COMPETING TO WIN
ENVIRONMENT IN FOCUS
Introduction

Manufacturers are prioritizing sustainability by increasing energy efficiency, saving and recycling water and implementing successful initiatives to reduce pollution and waste. Through these traditional and innovative sustainability measures, manufacturers have helped to usher in a new era of a cleaner and more sustainable 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.

The world’s population is expected to grow from 7.3 billion people today to 9.7 billion by 2050; 795 million people in the world do not have enough food to lead a healthy active life; 1.3 billion people lack access to electricity; and droughts and other natural disasters threaten many already environmentally and economically stressed parts of the world.

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. The growing population creates increasing demand for nearly all goods, yet our planet’s resources are finite. To ensure future generations have the same or greater opportunities as current generations, manufacturers have embraced sustainability.

This means continuing 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.

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. This is the true measure of sustainability to which manufacturers adhere, a three-pillared approach that includes environmental protection, economic performance and the social well-being of the employees, communities, customers and consumers they serve. If any one of the three pillars is out of balance or ignored, we cannot sustain and improve our planet, our businesses or our way of life.

History has shown that with balanced government policies that allow room for ingenuity and innovation, overcoming the greatest environmental challenges is in the realm of the possible while continuing to support a strong, growing economy. However, history has also demonstrated that costly and poorly planned federal regulations can lead to significant economic pain by limiting manufacturers’ competitiveness while harming jobs and prosperity in the process.

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.

Manufacturers have reduced their greenhouse gas (GHG) emissions by 10 percent since 2005, while their value added to the economy has increased by 19 percent over the same time period.
Three Big Trends Shaping Environmental Policy

Trend 1: Climate Change and the Decoupling of Carbon Emissions and Economic Growth

Mitigating the impacts of and adapting to climate change has emerged as a top environmental policy issue for the global community. Efforts to curb GHG emissions have been underway for many years, but the focus on the issue has become acutely more intense in the past decade. In December 2015, the United States and 194 other countries agreed to a landmark pact to limit or reduce GHG emissions to keep global average temperatures less than 2°C above pre-industrial levels. Negotiated and agreed to in Paris, France, the Paris Climate Agreement calls on participating nations to adapt to the adverse impacts of climate change and foster development that is more resilient to the potential impacts of climate change. The nations agreed to revisit the agreement and GHG reduction commitments every five years to ensure continued progress. The Paris Climate Agreement is by no means perfect—for example, the United States pledged to reduce emissions by 26–28 percent by 2025, while China, the world’s largest emitter, pledged only to reach peak emissions by 2030—but it is clear the objectives that led to this pact will drive many of the environmental policy discussions in this country and the world for years to come.

Manufacturers have already assumed leadership roles in finding new, innovative solutions to address this global challenge. Notably, in the past two years, the world has seen a decoupling of global carbon dioxide (CO2) emissions—the most prevalent GHG—and economic growth. This is an important shift from the historic relationship that has existed between the expanding global economy and increasing global emissions. Through innovation, new technologies, improved energy efficiency and a commitment to addressing this issue, global CO2 emissions have remained essentially flat since 2013 while global GDP grew by 3.4 percent in 2014 and 3.1 percent in 2015. More innovation and still newer technologies will be needed to further this trend, and manufacturers will continue to play a central role in finding these solutions.

Trend 2: New Opportunities to Advance Water Resources and Management Practices

The Earth is often called the “blue planet” because water covers nearly three-quarters of its surface area. Even more water resources are stored beneath the crust. Consequently, it is easy to take water for granted, but manufacturers understand the importance of responsibly managing water resources and have been working to protect clean water for decades.

Globally, a lack of access to safe water and sanitation locks millions of people in a cycle of poverty. Nearly 2 billion people worldwide are drinking unsafe water, and more than 1,000 children die every day from illnesses like diarrhea, dysentery and cholera caused by dirty water and unhygienic living conditions. Manufacturers are taking the lead to address the global challenges. Our technological innovations and operational changes continually help to ensure 1) water use is within sustainable limits; 2) water quality is safe for humans and nature; 3) water is governed well; and 4) on-site areas of importance to water resources are protected.

Manufacturers have demonstrated leadership not only minimizing the environmental impacts to water supplies but also helping to ensure adequate water supplies through conservation efforts. These efforts will form the backbone of any policy response to future water quality- or quantity-related challenges.

Trend 3: Loss of Balance in Environmental Regulation

As new environmental challenges have emerged, Congress has not kept up with the times and consistently found itself unable to agree on legislative solutions. As a result, a vast environmental regulatory state has emerged and come to fill this void where sweeping new requirements are regularly imposed on manufacturers with little opportunity for meaningful input and little realistic analysis on impact.

According to a September 2014 National Association of Manufacturers (NAM)—commissioned economic report, “The Cost of Federal Regulation to the U.S. Economy, Manufacturing and Small Business,” environmental regulations make up the dominant share of manufacturers’ regulatory burden. The average manufacturer spends $10,497 per employee per year to comply with environmental regulations, five and a half times the amount spent on environmental regulations by the average business. The smaller the firm, the greater the regulatory burden; because many of these regulations are fixed costs, a 20-person firm incurs roughly the same expense as a 500-person firm, and larger firms are able to provide economies of scale, spreading the fixed costs over larger revenues, output or employee base. As a result, manufacturers with fewer than 50 employees must spend $20,361 per employee per year on environmental regulations.

When the Environmental Protection Agency (EPA) issues a new regulation with new costs and burdens, manufacturers must pay these costs on top of the tens of thousands of dollars per employee that have already been assumed. Manufacturers are not starting from zero—in many sectors, plants are already equipped with the best available pollution-control technologies, facilities operate at or near peak energy efficiency, and waste is limited and recycling occurs wherever possible. While manufacturers will always strive for improvement, at times there is little room to go beyond what is already being accomplished, and in some cases, manufacturers are already pushing up against or beyond what technology can deliver.

Promote a policy environment that fosters lower GHG emissions through technological advancements and innovation by avoiding overly prescriptive regulations that favor certain technologies and fuels over others.

**The Challenge**

Climate change is unlike almost any other environmental policy challenge in history. It is global in nature, and no single nation can have a meaningful impact without the coordinated efforts of the global community. Recent U.S. climate regulations have sought to phase out certain technologies and energy sources domestically in favor of others. Unfortunately, this approach threatens to dramatically increase the cost of production for manufacturers in the United States, limit the availability of affordable, reliable energy and will have little impact because of a lack of engagement from key global players—all while making the economy less competitive in the process.

**The Stakes**

Mitigating and adapting to impacts of climate change is imperative, and government policies will have an impact on outcomes. Governments that act as facilitators to innovation will see their countries lead with the next generation of energy and environmental technologies, while those that take a command-and-control or an overly restrictive approach will threaten domestic competitiveness and stifle the transformation. Moreover, adopting overly prescriptive and costly regulations without equivalent action by other major emitting nations will continue to send investments and jobs to other countries with less efficient economies where the net impact could be an increase in GHG emissions.

Policymakers must accept that the United States cannot solve the issue of climate change alone. Leadership is critical in motivating the actions of the rest of the world and positioning the United States as the home to the next generation of energy and environmental technologies. However, policies to lower GHG emissions should not be issued or applied in a way that creates a disproportionate negative impact on other critical societal priorities, such as jobs or economic growth.

Regulations that seek to directly limit or eliminate fossil fuels foreclose on the future potential for innovations that will allow transformation of these fuels in a low-carbon environment. As new climate solution technologies are developed, we risk ceding leadership of these new markets to our competitors if policymakers fail to include all options on the table.

**The Solutions**

Leaders should take the following actions to address climate change in a balanced and technology-neutral manner:

- Avoid regulations through which policymakers are picking technology and fuel winners and losers. The solution to lower emissions lies in technological breakthroughs. We cannot predetermine what those breakthroughs will be—all options must remain on the table.
- Ensure that any climate policy does not put American manufacturers at a relative competitive disadvantage.
- A goal of any U.S. climate policy should be to prevent carbon leakage by ensuring that no country gains a competitive advantage by failing to take action to reduce carbon emissions.
- Work with leaders from other large emitting nations—particularly those in which emissions are still increasing—and ensure that any commitments the United States makes, or regulations it pursues, are matched by those nations so as not to put our nation’s manufacturers at a competitive disadvantage.
- Ensure the U.S. government—the largest single energy-using entity in the country—is deploying strategies and technologies that increase energy efficiency and lower GHG emissions.
- Engage in research and development support for all fuels and technologies that have the ability to lower emissions.
- Work with the automobile industry to perform an honest assessment of the 2021–2025 corporate average fuel economy standards and provide flexibility if needed.
- Harmonize motor vehicle GHG regulations and programs issued by the EPA, Department of Transportation and California Air Resources Board to avoid inconsistencies.
- 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.
Strengthen stewardship of water resources and diffuse conflicts through voluntary policies that respect individual property rights, take a multi-sectoral approach and lead on technology solutions and innovation.

The Challenge

The management of water resources is fraught with conflict. U.S. federal government regulators have consistently abused their power to regulate navigable waters and usurped the role of individual property owners and local communities, and these policies have been consistently held up by federal courts, creating even more uncertainty for manufacturers. Although Congress intended the Clean Water Act (CWA) to protect “the primary responsibilities and rights of states to prevent, reduce and eliminate pollution,” the federal government has disrupted this local-first approach and exceeded constitutional limits.

The Stakes

Since manufacturers rely on water for everything from growing agricultural inputs to engineering green chemistry and providing renewable power, a smart water policy is critical. Conflicts over the allocation of water resources leaves manufacturers caught between contentious federal versus state or state versus state battles. This makes it difficult and at times impossible for manufacturers to plan for day-to-day activities and make long-term investment decisions.

Furthermore, regulatory uncertainty and prolonged conflicts undermine access to justice, weaken individual property rights and fail to protect critical water resources.

Given the importance of water resources, manufacturers need local, state and federal water policies of cooperation rather than conflict to achieve greater transparency, adaptation and continued ecological restoration. Voluntary policies that respect individual property rights, take a multi-sectoral approach and drive technology solutions and innovation work to strengthen our stewardship of water resources.

The Solutions

Leaders should take the following steps to promote collaborative, innovative and voluntary water policies that diffuse conflict:

- 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.
- Reinforce local responsibility by clearly defining waters covered under the CWA, limiting federal authority to traditional “navigable waters.”
- Promote long-term stewardship and ensure constitutional due process protections by prohibiting federal and state regulators from attempting to exercise retroactive veto powers.
- Adopt a balanced approach to point and nonpoint problems that focuses on the water quality of the watershed.
- 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.
- Reward leadership by avoiding costly treatment requirements and other restrictions on industrial discharges that result in little, if any, additional benefit to water quality.
- Reject overly prescriptive coastal and ocean resources policies that undermine the careful balancing of diverse interests and uses of these important resources.
- Ensure state governments retain the principal control and management responsibility for groundwater.
- Adopt a risk-based approach to 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.
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.

The Challenge

The nation’s flagship environmental laws were written three to four decades ago, and their drafters could not possibly have envisioned how best to tackle the environmental challenges of the 21st century. Congressional inaction has allowed the executive branch to tackle many of these challenges by stretching these outdated laws in new, often legally tenuous directions.

The Stakes

Manufacturers believe in the EPA's mission and support reasonable environmental regulation. However, an unmistakably high compliance burden with the agency's regulations poses a great challenge to manufacturing competitiveness.

Environmental laws have been largely successful in reducing pollution—in many cases, so successful that pollutants have been reduced to trace or background levels. However, these statutes are unable to adapt stringent programs to the progress that has been made and are too rigid to be used for many 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. At the same time, the opaque regulatory process too often seems engineered to exclude public participation and minimize debates over costs and benefits, technological feasibility or scientific integrity.

The Solutions

Leaders should take the following steps to modernize outdated laws and issue stronger, more effective regulations:

- Perform a comprehensive update of outdated environmental federal statutes to build on past success while better accounting for the realities of modern-day technology and the vast improvements in environmental quality that have taken place over the past several decades.
- Ground any new regulation in the best possible science and data, accurately assess its costs and benefits and ensure the benefits outweigh the costs as well as adopt the least burdensome policy available that accomplishes the environmental goal.
- Integrate a complete 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 the impacts of any new major rulemaking on the reliability and cost of energy for manufacturers.
- 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.
- Cease using the social cost of carbon and social cost of methane calculations in cost-benefit calculations until they are verified by a rigorous, unbiased third-party review.
- Adopt and enact regulations for chemical substances in a manner that protects health and the environment while avoiding unnecessary adverse impacts on businesses and the economy.
Conclusion

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. Too often, the executive branch fails to consider the comprehensive impacts—social and economic—of environmental policy proposals, which result in laws that run counter to sustainability objectives, by limiting economic opportunities, failing to promote social equality or missing the mark on environmental improvement. 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.

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