Testimony of Ross Eisenberg
Before the House Committee on Energy and Commerce
Subcommittee on Energy and Power
Hearing on: "EPA's Proposed GHG Standards for New Power Plants and H.R.__, Whitfield-Manchin Legislation"
November 14, 2013

The National Association of Manufacturers (NAM) and our member companies are committed to protecting the environment through greater environmental sustainability, increased energy efficiency and conservation and reducing greenhouse gas (GHG) emissions. The NAM believes the establishment of federal climate change policies to reduce GHG emissions, whether legislative or regulatory, must be done in a thoughtful, deliberative and transparent process that ensures a competitive level playing field for U.S. companies in the global marketplace. Any climate change policies should focus on cost-effective reductions, be implemented in concert with all major emitting nations, and take into account all GHG sources and sinks.

Unfortunately, our government has settled on a climate policy that meets none of these objectives: regulation under the Clean Air Act. While over the years there have been a wide range of legislative and regulatory proposals to address GHG emissions, it is impossible to ignore the harsh reality that *this* policy—the one we have chosen—could be both the most expensive and least environmentally effective of them all.

In his Climate Action Plan, the President makes abundantly clear that in his view, the only way to reduce GHG emissions in the United States is to stop using fossil fuels. We disagree. Manufacturers have demonstrated we can use fossil fuels while also innovating and manufacturing the technologies needed to limit the resulting GHG emissions. If the EPA regulates one or more of these fuels out of the economy, we lose not only the advantages provided by the energy itself but also the opportunity to own the next generation of energy technologies.

The NAM is deeply concerned with the decisions EPA has made in the rule for future power plants and fears that the agency is heading down a path toward a costly, unworkable set of standards for existing power plants and other industrial sectors. Manufacturers ultimately will be hit twice by the EPA's GHG regulations—both as users of the energy being regulated and as industries considered "next in line" to receive similar regulations from the EPA for their own plants. A poorly crafted rule on existing power plants that results in the limitation of coal or natural gas could pose serious problems for manufacturers, because these fuels will remain the dominant sources of energy in the United States for many years. The nexus between coal, natural gas and manufacturing is even more pronounced when viewed at the state level in places like Indiana, Louisiana, and Ohio.

Given the impact these regulations could have on energy reliability and costs, and the precedent they could set for future regulations for other sectors, we ask that Congress at least make these regulations more reasonable. Manufacturers support the bill from Rep. Ed Whitfield (R-KY) and Sen. Joe Manchin (D-WV) being discussed at today's hearing, which would allow the EPA to regulate GHGs but would ensure that these regulations are done in a manner that protects a true "all-of-the-above" energy strategy. By enacting the Whitfield-Manchin bill, Congress can steer the EPA toward an end result that accomplishes long-term meaningful reductions in GHG emissions while preserving a healthy and robust manufacturing sector.

NATIONAL ASSOCIATION OF Manufacturers

Leading Innovation. Creating Opportunity. Pursuing Progress.

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of Ross Eisenberg
Vice President
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Good morning, Chairman Whitfield, Ranking Member Rush and members of the Subcommittee on Energy and Power. 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 12,000 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 on the Environmental Protection Agency's (EPA) greenhouse gas (GHG) regulations for power plants and legislation that would make these regulations more reasonable.

We are at a crossroads on energy and climate. For the first time in our nation's history, we are truly awash in every single type of energy, be it oil, gas, coal, nuclear, renewables or energy efficiency. This robust "all-of-the-above" energy portfolio, and our commitment to it, is helping fuel a manufacturing resurgence in the United States.

However, as one hand giveth, the other taketh away. The same government that is benefiting—politically and economically—from this energy

boom is perilously close to enacting a set of policies that would stop us from using most of this energy. Many of these decisions would be irreversible and could limit manufacturers' long-term competitiveness.

The NAM and our member companies are committed to protecting the environment through greater environmental sustainability, increased energy efficiency and conservation and by reducing GHG emissions. Led by manufacturers' innovations in energy development and efficiency, U.S. GHG emissions are as low today as they were in the mid-1990s—this while manufacturing gross output has increased 29 percent.[1] Even more remarkable is that these emissions reductions have taken place while China—the world's largest emitter—has seen emissions more than double over that same time period.[2]

However, we know the United States cannot solve the climate change issue alone. GHGs collect in the atmosphere indiscriminate of the location of the emission source. Thus, one ton of carbon dioxide (CO_2) emitted in California or Rhode Island has the same impact as one ton emitted in China or India. If the United States were to act without the majority of the GHG emitting world, production that once occurred in the United States would very likely be replaced by production in parts of the world with weaker environmental policies, resulting in limited or no net GHG reductions. The NAM, therefore, believes the establishment of federal climate change policies to reduce GHG emissions,

[1] U.S. Bureau of Economic Analysis.

[2] The International Energy Administration (IEA) estimates that U.S. CO_2 emissions—the most prevalent GHG—were 5,482 million metric tonnes (t) in 1997 and 5,368.6 t CO_2 in 2010. The IEA estimates China's CO_2 emissions were 3,196 t CO_2 in 1997 and 7,258 t CO_2 in 2010. Preliminary data indicate that U.S. emissions were even lower in 2011 and 2012.

whether legislative or regulatory, must be done in a thoughtful, deliberative and transparent process that ensures a competitive level playing field for U.S. companies in the global marketplace. Any climate change policies should focus on cost-effective reductions, be implemented in concert with all major emitting nations and take into account all greenhouse sources and sinks.

Unfortunately, our government has settled on a climate policy that meets none of these objectives: regulation under the Clean Air Act (CAA). The CAA was never designed to apply to GHGs, and its own author has acknowledged that attempting to do so would create a "glorious mess" that reverberates through the economy.[3] While over the years there have been a wide range of legislative and regulatory proposals to address GHG emissions, it is impossible to ignore the harsh reality that *this* policy—the one we have chosen—could be both the most expensive and least environmentally effective of them all.

President Obama has directed the EPA to issue these regulations, and we expect the agency will move forward. Manufacturers ultimately will be hit twice by the EPA's GHG regulations—both as users of the energy being regulated and as industries considered "next in line" to receive similar regulations from the EPA for their own plants. Given the impact these regulations could have on energy reliability and costs, and the precedent they could set for future regulations for other sectors, we ask that Congress at least make these regulations more reasonable. Manufacturers support the energy bill from Rep. Ed Whitfield (R-KY) and Sen. Joe Manchin (D-WV) being discussed at today's hearing, which would

[3] U.S. House of Representatives, Committee on Energy and Commerce, Subcommittee on Energy and Air Quality, "Strengths and Weaknesses of Regulating Greenhouse Gas Emissions Using Existing Clean Air Act Authorities," statement of Chairman John D. Dingell (D-MI), 10 April 2008.

allow the EPA to regulate GHGs but would ensure that these regulations are done in a manner that protects a true "all-of-the-above" energy strategy. We urge the members of this Subcommittee to do the same.

I. The EPA's GHG New Source Performance Standards and Their Impact on Manufacturers

New Power Plants

On June 25, 2013, President Obama issued an executive memorandum directing the EPA to issue New Source Performance Standards (NSPS) under Section 111(b) of the Clean Air Act to apply to GHG emissions from future power plants. The EPA released this proposed rule on September 20, 2013, and is taking public comment. The EPA's proposed rule requires all new coal-fired power plants to meet a standard of 1,100 lbs. CO_2 per megawatt-hour (MWh) and all new natural gas-fired power plants to meet a standard of either 1,000 lbs. CO_2/MWh (for larger units) or 1,100 lbs. CO_2/MWh (for smaller units). Practically speaking, this means no new coal-fired power plant can be built unless it includes partial carbon capture and sequestration (CCS) technologies, and no new natural gas-fired power plant can be built unless it is a natural gas combined cycle (NGCC) unit. Because CCS is neither commercially available nor cost effective for a utility-scale power generation project, the rule effectively bans the construction of any coal-fired power plant going forward.

Manufacturers are deeply concerned with the EPA's decisions in the rule for future power plants and fear that the agency is heading down a path toward a costly, unworkable set of standards for existing power plants. The Clean Air Act defines a "standard of performance" as:

> a standard for emissions of air pollutants which reflects the degree of emission limitation ***achievable*** through the application of the best system of emission reduction which (***taking into account the cost*** of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been ***adequately demonstrated***.[4]

The statute's plain language requires that the standard be achievable and adequately demonstrated, taking into account costs, environmental impact and energy requirements.

It is hard to agree with the EPA that the standard it has set for coal satisfies these requirements. Partial CCS for a utility-scale coal-fired power plant has not been adequately demonstrated and is extremely costly. The EPA can only point to four examples of CCS to support its conclusion; only two are actually under construction, and only one of those is in the United States. The EPA cannot point to a single completed, operational facility that meets the standard for coal it has chosen. While we believe CCS holds great promise as a technology, it is not ready to be deployed the way the EPA insists it will be deployed in the near term.

The Energy Information Administration estimates the overnight capital cost to build a new integrated gasification combined cycle (IGCC) coal plant with CCS to be $6,599 per kilowatt (kW).[5] This is more than six times the price of a new NGCC plant, the natural gas standard the EPA picked as the NSPS for that fuel. It is triple the price per kW of a new onshore wind farm, double the cost per kW of new hydropower and more than $1,000 per kW more expensive than solar or

[4] 42 U.S.C. § 7411(a)(1) (emphasis added).
[5] http://www.eia.gov/forecasts/capitalcost/.

nuclear.[6] The standard that the EPA has chosen for coal—which, by definition, must be adequately demonstrated and take into account cost—is so expensive that nobody would build it.

The EPA claims that the economic impact of its NSPS for future power plants will be minimal because low natural gas prices are causing utilities to build NGCC plants in lieu of coal. While that is true in the short term, market dynamics are always prone to change. One needs only to look back five years, when we were importing large quantities of oil and gas, coal was expected to fuel more than half of the electricity fleet, and dozens of new nuclear power plants were on the drawing board. These dynamics have almost entirely changed and could again; therefore, it would be foolish to take any energy source off the table permanently. Moreover, the Clean Air Act requires that the NSPS be revised every eight years, meaning that in eight short years, the same arguments being used to crowd out coal could be easily used to do the same to natural gas.

Existing Power Plants

The President's June 25 memorandum requested that the EPA issue similar GHG standards, regulations or guidelines for modified, reconstructed and existing power plants under Clean Air Act Section 111(d). The EPA must propose these by June 1, 2014, and finalize them by June 1, 2015. States must submit implementation plans to meet the existing source standards by June 30, 2016. The EPA is conducting a series of "listening sessions" across the country as it develops the standards for existing power plants.

[6] *Id.*

EPA officials have indicated that they do not expect the rule on existing power plants to be as extreme as the rule for new power plants. That is welcome news for manufacturers, who consume one-third of the nation's energy supply and are directly impacted by any regulation that increases the cost or reliability of electricity. However, it is impossible not to be concerned given this Administration's views on how to address climate change. In his Climate Action Plan, the President makes abundantly clear that in his view, the only way to reduce GHG emissions in the United States is to stop using fossil fuels. We disagree. Manufacturers believe we can use fossil fuels while also innovating and manufacturing the technologies needed to limit the resulting GHG emissions. Manufacturers always find a way to innovate; it's what we do. If the EPA regulates one or more of these fuels out of the economy, we lose not only the advantages provided by the energy itself but also the opportunity to own the technology that will allow us to use it cleanly and responsibly.

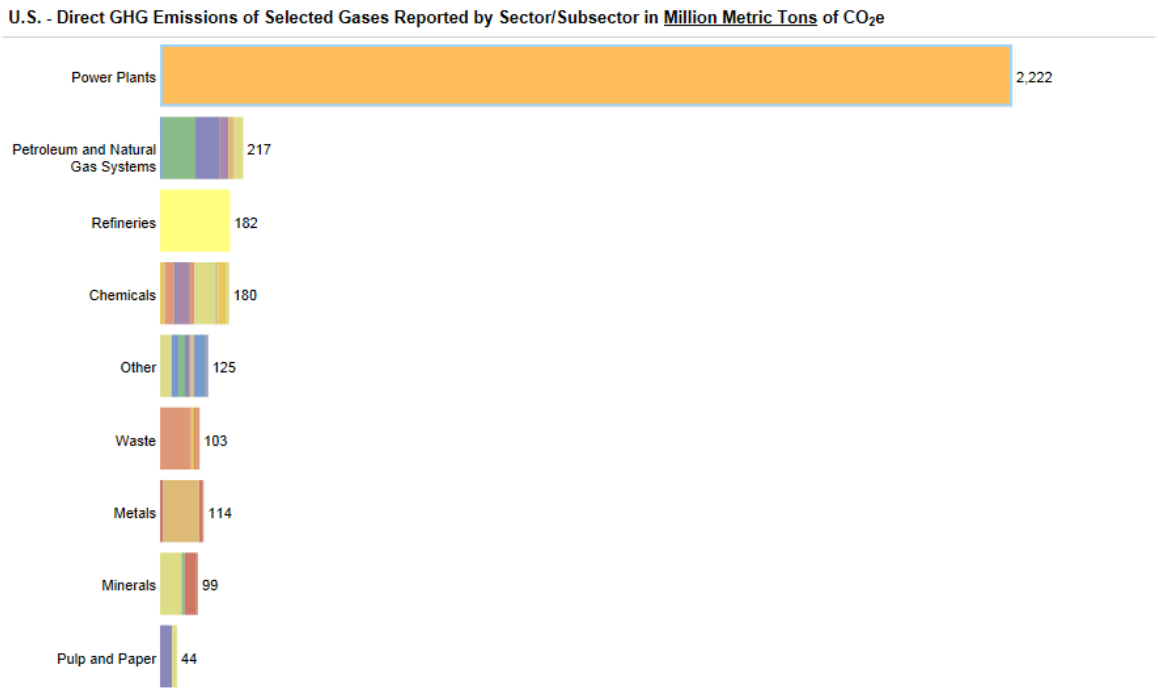
A poorly crafted rule on existing power plants that results in the limitation of coal or natural gas could pose serious problems for manufacturers. Coal was responsible for 37 percent of our nation's electricity in 2012, followed by natural gas at 30 percent.[7] While market dynamics and on-the-books regulations such as Utility MACT are increasing the share of the grid powered by natural gas and decreasing the portion held by coal, these fuels will remain the dominant sources of energy in the United States for many years.[8]

[7] Source: Energy Information Administration.
[8] *Id.*

The nexus between coal, natural gas and manufacturing is even more pronounced when viewed at the state level. For instance, manufacturing is responsible for 28.2 percent of Indiana's economy, the highest share in the nation. Indiana gets 81 percent of its electricity from coal and virtually the rest from natural gas. Louisiana gets 22.6 percent of its economic output from manufacturing, the third-largest share in the nation. Fifty-seven percent of its electricity comes from natural gas, 21.4 percent from coal. Ohio is third in the nation in manufacturing employment and fifth in the nation in energy consumption by the industrial sector. Ohio gets 72 percent of its electricity from coal and 18.2 percent from natural gas. The list goes on and on. Given the stakes for manufacturing in the United States, it is vitally important that the EPA craft these regulations in a way that is consistent with an "all-of-the-above" energy strategy.

Industrial Manufacturers

Once the EPA has completed the standards for existing plants, the Clean Air Act requires it to move on to other emitting sources and issue similar standards. Next up would most likely be refineries, for which the EPA committed to doing a GHG NSPS in a settlement agreement in late 2010. The industries that can expect to receive a similar rule are easily deciphered from the EPA's own website:



Source: Environmental Protection Agency (ghgdata.epa.gov).

"Petroleum and natural gas systems" include onshore oil and gas production; natural gas processing, transmission, compression and local distribution; and other oil and gas systems. "Chemicals" include production/manufacture of adipic acid, ammonia, hydrochlorofluorocarbons, hydrogen, nitric acid, petrochemicals, soda ash, phosphoric acid, titanium dioxide and other chemicals. "Other" includes food processing, ethanol production, underground coal mines and electronics manufacturing. "Waste" includes municipal landfills, industrial landfills, wastewater treatment and solid waste combustion. "Metals" include production/manufacture of aluminum, iron and steel, magnesium and other metals. "Minerals" include production/manufacture of cement, glass, lime and other minerals.

Because each of these sectors will receive a GHG NSPS, they are affected by the decisions the EPA is making in the NSPS for new power plants,

which could create binding precedent for future rules. For instance, Section 111(b) requires that, before an NSPS can be issued, the EPA make a finding that the source category "contributes significantly" to air pollution that endangers public health or welfare. This is a fundamentally different finding than the endangerment and cause or contribute finding the EPA made for cars in 2009. However, the EPA relies on the 2009 finding for cars as the primary justification for a finding of significant endangerment for future power plants and further argues that it need not make an independent significant endangerment finding for any other source that receives a GHG NSPS. However, by refusing to delineate what level of contribution is "significant," the EPA makes it impossible for an industrial category to determine if its own contributions are *not* significant.

The EPA's insistence that IGCC with partial CCS is the best system of emissions reduction (BSER) for coal represents a bad precedent for other sectors as well. CCS is a stretch technology, and while it certainly is not yet feasible for other industrial categories, those sectors all have other types of stretch technologies that simply are not cost effective or achievable, but could theoretically be required. In the proposal, the EPA cannot point to a single operating facility in the United States that uses partial CCS, a technology the EPA insists is "adequately demonstrated." In addition, the EPA for years has maintained the practice that it cannot require facilities to "redefine the source"; it can dictate a standard of performance, but not pick a technology. Here, the EPA clearly picked a technology (IGCC) that is fundamentally different from a coal-fired boiler. A precedent based on choosing IGCC with partial CCS as the best

system of emissions reduction could have wide-ranging consequences for other industries receiving a GHG NSPS.

II. Manufacturers Support the Whitfield-Manchin Discussion Draft

I suspect that many members of this Subcommittee, both Republican and Democrat, would prefer that the EPA take a different approach to GHGs than it has done so far. I still believe you can do something about it.

Manufacturers support the recently released Whitfield-Manchin discussion draft bill, which allows the EPA to regulate GHGs but ensures that the regulations are done smarter and better. For new power plants, the bill requires separate standards for coal and gas, with the coal standard subcategorized for coal types and aligned with the best-performing commercially available generation technologies. It provides a reasonable path forward for CCS, allowing that a technology can be BSER once it has been achieved over a one-year period by at least six units located at different commercial power plants in the United States—in other words, when it is truly ready. Finally, it allows the EPA to craft rules or guidelines for existing power plants, but it requires Congress to review them and set an effective date before they can take effect.

Manufacturers stand ready to work with the sponsors of this legislation to attract broad, bipartisan support and ultimately to enact it. The bill would give manufacturers regulatory certainty by preserving a true “all-of-the-above” energy policy. For new power plants, it allows the market to govern—with or without the EPA’s rule, most new plants in the near term will be natural gas—but it protects against potential market shifts by providing reasonable options to build new coal

plants if natural gas prices change. It would give utilities and manufacturers the time they need to make the investments necessary to comply with standards for new and existing power plants. In addition, it provides for real checks and balances on the existing plant rule, ensuring that this highly important, first-of-its-kind set of regulations is carried out in a deliberative, bipartisan fashion. The NAM suggests that a section be added to the bill to clarify what "substantial endangerment" means for GHGs and to aid industrial sectors receiving future GHG NSPS in understanding whether they will truly qualify.

Had the EPA's proposed rule for new power plants resembled the portion of the Whitfield-Manchin bill applying to those plants, I believe we would be having a much different conversation today. By enacting the Whitfield-Manchin bill, Congress can steer the EPA toward an end result that accomplishes long-term meaningful reductions in GHG emissions while preserving a healthy and robust manufacturing sector.