

**FACT SHEET FOR COMMUNITIES WITH ENVIRONMENTAL JUSTICE CONCERNS  
GREENHOUSE GAS STANDARDS AND GUIDELINES FOR FOSSIL FUEL-FIRED POWER PLANTS  
PROPOSED RULE**

**Summary**

*On May 11, 2023, the U.S. Environmental Protection Agency (EPA) announced proposed new carbon pollution standards for coal and gas-fired power plants that will protect public health, reduce harmful pollutants and deliver up to \$85 billion in climate and public health benefits over the next two decades. Consistent with EPA’s traditional approach to establishing pollution standards under the Clean Air Act, the proposed limits and guidelines require ambitious reductions in carbon pollution based on proven and cost-effective control technologies that can be applied directly to power plants. They also provide owners and operators of power plants with ample lead time and substantial compliance flexibilities, allowing power companies and grid operators to make sound long-term planning and investment decisions, and supporting the power sector’s ability to continue delivering reliable and affordable electricity.*

*President Biden’s policy agenda has driven momentum in the power sector to cut GHGs and is moving us closer to avoiding the worst impacts of climate change. Together with other recent EPA actions to address health-harming pollution from the power sector, the proposed rules deliver on the Administration’s commitment to reduce pollution from the power sector while providing long-term regulatory certainty and operational flexibility.*

**Overview**

- EPA is proposing Clean Air Act emission limits and guidelines for carbon dioxide (CO<sub>2</sub>) from fossil fuel-fired power plants based on cost-effective and available control technologies. The power sector is the largest stationary source of greenhouse gases (GHGs), emitting 25 percent of the overall domestic emissions in 2021. These emissions are almost entirely the result of the combustion of fossil fuels in the electric generating units (EGUs) that are the subjects of these proposals.
- The proposals would set limits for new gas-fired combustion turbines, existing coal, oil and gas-fired steam generating units, and certain existing gas-fired combustion turbines. Consistent with EPA’s traditional approach to establishing pollution standards for power plants under section 111 of the Clean Air Act, the proposed standards are based on technologies such as carbon capture and sequestration/storage (CCS), low-GHG hydrogen co-firing, and natural gas co-firing, which can be applied directly to power plants that use fossil fuels to generate electricity.
- As laid out in section 111 of the Clean Air Act, the proposed new source performance standards (NSPS) and emission guidelines reflect the application of the best system of emission reduction (BSER) that, taking into account costs, energy requirements, and other statutory factors, is adequately demonstrated for the purpose of improving the emissions performance of the covered electric generating units.
- EPA has evaluated the emissions reductions, benefits, and costs of the proposals to limit CO<sub>2</sub> from the existing coal fleet and new natural gas units. EPA projects these proposals

would cut 617 million metric tons of CO<sub>2</sub> through 2042 along with tens of thousands of tons of PM<sub>2.5</sub>, SO<sub>2</sub>, and NO<sub>x</sub> – harmful air pollutants that are known to endanger public health.

- Between 2024 and 2042, projected net climate and health benefits from these emissions reductions range from \$64 billion-to \$85 billion, an annual net benefit that ranges from \$5.4 billion to \$5.9 billion.
- These estimates do not include the impact of the proposed requirements for existing gas-fired combustion turbines or third phase of the NSPS. EPA performed a separate analysis of these proposed requirements that estimates they would reduce between 214 and 407 million metric tons of CO<sub>2</sub> cumulatively through 2042.
- In 2030 alone, the health benefits of the proposals on new gas and existing coal include approximately 1,300 avoided premature deaths; more than 800 avoided hospital and emergency room visits; approximately 2,000 avoided cases of asthma onset; more than 300,000 avoided cases of asthma symptoms; 38,000 avoided school absence days; and 66,000 lost work days.

### **Environmental Justice Analysis**

- President Biden’s policy agenda has driven momentum in the power sector to cut GHGs and is moving us closer to avoiding the worst impacts of climate change, which is already having a disproportionate impact on communities disproportionately burdened by pollution. The proposed rules deliver on the Administration’s commitment to reduce pollution from the power sector and reduce climate impacts for communities.
- These proposals include an environmental justice analysis that quantitatively evaluates:
  - the proximity of affected facilities to potentially vulnerable and/or overburdened populations for consideration of local pollutants impacted by these proposals and
  - the distribution of ozone and PM<sub>2.5</sub> concentrations in the baseline and changes due to the proposed rulemakings across different demographic groups on the basis of race, ethnicity, poverty status, employment status, health insurance status, age, sex, educational attainment, and degree of linguistic isolation.
- The environmental justice assessment also includes discussions of climate impacts across various demographic groups.
- EPA has evaluated how the air quality impacts associated with these proposals would be distributed, with particular focus on potentially vulnerable populations.
  - These proposals are anticipated to lead to modest but widespread reductions in ambient levels of PM<sub>2.5</sub> for a large majority of the nation’s population, as well as reductions in ambient PM<sub>2.5</sub> exposures that are similar in magnitude across all racial, ethnic, income and linguistic groups.
  - Similarly, EPA found that the proposed standards are anticipated to lead to modest but widespread reductions in ambient levels of ground-level ozone for some of the nation’s population, and that in all but one of the years evaluated the proposed

standards would lead to similar reductions in ambient ozone exposures across all demographic groups.

- Although reductions in PM2.5 and ozone exposures are small relative to baseline levels, and although disparities in PM2.5 and ozone exposure would continue to persist following these proposals, EPA's analysis indicates that the air quality benefits of these proposals would be broadly distributed.
- EPA has evaluated the percent of potentially vulnerable and/or overburdened populations living near three categories of facilities associated with these proposals. These proximity analyses provide information as to whether there may be potential EJ concerns associated with environmental stressors, such as local hazardous air pollution, emitted from sources affected by the regulatory action for certain population groups of concern.
- The following subsets of affected facilities were separately evaluated:
  - All coal plants (140 facilities) with units potentially subject to the proposed 111 rules: Comparison of the percentage of various populations (race/ethnicity, age, education, poverty status, income, and linguistic isolation) living near the facilities to average national levels.
  - Coal plants retiring by January 1, 2032 (3 facilities) with units potentially subject to the proposed 111 rules: Comparison of the percentage of various populations (race/ethnicity, age, education, poverty status, income, and linguistic isolation) living near the facilities to average national levels.
  - Coal plants retiring between January 1, 2032, to January 1, 2040, (19 facilities) with units potentially subject to the proposed 111 rules: Comparison of the percentage of various populations (race/ethnicity, age, education, poverty status, income, and linguistic isolation) living near the facilities to average national levels.
- The proximity analysis of the full population of potentially affected units greater than 25 MW indicated that the demographic percentages of the population within 10 km and 50 km of the facilities are relatively similar to the national averages.
  - The proximity analysis of the 19 units that will retire from January 1, 2032, to January 1, 2040 (a subset of the total 140 units) found that the percent of the population within 10 km that is African American is higher than the national average.
  - The proximity analysis for the 3 units that will retire by January 1, 2032 (a subset of the total 140 units) found that for both the 10 km and 50 km populations the percent of the population that is American Indian for one facility is significantly above the national average, the percent of the population that is Hispanic/Latino for another facility is substantially above the national average, and all three facilities were well above the national average for both the percent below the poverty level and the percent below two times the poverty level.

## Meaningful Engagement

- EPA's proposed emission guidelines for existing fossil fuel-fired steam generating units as well as existing fossil fuel-fired stationary combustion turbines would require states to undertake meaningful engagement with affected stakeholders, including communities that are most affected by and vulnerable to emissions from these EGUs. This ensures that the priorities, concerns and perspectives of these communities are heard during the planning process.
- Meaningful engagement requirements are intended to ensure that the perspectives, priorities and concerns of affected communities are included in the process of establishing and implementing standards of performance for existing EGUs, including decisions about compliance strategies and compliance flexibilities that may be included in a state plan.
- In engaging with stakeholders in the development of these proposed emission guidelines, community representatives raised strongly held concerns about the potential health, environmental, and safety impacts of CCS.
- In outreach with potentially vulnerable communities, residents voiced two primary concerns. First, there is the concern that their communities have experienced historically disproportionate burdens from the environmental impacts of energy production, and second, that as the sector evolves to use new technologies such as CCS and hydrogen, they may continue to face disproportionate burdens.
- With regards to CCS, the EPA is proposing that CCS is a component of the BSER for new base load stationary combustion turbine EGUs, existing coal-fired steam generating units that intend to operate after 2040, and large and frequently operated existing stationary combustion turbine EGUs.
- EPA's proposal follows [guidance](#) from the Council on Environmental Quality to ensure that the advancement of carbon capture, utilization, and sequestration technologies are done in a responsible manner that incorporates the input of communities and reflects the best available science. Consistent with this guidance, EPA will engage with communities and stakeholders on opportunities to improve environmental review of carbon capture and sequestration.
- EPA recognizes and has given careful consideration to the various concerns that potentially vulnerable communities have raised with regards to the use of CCS.
- One concern is that adding CCS to EGUs can extend the life of an existing coal-fired steam generating unit, subjecting local residents who have already been negatively impacted by the operation of the coal-fired steam generating unit to additional harmful pollution.
- Communities have also expressed concerns about CO2 pipeline safety and geologic sequestration.
- EPA and our fellow federal agencies are committed to responsible and safe deployment of CCS and there is a robust existing regulatory framework to ensure that. Deployment of CCS should take place in a manner that is protective of public health, safety, and the

environment, and that includes early and meaningful engagement with affected communities and the public.

- As stated in the Council on Environmental Quality’s (CEQ) February 2022 Carbon Capture, Utilization, and Sequestration [Guidance](#), “the successful widespread deployment of responsible CCUS will require strong and effective permitting, efficient regulatory regimes, meaningful public engagement early in the review and deployment process, and measures to safeguard public health and the environment.” In addition, CEQ notes that Federal agencies have “taken actions in the past decade to develop a robust CCUS regulatory framework to protect the environment and public health across multiple statutes.”
- This framework includes, among other things, EPA regulation of geologic sequestration wells under the Underground Injection Control (UIC) program of the Safe Drinking Water Act; required reporting and public disclosure of geologic sequestration activity, as well as implementation of rigorous monitoring, reporting, and verification of geologic sequestration, under the EPA’s Greenhouse Gas Reporting Program; and safety regulations for CO2 pipelines administered by the Pipeline and Hazardous Materials and Safety Administration (PHMSA). PHMSA has announced steps to further strengthen its safety oversight of supercritical CO2 pipelines, including initiating a new rulemaking to update standards for supercritical CO2 pipelines and soliciting research proposals to strengthen CO2 pipeline safety.
- With respect to air emissions, some CCS projects may also require pre-construction permitting under the Clean Air Act’s New Source Review (NSR) program and the adoption of additional emission limitations for non-GHG air pollutants based on applicable control technology requirements. EPA invites public comment and feedback from stakeholders on all aspects of its proposed determination that CCS represents the BSER for certain new and existing fossil fuel-fired EGUs, including its evaluation of the various regulatory frameworks that apply to CCS.
- CEQ’s guidance, and EPA’s evaluation of BSER, recognizes that multiple federal agencies have responsibility for regulating and permitting CCS projects, along with state and tribal governments. EPA is committed to working with federal, state and tribal partners to protect communities from pollution and foster meaningful engagement with communities. This can be facilitated through the existing detailed regulatory framework for CCS projects and further supported through robust and meaningful public engagement early in the project development process.

### **Public Hearing and Comment**

- EPA will hold a virtual public hearing for this proposed action. Further details will be announced at [Greenhouse Gas Standards and Guidelines for Fossil Fuel-Fired Power Plants](#).
- EPA will accept comment on the proposal for 60 days after publication in the *Federal Register*. Comments, identified by Docket ID No. EPA-HQ-OAR-2023-0072, may be submitted by one of the following methods:

- Go to <https://www.regulations.gov/> and follow the online instructions for submitting comments.
- Send comments by email to [a-and-r-docket@epa.gov](mailto:a-and-r-docket@epa.gov), Attention Docket ID No. EPA-HQ-OAR-2023-0072 in the subject line of the message.
- Fax your comments to: (202) 566-9744, Attention Docket ID No. EPA-HQ-OAR-2023-0072.
- Mail your comments to: EPA Docket Center, Environmental Protection Agency, Mail Code: 28221T, 1200 Pennsylvania Ave, NW, Washington, DC 20460, Attention Docket ID No. EPA-HQ-OAR-2023-0072.
- Deliver comments in person to: EPA Docket Center, 1301 Constitution Ave., NW, Room 3334, Washington, DC. Note: In-person deliveries (including courier deliveries) are only accepted during the Docket Center's normal hours of operation. Special arrangements should be made for deliveries of boxed information.

**For More Information**

- Interested parties can download a copy of the proposed rule from [Greenhouse Gas Standards and Guidelines for Fossil Fuel-Fired Power Plants](#)