

As an initial matter, it is illogical to justify a regulatory action on the basis of ancillary benefits that are unrelated to the purpose of the regulation and the statutory provision underlying it. The purpose of a regulatory program under the CAA – i.e., the benefit that the statute intends – is reduction of the impact (on public health and welfare and on the environment) of the pollutant subject to that program. Where cost is a consideration for whether and how to regulate under such a program, it is that benefit – the benefit that the statute intends – that must be worth the costs of the regulation.[41]

Furthermore, accounting in the cost-benefit for a regulatory action for co-benefits derived from ancillary reductions in pollutants specifically regulated under other parts of the Act is particularly inappropriate: either these co-benefits go beyond the reductions that have been

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[37] *Id*. at 7628.

[38] *Id.* at 7671 (stating that a formal BCA should account for "*all* of the effects of the rule that can be quantified should be used.").

[39] *Id*. at 7669-70.

[40] EPA proposes to find that under its preferred totality-of-the-circumstances approach HAP regulation is appropriate absent consideration of co-benefits. 87 Fed. Reg. at 7628. Nonetheless, EPA solicits comment on whether it is reasonable to consider advantages of non-HAP emission reductions as part of its totality-of-the-circumstances approach. For the reasons discussed in this section, PGen believes it would be unreasonable to consider co-benefits under either EPA's preferred or alternative BCA approach.

[41] *See, e.g.*, *Am. Petroleum Inst. v. EPA*, 52 F.3d 1113, 1119 (D.C. Cir. 1995) (finding EPA may not base fuel requirements under reformulated gasoline program on incidental global warming benefits when purpose of the program under the statute was to reduce volatile organic compounds and toxics from fuels); *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1058 (D.C. Cir. 1995) (holding that EPA may not deny fuel additive waiver on public health grounds when statute only permits denial on emission control interference grounds).

determined to be necessary under the Act, or the reductions were already required by the Act and are therefore "double-counted."

This is particularly true when attempting to predicate regulation under Section 112 (or any other CAA program) on co-benefits resulting from reductions in criteria air pollutants. Not only are criteria pollutants not the subject of regulation under that provision, they are already, and have always been, subject to extensive regulation under the CAA. $PM_{2.5}$ is already directly regulated under the National Ambient Air Quality Standards ("NAAQS") program.[42] Under that program, EPA established – and when appropriate revises – ambient air quality standards that are requisite to protect the public health and welfare with an adequate margin of safety.[43] EPA cannot base a decision that it is appropriate to regulate other pollutants (such as HAPs) based on an alleged benefit of reducing $PM_{2.5}$ beyond levels that EPA has already determined meet the statutory directives applicable to that pollutant. Doing so would allow EPA to base its decision of whether and how to regulate on factors that are not in the statute.[44] If EPA believes that further lowering of NAAQS is necessary, the Agency should pursue that action under the NAAQS process as laid out in the Clean Air Act. It cannot circumvent the process for doing so and must pursue that regulatory action in a manner that is consistent with the Act.[45]

Conversely, prohibiting the consideration of co-benefits ensures that emissions reductions are not "double counted" when analyzing the costs and benefits for future proposed rules. The Supreme Court has recognized that when an agency considers costs, "whether it is 'reasonable' to bear a particular cost may well depend on the resulting benefits."[46] In such situations, an agency cannot reasonably justify the costs of a proposed action when benefits attributed to that action will occur – or already have occurred – regardless of whether the agency actually finalizes and implements its proposal. For instance, in its 2016 Supplemental Finding, it appears that EPA may have failed to take into account emissions attributable to other regulatory actions, such as emission reductions due to the lowering of the 1-hour $SO_2$ NAAQS in 2010.[47] EPA has acknowledged that this double counting may have occurred for other significant rulemakings.[48] In the future, EPA

[42] *See* 42 U.S.C. §§ 7408, 7409.

[43] *Id.* § 7409(b).

[44] *Cf. Michigan*, 576 U.S. at 744 (finding that where the CAA directs EPA to regulate on specific factors, the statute should not be implicitly read as allowing the Agency to consider other factors).

[45] *See* 42 U.S.C. §§ 7409(b)(1)-(2).

[46] *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 225-226 (2009).

[47] *See* EPA, Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards, at 5A-10 (Dec. 2011).

[48] EPA, Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants, at 4-15 (June 2014) (explaining "it is possible that some costs and benefits in this RIA may account for the same air quality improvements as estimated in the illustrative NAAQS RIAs").

should ensure that emission reductions that have or will occur due to other regulation will not be wrongly attributed to proposed and future rulemaking actions to justify their promulgation.

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In the last decade, EGU owners and operators have invested significant resources to achieve compliance with MATS while maintaining electric power grid reliability. Consequently, the MATS rule has resulted in significant reductions in emissions of HAPs from EGUs. PGen believes it would be counterproductive and disruptive to rescind MATS. Moreover, MATS has resulted in very small residual risk remaining from EGU HAPs. And there are no new control technologies that have emerged in the past decade for this mature industry. Accordingly, PGen also believes it would be counterproductive and disruptive to undertake a new RTR for EGUs. PGen appreciates the opportunity to share its views on EPA's Proposal and looks forward to working with the Agency in future rulemakings.

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