



PA ChamberTM
of Business and Industry

Testimony

Submitted on behalf of the
Pennsylvania Chamber of Business and Industry

**Modernizing Environmental Laws: Challenges and Opportunities for
Expanding Infrastructure and Promoting Development and Manufacturing**

Before the:
**United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Environment**

Presented by:
Kevin Sunday
Director, Government Affairs

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417 Walnut Street
Harrisburg, PA 17101-1902
717.720.5443 phone
<http://www.pachamber.org>

Challenges to Energy, Infrastructure and Manufacturing

Energy Production and Power Generation



- Distorted playing field for power generation
- States, not federal government, should lead on regulating energy development
- Source determination and aggregation guidance
- Carbon emissions and the Clean Air Act

Pipeline and Electric Infrastructure



- NEPA Process
- Wetlands Mitigation Requirements
- CEQ GHG Guidance
- US Army Corps consistency
- Water Quality Certifications

Manufacturing and Refining



- Regulatory uncertainty
- PSD and NSR Program
- NAAQS implementation
- Major Modification requirements
- Startup, Shutdown and Malfunction Rule
- BACT/LAER Determinations
- Once-in, Always-in HAPS Guidance

Good morning Chairman Shimkus, Ranking Member Tonko and members of this committee,

My name is Kevin Sunday, director of government affairs for the Pennsylvania Chamber of Business and Industry. It is an honor to appear before you this morning to discuss the challenges our state faces with respect to attracting new manufacturing and building the necessary infrastructure to deliver energy to market, in part due to the current air quality regulatory construct. It is our sincere hope that the challenges and ideas we bring before you today encourage you to be bold in your efforts to modernize our nation's approach to environmental protection in a way that continues to improve the quality of our environment while also promoting economic growth. We must also be faithful and look to set policy that encourages the retention and expansion of existing manufacturing and industry.

The PA Chamber is the largest, broad-based business advocacy organization in the commonwealth. Our members are of all sizes, crossing all industry sectors throughout Pennsylvania. All of our members are committed to the stewardship of our state and nation's land, air and water, and we seek to provide a thoughtful and balanced approach on ways we can continue to reduce our environmental impacts and grow the economy. Pennsylvania and this country have been afforded the opportunity of a lifetime to grow the economy in a way not seen in decades, so long as every facet of the energy value chain is allowed to flourish: the energy production and generation industry, the pipeline and electric transmission sectors, and manufacturing and industrial production. Modernizing our nation's approach to environmental regulation can help us realize this opportunity without sacrificing environmental quality.

Infrastructure and Domestic Energy Production are Creating New Opportunity for Pennsylvania

Pennsylvania is well-poised to grow every industrial sector, not just manufacturing, given our abundant natural resources and leadership in the electric generation sector. Indeed, we have already seen a number of manufacturing success stories in Pennsylvania thanks to the increased production of domestic energy resources and the build-out of pipeline infrastructure. These include:

- Access to natural gas helps a leading pharmaceutical company's manufacturing facility reduce emissions and costs to remain competitive
- A leading pulp and paper manufacturer turning to natural gas for on-site heat and power to reduce cost and emissions
- Three soon-to-be shuttered refineries in southeast Pennsylvania finding new life thanks to access to domestic fossil fuels

- A global integrated oil and gas company selecting southwestern Pennsylvania to site a multi-billion petrochemical facility
- A leading consumer products company harnesses local gas reserves to provide all of its heating and power needs and send power back out to the grid
- A financial institution turns to an on-site natural gas combined heat and power system to reduce costs and ensure reliability for its computing systems
- A dormant steel mill will soon be restarted due to pipeline projects increasing the demand for rolled steel
- A shuttered coal-fired power plant in the mid-state will run on natural gas thanks to a greenfield pipeline project

These success stories demonstrate just a fraction of the renewal of opportunity that can be achieved in part through policy that allows all segments of the energy value chain to flourish. These segments include the development of our natural resources, power generation from a diverse portfolio of fuel sources, expanded oil, gas and electric infrastructure, and the use of those commodities in manufacturing and industry. The American economy stands to benefit tremendously as energy is developed and moved through infrastructure for final use in a home or business; we can also continue to secure additional improvements in air and water quality as we develop this value chain.

It must be noted that, for the projects referenced above, the financial considerations involved, such as access to low-cost energy and access to markets for produced products, were enough to overcome the substantial regulatory hurdles that state and federal environmental law present. However, for many projects, the regulatory structure becomes so burdensome on top of difficult economic conditions that shutting down the facility becomes the only option. Such has been the case for many of Pennsylvania's coal-fired power plants and heavy industry. The lack of infrastructure and burdensome regulatory requirements has also discouraged new investment into our state. Pennsylvania also recently lost out on a \$500 million investment in a petrochemical facility in southeastern Pennsylvania due to a lack of pipeline infrastructure and regulatory delays.¹ This is not the only situation where we have lost investment due to delays getting infrastructure permitted; an untold number of other projects have been lost in response to a combination of regulatory obligations that continually increase and a lack of certainty regarding the implementation of these obligations.

¹ Pa. business leaders: Shale-gas pipeline build-out needs to step up. Philadelphia Inquirer, Nov. 1, 2016. <http://www.philly.com/philly/business/Pa-biz-leaders-Shale-gas-pipeline-build-out-needs-to-step-up.html>

The Current Regulatory Construct Presents Substantial Challenges to Industry and Is Reducing Economic Opportunity

Despite the significant opportunities energy development can bring to Pennsylvania's businesses and industries, our unemployment rate has climbed by nearly a full point over the past year, from 4.7% in December 2015 to 5.6% in December 2016.² Our unemployment rate is now higher than the national average of 4.9%, and the sectors which have shed the most jobs over the past year are in industries which are most exposed to impacts from environmental regulation: trades, manufacturing, mining, and construction.

Twice as many PA Chamber businesses say environmental regulations have a negative impact on operations compared to a positive.³ While our companies remain optimistic, expecting to see an increase in sales and workforce in the near future, it is apparent that we are not fully capitalizing on the opportunities before us.

The current regulatory approach presents a major challenge for every segment of the energy value chain, and as a result we are unnecessarily limiting economic opportunity. Businesses seeking to invest in new or expanded operations need clear direction from regulators on what compliance obligations are and will be in the future. Unfortunately, at the present time, regulatory requirements, particularly those in air and water, are changing faster than it takes to get a permit.

Despite Nationwide Progress with Air Quality, the Cost of Compliance Continues to Mount

Air quality issues present a particular challenge for industry. The current construct under the Clean Air Act unnecessarily inhibits investment and expansion of facilities. Hundreds, if not thousands, of man-hours and untold sums of capital are required to secure initial permits and ensure on-going compliance, consuming an ever-increasing share of companies' budgets that could otherwise be spent in expanding the workforce or investing in research and development. It is becoming increasingly costly and more difficult to integrate a management team's intent to expand production or otherwise execute a competitive vision for growth with mounting compliance obligations. As an example, one energy-intensive manufacturer in southeast Pennsylvania spends more per year in annual air quality compliance obligations than it cost the current ownership to buy the entire facility a few years ago for \$180 million. This facility is a key economic driver in the region, with a workforce of nearly 500 employees and several hundred contractors, many of them in the

² Pennsylvania Unemployment Rate Falls to 5.6% in December. Pennsylvania Department of Labor and Industry, Jan. 20, 2017. <http://www.media.pa.gov/Pages/Labor-and-Industry-Details.aspx?newsid=224>

³ 26th Annual Pennsylvania Economic Survey. Pennsylvania Chamber of Business and Industry, October 2016. http://pachamber.org/pdf/2016_Economic_Survey.pdf?1478794849

building and construction trades. Any layoff that occurs at this facility or the others like it will cost the region 18 jobs, the state 22 jobs and the country 61 jobs.⁴ Another manufacturer was required to spend \$100 million to install pollution control equipment to control emissions that the facility will never produce. This is the product of EPA's so-called "once-in, always-in"⁵ guidance memorandum for major sources of hazardous air pollutants (HAPs), which requires facilities to install and use extremely costly control equipment compliant with Maximum Achievable Control Technology standards for HAPS even if the HAPS emissions of a facility are reduced to below major source thresholds (even to zero) due to changes in processes and operations.⁶

The Consequences of Non-Attainment and Ozone Transport

The current construct of the Clean Air Act presents an immediate discouragement to any company looking to build or expand in Pennsylvania or other fellow Ozone Transport Region states (a group of northeastern states from Virginia to Maine), as well as in any area of the country that has been designated as non-attainment. Generally speaking, EPA sets a National Ambient Air Quality Standard for a particular pollutant (such as ozone or SO₂) and works with states to designate counties or metropolitan regions of the country that are not meeting the standard. Facilities in these "non-attainment" areas are then required to comply with emissions limits that are more stringent than areas in attainment. Once the region meets attainment, the burden on facilities is eased somewhat. However, by virtue of how the Clean Air Act has been written and amended, Ozone Transport Region states must continually impose the more stringent, "non-attainment" emissions rules for ozone on their companies even after the states attain the already rigorous federal NAAQS for ozone in all areas within their own borders. In addition, EPA's continual lowering of NAAQS for other pollutants and the process it has used to characterize air quality has resulted in an increasing number of counties and regions being placed into "non-attainment," despite an overall improvement in air quality. The CAA's so-called "anti-backsliding" provisions⁷ prohibit EPA from easing regulatory requirements on sources even if EPA establishes a less stringent NAAQS.

⁴ Re-employment Assessment and Economic Impact of ConocoPhillips and Sunoco Closings. January 9, 2012. Pennsylvania Department of Labor & Industry Center for Workforce Information & Analysis. https://www.doleta.gov/performance/results/AnnualReports/PY2012/PA_Impact_Conoco_Sunoco_Closings.pdf

⁵ This policy was instituted in a May 1995 memorandum, entitled "Potential to Emit for MACT Standards – Guidance on Timing Issues." See <https://www.epa.gov/sites/production/files/2015-08/documents/pteguid.pdf>

⁶ The Environmental Council of the States, a national non-profit association of state environmental officials, has repeatedly affirmed (six times since 2000) a resolution for EPA to change this policy. See <http://www.ecos.org/wp-content/uploads/2016/02/Resolution-00-12-Once-in-2015v.pdf>

⁷ Clean Air Act Section 172(e): If the Administrator relaxes a national primary ambient air quality standard after November 15, 1990, the Administrator shall, within 12 months after the relaxation,

The negative economic consequences of a non-attainment designation for a county or multi-county region are significant. Research by Michael Greenstone, who was chief economist for President Obama's Council of Economic Advisors from 2009 to 2010, demonstrates that in a fifteen-year observation period non-attainment counties lost 590,000 jobs and \$75 billion in economic output.⁸ Another report by Greenstone and his colleagues shows that productivity of manufacturing facilities falls significantly following a non-attainment designation.⁹ Research by W. Reed Walker, a professor at UC Berkeley, found a 15% decline in employment in the 1990's in sectors affected by the 1990 Clean Air Act amendments.¹⁰ It should be noted that EPA is not required to consider economic impacts at all when making changes to NAAQS requirements. For other Clean Air Act requirements and environmental regulations that are required to account for economic impacts, the comprehensive cost of job losses are significant and not properly recognized, as noted by Jonathan Masur and Eric Posner, who conservatively estimate that the lifetime loss of income for one unemployed worker is \$100,000 throughout the worker's lifetime. By requiring federal agencies, such as EPA, to account for this lifetime loss of earnings, the agencies would set regulatory policy in a more balanced manner.¹¹ In a separate paper, Masur and Posner note that traditional cost-benefit accounting ignores employment impacts in large part by relying on the faulty assumption that all workers who lose jobs as a result of the regulation will quickly regain them at equal wages.¹² It must also be noted that Clean Air Act Section 321¹³ obligates EPA to conduct a continual evaluation of job loss or employment shifts as a result of the administration and enforcement of the Act; Congress should ensure that EPA is in fact carrying out this obligation.

Beyond the issue of non-attainment, the current ozone transport and NAAQS construct contained within the Clean Air Act also require states to enforce "over-control" of emissions at sources beyond what is necessary for that state to attain full compliance of NAAQS within their own borders. In the case of the recent Cross-

promulgate requirements applicable to all areas which have not attained that standard as of the date of such relaxation. Such requirements shall provide for controls which are not less stringent than the controls applicable to areas designated nonattainment before such relaxation.

⁸ The Impacts of Environmental Regulations on Industrial Activity: Evidence from the 1970 and 1977 Clean Air Act Amendments and the Census of Manufacturers. Michael Greenstone, September 2001. www.nber.org/papers/w8484.pdf

⁹ The Effects of Environmental Regulation on the Competitiveness of U.S. Manufacturing. Michael Greenstone, John A. List and Chad Syverson, September 2012. <http://www.nber.org/papers/w18392.pdf>

¹⁰ Environmental Regulation and Labor Reallocation: Evidence from the Clean Air Act. W. Reed Walker, February 2011. http://faculty.haas.berkeley.edu/rwalker/research/w_reed_walker_paper_pre_publication.pdf

¹¹ Unemployment and Regulatory Policy. Jonathan S. Masur and Eric A. Posner, December 2012. http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1605&context=law_and_economics

¹² Regulation, Unemployment and Cost-Benefit Analysis. Jonathan S. Masur and Eric A. Posner, August 2011. <http://www.law.uchicago.edu/files/file/571-359-jm-eap-regulation.pdf>

¹³ 42 USC §7621.

State Air Pollution Rule (CSAPR) update,¹⁴ which EPA finalized only last fall but is part of its implementation plan for the 2008 ozone rule, Pennsylvania's power generators will be required to over-control their emissions by more than 30% during ozone season in 2017, as noted by the Pennsylvania Department of Environmental Protection¹⁵ – despite the fact that all monitoring points in the state demonstrate attainment of the 2008 standard, almost all monitoring points in the state are demonstrating attainment of the 2015 standard, and monitors are showing a reduction of ozone concentrations by as much as 10 ppb since 2011.

Recent Regulatory Changes Are Disruptive to Business Planning

Last year's CSAPR update is one example of a federal agency finalizing new and extremely stringent regulatory obligations that afford industry extremely short periods of time to comply and that disrupt business planning. EPA finalized the CSAPR update with a purported aim to help Ozone Transport Region (OTR) states meet the 2008 ozone standard by lowering emissions budgets for electric generating units in Pennsylvania and other OTR states during the ozone season of May 1 through September 30, 2017. However, the rule was not published as final in the Federal Register until Sept. 7, 2016, giving affected units less than eight months to develop and implement a compliance strategy. Pennsylvania's final ozone season budget for 2017 is about 67% smaller than established in past years.¹⁶ This budget allocates a given amount of NOx allowances to each state and particular units in the state, and allowances may be bought, sold, traded or banked for use in future compliance periods. While units are allowed to surrender NOx allowances to comply for this year's ozone season under CSAPR, should emissions from units in state as a whole exceed the ozone season budget by more than 121% (which is a probability), units must surrender allowances at an extremely punitive ratio of 3:1. Eight months is simply too short a runway for a facility to alter its production schedule to allow for installation of new controls, and some facilities are not in a position where there are enough allowances to run during the entire season. As a result, some facilities are in a position where they will have to

¹⁴ Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS. Environmental Protection Agency, Sept. 7, 2016. <https://www3.epa.gov/airmarkets/CSAPRU/Cross-State%20Air%20Pollution%20Rule%20Update%20for%20the%202008%20Ozone%20NAAQS%202060%20ASo5%20FRM.pdf>

¹⁵ Comments on EPA's Proposed Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS. Pennsylvania Department of Environmental Protection, Feb. 1, 2016. http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/Current%20Events/Comments_on_CSAPR_Update_Rule_EPA-HQ-OAR-2015-0500.pdf

¹⁶ Cross-State Air Pollution Rule (CSAPR) Update: Final Rule. Pennsylvania DEP, Dec. 8, 2016. [http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/Advisory%20Committees/Air%20Quality%20Technical%20Advisory%20Committee/2016/12-8-16/CSAPR_\(Update\)_AQTAC_Presentation_for_December_2015\(4\).pdf](http://files.dep.state.pa.us/Air/AirQuality/AQPortalFiles/Advisory%20Committees/Air%20Quality%20Technical%20Advisory%20Committee/2016/12-8-16/CSAPR_(Update)_AQTAC_Presentation_for_December_2015(4).pdf)

curtail operations during the spring and summer – which historically have been the season when demand for electricity generation is at its highest. As a direct result of regulation, some power generation facilities will lose market share.

Our members have also reported that the final Startup, Shutdown and Malfunction Rule,¹⁷ finalized in 2015, poses a substantial challenge to their operations and risk profiles. The SSM rule requires states to eliminate or drastically alter their approach to handling emissions from facilities during startup, shutdown and malfunction – approaches that had been on the books for decades and that had shielded facilities from being penalized for emissions exceedences that cannot be physically avoided. The rule impacts facilities across all industrial sectors, and many facilities affected by the rule are physically unable to meet the emissions restrictions the rule imposes. The rule, which is under litigation, was the product of a settlement arrangement between EPA and the Sierra Club.

The Need for Reform in the Offsets and Permitting Programs

There is a need to reform the offset program in its entirety. While sources in the Ozone Transport Region can secure NO_x and VOC emissions reduction credits from sources in OTR states that have reciprocity agreements, new or expanding facilities located in non-attainment areas for other NAAQS criteria pollutants are not afforded the same flexibility –these sources must secure ERCs only from within the same non-attainment area, which can be as small as one county. With NAAQS for all pollutants continually being ratcheted downward, facilities seeking to make changes to their facilities to stay competitive may run into a situation where there are no affordable ERCs for the relevant pollutants. Widening the geographic area in which facilities may sell, trade or bank credits would be a potential solution but will require a legislative change. In addition, regulatory requirements have outpaced technological development, and as a result many companies are unable to make an economically rational decision to over-control emissions in order to bank and sell ERCs. Instead, facilities are more and more relying on ERCs from retired facilities, which the Clean Air Act does authorize. But it should be apparent to even the most casual observer that an emissions control construct that relies on an ever-increasing number of facility shutdowns and retirements in order that new or surviving facilities may operate is not good for our economy. Further, the cost of these credits have gone up over time, consuming increasing shares of companies' compliance budgets, due in part to a trading market

¹⁷ State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction. Environmental Protection Agency, June 12, 2015. <https://www.gpo.gov/fdsys/pkg/FR-2015-06-12/pdf/2015-12905.pdf#page=2>

that is continually distorted by EPA regulations and implementation guidances that state ERCs for the same pollutant can be used for compliance with certain emission control requirements but not for others.

The current Non-attainment New Source Review construct also discourages expansion of existing manufacturing (and the attraction of new facilities) in non-attainment areas. Most large-scale manufacturing and industrial facilities will trigger NSR thresholds for NAAQS pollutants. When these facilities seek to expand their operations, they must calculate if there will be a net emissions increase as a result of the modification, and EPA has established that such a calculation must assume that a source will produce its maximum possible emissions every hour of every day for the duration of its existence (referred to as “potential to emit” or PTE), even though such a calculation is not representative of many facility’s actual operations. Companies must then account for these emissions that will never be emitted by accepting a more stringent limit and installing costly control technology than would be necessary had the calculation on future net emissions be representative of actual future operational practice. In practice, this has discouraged companies from investing in installing cheaper and cleaner-burning burners in their boiler systems or other on-site heating and power units. EPA has the discretion to make a change to permitting facility expansions based on expected future actual emissions, but has decided not to, as described in a guidance memo to the Indiana DEP.¹⁸ Such a change would still require offsets and controls, but would be based on actual facility operations. As a result, this change would not impair states’ ability to continue to make progress with respect to attaining NAAQS. The Clean Air Act could also be amended to encourage facility modifications by recognizing the inherent emissions reductions and expressly authorizing such changes, instead of applying new source technology restrictions that disincentivize efficiency improvements at facilities, as discussed in the recommendations section of this testimony.

In addition, the current permitting process allows for a revolving appeals process that has killed numerous projects. To move forward with a new facility, applicants must work with regulators to establish what controls (and/or the appropriate amount of offset credits) are needed on the project. Industry must work with regulators at the state and federal level as to what is the appropriate Best Available Control Technology¹⁹ (or BACT, applied to facilities in attainment areas) or Lowest Achievable Emissions Rate²⁰ (or LAER, applied to facilities in non-attainment areas). These evaluations examine controls technology employed at constructed facilities throughout the country. Before beginning construction, a facility needs to obtain a pre-construction

¹⁸ Letter from U.S. EPA Region 5 to Indiana Department of Environmental Management. U.S. EPA, April 4, 2011. <https://www.epa.gov/sites/production/files/2015-07/documents/atpanet.pdf>

¹⁹ 42 USC § 7479.

²⁰ 42 USC § 7501.

permit, which establishes what appropriate controls are needed based on presumed impact. A pre-construction permit has a lifespan of 18 months. Too often, however, third-party NGO's challenge the permitting agency's conclusion in the pre-construction permitting process, and the litigation hangs the project up in years of delay. Even if the applicant and agency are successful in court, EPA policy (and the lifespan of the preconstruction permit) requires agencies to do another determination on impacts and appropriate technology. Third-party NGO's can then appeal again that the agency's determination was flawed, the process repeats itself and the project never gets off the drawing board – not for an actual lack of being able to comply with the relevant requirements but because there is no clear process to get to a “yes.”

There must be a clear path to “yes” so that projects can be planned and financed appropriately. Such a path can be made by establishing that BACT/LAER evaluations should be conducted only within the universe of what controls are employed at facilities that have actually been constructed and that are in the same industrial category as the proposed project. A cement kiln has significant operational and technical differences from a compressor station, a gas-fired power plant or an oil refinery and these differences should be accounted for when evaluating what technology should be considered in a BACT or LAER evaluation. It must be noted that should EPA change its policy in accordance with our recommendations there will not be an adverse environmental impact – facilities will still have to operate in a manner that allows non-attainment areas to make improvements in air quality, and facilities in attainment areas will have to operate in a manner that does not deteriorate the local air quality. The difference is that these facilities will actually be allowed to operate thanks to a streamlined permitting process. Efforts to streamline the process should be welcomed by all, given that a recent analysis demonstrated projects being permitted through the PSD program are taking more time.²¹ By the same analysis, review times for all projects in the EPA region that includes Pennsylvania are among the highest of any region in the country.

Sustainable, long-term operation and management of individual manufacturing and industrial facilities requires a clear and consistent regulatory environment. Too often, however, the regulations are not only continually being made more stringent, but the interpretation of them has been subject to frequent change (such as the rescission and replacement of EPA memoranda that address ambiguities in a particular statute or regulation). Guidance to states and industry on implementation is lacking or unclear, exposing companies to risk of enforcement or third-party litigation. While some issues can be resolved administratively by an EPA that is focused on balancing economic development and protecting the environment, Congress should also

²¹ EPA's New Source Review Program: Evidence on Processing Time, 2002-2014. Art Fraas, Mike Neuner, and Peter Vail, February 2015. <http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-15-04.pdf>

take steps to reform the Clean Air Act; some recommendations are included in the final section of this testimony.

Thoughtful Policy is Needed to Support Additional Infrastructure and Energy Development

No conversation about promoting manufacturing and industry in this country would be complete without touching on how to continue to develop our natural resources and ensure we have competitive markets in the power generation sector. That means a level playing field where markets, not subsidies and mandates, determine the outcome for power generators. Federal regulators should also recognize and respect the primacy of states in regulating energy development within their borders. Policymakers should also not cave to “keep it in the ground” activists, whose policies would result in the loss of 14 million jobs, the doubling of gasoline prices and a four-fold increase in natural gas costs.²² According to the same analysis, a nationwide ban on hydraulic fracturing would cost Pennsylvania almost half a million jobs and increase costs for the average household by \$3,500 per year.

There is also a clear and immediate need for additional interstate pipeline and electric transmission. Companies seeking to construct such large-scale interstate projects must secure approvals from the Federal Energy Regulatory Commission through a National Environmental Policy Act (NEPA) review process. The NEPA process was established with the aim of requiring federal agencies to consider environmental impacts before authorizing projects. The White House Council on Environmental Quality provides implementation guidance to federal agencies on how to implement this policy. In the waning months of the Obama administration, CEQ finalized guidance directing federal agencies, including FERC, to consider climate change impacts during NEPA reviews. The guidance noted agencies should consider direct and indirect climate impacts as a result of approved projects. However, quite problematically, the guidance did not contain a clear effective date or a clear expectation on how federal agencies should apply the guidance to projects whose reviews were pending. Also problematic is the guidance’s elevation of climate impacts for alternatives analysis, as is its lack of hard and fast thresholds for what emissions or impacts should be included or considered. As such, this guidance has placed the federal agencies and project applicants at litigation risk by granting additional paths for third-party NGO’s to arbitrarily challenge a final decision approving a project. Even if the litigation is ultimately unsuccessful in terms of reversing a FERC approval (and nearly all challenges to FERC final actions under NEPA have been unsuccessful as such), the project would be

²² What if Hydraulic Fracturing Was Banned? U.S. Chamber of Commerce Institute for 21st Century Energy, Nov. 4, 2016.
http://www.energyxxi.org/sites/default/themes/bricktheme/pdfs/CoC_BannedFracking_FULL_v3.pdf

unnecessarily delayed while litigation proceeds. It should be apparent that during such a delay, the manufacturing and construction jobs associated with the project will not materialize, families and businesses will continue to pay higher costs, and the economy will suffer as a result. To help avoid these outcomes, the CEQ guidance should be rescinded and to the extent the Trump administration would like to advise federal agencies to consider climate impacts, it should do so with clear guidance on how to handle projects that are in the middle of their reviews. Congress should also consider amending the statutes requiring NEPA to make clear how federal agencies should consider environmental impacts, including those related to climate change. NEPA should be used as originally designed: a measure to require consideration of environmental impacts to the extent Congress decides, in balance with the other prerogatives of the agency, such as ensuring the interstate transmission of electricity and gas in a manner consistent with the public interest or ensuring a fast, safe, efficient and convenient transportation system. NEPA should not be used as a weapon to halt development of crucial infrastructure.

The CEQ guidance also emphasized the Obama administration's social cost of carbon (SCC). The SCC is a significant departure in environmental cost-benefit calculations and was calculated on a global, rather than domestic, basis and over an extremely long period of time, and employed a significant amount of speculation and conjecture about long-term impacts. Congress and the Trump administration should deliberate as to whether or not a more appropriate, specific and science-based approach would be to better characterize impacts on a domestic basis, which would be in keeping with the historical approach to costs and benefits of regulation. A global SCC justifies more costly regulation than would a domestic SCC.

Recommendations to Modernize Our Regulatory Approach

The following summarize the key issues raised in this testimony in conjunction with an associated recommendation to change the relevant statute, regulation or policy, with the general aim of incentivizing innovation and economic growth in a manner that also encourages emissions reductions.

EPA should make administrative changes Non-Attainment New Source Review (NNSR) provisions and its modeling guidance to reflect expected emissions from actual operations, rather than from a potential-to-emit basis.²³ Similarly, the PSD program discourages cost-saving and emissions-reducing improvements at facilities and needs to be reformed, and the HAPS “once in, always in” policy should be retracted. The Clean Air Act can be amended to accommodate these reforms.

As discussed in this testimony, the current NNSR construct discourages investment into existing manufacturing by requiring facilities to accept emission control rates that are more stringent and to secure more emission reduction credits than are needed to protect public health. Similarly, the modeling guidances issued by EPA significantly overstate expected emissions from sources and result in more areas being designated as non-attainment than is realistic.

The PSD program penalizes any facility seeking to change its operations if it has not been running at capacity prior to the modification. The implementation of “major modification” regulations under PSD have become extremely costly and in practice have discouraged improved efficiencies at manufacturing and industrial facilities – for example, many facilities seeking to switch to more affordable and less-emitting fuel sources in their boilers have been prevented from doing so because of the “actual-to-PTE” test.

Another air quality rule that interferes with a facility’s ability to change its manufacturing or industrial process is the HAPS “once in, always in” policy, which requires a facility that was ever once a major source of HAPs to always install MACT for HAPs upon expanding or changing the facility – even if that facility’s emissions profile operates at below major source thresholds.

Should EPA prefer the Clean Air Act be amended first to provide support for these changes, a simple change to the Clean Air Act could be made by addressing the modification issue by statute and expressly stating that “any capital investment or change in operation of a source that results in the reduction of potential or actual

²³ For more discussion on recommendations establishing a better approach to modeling, as well as reforming the offset program and establishing requirements for the timely issuance of implementation rules and modeling guidance, please see a recent whitepaper, “EPA’s New Source Review Program: Time for Reform?” The whitepaper, authored by Fraas, Graham and Holmstead, is appended to this testimony.

emissions is permitted by this statute without condition, requirement, or comment by EPA. The permittee must notify EPA of the investment or change in operation within 90 days of the completion of the change.”

EPA should alter its permitting policy to provide certainty that projects that must undergo BACT or LAER determinations by determining appropriate emissions controls based upon the emissions control technology that was available during the initial permit application at projects in the same industrial category and that were actually constructed at the time; current agency policy requiring projects to undergo a revolving door of appeals prevents some projects from ever being built.

Third-party challenges to BACT and LAER determinations are frequent and have inhibited the construction of a substantial number of new projects in this country. EPA should revise its permitting policy to not require BACT or LAER determinations after lengthy litigation by making clear that only projects that were in existence at the time of a permit application submission, not the conclusion of litigation, should be considered for BACT and LAER evaluations. Further, EPA should require applicants and state agencies to only compare controls technologies used by facilities in the same industrial category as the proposed project and to only consider controls employed at projects that have actually been built. This change would provide the necessary certainty to projects and would also not impair air quality: the law is clear that facilities cannot operate in a manner that interferes with non-attainment areas progressing towards attainment nor in a manner that deteriorates air quality in attainment areas.

Amend the Clean Air Act to promote development in non-attainment areas, streamline EPA approvals or review of proposed state/local permitting actions and provide certainty to final permitting actions.

A non-attainment designation discourages economic investment; the Clean Air Act should be amended to allow for delegated air agencies at the state or local level to permit new projects using BACT, rather than LAER, provided that the permitting official determines that the use of such technology will not significantly impact local air quality. Such a change is needed as NAAQS for ozone and other pollutants approach background levels. Further, the Act should be amended to prohibit challenges to state permitting decisions except in cases of major deficiencies. Mere disagreement over a permitting official’s judgment in implementing often ambiguous regulatory criteria should not warrant perpetual suspension of project development. A policy of reasonable turnaround times for EPA review of state permitting actions or SIP amendments should also be instituted and EPA held accountable to it.

The CEQ NEPA Guidance on greenhouse gas emissions should be rescinded, and Congress should consider providing clearer direction via statute regarding how climate impacts should be considered in NEPA reviews and regulatory costs.

As discussed, the CEQ NEPA Guidance is unclear and exposes federal agencies and, more importantly, vital infrastructure projects to unnecessarily delay due to litigation from third-parties. The Guidance is vague with respect to its effective date as well as to the extent agencies should weight climate-related impacts. The Trump Administration should retract the guidance.

Congress should “speak clearly” with respect to ambiguities of the Clean Air Act.

The late Justice Antonin Scalia famously remarked in the 2014 *Utility Air Regulatory Group v. EPA* decision that the Court expects Congress to “speak clearly” regarding what regulatory powers and duties the legislative branch has delegated to an agency. Throughout the years, each administration has continually rescinded and then reissued interpretive memoranda on issues such as source aggregation, new source review, and navigable waters. On these issues, Congress should amend the statutes to eliminate a need for EPA to interpret and re-interpret ambiguities. With regard to source aggregation, the Obama administration should be applauded for their final rule regarding the oil and gas sector,²⁴ which conforms to the historical and common-sense definitions of the key terms contiguous, adjacent and common control. This is generally in keeping with an approach to the issue instituted by the Pennsylvania Department of Environmental Protection in 2011. Nonetheless, the statute should still codify the language to resolve the issue entirely.

Congress should also be encouraged to embark on a robust stakeholder process to determine whether the Clean Air Act should be amended to explicitly state whether its provisions apply to greenhouse gases or not, and if they do, to direct EPA to address carbon emissions solely within the fenceline of facilities, in keeping with the historical approach to establishing standards of performance that are reflective of controls that, with consideration to economic feasibility, can be installed. Absent such clarity, future administrations will be free to approach carbon emission controls similar to the sweeping approach proposed by the Obama administration’s Clean Power Plan.

The Clean Air Act should be amended to encourage “performance-based approaches” that rewards states and industry for attaining air quality goals.

As discussed in this testimony, the Clean Air Act’s provisions and the implementation of them have resulted in states and industry having to control emissions to standards beyond what EPA has designated as protective of public health and the environment. The CAA’s anti-backsliding provisions do not allow for the relaxation

²⁴ Source Determination for Certain Emission Units in the Oil and Natural Gas Sector. Environmental Protection Agency, June 3, 2016. <https://www.gpo.gov/fdsys/pkg/FR-2016-06-03/pdf/2016-11968.pdf>

of controls. Congress could instead amend the statute to still require states to implement and attain NAAQS but also allow states to relax regulatory impositions for areas that are attaining air quality better than the national standard – of course, only to the extent that the area does not fall back into non-attainment.

The Clean Air Act should be amended to allow for a more thoughtful implementation and review timeframe for all NAAQS pollutants, not just ozone. In addition, to the extent modeling is used in attainment designations, EPA should adopt an air quality modeling approach that reflects actual and expected future source operations.

While recent revisions to the ozone NAAQS have justifiably drawn considerable attention and scrutiny, ozone is not the only pollutant that EPA and states manage via the NAAQS construct. The issues presented by the on-going implementation of the 2010 revision to the sulfur dioxide (SO₂) NAAQS also speak to a need for modernizing NAAQS implementation. The new 1-hour SO₂ standard of 75 ppb was established June 2, 2010. 75 FR 35520. EPA published notice on Aug. 5, 2013 announcing designations of some areas in 16 states; however, not all regions of the country were classified. Litigation was filed by an environmental group in the U.S. District Court for the Northern District of California, which resulted in EPA agreeing in a settlement on March 2, 2015 to an accelerated schedule to designate the remaining areas of the country. EPA agreed to, in just over a year's time, make a final designation determination for any area of the country that contained stationary sources that emitted more than 16,000 tons of SO₂ or emitted more than 2,600 tons of SO₂ with an annual average emissions rate of 0.45 lbs SO₂/mmBtu or higher in 2012. In order to meet the deadline imposed by the date set in the settlement, EPA gave states a handful of months to meet a Sept. 28, 2015 deadline to make propose designations to EPA (either attainment, non-attainment or unclassifiable). In its guidance memo to states instructing them to meet this deadline, EPA noted that “we recognize that the timeline for designations by July 2, 2016 does not provide for establishment and use of new ambient monitors. Therefore, we anticipate that in many areas the most reliable information for informing these designations will be based on source modeling.”²⁵

While it is fair to question whether the terms contained in the settlement agreement were appropriate and whether EPA took the right path in its guidance to states, this outcome would have been avoided altogether had EPA and states been given more time under the statute to implement the 2010 standard.

²⁵ Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard. Environmental Protection Agency, March 20, 2015.
<https://www.epa.gov/sites/production/files/2016-06/documents/20150320so2designations.pdf>

As such, Congress should amend the statutory timetables for reviewing all NAAQS criteria pollutants from five to ten years and obligate that the EPA administrator publish simultaneously the necessary modeling and implementation guidance within six months of any new standard. These concepts are embodied in the “Ozone Standards Implementation Act of 2017” (relating to timetables for reviewing NAAQS) and in the “Promoting New Manufacturing Act” (introduced in the 114th Congress as H.R. 2557 and relating to the simultaneous issuance of guidance and permitting).

In addition, Congress should consider revising the Clean Air Act to allow states to establish reciprocity agreements that allow for the trading of emission reduction credits among their facilities.

Congress should establish clearly in statute how costs and benefits of regulation are to be calculated.

Our regulatory system is in need of reform, beginning with the process of how costs and benefits are calculated. First, EPA should be required to consider economic impacts when amending NAAQS requirements, as well as incorporate what is technologically feasible when establishing new NAAQS requirements. In addition, too often, EPA relies on co-benefits, or a description of purported benefits of pollutants will be reduced as a result of a regulatory measure but that are not the pollutants the rule seeks to address. Perhaps the most egregious example of this was the final Mercury and Air Toxics Rule.²⁶ The MATS Rule was designed to reduce emissions of hazardous air pollutants, including mercury, from existing power plants. According to the Summary of Monetized Benefits table provided in the final rule’s Federal Register notice, the rule would achieve only \$4 million to \$6 million in public health benefits as a result of the reduction of these pollutants, despite an estimated cost of \$9.6 billion. But because EPA also incorporated estimated benefits from reductions of PM_{2.5}, SO₂ and CO₂, the agency was able to claim benefits greatly outweighed the costs. While this approach to cost-benefit was harshly criticized in the *UARG v. EPA* decision in 2015, EPA’s ability to enforce the rule stood. By April 2016 (one year after the effect date of the MATS rule – some plants were granted one-year compliance extensions), about 20 GW of the nation’s coal-fired generation was retired. EPA expected slightly less than 4.7 GW of retirement to occur over that time. Congress should consider amending statutes relevant to regulatory development, such as the Administrative Procedure Act and the Regulatory Flexibility Act, to make clear how much a federal agency can rely on co-

²⁶ National Emissions 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. Environmental Protection Agency, Feb. 16, 2012. <https://www.gpo.gov/fdsys/pkg/FR-2012-02-16/pdf/2012-806.pdf>

benefits that occur as a result of reductions or outcomes which occur but are not the direct aim of the rulemaking.

Congress should also consider amending such statutes to make clear whether or not a proper cost-benefit calculation should recognize emission reductions that achieve pollution concentrations in ambient air quality that lower than NAAQS targets – values that EPA designed to be sufficiently protective of public health. In addition, Congress should also require EPA recognize the lifetime loss of earnings from displaced workers (as estimated in the aforementioned Masur and Posner reports) and enforce EPA’s requirements under the Clean Air Act’s Section 321, regarding continual evaluation of job loss or employment shift.

EPA should also be required to convene panels with small businesses for all major rules, including any changes to NAAQS, as outlined in the Small Business Regulatory Enforcement Fairness Act of 1996. These panels would bring to the table the voices of small businesses, many of whom have less flexibility than larger operations to adjust business practices in order to comply with new requirements. These panels were not convened for NAAQS or the Clean Power Plan, despite significant impacts from these rules on small businesses.

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In conclusion, it should be clear that significant opportunities lay before us to grow our economy and secure continued environmental progress. There are unquestionably reforms needed to both the actual text and the implementation of several environmental statutes, starting with the Clean Air Act. We have suggested a few reforms for Congress and the Trump administration to consider. We also note that these reforms are not panacea: such reform must take place along with competitive tax, trade and labor policy. We must also work to ensure a skilled and able workforce is continually being developed so that as new opportunities become available as a result of more thoughtful policy, the promise of a stronger, more productive economy becomes a reality.

Thanks you for the opportunity to bring the concerns and suggestions of our members before you and we look forward to working together on these issues in this Congress.