U.S. Chamber of Commerce

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The Honorable Gary Palmer
Chairman
Subcommittee on the Environment
2125 Rayburn House Office Building
Washington, DC 20515
c/o Calvin Huggins, Legislative Clerk

Dear Chairman Palmer:

Thank you for the opportunity to respond to the additional question for the record following my appearance before the Subcommittee on Environment hearing on June 11, 2025, entitled, "Short-Circuiting Progress: How the Clean Air Act Impacts Building Necessary Infrastructure and Onshoring American Innovation."

In response to questions from Rep. Morgan Griffith:

1. Do you have any additional policy recommendations related to NAAQS implementation that we should consider as the Subcommittee looks for ways to promote reshoring manufacturing and securing our nation's supply chains?

The recent tightening of the particulate matter National Ambient Air Quality Standards (NAAQS) from 12 µg/m3 down to 9 µg/m3 is expected to hinder reshoring efforts and disrupt supply chains by increasing regulatory micromanagement of businesses and the economy. Due to the broad applicability of the standards across the economy, more restrictive permitting is expected across many sectors of the economy, from agriculture to energy, mining, manufacturing, transportation infrastructure, and more. The overly stringent standards are estimated by EPA to require emissions reductions from small businesses and even individual households. Even with the EPA's long list of potential emissions control measures, the agency was not able to find cost-effective means of meeting the standards. As I noted in my testimony, the rule is subject to serious legal defects, and we believe it should be vacated. To help ease implementation of the rule while it remains in force, below are a few recommendations for policies to consider:

Standard-setting – The current legislative language would improve the Clean Air Act (CAA) standard-setting process, but additional changes are needed to reflect the

stringency of today's standards given higher background levels of pollution from foreign sources and events such as emissions from fires that are beyond the ability of states to control. Despite extensive controls already in place, many areas of the country will likely face unreasonably tighter standards and possibly sanctions unless action is taken to allow the Administrator to consider the attainability of a new standard and the progress or lack of progress states are making to achieve the prior standards, which is a factor relevant to considering the attainability of the new standard.

Revoking old standards - Even when EPA tightens an existing standard, states are required to continue to submit State Implementation Plan (SIP) amendments and meet deadlines for outdated and less stringent standards – a process that is overwhelming both state agencies and EPA. For instance, many states continue to be subject to at least three different 8-hour ozone standards and three different PM2.5 standards. EPA's inability to clearly revoke these outdated standards when they are replaced has contributed to the SIP backlog at EPA and the need for states to often withdraw SIPs to update them due to EPA's inability to review on a timely basis. We recommend that the law be amended to explicitly authorize EPA to revoke old standards when they have been replaced by stricter standards.

Prevention of Significant Deterioration (PSD) Applicability - Instead of merely suspending the application of PSD permitting, if the Administrator fails to publish final regulations and guidance regarding the submission and consideration of PSD under the new standard, sources that have already begun the permitting process should be provided 12 to 18 months to obtain a permit under the pre-existing NAAQS before the new standard applies to their permit application. Given the complexity of permitting and the time it takes to obtain a new PSD permit, the immediate application of a new NAAQS creates tremendous uncertainty and causes delay for new projects that are critically needed to foster economic opportunities. These new projects offer opportunities to support energy affordability and reliability, drive innovations in manufacturing and agriculture, and position the United States to lead in the global race for AI leadership, among other benefits.

179B But-For Provisions Should Also Apply at Designation - The current CAA Section 179B "but-for" provision allows an area to avoid reclassification and certain sanctions if it can show that it would have attained a NAAQS "but for" the contribution of emissions originating outside the United States. This provision should be clarified to apply not just to the time of attainment demonstrations, but also to the time of initial nonattainment designations. Areas across the country should not be penalized at the time of initial designation when foreign emissions are responsible for nonattainment.

Multi-state Exceptional Event Demonstrations - Given the high cost and uncertainty associated with submitting an exceptional event petition, EPA should be required to conduct multi-state analyses of exceptional events and amend the design values as appropriate. The recent Canadian wildfires are a good example of exceptional events

that have multi-state impacts on air quality but currently need to be evaluated by each individual state. Without correcting the skewed design values from ongoing exceptional events, states will face a greater challenge, making future exceptional events claims against an inflated baseline.

2. What are some of the cost impacts that EPA could have evaluated in its Regulatory Impact Analysis prior to tightening the particulate matter National Ambient Air Quality Standards?

Details of a few of the cost impacts EPA could have evaluated are given in the answers below. A few highlights include providing estimates of complete compliance costs as opposed to just partial compliance costs, cumulative regulatory costs considering EPA relied upon emissions reductions from programs that have yet to be implemented, opportunity costs of delays or blocked infrastructure projects, and better air quality modeling forecasts that would allow for the inclusion of the full costs of nonattainment in all counties expected to be out of attainment with the standards as opposed to just the limited set of nonattainment counties with air quality monitors. Additional details can be found in the Chamber's comments on the PM NAAQS proposed rulemaking.[1]

a. Did EPA consider the complete costs of implementing the standards and achieving the estimated number of emissions reductions to avoid nonattainment?

No, EPA only considered part of the costs of meeting the more stringent primary annual NAAQS for $PM_{2.5}$, as demonstrated by EPA's own Regulatory Impact Analysis (RIA). The RIA reports partial attainment costs for meeting $PM_{2.5}$ standards at 9 $\mu g/m^3$ ("9/35") as being $590 million annually, but there are multiple gaps in EPA's analysis.[2] A report by NERA points out deficiencies in EPA's Control Strategy Tool (CoST) model and estimates the costs to bring all counties into full attainment at between 4 to 15 times more costly than the RIA's partial attainment estimate.[3] Specifically, NERA finds that EPA was not able to find sufficient control measures in its CoST model for numerous counties to even comply with the previous annual standards set at 12 µg/m3 of $PM_{2.5}$, let alone more stringent standards that the new rule tightened by 25 percent down to 9 µg/m3. Another glaring omission is that EPA placed significant constraints in the CoST analysis that skewed the results by adding an artificial ceiling of $160,000/ton on the estimated cost of candidate control measures. Capping the costs artificially lowers the cost estimate and omits the

[1] Comments of U.S. Chamber of Commerce on EPA PM NAAQS Proposed Rule, March 28, 2023, https://www.regulations.gov/comment/EPA-HQ-OAR-2015-0072-2428.
[2] 89 Fed. Reg. 16202 (March 6, 2004), Table 3.
[3] NERA Economic Consulting, Potential Costs of Fully Attaining Proposed Lower $PM_{2.5}$ NAAQS Standards: Technical Comments on the Cost Estimates in the Regulatory Impact Analysis for the Proposed $PM_{2.5}$ NAAQS Rule at 14, n.30.

costliest emissions controls, which are those needed to obtain the last remaining emissions reductions after the lower cost options have been implemented.[4]

b. What assumptions did EPA make about other regulatory programs that would need to be fully implemented in order for states to comply with the standards?

The EPA's modeling analysis includes dozens of federal regulations, consent decrees, and estimated emissions reductions due to the tax incentives for various clean energy technologies from the Inflation Reduction Act (IRA) of 2022. The emissions reductions from several of the rules included in EPA's modeling baseline were recently finalized and are subject to ongoing litigation. One such rule, the EPA's Good Neighbor Plan from 2023, has been temporarily blocked by the Supreme Court and was estimated by EPA to yield almost 120,000 tons of NOx emissions reductions, which contribute to particulate matter formation in the atmosphere.[5] With the repeal and scaling back of many of the IRA tax incentives, it draws into question the 500,000 tons of estimated SO2 and NOx emissions reductions EPA projected those tax incentives would yield.[6] With the Good Neighbor rule being blocked and portions of IRA funds repealed, compliance with the already overly stringent 2024 particulate matter standards will become significantly more challenging. Industrial emissions sources are already highly controlled, and as the NAAQS emissions standards progressively approach zero, achieving further reductions will require increasingly burdensome and impractical measures, making the standards nearly impossible to implement effectively.

3. **Will you explain the difference between the industry map and EPA map that projects the number of counties that are expected to be out of attainment with the tightened PM2.5 NAAQS standards?**

First, EPA underestimated the number of counties that would be in violation or nonattainment with the tighter 2024 standards. We estimate as many as 428 counties to be above the 9 µg/m3 annual standard and in violation of the standards, while EPA estimated 119 counties. EPA underestimated the counties in violation, in part, by counting only the counties that have PM2.5 air monitors, even though many adjacent counties that do not have ambient air monitors will also be in violation of tighter standards. EPA has historically designated many counties adjacent to those counties with air monitors as being in violation of the standards, based on the agency's five-factor guidance that considers air quality, emission sources, vehicle miles traveled, topography, and local meteorology. As air emissions do not stop at monitored county

[4] EPA, Final Regulatory Impact Analysis for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, January 2024, ES.1.3. https://www.epa.gov/system/files/documents/2024-02/naaqs_pm_reconsideration_ria_final.pdf
[5] 88 Fed. Reg. 36654 (June 5, 2023), Table V.C.1-2, Table V.C. 2-1.
[6] Electricity Sector Emissions Impacts of the Inflation Reduction Act, U.S. EPA, September 2023, https://www.epa.gov/system/files/documents/2023-09/Electricity_Emissions_Impacts_Inflation_Reduction_Act_Report_EPA-FINAL.pdf

borders, it is easy to see how expansive the number of counties in violation could be simply by considering air quality beyond the monitored counties. In Figure 1 below, the business community projections for areas in attainment are represented in green and dark red for those counties in nonattainment.

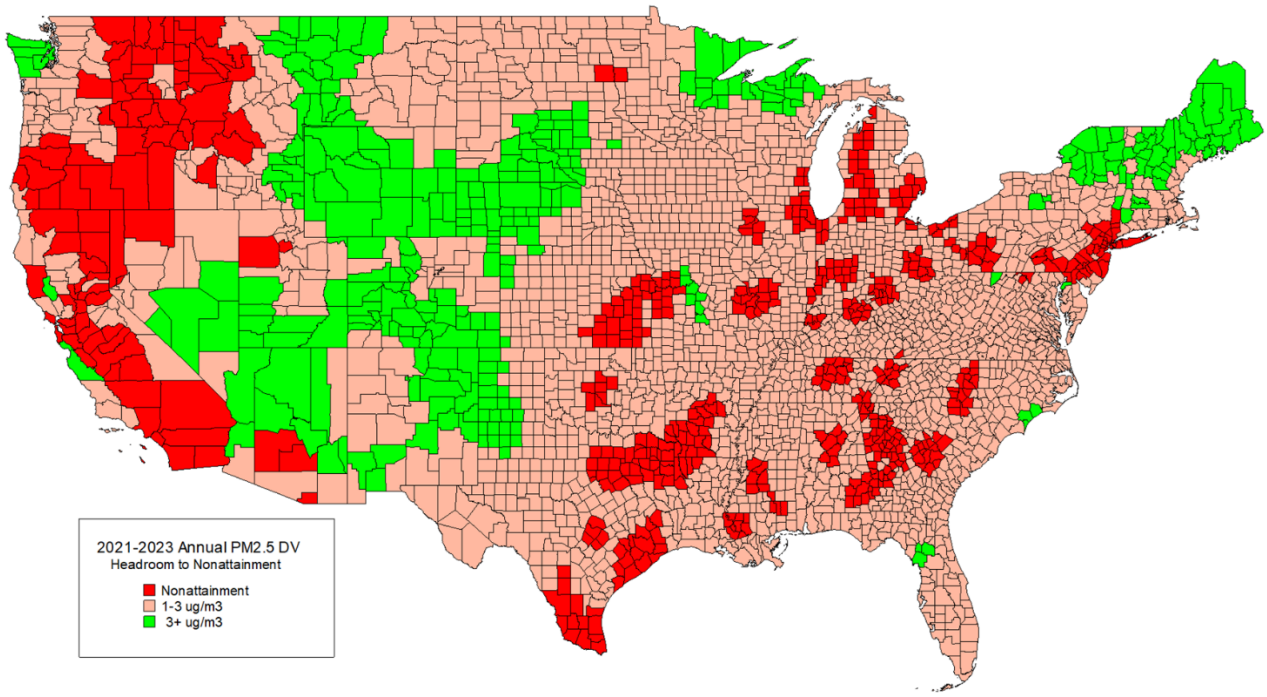

Figure 1. Business Community County-Based Map of Areas Projected to be in EPA Nonattainment or Close to Nonattainment with the 9 µg/m3 PM standards.

Second, counties that are not expected to be in violation of the 2024 standards, a large swath of the country, identified by the counties shaded in light red in Figure 1, are so close to violating the tighter standards that these counties too are expected to experience permitting gridlock. The light red areas, more than 1,800 counties, account for almost 60 percent of the counties in the United States. These light red counties are only 1-3 µg/m3 lower than the new 9.0 µg/m3 annual standard, leaving little emissions headroom or buffer for additional development to meet growing demands for energy, housing, and manufacturing. Unless the 2024 rule is appropriately revisited, it will block the permitting of new manufacturing facilities and associated good-paying jobs, pushing investment overseas just at a time when we are trying to bring back manufacturing and stronger supply chains.

Third, EPA failed to account for the PM emissions from the massive 2023 fire season when conducting their analysis for the 2024 PM NAAQS standard-setting process. Instead of incorporating 2023 ambient emissions data, the agency chose to use the three-year period of emissions including years 2020, 2021, and 2022. The Chamber conducted air quality modeling using the 2023 emissions data and years 2021, 2022, and 2023. Chamber modeling accounted for the 2023 data resulted in an

increase in the number of modeled nonattainment areas by as much as 50 percent.[7] If EPA had used more recent ambient emissions data for years 2021, 2022, and 2023 as the Chamber had done, the agency would have projected a much higher number of nonattainment counties and associated compliance costs. EPA's decision to exclude the 2023 data is particularly unfortunate because the nonattainment designation step conducted as part of the implementation of the 2024 standards and typically conducted within two years after the setting of the standards, will likely use the 2023 air quality data. This practical challenge underscores the importance of the Clean Air and Economic Advancement Reform Act (CLEAR Act) provisions that boost the use of the exceptional events category to exclude emissions from fires.

a. Has EPA ever underestimated the number of areas that would be put in nonattainment with the standards?

Historically, EPA has underestimated the number of areas that would fall into nonattainment under tightened standards. EPA made similar underestimations in the 2015 ozone NAAQS rulemaking, where the agency claimed only 14 counties outside of California would be in nonattainment in 2025.[8] But, based on EPA's June 2025 update, there are 182 counties in nonattainment with the 2015 ozone standards—an order of magnitude more than what EPA projected in their 2015 ozone rulemaking analysis.[9]

b. How many states are expected to have nonattainment area designations?

As seen in Figure 1 above, 28 states are projected to have nonattainment area designations under the 2024 PM2.5 standards, but almost every state will have areas with little headroom (i.e. only between 1-3 µg/m3 below the 9 µg/m3 annual standard), throwing much of the country in permitting gridlock.

Looking at the twenty-five Energy and Commerce's Environment subcommittee members' districts, below are the counties that would either be in nonattainment (red counties in Figure 1) or have little headroom to build (light red counties in Figure 1).

Rep. Jake Auchincloss - Massachusetts (District 4)
- Worcester County, Norfolk County, Plymouth County

Rep. Nanette Diaz Barragan - California (District 44)
- Los Angeles County

Rep. Buddy Carter - Georgia (District 1)

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[7] EPA's Proposed Air Quality Standards Will Cause Permitting Gridlock Across Our Economy, US Chamber of Commerce, November 2023, https://www.uschamber.com/assets/documents/AChamber-PM2.5-Report-_-11.8.23-Final-Draft.pdf.

[8] U.S. Environmental Protection Agency, 2015 Final Air Quality Standards for Ground-Level Ozone, "By the Numbers," https://www.epa.gov/sites/default/files/2015-10/documents/20151001_bynumbers.pdf.

[9] U.S. Environmental Protection Agency, Green Book, 8-hour Ozone (2015) Nonattainment Area Summary, https://www3.epa.gov/airquality/greenbook/jnsum.html.

- Wayne, Charlton, Bacon, Brantley, Camden, Pierce, Liberty, Appling, Glynn, McIntosh, Ware, Chatham County, Long, Bryan, Effingham County

Rep. Troy Carter – Louisiana (District 2)

- St. Charles Parish, St. John the Baptist Parish, Orleans Parish, Jefferson Parish, St. James Parish, Ascension Parish, East Baton Rouge Parish

Rep. Dan Crenshaw – Texas (District 2)

- Montgomery, Harris County

Rep. Gabe Evans - Colorado (District 8)

- Adams County, Weld County

Rep. Julie Fedorchak – North Dakota (At Large)

- Golden Valley, Slope, Billings, Dickey, Bowman, McKenzie, Mercer, Stark, Sioux, Dunn, LaMoure, Logan, Williams, Adams, Divide, Hettinger, Emmons, Pembina, Benson, Walsh, Mountrail, Sargent, Steele, Stutsman, Ward, Grand Forks, McLean, Ransom, Wells, Barnes, Kidder, Renville, Foster, Traill, Burke, Eddy, Grant, Griggs, Oliver, Richland, Bottineau, Cass, Cavalier, McHenry, Ramsey, Morton, Nelson, Towner, Pierce, Rolette, McIntosh, Sheridan, Burleigh

Rep. Morgan Griffith – Virginia (District 9)

- Bedford, Dickenson, Scott, Roanoke (Partial), Wise, Norton, Buchanan, Russell, Craig, Tazewell, Bristol, Franklin, Montgomery, Washington, Radford, Bland, Giles, Pulaski, Wythe, Floyd, Henry, Smyth, Carroll, Lee, Patrick, Galax, Grayson, Martinsville

Rep. Brett Guthrie - Kentucky (District 2)

- Barren, Edmonson, Butler, Grayson, Hart, Green, Daviess, Hancock, Breckinridge, Bullitt, Hardin

Rep. John Joyce – Pennsylvania (District 13)

- Somerset, Huntingdon, Blair, Cambria, Bedford, Franklin, Mifflin, Fulton, Juniata, Perry, Adams

Rep. Nick Langworthy – New York (District 23)

- Chemung, Tioga, Chautauqua, Allegany, Niagara, Cattaraugus, Erie, Schuyler

Rep. Greg Landsman - Ohio (District 1)

- Warren, Hamilton

Rep. Laurel Lee – Florida (District 15)

- Pasco, Polk, Hillsborough

Rep. Bob Latta - Ohio (District 5)

- Putnam, Henry, Mercer, Van Wert, Hancock, Paulding, Wood, Huron, Lorain, Wyandot, Crawford, Seneca

Rep. Rob Menendez – New Jersey (District 8)

- Hudson, Union, Essex County

Rep. Mariannette Miller-Meeks – Iowa (District 1)

- Van Buren, Jefferson, Lee, Henry, Keokuk, Mahaska, Marion, Warren, Iowa, Jasper, Muscatine, Cedar, Johnson, Clinton, Jackson, Jones, Louisa, Washington, Des Moines, Scott

Rep. Frank Pallone – New Jersey (District 6)

- Monmouth, Middlesex County

Rep. Gary Palmer - Alabama (District 6)
- Bibb, Coosa, Elmore, Autauga, Chilton, Shelby, Jefferson

Rep. Scott Peters - California (District 50)
- San Diego

Rep. August Pfluger - Texas (District 11)
- Glasscock, Sterling, Coke, Midland (part), Runnels, Ector, Reagan, Irion, Tom Green, Bell (part), Lampasas, Schleicher, San Saba, Sutton, McCulloch, Brown, Coleman, Kimble, Concho, Llano, Mason, Menard

Rep. Ruiz, Raul – California (District 25)
- Riverside, Imperial

Rep. Ian Schakowsky – Illinois (District 9)
- Lake, McHenry, Cook County

Rep. Darren Soto - Florida (District 9)
- Osceola County, Orange, Polk

Rep. Paul Tonko – New York (District 20)
- Rensselaer, Schenectady, Montgomery, Albany

Rep. Randy Weber – Texas (District 14)
- Galveston, Chambers, Jefferson, Brazoria, Orange

c. Historically, how many states have typically been designated as non-attainment under prior NAAQS designations compared to what is expected under the 2024 PM NAAQS standards?

Historically, fewer states have been designated as nonattainment under prior NAAQS standards compared to the significant increase expected under the 2024 standards, highlighting the unprecedented stringency and scope of the proposed changes.

EPA issued these overly stringent standards even though the United States has some of the best air quality in the world, thanks to steady reductions in pollutants over the last several decades. The United States has reduced all of the pollutants covered under the NAAQS program by a combined 78 percent.[10] According to the World Health Organization, the average annual PM2.5 concentration in the United States is the 11th cleanest of 198 countries, bested only by sparsely populated Canada, Norway, Sweden, Finland, and some small island states.[11] By contrast, PM2.5 concentrations in other major economies are significantly higher than the U.S., including in France (45 percent higher), Germany (49 percent), Japan (51 percent), Italy (98 percent), and China (431 percent).

Unless the 2024 rule's standards are appropriately revisited, the rule will block the permitting of new manufacturing facilities and associated good-paying jobs, pushing investment overseas just at a time when we are trying to bring back

[10] U.S. Environmental Protection Agency, Our Nation's Air: Status and Trends Through 2023, https://www.epa.gov/air-trends.
[11] World Health Organization Air Quality Database: Update 2022. https://www.who.int/data/gho/data/themes/air-pollution/who-air-quality-database/2022#.

manufacturing and stronger supply chains. The rule will also prevent and delay the construction of roads, bridges, and other infrastructure funded by recently passed legislation such as the Infrastructure Investment and Jobs Act.

d. Can you explain further what types of industries would have their permits blocked due to the tighter PM2.5 NAAQS standards?

Industries such as manufacturing, construction, energy production, mining, agriculture, transportation, and others would face permitting gridlock due to the tighter standards, delaying critical projects and economic growth. This would further strain efforts to revitalize supply chains and infrastructure.

e. What does it mean that sanctions on transportation funding can be imposed on local communities if their county or area are found to be in nonattainment with the tighter PM2.5 standards?

Sanctions on transportation funding mean that local communities in nonattainment areas could lose federal funding for infrastructure projects. This would hinder economic development and place additional financial burdens on local governments, exacerbating the challenges of meeting stricter standards. These sanctions could delay or block authorized funds under the Infrastructure Investment and Jobs Act, which authorized $1.2 trillion for transportation and infrastructure spending.

4. In EPA's decision-making, did the agency consider the surge in electricity demand and need to maintain electric reliability and affordability?

The recent projections from S&P Global,[12] IEA,[13] and EPRI[14] highlight a significant surge of as much as 20 percent growth in electricity and energy demand driven by the rapid deployment of data centers to support AI leadership, growing natural gas needs in Europe, and reshoring manufacturing in the U.S. These trends underscore the critical importance of maintaining energy reliability and affordability to meet both domestic and global energy demands. Given EPA's position that it may not consider costs and feasibility considerations in setting NAAQS standards, it seems very unlikely that EPA adequately accounted for these factors in its decision-making when tightening the PM NAAQS standards. Expanded permitting to areas previously unaffected by the PM NAAQS is expected to cause permitting delays and associated costs for the critical infrastructure needed to meet growing consumer demand.

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[12] Power of AI: Wild predictions of power demand from AI put industry on edge, S&P Global, October 13, 2023, https://www.spglobal.com/commodity-insights/en/news-research/latest-news/electric-power/101623-power-of-ai-wild-predictions-of-power-demand-from-ai-put-industry-on-edge.

[13] AI is set to drive surging electricity demand from data centers while offering the potential to transform how the energy sector works, International Energy Agency, April 10, 2025, https://www.iea.org/news/ai-is-set-to-drive-surging-electricity-demand-from-data-centres-while-offering-the-potential-to-transform-how-the-energy-sector-works.

[14] Reindustrialization, Decarbonization, and the Prospects for Demand Growth, Electric Power Research Institute (EPRI), 2023, https://www.epri.com/research/products/000000003002027930.

Ensuring a balanced approach that addresses environmental goals while supporting energy reliability and economic growth is essential.

5. Will you explain what you stated in answers to questions from the Subcommittee about what you mean by the particulate matter standards were set so low that they are close to background levels?

EPA chose to set the 2024 PM NAAQS standards at 9 µg/m3, which is just above the national ambient average of 8.5 µg/m^3—leaving virtually no margin for economic expansion. For context, the first PM NAAQS standards were set in 1971 with the annual standard set at 75 µg/m3. The U.S. Chamber has emphasized in testimony to the Clean Air Scientific Advisory Committee, public comments to EPA, and various letters that setting PM NAAQS standards so close to background levels leaves little room for economic growth because the majority of particulate matter emissions, more than 80 percent, now come from non-point sources like wildfires, construction, and road dust, which are difficult to control.

a. What is the practical impact of setting standards so close to background levels?

Setting the standards so low creates significant challenges for states and industries to comply with the standards, as those sources are already well controlled. Overly stringent standards, like those issued for PM in 2024, risk stifling manufacturing, industrial investment, and infrastructure development, exacerbating permitting challenges and hindering economic progress.

Recent Congressional testimony highlights how new facilities from steel, power, cement, brick, paper, and others need sufficient emissions headroom to accommodate EPA's conservative modeling approach even with the best available emissions controls installed.[15] Not only would conventional manufacturers bump into the lower air quality ceiling, but other manufacturers spurred by renewable energy investments may face the same challenges. For example, the CS Wind facility, which broke ground on construction in 2023 and would manufacture wind turbines, would contribute as much as a 1.9 µg/m3 increase in fine particulate matter emissions in their area based on EPA's conservative air quality modeling methodology. The CS Wind facility is estimated to bring 850 new jobs to Pueblo, Colorada.

In another example, Charter Manufacturing Company, based out of Wisconsin, was looking to site a greenfield facility and hired a consultant who found 400 potential sites across seven states in the upper Midwest and South that met their size and labor requirements. Only eight sites were found to be possible once the company considered environmental permitting restrictions. That factor narrowed the choices

[15] Testimony of Timothy Hunt, American Forest & Paper Association, September 19, 2023, https://d1dth6e84htgma.cloudfront.net/09_19_23_ENV_Testimony_Hunt_4b415cf010.pdf, page 26.

so much that after considering other factors (such as energy supply, supply chains, and accessibility), the company decided to not pursue the facility.

The potential for added costs for increasingly stringent air permits for these examples and many others often lead to a manufacturing facility not being built. It is why we support legislative amendments, like those in the Clean Air and Economic Advancement Reform Act (CLEAR Act), that would allow for the secondary consideration of the attainability of a proposed standard before the standard is finalized.

Thank you for considering our perspective on this critical issue. We look forward to working with the Committee to advance policies that modernize the permitting process so we can build the infrastructure of the future.

Sincerely,

Chad Whiteman,
Vice President, Environment and Regulatory Affairs
Global Energy Institute
U.S. Chamber of Commerce