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# Testimony

**of Ross Eisenberg**

Vice President

Energy and Resources Policy

National Association of Manufacturers

*before the* House Committee on Energy and Commerce  
Subcommittee on Environment

*hearing on* “Modernizing Environmental Laws: Challenges and Opportunities for  
Expanding Infrastructure and Promoting Development and Manufacturing”

February 16, 2017



## SUMMARY OF TESTIMONY

Manufacturers have sharply reduced our impact on the environment through a wide range of innovations, and have helped to usher in a new era of a cleaner and more sustainable environment. The overall numbers are indisputably good. However, in spite of best-in-class efforts, the United States and the world continue to face serious environmental and sustainability challenges. There are forces far beyond the capability of manufacturers in the United States that are driving changes to the global environment.

Our environmental indicators are steadily improving. However, they are coming at an ever-increasing cost. Federal environmental regulations—many based on statutes that are decades old—are increasingly rigid, costly and harm our global competitiveness. Several recent regulations threaten to set new records for compliance costs, collectively strapping manufacturers with hundreds of billions of dollars in new regulatory burdens per year. We have lost the critical balance in our federal environmental policies between furthering progress and limiting unnecessary economic impacts. The state of our national economy, the manufacturing sector and the environment are considerably different than they were 20, 30 or 40 years ago. However, we are still operating with policies designed to address the environmental challenges of a previous era. It is time to modernize our environmental policies to better reflect and address current issues, technologies and opportunities to ensure a more sustainable future.

When agencies try to adapt laws written in the 1960s and 1970s to modern-day problems, they risk imposing requirements that are not legally justifiable. The NAM recommends that Congress modernize outdated environmental laws written in the 1960s and 1970s and make them perform better, or require federal agencies to regulate environmental challenges better—or both.

America's vast energy resources are spurring major investment by manufacturers. Our energy-fueled manufacturing renaissance has created a major need for new and improved energy delivery infrastructure. On the electricity side, innovation, regulations and market dynamics are driving rapid changes to the electric grid and the way electricity is produced in the U.S. Increased dependence on natural gas in the manufacturing and electric power sectors has also brought about a need for new pipeline infrastructure. More often than not, new energy infrastructure suffers from "permitting paralysis" that Congress can help resolve. In the case of water infrastructure, communities across the country are relying on water infrastructure that is approaching the end of its useful life.

This testimony provides the NAM's recommendations on practical ways to modernize environmental laws and regulations to improve manufacturing and infrastructure.

**TESTIMONY OF ROSS EISENBERG  
BEFORE THE HOUSE COMMITTEE ON ENERGY AND COMMERCE  
SUBCOMMITTEE ON ENVIRONMENT**

Hearing on:  
“Modernizing Environmental Laws: Challenges and Opportunities for Expanding  
Infrastructure and Promoting Development and Manufacturing”

**FEBRUARY 16, 2017**

Good morning, Chairman Shimkus, Ranking Member Tonko, and members of the Subcommittee on Environment. My name is Ross Eisenberg, and I am vice president of energy and resources policy at the National Association of Manufacturers (NAM). The NAM is the nation’s largest industrial trade association, representing nearly 14,000 small, medium and large manufacturers in every industrial sector and in all 50 states. I am pleased to represent the NAM and its members at today’s hearing examining the nation’s environmental laws and regulations and how we can modernize them to improve infrastructure and manufacturing.

We are in the midst of a “Manufacturing Moment”—and it is easy to see why. Manufacturing has fueled America’s rise like no other sector of our economy. Manufacturers in the United States are the most productive in the world, far surpassing the worker productivity of any other major manufacturing economy, leading to higher wages and living standards.

Manufacturers contributed \$2.17 trillion to the U.S. economy in 2015, the most recent data available.<sup>1</sup> This figure has risen since the second quarter of

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<sup>1</sup> <http://www.nam.org/Newsroom/Facts-About-Manufacturing/>.

2009, when manufacturers contributed \$1.70 trillion. For every \$1.00 spent in manufacturing, another \$1.81 is added to the economy—the highest multiplier effect of any economic sector. In addition, for every one worker in manufacturing, there are another four employees hired elsewhere. Manufacturing has helped lift the United States out of the Great Recession and ignited a new-generation economy capable of keeping American Exceptionalism alive long into the future.

### **Background on NAM's Policy Recommendations**

Heading into 2017, the NAM and its members recognized the growing focus from Congress and the Executive Branch on upgrading the nation's infrastructure and enacting policies that will make manufacturers more competitive. To help drive these discussions, we released *Competing to Win*, a detailed roadmap for the President and the 115<sup>th</sup> Congress, with a series of white papers containing policy recommendations on tax, trade, energy, environment, transportation and infrastructure, labor, immigration, workforce, health care, technology, and regulatory and legal reform. The *Competing To Win* white papers can be read at <http://www.nam.org/competingtowin/>. We also released *Building to Win*, a blueprint for policymakers to repair and upgrade our infrastructure and make the American Dream possible. *Building to Win* can be found at <http://www.nam.org/buildingtowin/>.

My testimony today draws heavily from the *Competing to Win* energy and environment white papers and from *Building to Win*. I encourage you to read the

full set of white papers and follow up with NAM policy experts with questions on the issue areas not contained in my testimony.

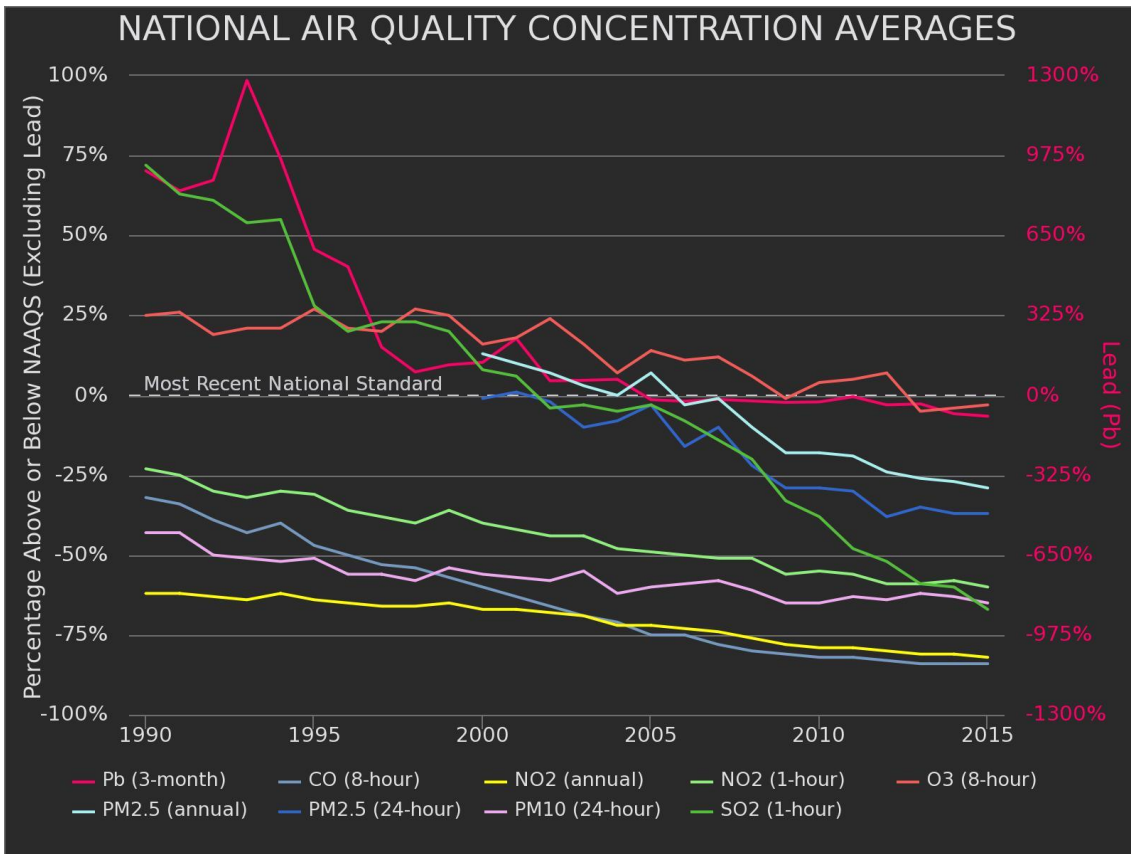
**Environment: Manufacturers are Driving Continual Improvement But Laws and Regulations Aren't Keeping Pace**

Manufacturers have sharply reduced our impact on the environment through a wide range of innovations, such as increasing energy efficiency, saving and recycling water and implementing successful initiatives to reduce pollution and waste. Through these traditional and innovative measures, manufacturers have helped to usher in a new era of a cleaner and more sustainable environment.

The overall numbers are indisputably good. Since 1990—a period spanning four different presidential administrations and 14 different Environmental Protection Agency (EPA) Administrators—national pollutant concentrations have dropped dramatically. Carbon monoxide concentrations are down 77 percent; lead 99 percent; nitrogen dioxide 54 percent; ozone 22 percent; coarse particulate matter 39 percent; fine particulate matter 37 percent; and sulfur dioxide 81 percent.<sup>2</sup> The United States has reduced more greenhouse gases (GHGs) over the past decade than any other nation on earth. Manufacturers have done their part as well, reducing our emissions 10 percent over the past decade while increasing our value to the economy by 19 percent.

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<sup>2</sup> U.S. EPA, “Our Nation’s Air: Status and Trends Through 2015,” *available at* <https://gispub.epa.gov/air/trendsreport/2016/>.



Source: EPA Air Trends Report, <https://gispub.epa.gov/air/trendsreport/2016/>.

Manufacturers will continue to lead by minimizing environmental footprints, reducing emissions, conserving critical resources, protecting biodiversity, limiting waste and providing safe products and solutions so others in the economy can do the same. Sustainability drives the efficient use of resources so that economic value to society can continue to grow while businesses remain profitable enterprises. The results benefit not only customers but also broader communities beyond the manufacturing shop floor.

Here are a few good examples.<sup>3</sup> Covestro, formerly Bayer MaterialScience, committed to reduce its 2005 carbon dioxide (CO<sub>2</sub>) levels by 40

<sup>3</sup> All of the following examples and more can be found in greater detail on the NAM's Sustainability Blog, <http://www.nam.org/sustainability/>.

percent by 2020. The company has already beaten that goal and set a new goal to cut CO<sub>2</sub> emissions in half again by 2025. It accomplished this by making numerous production improvements at Covestro facilities across the globe, including a \$120 million investment at its largest facility in Baytown, Texas to improve energy efficiencies, minimize waste and reduce natural resource consumption. Covestro developed a new manufacturing process that allows it to replace petrochemical feedstock with CO<sub>2</sub> and recently opened a new plant that will utilize this technology to make polyurethane foam for mattresses and furniture.

Engineers at Kohler recently introduced a line of flush toilets that reduce water use by 38 percent compared to a traditional 1.6 gallon flush toilet. This product is the result of Kohler's Design for Environment (DfE) principles, which are incorporated into each phase of new product development. Kohler engineers also developed a manufacturing process that saves more than six million pounds of iron in bathtubs from being melted each year—as well as a 20 percent improvement in the efficiency of the energy needed to melt it.

UPS Corporation focuses its sustainability efforts on creating the most efficient network possible, using everything from multi-modal shipping, a “rolling laboratory” of alternative fuel vehicles, and even (in one test case) electric tricycles, all designed to reduce congestion and environmental impact around the world and improve the communities UPS serves. UPS' fleet of 8,100 alternative fuel vehicles has already driven more than 1 billion miles.

Smithfield Foods has set 2020 goals for water, energy, GHGs, solid waste and grain procurement and has almost met several of these targets three years early. More recently, it set a 2025 goal to cut its GHG emissions by a quarter, from 17 million metric tons to 12.5 million tons.<sup>4</sup> The company has created new markets for grain sorghum, a sustainable feed, and has found industry-leading solutions to manure management. Smithfield's fertilizer and soil control practices, which include working hand-in-hand with grain farmers, providing free agronomy advice and fostering on-farm conservation practices, have benefitted more than 100,000 acres of land in the Southeast United States and are on track to benefit more 450,000 acres nationwide as the program expands.

In 2007, steel and mining company ArcelorMittal helped launch the *Sustain Our Great Lakes* public-private partnership with EPA and several other agencies with the goal support the Great Lakes region, where 70 percent of the company's employees live and work. The partnership has contributed to restoring nearly 33,000 acres and nearly 200 miles of marine and riparian habitat.

ArcelorMittal also helped launch the *Millennium Reserve* public-private partnership in 2012 designed to advance sustainable development initiatives in the Calumet region of Indiana and Illinois.

Among a wide range of sustainability initiatives, General Motors recycled more than 2 million tons of waste in 2015 and has 131 landfill-free facilities. The company has taken a truly innovative approach to waste and recycling, even reusing many of these products in new and exciting ways. For example, GM

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<sup>4</sup> <https://www.wsj.com/articles/smithfield-sets-plan-to-cut-carbon-emissions-by-a-quarter-1480870861>.



recycles cardboard packaging into Buick Verano headliners to keep the cabin quiet; it recycles water bottles from some GM facilities to provide V6 engine covers for the Chevrolet Equinox; it recycles test tires into the manufacturing of air baffles for a variety of GM vehicles; it reused 1,600 shipping crates as raised garden beds in Detroit; and it converted 800 scrap Chevrolet Volt battery cases into wildlife nesting boxes.

These are just a few stories that highlight the leadership and innovation manufacturing provides to protect our environment. However, in spite of best-in-class efforts, the United States and the world continue to face serious environmental and sustainability challenges. There are forces far beyond the capability of manufacturers in the United States that are driving changes to the global environment. Mitigating the impacts of climate change, protecting the air, feeding the world's growing population and ensuring adequate supplies of drinking water are just a few of the significant issues facing current and future generations.

Our environmental indicators are steadily improving. However, they are coming at an ever-increasing cost. Federal environmental regulations—many based on statutes that are decades old—are increasingly rigid, costly and harm our global competitiveness. Several recent regulations threaten to set new records for compliance costs, collectively strapping manufacturers with hundreds of billions of dollars in new regulatory burdens per year. We have lost the critical balance in our federal environmental policies between furthering progress and limiting unnecessary economic impacts. The state of our national economy, the

manufacturing sector and the environment are considerably different than they were 20, 30 or 40 years ago. However, we are still operating with policies designed to address the environmental challenges of a previous era. It is time to modernize our environmental policies to better reflect and address current issues, technologies and opportunities to ensure a more sustainable future.

**Recommendations on Environment: Modern, Balanced Laws and Regulations That Achieve Environmental Goals Without Holding Manufacturers Back**

The choice between environmental protection and a strong economy is not an either/or proposition. We can have both. Environmental laws and regulations should be updated and designed to ensure they are effective in achieving desired objectives without creating unnecessary adverse economic or social impacts.

Environmental laws have been largely successful in reducing pollution—in many cases, so successful that pollutants have been reduced to trace or background levels. At the same time, these statutes were written four to five decades ago, and their drafters could not possibly have envisioned how best to tackle the environmental challenges of the 21st century. As a result, regulators are increasingly unable to adapt stringent programs to the progress that has been made and easily reshape them on their own to confront new environmental challenges. When agencies try to adapt laws written in the 1960s and 1970s to modern-day problems, they risk imposing requirements that are not legally justifiable. History is littered with a long list of “creative” EPA regulations that have been held up by the courts, including Bush-era programs like the Clean Air

Interstate Rule and Clean Air Mercury Rule and Obama-era regulations like the Clean Power Plan and Waters of the United States.

The NAM recommends that Congress modernize outdated environmental laws written in the 1960s and 1970s and make them perform better, or require federal agencies to regulate environmental challenges better—or both. We understand these are not simple tasks. Neither was modernizing the Toxic Substances Control Act (TSCA), which this Committee accomplished just last year. We hope the Committee can turn the success it had reforming TSCA into broader modernization efforts.

The NAM specifically recommends the following:

- Modify the National Ambient Air Quality Standards (NAAQS) review cycle to more closely align with the pace of implementation of existing standards and consider cost and technological feasibility when conducting NAAQS policy assessments and during implementation.
- Require the Clean Air Scientific Advisory Committee (CASAC) to comply with Section 109(d) of the Clean Air Act and “advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance” of NAAQS.
- Amend Clean Air Act Section 179B to more clearly provide relief for states that cannot meet federal air quality standards due to contributions from emissions from outside the United States.

- Provide flexibility to NAAQS nonattainment areas so that offset requirements are tied to reasonable and available reduction opportunities, with consideration to reasonable cost thresholds.
- Harmonize motor vehicle GHG regulations and programs issued by the EPA, Department of Transportation and California Air Resources Board to avoid inconsistencies.
- Withdraw the EPA's 2016 midnight regulation "determination" for the 2017-25 corporate average fuel economy standards for light-duty vehicles and require a new, proper midterm review.
- Led by the International Civil Aviation Organization, commit to a single global approach to reducing aircraft GHG emissions that preserves a level playing field for aircraft manufacturers.
- Specify that forest biomass energy is considered carbon neutral as long as forest carbon stocks are stable or rising on a broad geographical scale, and recognize the forest products industry's use of forest products manufacturing residuals for energy as carbon neutral regardless of forest carbon stocks.
- Simplify the New Source Performance Standards (NSPS) process to provide certainty for manufacturers that they are in compliance with the law. NSPS should be set using criteria that ensure optimal cost effectiveness and do not hinder economic growth. EPA should also allow adequate timing to demonstrate compliance once an NSPS is triggered.

- Cease using the Social Cost of Carbon, Social Cost of Methane and Social Cost of NOx calculations until they are subjected to a rigorous, unbiased third-party review and revised accordingly.
- Improve the New Source Review (NSR) process to reduce barriers to installation of energy efficient technologies.
- Streamline and reform NSR requirements, including the development of practical routine repair, replacement and maintenance exemption provisions.
- Base any Hazardous Air Pollutant (HAP) regulations on sound scientific data that clearly demonstrate a need to protect public health and consideration of welfare, energy and economic impacts. The EPA's inability to meet arbitrary deadlines should not trigger automatic regulation.
- Integrate a cumulative analysis of regulations' impacts on regulated industries, manufacturers and the economy, including the impacts on the environment and employment.
- Require federal agencies to perform an analysis of any new major rulemaking on the reliability and cost of energy for manufacturers.
- Reinforce local responsibility by clearly defining waters covered under the Clean Water Act (CWA).
- Foster cooperation by providing a means of just compensation to private property owners for regulatory takings that result from the CWA or other environmental laws.

- Adopt a balanced approach to point and nonpoint problems that focuses on the water quality of the watershed.
- Hold municipalities responsible for storm water and sewage discharges and support equitable user charges based on the true cost of treating each user's wastewater.
- Support programs that incorporate the flexibility needed to respond to local conditions in cost-effective ways to more fully meet the goals of the CWA.
- Ensure state governments retain the principal control and management responsibility for groundwater.
- Adopt a risk-based approach to water quality regulations that fully assesses the technical feasibility and economic practicability of attaining the water quality standard based on the social and economic impacts of the costs of compliance of discharges and water returns.

### **Energy and Water: New Manufacturing Needs New Infrastructure**

America's vast energy resources are spurring major investment by manufacturers. For instance, abundant natural gas and natural gas liquids (NGLs) from shale resources have driven the chemical industry to invest in 264 new projects representing \$164 billion in capital investment in the United States.<sup>5</sup>

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<sup>5</sup> "U.S. Chemical Investment Linked to Shale Gas: \$164 Billion and Counting," American Chemistry Council, Inc., April 2016. Available at <https://www.americanchemistry.com/Policy/Energy/Shale-Gas/Fact-Sheet-US-Chemical-Investment-Linked-to-Shale-Gas.pdf>.

These energy-related chemicals are the primary building blocks for a wide range of manufacturing sectors, including, but not limited to, fertilizer, plastics, rubber, building and construction, paint and coatings, automotive and electronics.

An NAM–supported study by PricewaterhouseCoopers recently predicted that by 2040, the shale gas boom could create 1.41 million new manufacturing jobs in the United States and generate annual cost savings for manufacturers of \$34.1 billion due to lower energy and feedstock costs.<sup>6</sup>

The energy renaissance is not limited to oil and gas. More than 100,000 workers contribute to the energy production at the nation’s 99 nuclear power plants,<sup>7</sup> including manufacturers providing on-site repair, operations and maintenance, as well as replacement components, modifications and upgrades when necessary. Pending retirements are spurring the industry to hire another 25,000 employees over the next few years, and in anticipation of new nuclear plant construction, U.S. companies have created in excess of 15,000 new U.S. jobs since 2005, which include manufactured products like turbines, polar cranes, pumps, valves, piping and instrumentation and control systems.<sup>8</sup> Renewable energy sources have also steadily grown—consumption from wind, solar and geothermal energy sources have increased more than 400 percent over the past decade<sup>9</sup>—now accounting for about 10 percent of total U.S. energy consumption

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<sup>6</sup> “Shale Gas: Still a Boon to US Manufacturing?” PWC, December 2014. Available at <http://www.pwc.com/us/en/industrial-products/publications/shale-gas-transformingmanufacturing.html>.

<sup>7</sup> <https://www.nei.org/Why-Nuclear-Energy/Economic-Growth-Job-Creation/Economic-Benefits>.

<sup>8</sup> “Nuclear Energy’s Economic Benefits—Current and Future,” Nuclear Energy Institute, April 2014. Available at <http://www.nei.org/CorporateSite/media/filefolder/Policy/Papers/jobs.pdf?ext=.pdf>.

<sup>9</sup> “Renewable Energy, Monthly Energy Review,” U.S. Energy Information Administration, June 2016. Available at <http://www.eia.gov/totalenergy/data/monthly/>.

and about 13 percent of electricity generation.<sup>10</sup> Overall energy intensity in manufacturing (i.e., energy consumed per each dollar of goods produced) has steadily improved as manufacturers have grown more energy efficient.<sup>11</sup> Finally, while the coal industry has faced its share of headwinds in the electric power sector, coal use in the non-electric-generation manufacturing sector has remained relatively consistent, at around 43 million short tons of coal per year.<sup>12</sup>

Our energy-fueled manufacturing renaissance has created a major need for new and improved energy delivery infrastructure. On the electricity side, innovation, regulations and market dynamics are driving rapid changes to the electric grid and the way electricity is produced in the U.S. The electric grid has traditionally been a one-way system: power plants make electricity, and consumers use it. The grid of the future—and, increasingly, the present—is multi-directional, relying on traditional electric generation but also combined heat and power (CHP) technologies, distributed resources like rooftop solar, energy storage and microgrids, and demand-side management technologies like smart metering. The utility sector expects to invest more than \$300 billion over the next three years to enhance the grid and reshape the nations' electric generation fleet.<sup>13</sup>

A transforming grid provides opportunities and challenges. Utilities have expressed concerns about cost recovery when implementing demand-side

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<sup>10</sup> <http://www.eia.gov/tools/faqs/faq.cfm?id=92&t=4>.

<sup>11</sup> “Tracking Energy Efficiency Performance in the United States,” 2016. Available at <http://aceee.org/ee-metrics>.

<sup>12</sup> <http://www.eia.gov/coal/annual/pdf/table26.pdf>.

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[http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/Documents/Wall\\_Street\\_Briefing.pdf](http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/Documents/Wall_Street_Briefing.pdf).



management programs and integrating distributed resources onto the grid. Manufacturers must also adapt to new options and rules, which must be reconciled with a need for consistent, reliable energy at all times.

Increased dependence on natural gas in the manufacturing and electric power sectors has also brought about a need for new infrastructure. A recent NAM-commissioned report by IHS Economics found that total natural gas demand is poised to increase by 40 percent over the next decade—double the growth of the past 10 years.<sup>14</sup>

By improving technology and increasing productivity, supply growth continues at a strong pace despite falling prices for both gas and oil and significantly lower rig activity. But, according to IHS, “[t]here is a mismatch, geographically, in the growth in natural gas demand and supply in the U.S. lower 48.” The rapid growth of low-cost production out of the Marcellus and Utica plays has created a bottleneck, as producers are unable to find pipeline capacity to move gas from the well to consumer markets.

When pipeline access is not available, manufacturers suffer. Several NAM members, who were required to install natural gas boilers to meet the EPA’s recent Boiler MACT regulations, have struggled to meet the EPA’s deadlines because they were unsure they could gain timely approval for additional gas capacity. In the northeastern U.S., some manufacturers are forced to truck compressed natural gas (CNG) to their facilities due to stiff local opposition to new pipelines; this imposes a significant competitive disadvantage on the

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<sup>14</sup> <http://www.nam.org/Data-and-Reports/Reports/Natural-Gas-Study/Energizing-Manufacturing/>.

manufacturer, who could have relatively easy natural gas access in other parts of the country.

More often than not, new energy infrastructure suffers from “permitting paralysis.” Federal, state and even local permitting hurdles continue to impede projects across the energy landscape, including but not limited to oil and gas pipelines, electric transmission lines, crude by rail facilities, coal, nuclear and liquefied natural gas (LNG) exports, and even new renewable energy installations. Opposition groups are better funded and more driven than ever before, and the regulatory process to permit energy infrastructure affords opponents too many opportunities to delay decisions and stop agencies from doing their work.

In the case of water infrastructure, communities across the country are relying on water infrastructure that is approaching the end of its useful life. The Flint, Michigan water crisis is a stark reminder of the damage that can result when communities, states and the federal government fail to maintain fundamental infrastructure systems—but Flint is not the only community struggling with aging water infrastructure. Without major investments, breakdowns in water supply, treatment and wastewater capacity are projected to cost manufacturers and other businesses \$7.5 trillion in lost sales and \$4.1 trillion in lost GDP from 2011 to 2040.<sup>15</sup>

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<sup>15</sup> American Society of Civil Engineers. “Failure to Act: The Economic Impact of Current Investment Trends in Water and Wastewater Treatment Infrastructure.” 2011. Available at [http://www.asce.org/uploadedFiles/Issues\\_and\\_Advocacy/Our\\_Initiatives/Infrastructure/Content\\_Pieces/failure-to-act-water-wastewater-report.pdf](http://www.asce.org/uploadedFiles/Issues_and_Advocacy/Our_Initiatives/Infrastructure/Content_Pieces/failure-to-act-water-wastewater-report.pdf).

## **Recommendations to Improve Energy and Water Infrastructure**

Manufacturers have been encouraged by recent efforts from Congress and the President to improve the regulatory process for infrastructure projects, such as permit streamlining measures in the FAST Act and the President's recent executive memorandum for high-priority infrastructure projects.

Additionally, I applaud this Committee for your leadership on the recent passage of the bipartisan Water Infrastructure Improvements for the Nation (WIIN) Act, which is a first step to addressing our current drinking and wastewater infrastructure crisis. We hope this momentum continues and policymakers continue to focus on practical solutions to improve project delivery.

The NAM's specific recommendations include:

- Fill all vacancies at the Federal Energy Regulatory Commission (FERC) so that a quorum can be obtained and regular FERC procedures can resume.
- Provide FERC additional tools to quickly and efficiently issue certificates of public convenience and necessity for new natural gas pipelines.
- Provide a consistent, reasonable scope and timeline for environmental analysis of energy projects subject to the National Environmental Policy Act (NEPA) that includes deadlines for decision making and a firm statute of limitations on actions to challenge a final record of decision.

- Expedite the licensing and permitting process for liquefied natural gas (LNG) and remove regulatory barriers to the export of nuclear, coal and clean energy technologies.
- Modify the process by which the Department of Energy sets and revises its conservation and energy-efficiency standards to allow for greater stakeholder input and more flexibility.
- Update the Nuclear Regulatory Commission’s permitting process to enable faster approvals.
- Require the federal government to fulfill its legal obligation to remove used fuel from commercial nuclear power plants and manage its long-term disposal.
- Craft a coherent national coal strategy that provides a stable regulatory structure for the leasing, transport and use of coal in electric power and industrial sectors.
- Commit to research, development and demonstration of carbon capture, beneficial use and storage technology for all fossil fuel applications.
- Improve the presidential permit process set forth in Executive Order 13337—the executive order that sets forth the approval process for cross-border pipelines and other energy delivery projects—to accelerate decision-making time and eliminate delays.
- Promote new energy infrastructure investments as a means of increasing U.S. infrastructure’s resilience to climate change by

designing for projected future climate conditions. Regulators should work to more quickly approve smart investments.

- Examine innovative financing mechanisms for new energy infrastructure to encourage private investment.
- Coordinate underground infrastructure work for road, water, gas, electric and broadband to yield construction savings and reduce traffic disruptions from construction work.
- Invest in regions without a developed pipeline network to bring down home heating costs in places like New England and make manufacturers more competitive.
- Promote significant investments to modernize the national utility grid and utilize advanced metering infrastructure, distributed energy resources and other advanced technologies to improve efficiency, affordability, reliability and security.
- Invest in grid improvements to ensure manufacturers have secure, flexible and competitive energy options.
- Issue model best practices for states to address barriers to combined heat and power (CHP) deployment, including guidance for assigning reasonable fees and rates for interconnection to the local distribution grid, supplementary power, backup or standby power, maintenance and interruptible power supplied to facilities that operate CHP systems that also allow for reasonable cost

recovery by an electric utility based on the costs to provide these services and do not shift costs to non-CHP customers.

- Promote cost-effective demand-side management services by customer and aggregator programs, energy-efficiency measures and distributed energy resources. Allow electric and natural gas utilities to meet future energy needs with these technologies and measures.
- Expand the use of public-private partnerships for drinking and wastewater projects, through programs like the Water Infrastructure Finance and Innovation Act, to bring added resources above and beyond current EPA State Revolving Funds and other programs.
- Eliminate state volume caps on private activity bonds for drinking and wastewater projects to leverage private capital to multiply the impact of federal efforts.
- Stem the loss of clean water by replacing pipes at the end of their useful life and introducing technology-enabled monitoring for leaks.
- Promote new technologies and engineering solutions to reduce pollution from sewer overflows and protect water sources, public health and aquatic resources.
- Promote innovative storm water solutions to enhance the resilience of U.S. cities, while also providing new public assets like waterfront parks that also serve as flood protection zones.

## **Conclusion: The United States Wins When Manufacturers Lead**

Manufacturers are committed to a strong, healthy, sustainable environment; less waste and greater energy efficiency support competitiveness and make manufacturers good community partners. However, there must be a balance. Poorly conceived or crafted policies that fail to balance environmental, social and economic impacts will limit the ability of current generations from realizing their full potential or compromise the ability of future generations to meet theirs. To be truly sustainable means to commit not only to a strong environment but also a strong economy. For years, the scales have consistently been tipped too far in one direction or the other. Environmental laws and regulations should be designed to ensure they are effective in achieving their desired objectives without creating unnecessary adverse economic or social impacts.