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**BEFORE THE SUBCOMMITTEE ON CLEAN AIR AND NUCLEAR SAFETY  
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS  
U.S. SENATE  
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Chairman Carper, Ranking Member Vitter, and members of the Subcommittee, thank you for inviting me to testify today about EPA's efforts to mitigate the impacts of emissions from power plants. During my visits with many of you during my confirmation process to be the head of EPA's Office of Air and Radiation, I appreciated the opportunity to discuss with you our shared concerns over the public health and environmental effects of air pollutants from power plants. I agree with Senator Carper that emissions of SO<sub>2</sub>, NO<sub>x</sub>, mercury, and other pollutants from the generation of energy is a cause for great concern, and I am grateful for his leadership on this important issue over the years. I am glad that we have begun this dialogue and I look forward to continuing to work on this issue.

As I stated at my confirmation hearing in April, I take my responsibility to protect our health and our environment very seriously and I care deeply about these issues. I know everyone here is familiar with the range of serious health and environmental problems caused by SO<sub>2</sub>, NO<sub>x</sub>, and mercury. For over a generation we have been hoping and expecting that we could lower emissions from power plants enough to dramatically reduce the frequency of problems like premature deaths, childhood asthma, and acid rain. We have made great progress since 1970, but we have a great distance yet to go. In the

meantime, we have learned about the likelihood of increasing serious public health and environmental risks due to CO<sub>2</sub> and other greenhouse gases, and we must now make complex decisions about how to address that threat.

In 1980 U.S. power plants emitted 17.3 million tons of SO<sub>2</sub>. In 1990, the year Congress passed the Clean Air Act Amendments that included the Acid Rain Program, power plants still emitted 15.7 million tons of SO<sub>2</sub> and 6.7 million tons of NO<sub>x</sub>. By 2000 power plant emissions had dropped to 11.2 million tons of SO<sub>2</sub> and 5.1 million tons of NO<sub>x</sub>. The Acid Rain Program was – and is - not just protecting our lakes and streams from acid rain, but also protecting millions of Americans and Canadians from the harmful effects of fine particles. In 2008, power plants emitted 7.6 million tons of SO<sub>2</sub> and 3 million tons of NO<sub>x</sub>. While all coal-fired power plants in the U.S. now control particulate matter and about two-thirds of them use advanced pollution controls for SO<sub>2</sub> and/or NO<sub>x</sub>, it is clear that more cost-effective emission reductions are both necessary and possible.

Data from the 2005 Clean Air Interstate Rule (CAIR) show that the power industry is capable of making significant reductions quickly. The data show that in just three years since the rule was finalized in 2005, the sources planning to comply with it reduced annual SO<sub>2</sub> emissions by 2.5 million tons and annual NO<sub>x</sub> emissions by 500,000 tons, with many of these emission reductions taking place in the critical summertime ozone season. Rest assured that even though CAIR has now been remanded to EPA, we do not intend to backslide and lose the public health or environmental benefits we have worked so hard to get. Instead, we intend to use what we learned from the CAIR experience to move forward.

And so we find ourselves facing both the great responsibility and the great opportunity to reshape our approach to reducing air pollution from power plants. When I arrived at EPA last month, I was greeted with a briefing that outlined about a dozen pending or imminent rules and decisions affecting power plants. It is a little overwhelming to be sure, but taken together, these pieces will pave the way towards significant progress over the next few years. Our goal is to make these regulations and decisions work together in a coordinated way to reduce emissions from the entire industry. My purpose here today is to support your efforts to reduce emissions from power plants, to confirm that cost-effective reductions are necessary and possible, and to talk about what we are doing under existing law to achieve these common goals.

Before I arrived at EPA this spring, Administrator Lisa Jackson signed a proposal to regulate mercury and other toxic air emissions from cement kilns. While this rule does not affect power plants, I mention it today because I believe it sends the message that this Administration is serious about reducing air pollution. Since my nomination and confirmation, Administrator Jackson has made it clear that she wants us to move forward both smartly and aggressively. Smartly means we take care to make our regulations fit as best we can into the existing regulatory and economic landscape, that they make sense, that they offer what flexibility they can without sacrificing human health or environmental protection, and that they are cost-effective. Aggressively means we protect public health and the environment as much as we can and as soon as we can.

Recently, I took the first step in implementing this approach by issuing a notice of the Agency's intent to collect information about power plants. The information collection would require power plants to provide EPA with data on their emissions of toxic air

pollutants, including mercury, acid gases, and dioxin. This data collection could be extensive, but it is necessary for us to set smart and aggressive Maximum Achievable Control Technology (MACT) standards for toxic air pollutants from power plants. As we receive the data, we plan to analyze it and propose MACT standards for power plants as quickly as our understanding of the issues allows.

As you know, the MACT program requires us to set our standards for existing sources at least as stringently as the top performing 12% of sources. Until we identify the top performing 12% of sources, we will not know what that level will be. I can tell you that there are some coal-fired power plant boilers that have already reduced their mercury emissions by 90% or more. The engineers at EPA tell me it is likely the data we collect will indicate the need for a MACT standard that reduces emissions of many air toxics by similar amounts. I have committed to them and to you that I will follow where the data lead on this and all issues. I can also tell you that the MACT program requires these controls to be installed on existing sources within three years after the rule is finalized, with the possibility of an extension of another year for specific sources under some limited circumstances.

EPA is also continuing to address the problem of interstate transport of SO<sub>2</sub> and NO<sub>x</sub> emissions and the resulting fine particle and ozone pollution across the eastern U.S. Working within the framework of the 2008 court decision that remanded CAIR, we are developing a new approach to reduce regional interstate transport of these long-distance pollutants while guaranteeing that each downwind non-attainment area is getting the reductions it is entitled to under the law. We have told the court that we thought it would take about two years to develop a final rule to replace CAIR. We are well underway with

the necessary emissions and air quality modeling, and both staff and managers have already held many meetings with various stakeholders, particularly the states, so that we can consider their perspectives early in our process. Although this transport rule may be finalized before the MACT standard, it will take into account any relevant emissions data from the Information Collection Request I mentioned earlier. In addition, it is likely that whatever controls end up being necessary to meet our MACT standard are also likely to substantially reduce emissions of SO<sub>2</sub> and particulate matter (PM).

There are other rules EPA is working on that affect power plants – rules that reduce regional haze, rules that help states achieve the National Ambient Air Quality Standards, and rules that reduce emissions from new or modified power plants. Each of these rules is an important component of our ability to clean up the air we breathe and improve the health of the world around us, and will complement the MACT and interstate transport rules.

For example, in January of this year EPA made findings of “failure to submit” for 38 states that had not submitted regional haze State Implementation Plans (SIPs). This started the “clock” for us to put a Federal Implementation Plan (FIP) in place by January of 2011. In addition, none of the regional haze SIPs we have received have been approved, in most cases because they rely on reductions from CAIR that may not be enforceable in the future. We are currently working to coordinate our modeling and decision-making on these haze SIP and FIP issues with the decisions we are making for the utility MACT and interstate transport rules.

We are also using our non-regulatory tools to help reduce emissions by reducing energy demand and supporting the transition to a clean energy future. EPA and the

Department of Energy are working together on Energy Star, which helps individuals, companies, cities, counties, states, and the federal government to reduce their energy use. Energy Star has helped revolutionize the market for cost-effective energy efficient products, and provides a wide range of tools and resources to help homeowners and businesses reduce their energy costs. For example, “Home Performance with Energy Star” has 27 sponsors who have completed over 50,000 retrofits to date that can serve as a model for reducing greenhouse gas emissions from the residential buildings sector. EPA also has programs that provide information to state and local governments about different ways to design successful energy efficiency and renewable energy programs.

The Administration is a strong supporter of energy efficiency across the board. EPA is working with federal agencies such as DOE and HUD that received American Recovery and Reinvestment Act (ARRA) funding for weatherization to install the best types of energy efficiency upgrades, as well as to address other environmental concerns that can come up during these renovations such as indoor air quality and lead contamination. We also continue to coordinate with other federal agencies that have responsibilities for power generation, such as DOE and FERC, to help make energy efficiency a top priority energy resource.

State and federal agencies are working to reduce demand for electricity in dozens of other complementary ways as well, such as supporting policies to realign utility business models so that investing in energy efficiency is no longer a disincentive, supporting demand-response programs and related pricing structures, weatherizing homes, supporting combined heat and power, and installing the beginnings of smart grid technologies. DOE is investing in clean energy technology development, and working

with cities and counties to experiment with innovative financing to help customers install them. All of these efforts and many more are helping us clean the air by making it possible to imagine a not-too-distant future where we can shift investments and subsidies away from the highest polluting plants that are the hardest to clean up and towards the clean state-of-the-art technologies we need for the future.

Let me share a quick example from my experience in Connecticut that illustrates the importance of including demand-side tools in our efforts to reduce air pollution from power plants. Connecticut is making an aggressive commitment to using energy efficiency as a priority energy resource by employing a full suite of strategies. These strategies include requiring that a growing percentage of energy demand be met through energy efficiency, identifying energy efficiency as the resource of first choice in energy planning, aggressive funding of state and utility run programs, and rewarding utilities for their achieved energy savings. Among other things, this focused effort on energy efficiency has allowed the state to target investment in Southwest Connecticut, a load pocket that includes part of New York City, which was under intense scrutiny to ensure adequate reliability.

The six New England states, the Independent Transmission System Operator (ISO), and industry stakeholders have worked together to develop something called a “Forward Capacity Market.” Under this system, ISO New England can project the needs of the power industry three years in advance, and then hold an auction to purchase the resources – either demand- or supply-side resources - necessary to meet those needs. In the latest auction, in December of 2008, over 2,900 MW of demand-side resources “cleared;” that is 400 MW more than cleared in the first auction. Briefly put, this means it

is cheaper to save this electricity than to build new capacity to generate it, and that states and industry are continuing to improve their ability to draw on energy efficiency as a valuable resource. These demand-side resources are pollution-free megawatts that make it easier for our states to meet their clean air obligations and – most importantly – for our citizens to breathe clean air.

No discussion regarding the future of the power industry is complete without discussing greenhouse gas pollution control. As Administrator Jackson has repeatedly said, the best approach would be to address this through comprehensive energy legislation. Like many of you, I watched the debate in the House over the Waxman-Markey bill closely, and EPA staff provided timely modeling to assist the legislators there. In addition, we are laying the groundwork for new climate legislation and regulation through efforts such as the Mandatory Reporting Rule. There are of course still some unanswered questions about what exactly the final bill will require power plants to do, but I am confident of one thing: the new crop of power plants will look very different than they do now. I have no illusions that this transition will be easy, but I know it is necessary. I am confident that the laws we adopt and the regulations we implement will drive smart investments in pollution control and energy efficiency, as well as innovative generation technologies, that will pay back benefits for years to come.

As I consider how best to move forward to protect public health, meet our legal obligations, and support this transformation of the energy industry, I come back to the following basic principles. First, we must get emission reductions at the appropriate global, regional, and/or local scales as quickly as is practical. This means getting our new policies in place as quickly as we can while doing what we can to keep emissions from



rising in the meantime. These policies must cover all the pollutants we are responsible for: SO<sub>2</sub>, NO<sub>x</sub>, air toxics (e.g., mercury, acid gases, others), and greenhouse gases. Second, we must not pay any more than necessary to reach our environmental goals. This means looking for cost-effective ways to get reductions on the right geographic scales by using the right combination of emissions trading, performance standards and hybrid approaches as appropriate; providing industry the kind of information they can rely on to plan for the future so we can keep the lights on and make smart investments; and avoid unnecessarily high or volatile energy costs for consumers. Third, our policies must be clear, coordinated, and legally defensible. Finally, we must keep in mind that soon we will likely be living in a carbon controlled world that will require greenhouse gas emission reductions from power plants. As we plan for the future, it is both environmentally and economically irresponsible not to take this likelihood into account.

To sum up, we are working hard to coordinate our approach to regulating power plants both now and in the future. I am not saying we will solve all of our problems next year, or the year after, but I am saying we are committed to this effort just as you are. One of my top priorities at EPA is to work with you, with the power industry, with community groups and environmental groups, and with experts from government, business, and universities to find the right path forward. This path will let us meet our legal and moral obligations to protect human health and the environment and keep the lights on, all while laying a strong foundation for future changes and investments in the years to come.

In closing, I would like to thank Senator Carper and other members of the committee for your strong leadership on these issues over the years. I am confident we

can make great strides to meet our shared goals to protect public health and the environment from the effects of air pollution in the near future.

Thank you. I look forward to answering your questions.