



Tishman Environment and Design Center



May 28, 2024

Attn: Docket ID No. EPA-HQ-OAR-2024-0135

U.S. Environmental Protection Agency
1200 Pennsylvania Avenue N.W.
Washington, D.C. 20460

Submitted at <http://www.regulations.gov>

Re: *Existing Stationary Combustion Turbine EGUs Framing Questions for Stakeholder Input*

The Tishman Environment and Design Center at The New School, the Center for the Urban Environment of the John S. Watson Institute for Urban Policy and Research at Kean University, the New Jersey Environmental Justice Alliance, the Center for Earth, Energy, and Democracy, WE ACT for Environmental Justice, and the Deep South Center for Environmental Justice, along with the 23 co-signed environmental justice (EJ) organizations and alliances and 15 co-signed allied organizations and coalitions, submit the following comments in reference to EPA's *Existing Stationary Combustion Turbine EGUs Framing Questions for Stakeholder Input*.

Our organizations submitted comments last year on EPA's proposed *New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emissions Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule*.¹ In these comments, we build on these previous submissions and uplift several key priorities for our groups that relate to the framing questions that EPA has presented in this non-regulatory docket. We see this communication as just one step along the process of answering these specific questions and engaging with EPA on addressing pollution from the

¹ *Comments Submitted on EPA's New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emissions Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule* (Tishman Environment and Design Center (TEDC), The New Jersey Environmental Justice Alliance (NJEJA), Center for Earth, Energy & Democracy (CEED), and the Kean University John S. Watson Institute, August 2023), https://ceed.org/wp-content/uploads/2023/08/EPA-New-Source-GHG-Comments-Tishman_CEED_NJEJA_Watson.pdf; *Greenhouse Gas Standards and Guidelines for Fossil Fuel Plants, Comments of WE ACT for Environmental Justice and the Clean Air for the Long Haul Cohort* (WE ACT for Environmental Justice and the Clean Air for the Long Haul Cohort, August 2023), <https://www.regulations.gov/comment/EPA-HQ-OAR-2023-0072-0890>.

power sector. The recommendations we provide here are applicable to the entire existing natural gas fleet—which we hope the EPA will regulate—not just the subset of facilities meeting the size and capacity factor criteria used in the final rule issued by EPA for coal and new gas Electric Generating Units (EGUs).²

First, as we have previously noted,³ neither retrofitting natural gas plants with carbon capture and storage (CCS) technology nor co-firing with hydrogen is an effective “best system of emissions reduction” (BSER); these approaches should not be used in any BSER formulation. They contribute to harmful co-pollutants, as well as bring myriad health and safety risks from chemical usage, pipeline explosions, and storage leaks, all of which occur against a backdrop of a deficient regulatory environment leaving already overburdened EJ communities subject to additional burdens and harms. In the final greenhouse gas rule for coal and new gas-fired EGUs, EPA cited insufficient evidence to assuage the concerns we have expressed about the risks to communities, such as NO_x and other harmful air pollution emissions.⁴ There is a notable lack of evidence that applying CCS to power plants achieves sustained CO₂ capture rates over their operational lifetime.⁵ As our previous submission detailed, the risks and dangers continue downstream with the transport and storage of CO₂.⁶ Since the major CO₂ pipeline rupture in Satartia, Mississippi in 2020, there was another leak from this same interstate pipeline, owned by ExxonMobil, which released an estimated 2,548 barrels of CO₂ near a neighborhood north of Sulphur, Louisiana in April 2024.⁷ Safety risks during CO₂ transport and storage and the inadequacy of existing regulatory frameworks to protect public health and prevent harms to people,⁸ remain troubling and under-acknowledged in the final rule. Thus, based on the substantial body of evidence regarding the harms of CCS and hydrogen co-firing, we continue to reiterate here that these technologies should not be considered BSER under any circumstances.

Second, EPA has available several other promising systems of emissions reduction that could serve as a BSER. These include operational and maintenance best practices and heat rate improvements through equipment upgrades, which would allow facilities to run more cleanly and efficiently. One especially important avenue for EPA to consider as a BSER is the on-site installation and integration of renewable energy and battery storage at existing power plants

² Final rule on “New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule” (hereinafter “Final rule”), Federal Register Vol. 89, No. 91 (US Environmental Protection Agency (EPA), May 9, 2024).

³ TEDC et al., *Comments Submitted on EPA’s New Source Performance Standards*.

⁴ Final rule.

⁵ Petra Nova was one of the few examples where operational capture rates were provided; however, these rates are unverified. See *White House Environmental Justice Advisory Council Recommendations: Carbon Management Workgroup* (Washington, DC: WHEJAC, 2023), p. 31,

https://www.epa.gov/system/files/documents/2023-11/final-carbon-management-recommendations-report_11.17.2023_508.pdf.

⁶ TEDC et al., *Comments Submitted on EPA’s New Source Performance Standards*, Sections II.B. and III.C.

⁷ *Failure Investigation Report - Denbury Gulf Coast Pipelines, LLC – Pipeline Rupture/ Natural Force Damage* (Washington, DC: US DOT, 2022),

<https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2022-05/Failure%20Investigation%20Report%20-%20Denbury%20Gulf%20Coast%20Pipeline.pdf>; Lakhani, Nina, “Wake-up Call: Pipeline Leak Exposes Carbon Capture Safety Gaps, Advocates Say,” *The Guardian*, April 19, 2024, <https://www.theguardian.com/us-news/2024/apr/19/exxon-pipeline-leak-carbon-capture-safety-gaps>; Baurick, Tristan, “A Stark Warning: Latest Carbon Dioxide Leak Raises Concerns About Safety, Regulation,” *Iowa Capital Dispatch*, May 5, 2024,

<https://iowacapitaldispatch.com/2024/05/05/a-stark-warning-latest-carbon-dioxide-leak-raises-concerns-about-safety-regulation/>.

⁸ TEDC et al., *Comments Submitted on EPA’s New Source Performance Standards*, Section III.C.

with combustion turbines. While this may be particularly appropriate for low-to-intermediate load EGUs, we also believe there is support for the application of this system at higher load EGUs. For example, the world's largest battery storage facility with 700 MW of energy was constructed by NextEra Energy Resources in California.⁹ Such a system of emissions reduction could be integrated to help EGUs run more cleanly and efficiently by smoothing energy loads, covering the facility's own parasitic load, and shifting a meaningful part of the facility's capacity to this gas/renewable hybrid generation.¹⁰

Moreover, it is of the utmost importance that EPA provides effective oversight of state compliance, which includes clear guidance and directives for the approval of state implementation plans (SIPs). EPA in its framing questions and presenters at the May 17th public forum put a number of flexibilities on the table for the agency to consider granting to states. However, we firmly caution EPA against leeway that would not only undermine the point of issuing a rule under Section 111(d) but also shirk the agency's obligation to uphold environmental justice and protect the air quality, health, and environment of overburdened populations living around stationary combustion turbines. In furtherance of these obligations, we would like to recommend and outline a two-part approach that EPA should develop in further consultation with environmental justice stakeholders.

Within a 111(d) rule for existing combustion turbines, EPA should first identify those facilities that are located in overburdened EJ communities. There are a variety of tools and methodologies that can be adapted for this purpose, including EPA's own Power Plant Environmental Justice Screening Methodology, the Center for Disease Control (CDC)/Agency for Toxic Substances and Disease Registry (ATSDR)'s Environmental Justice Index, and the Council on Environmental Quality (CEQ)'s Climate and Economic Justice Screening Tool.¹¹ Next, EPA should make it clear to states that in order for a SIP to be approved, the plan must demonstrate that the compliance pathway—such as a CO₂ reduction technology or methodology—chosen for each particular covered facility in an overburdened EJ community will not cause or contribute to adverse cumulative environmental or public health stressors in the community.

SIPs can include a range of alternatives with the preferred BSERs mentioned above that achieve CO₂ reductions without further burdening EJ communities. Should a state choose to employ a CO₂ reduction methodology that can pose additional burdens and risks, it must not be used at facilities located in overburdened EJ communities.¹² We believe that EPA has the authority to require SIPs to provide this type of guarantee, as EPA must consider other health and environmental impacts beyond GHG emissions in establishing the BSERs and then approve state plans to implement those standards. Given this requirement, it is also legally appropriate for the agency to consider these factors regarding the implementation of the rule.

⁹ *Desert Peak Energy Center Case No. 5.1543-CUP* (Palm Springs, CA: City of Palm Springs, May 2022), <https://ceqanet.opr.ca.gov/2022050101>.

¹⁰ We note that there are various methods by which EPA could sub-categorize facilities for BSER formulation. One of these is by location, which could involve a determination of whether the facility is located in an already overburdened EJ community.

¹¹ "Power Plant Environmental Justice Screening Methodology," US EPA, accessed May 22, 2024, <https://www.epa.gov/power-sector/power-plant-environmental-justice-screening-methodology>; "Environmental Justice Index," CDC/ATSDR, accessed May 22, 2024, <https://www.atsdr.cdc.gov/placeandhealth/eji/index.html>; "Climate and Economic Justice Screening Tool," CEQ, accessed May 22, 2024.

¹² Clean Air Act, 42 U.S.C. § 110 (a)(2)(E).

The cumulative assessment we recommend here would protect EJ communities, provided that methodological guidance is developed with the input and consultation of EJ representatives, particularly those with relevant experience and expertise in cumulative impacts approaches for decision-making.

We would like to remind EPA that this group has provided extensive comments on why the agency should incorporate cumulative impacts into its 111(d) GHG rules for power plants.¹³ Incorporating cumulative impacts is consistent with EPA's obligations under Executive Order 14096 of 2023, *Revitalizing Our Nation's Commitment to Environmental Justice for All*, which directs agencies to use their legal authority to address disproportionate impacts, including contributions to cumulative impacts, related to their activities and to avoid, minimize, or mitigate those impacts to the maximum extent practicable.¹⁴ As we noted in our previous comments, cumulative impacts has been, and arguably still is, "the most pressing EJ issue in our nation today."¹⁵

We are disappointed that notwithstanding this logic, the final rule issued by EPA for coal and new gas EGUs, the *New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule*, failed to incorporate a cumulative impacts analysis as well as a cumulative impacts policy. Our concerns about the lack of cumulative impacts analysis and policy throughout the rule-making process were detailed at length in the comments we submitted last August.¹⁶ Regarding the absence of cumulative impacts in the final rule, our critique is two-fold. First, for purposes of the emission guidelines, EPA's final rule appears to leave consideration of cumulative pollution burdens to the states and describes the agency's own cumulative impacts work as essentially research and planning ("prioritizing cumulative impacts research," "developing a work plan," "continuing to refine analytic techniques," "increasing the body of relevant data and knowledge," etc.) rather than much-needed substantive action and decision-making.¹⁷ Second, even when discussing the states' obligation to consider cumulative impacts, EPA only "urges states to consider the cumulative burden of pollution when identifying their pertinent stakeholders for these emission guidelines, as these stakeholders may be especially vulnerable to the impacts of a state plan..."¹⁸ Problematically, EPA seems to imply that unless the state has an explicit policy passed, such as New Jersey's Environmental Justice Law, it does not have to do more than this mere 'consideration,' i.e., it does not have to proactively guarantee that its SIP and other actions refrain from further burdening already overburdened communities.

Going forward, EPA still has an obligation and opportunity to substantively incorporate cumulative impacts into the GHG rule for the existing natural gas fleet, and we urge it to do so effectively through the two-step approach outlined above. Cumulative impacts and EJ concerns

¹³ TEDC et al., *Comments Submitted on EPA's New Source Performance Standards*.

¹⁴ Exec. Order No. 14096, 88 Fed. Reg. 25,251 §§ 3(a)(ii) and 3(a)(vi). (2023).

¹⁵ TEDC et al., *Comments Submitted on EPA's New Source Performance Standards*, Section I.E.

¹⁶ TEDC et al., *Comments Submitted on EPA's New Source Performance Standards*, Section IV.E.

¹⁷ Final rule, p. 39993.

¹⁸ Final rule, p. 39993.

should not be relegated to vague “meaningful engagement” processes in states with no actionable mechanism to address the material risks associated with facility-specific strategies.

Furthermore, we do not believe that emissions trading, offsets, and other market-based mechanisms are appropriate in the establishment of emission guidelines. Nor should they be used in SIPs where they may compromise the attainment of emissions reductions, and present serious equity concerns in already overburdened EJ communities. Trading and offsetting systems also have inherent risks of being mismanaged and misdirected. Research has shown that trading mechanisms may maintain or worsen the existing inequitable distribution of emissions burdens to the detriment of such communities.¹⁹ Mass-based trading and emissions averaging mechanisms insufficiently guarantee that localized emissions reductions will actually occur, or worse yet, they do not guarantee that emissions will *not* increase or that disparities in pollution burdens do not *worsen*. In fact, we believe that EPA should not allow trading and averaging schemes in its proposal, whether they be for CO₂, NO_x, or any other GHG or co-pollutant. Instead, the EPA should encourage states to meet emissions standards by obligating mandatory emissions reductions in EJ communities.²⁰ Market-based mechanisms will miss the opportunity to use climate change mitigation policy to advance more equitable policies for EJ communities.

In closing, we continue to uphold that environmental justice must be at the forefront of how reconsideration of 111(d) will apply to the existing natural gas fleet. Any strategy to reduce GHG emissions should not increase burdens in EJ or disadvantaged communities. There are additional multi-pollutant regulations that we support, but they do not replace the need for this rulemaking to uphold environmental justice by also guaranteeing emissions reductions in overburdened EJ communities. Strengthening existing regulations and standards is insufficient to address the potential harm that certain carbon management approaches like CCS and hydrogen co-firing present to EJ communities. The cumulative impact analysis and policy recommended here are needed *in addition* to those changes.

Thank you for considering our input. We look forward to engaging the agency as it undertakes this new rule-making, and would welcome the opportunity to discuss the ideas contained in these comments.

Prepared and respectfully submitted by:

Center for Earth, Energy, and Democracy
Center for the Urban Environment of the Watson Institute for Urban Policy and Research at
Kean University

¹⁹ Cushing, L., Blaustein-Rejto, D., Wander, M., Pastor, M., Sadd, J., Zhu, A., & Morello-Frosch, R. (2018). Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011-2015). *PLOS Medicine*, 15(7), e1002604. <https://doi.org/10.1371/JOURNAL.PMED.1002604>.

²⁰ Sheats, Nicky et al., *Mandatory Emissions Reductions for Climate Mitigation in the Power Sector* (Tishman Environment and Design Center, 2023), https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/652570c04f5b18223812ba83/1696952514858/Mandatory+Em+issions+Reductions_Oct2023.pdf.

Deep South Center for Environmental Justice
New Jersey Environmental Justice Alliance
Tishman Environment and Design Center, The New School
WE ACT for Environmental Justice

Co-signed EJ organizations and alliances of EJ organizations:

Alternatives for Community & Environment (ACE)
Between the Waters
Breathe Easy Susquehanna County
Clean Power Lake County
East Yard Communities for Environmental Justice
Environmental Justice Health Alliance for Chemical Policy Reform
GAIA (Global Alliance for Incinerator Alternatives)
Just Transition Alliance
Harambee House, Inc. / Citizens for Environmental Justice
Hip Hop Caucus
Ironbound Community Corporation
JPAP
Los Jardines Institute
Movement Generation
Move Past Plastic (MPP)
PODER
ReGenesis Institute
RISE for Environmental Justice
Rural Coalition
South Ward Environmental Alliance
West End Revitalization Association (WERA)
Western Broome Environmental Stakeholders Coalition (WBESC)
Wisconsin Green Muslims

Co-signed allied organizations:

Alliance for Affordable Energy
Berks Gas Truth
Center for Biological Diversity
Defend Our Health
Environmental Data & Governance Initiative
Food & Water Watch
Institute for Policy Studies Climate Policy Program
Memphis APRI
Moms for a Nontoxic New York (MNNY)
NEPA Green Coalition
Northampton County Controller

TIAA-Divest!
Unitarian Universalist Mass Action
Until Justice Data Partners

Additional co-signed coalitions:

Better Path Coalition (*Statewide frontline and grassroots-led coalition, PA*)