Opening Statement of Bob Perciasepe
Deputy Administrator
U.S. Environmental Protection Agency

Committee on Oversight and Government Reform

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Hearing Titled "Lights Out II: Should EPA Take a Step Back to Fully Consider Utility MACT's Impact on Job Creation?

Chairman Issa, Ranking Member Cummings, and members of the Committee, I appreciate the opportunity to testify before you today on EPA's proposed Mercury and Air Toxics Standards (MATS) for power plants.

We do not have to choose between the significant public health benefits from reducing air pollution from power plants and a robust, reliable electric grid. Nor do we have to choose between clean, healthy air and robust economic growth and job creation. We can reduce harmful pollution while growing the U.S. economy and ensuring the reliable delivery of electricity to our families and businesses. As President Obama recently stated in his Joint Address to Congress, "…what we can't do…is let this economic crisis be used as an excuse to wipe out the basic protections that Americans have counted on for decades…We shouldn't be in a race to the bottom where we try to offer the…worst pollution standards."[1]

**Cleaning up the power sector is overdue**

The power plant rules we are developing are necessary to protect public health and the environment from the pollution these plants produce – a need that both Republican and Democratic administrations have recognized for decades. For over 20 years, since President George H.W. Bush proposed what became the Clean Air Act Amendments of 1990, power plant clean-up has been the continuous policy of the U.S. government under two Democratic and two Republican presidents.

Over the years, many power plants have invested in modern pollution controls to reduce their emissions and have contributed to the significant progress this country has made in providing healthy air to our citizens. Many other power plants, however, have delayed investment in pollution control equipment that has been widely available for years – including equipment to reduce emissions of mercury and other toxic air pollutants. As a result, power plants remain the country's largest source of mercury and sulfur dioxide (SO2) emissions, and the largest stationary source of nitrogen oxides (NOx).[2] This pollution contaminates fish,

[1] Address by President Obama to a Joint Session of Congress, September 8, 2011. http://www.whitehouse.gov/the-press-office/2011/09/08/address-president-joint-session-congress
[2] EPA National Emissions Inventory (2008) http://www.epa.gov/air/emissions/index.htm

damages our nation's sensitive lakes, rivers, and streams, and is linked to tens of thousands of premature deaths and hundreds of thousands of asthma attacks each year.

**MATS is needed to protect public health**

This year, EPA is issuing two long-overdue rules to reduce air pollution from power plants – MATS and the Cross State Air Pollution Rule (the Cross State Rule).[3] These affordable, technologically achievable rules will provide major public health benefits for Americans that are significantly greater than the costs. The Cross State Rule, which we issued this summer under the Clean Air Act's "good neighbor" provision, requires upwind power plants to reduce pollution to help downwind states meet and maintain the nation's health-based standards for ozone and fine particles. It replaced the Clean Air Interstate Rule (CAIR), which had a similar goal but was found by the U.S. Court of Appeals for the District of Columbia not to meet Clean Air Act requirements.

The Mercury and Air Toxics Standards, the topic of today's hearing, are designed to reduce emissions of mercury, other toxic metals such as cadmium, nickel and arsenic, and acid gases. The MATS Rule is required by the 1990 Clean Air Act Amendments. There currently is no national requirement to reduce mercury and other air toxic emissions from power plants, because the last Administration's rule attempting to limit mercury emissions from power plants was overturned in court for failing to meet the requirements of the Clean Air Act. During the public comment period on MATS, we have heard from hundreds of thousands of people urging us to put these important public health protections in place. EPA is on track to finalize the rule by December 16, 2011.

Reducing mercury and other air toxic emissions will provide important public health benefits. Mercury, depending on the form and dose, may cause neurological damage in children who are exposed before birth and is also associated with impacts on children's cognitive thinking, memory, attention, language, and fine motor and visual spatial skills. Metals such as arsenic, chromium, and nickel cause cancer and other health risks. Acid gases cause lung damage and contribute to asthma, bronchitis and other chronic respiratory diseases, especially in children and the elderly.

The control equipment that reduces emissions of these toxics also will reduce fine particle pollution. For the proposed MATS rule, we project those reductions will prevent, each year beginning in 2016, approximately:

- 6,800 to 17,000 premature deaths
- 11,000 heart attacks
- 120,000 cases of childhood asthma symptoms
- 11,000 cases of acute bronchitis among children
- 12,200 emergency room visits and hospital admissions

[3] This was called the "Transport Rule" when it was proposed. In this testimony, we will refer to both the proposed and final rules as the Cross State Rule.

• 850,000 days of work missed due to illness.[4]

**MATS is affordable and achievable**

It is a priority of the EPA and of this Administration to ensure that our regulatory system is guided by science and that it protects human health and the environment in a pragmatic and cost effective manner. Accordingly, in developing MATS, the EPA has not only assessed the long overdue health benefits of reducing emissions of harmful pollutants from power plants, but also made public information on the economic effects associated with implementing the emission reductions, including effects on electricity rates, jobs, and the adequacy of our electricity resources. These publicly available analyses, which involve detailed modeling of the proposed rule's impact on the power sector, show that this rule is affordable.

EPA modeling indicates that the combined Cross State and MATS Rules, as finalized and proposed, respectively, will result in relatively small changes in the average retail price of electricity, which will remain below 1990 levels. These changes are within the range of normal annual fluctuations for electricity prices.[5] Additionally, our modeling indicates that moderate levels of energy demand reduction from investments in energy efficiency would substantially cut total emission control costs for the power sector, lower the incremental cost of the standards by more than half in 2020, and lower consumer bills. They would also reduce emissions of air pollutants beyond what the proposed standards would achieve, especially on high electricity demand days when air quality is most threatened.

EPA's analyses of the proposal also looked at the impact of MATS on jobs. Money spent on pollution controls at power plants provides high quality American jobs in manufacturing steel, cement, and other materials needed to build the pollution control equipment; in creating and assembling control equipment; in installing the equipment; and in operating and maintaining the equipment. And many of these are jobs that cannot be shipped overseas. In fact, the U.S. is a leading exporter of pollution control equipment.[6]

EPA paid close attention to feasibility and electric system capacity concerns when we proposed the MATS Rule and we continue to pay close attention to stakeholder comments as we finalize it. With regard to reliability issues, we have consulted with, and will continue to consult with, the North American Electric Reliability Corporation (NERC), regional transmission

[4] These benefits are from emissions reductions achieved by the proposed Mercury and Air Toxics Standards, and not from the Cross State Rule or any other emissions reduction regulation. When EPA estimated the benefits for the proposed MATS rule, we included the proposed Cross State Air Pollution Rule (known then as the Transport Rule) in the baseline for our analysis, so we estimated the incremental benefits of MATS alone.

[5] Regulatory Impact Analysis in support of the Proposed Mercury and Air Toxics Standards for Power Plants, March 2011

[6] International Trade Administration, US Department of Commerce, 2008 http://web.ita.doc.gov/ete/eteinfo.nsf/068f3801d047f26e85256883006ffa54/4878b7e2fc08ac6d85256883006c452c?OpenDocument

organizations (RTOs), independent system operators (ISOs), state public utility commissions (PUCs), other federal agencies and others.

EPA's analyses project that the Cross State and proposed MATS rules will result in retirements largely of older, dirtier, less efficient power plants[7] – and that those retirements are not expected to have an adverse impact on electric generation resource adequacy.[8][9] Our rules will not cause the lights to go out.

According to our analysis when we proposed the MATS Rule, companies will have sufficient time to meet the Cross State and MATS Rules. Although we continue to review public comment on this issue, we feel the statements in the proposed rule preamble continue to be valid:

> "Our analysis shows that the expected number of retirements is less than many have predicted and that these can be managed effectively with existing tools and processes for ensuring continued grid reliability. Further, the industry has adequate resources to install the necessary controls and develop the modest new capacity required within the compliance schedule provided for in the CAA. Although there are a significant number of controls that need to be installed, with proper planning, we believe that the compliance schedule established by the CAA can be met. . . . EPA believes that the ability of permitting authorities to provide an additional 1 year beyond the 3-year compliance time-frame as specified in CAA section 112, along with other compliance tools, ensures that the emission reductions and health benefits required by the CAA can be achieved while safeguarding completely against any risk of adverse impacts on electricity system reliability."[10]

As we explained in the preamble for the proposed MATS Rule, there are a number of items that provide assurance that national reliability will not be affected:

> "EPA believes that the large reserve margins, the range of control options, the range of *flexibilities to address unit shutdowns, existing processes to assure that sufficient* generation exists when and where it is needed, and the flexibilities within the CAA, provide sufficient assurance that the CAA section 112 requirements for the power sector can be met without adversely impacting electric reliability."[11]

A number of outside experts have conducted analyses supporting EPA's conclusions. For example, major grid operator PJM recently issued a report concluding the Cross-State Air

[7] http://www.epa.gov/ttn/atw/utility/pro/planned_projected_retire_03211.xlsx

[8] The Cross State Air Pollution Rule projects about 5 gigawatts (GW) of incremental coal capacity retirements by 2014. Analysis for the MATS proposal predicts that the rule results in about 10 GW of incremental coal capacity retirements by 2015. Total coal fired capacity for the U.S. is about 315 GW.

[9] *Resource Adequacy and Reliability in the IPM projections for the Toxics Rule*, EPA Docket No. EPA-HQ-OAR-2009-0234-3063.

[10] Excerpts from May 3, 2011 FR notice -- MATS proposal, page 25057 http://www.epa.gov/ttn/atw/utility/fr03my11.pdf

[11] Excerpts from May 3, 2011 FR notice -- MATS proposal, page 25057 http://www.epa.gov/ttn/atw/utility/fr03my11.pdf

Pollution Rule and the proposed MATS rule do not threaten system-wide resource adequacy in the PJM region, although there could be localized concerns. PJM also points out that, to the extent that these rules spur newer more efficient and more dependable generation, they may enhance reliability.[12]

In August 2010, MJ Bradley & Associates and the Analysis Group released a report commissioned by several utilities on the reliability impacts of the Mercury and Air Toxics Standard and the Cross State Rule. Their analysis concluded that the *"electric industry is well-positioned to comply with EPA's proposed air regulations without threatening electric system reliability."* They updated that report in June 2011 based on the actual Mercury and Air Toxics Standard proposal, recent financial statements from industry, and recent activity in the markets for additional electricity capacity. This update *"reaffirms the major conclusion of the prior report that the electric industry can comply with EPA's air pollution rules without threatening electric system reliability provided that EPA, the industry and other agencies take practical steps to plan for the implementation of these rules and adopt appropriate regulatory approaches."*[13]

A report by the Bipartisan Policy Center identified a variety of significant flaws in many of the previous industry studies of reliability and concluded that "*scenarios in which electric system reliability is broadly affected are unlikely to occur*."[14]

EPA has reviewed the industry studies suggesting, contrary to the EPA's and other groups' analyses, that these rules will result in substantial power plant retirements that will have adverse effects on electric reliability in some regions of the country. While the particulars of these analyses differ, in general they share a number of serious flaws that call their conclusions into question:

- First, as an August 2011 Congressional Research Service emphasized,[15] these studies often make assumptions about the requirements of the EPA rules that are inconsistent with, and dramatically more expensive than, the EPA's actual proposals. In most cases, the analyses were performed before many of the regulations in question were even proposed.
- Second, in reporting the number of retirements, many analyses fail to differentiate between plant retirements attributable to the EPA rules and older, smaller, and less efficient plants that are already scheduled for retirement because owners have made business decisions, based in significant part on market conditions, not to continue operating them.

[12] PJM Interconnection, August 2011, "Coal Capacity at Risk for Retirement in PJM: Potential Impacts of the Finalized EPA Cross State Air Pollution Rule and Proposed National Emissions Standards for Hazardous Air Pollutants" available at http://pjm.com/~/media/documents/reports/20110826-coal-capacity-at-risk-for-retirement.ashx.

[13] M. J. Bradley & Associates, LLC and Analysis Group, *Ensuring a Clean, Modern Electric Generating Fleet while Maintaining Electric System Reliability*, June 2011 (emphasis added).

[14] Bipartisan Policy Center, June 2011, "Environmental Regulation and Electric System Reliability"

[15] Congressional Research Service Report #41914, "EPA's regulation of coal-fired power: Is a 'train-wreck coming?", James E. McCarthy and Claudia Copeland, August 8, 2011

- Third, many analysts do not account for the whole host of tools, including new generation, demand response, energy efficiency, transmission upgrades and energy storage that can be used to maintain reliability.

Simply put, many of the studies which have dire predictions for increases in electricity rates, reliability and other economic consequences are not based on the reality of the rules the Agency has put in place or is considering. The Agency's robust analyses indicate that the proposed MATS rule will continue to build on the EPA's 40-year record of success in reducing harmful pollution while our economy has continued to grow and the power system has remained reliable despite increasing demand.

While some in industry are seeking to delay finalization of these standards, many others recognize that issuing MATS and the cross-state air pollution rules in the same timeframe helps provide power companies with the certainty they need to make smart and cost-effective investments. The Clean Energy Group[16] has said, "Needed regulatory certainty will result from EPA's timely implementation of regulations consistent with the Clean Air Act, which is in the best interests of the electric industry, the market, and customers."[17] The CEOs of eight electric companies have also stated that: "Contrary to claims that EPA's agenda will have negative economic consequences, our companies' experience complying with air quality regulations demonstrates that regulations can yield important economic benefits, including job creation, while maintaining reliability."[18]In addition, the Chairman and CEO of Wisconsin Energy has said, "We see very little impact on customer electric rates or our capital plan between now and 2015 as a result of the new EPA regulations."[19]

**The Clean Air Act**

The Cross State and MATS Rules would continue the 40-year Clean Air Act success story. For 40 years, the Clean Air Act has allowed steady progress to be made in reducing the threats posed by pollution and allowing us all to breathe easier. In the last year alone, programs implemented pursuant to the Clean Air Act Amendments of 1990 are estimated to have reduced premature mortality risks equivalent to saving over 160,000 lives; spared Americans more than 100,000 hospital visits; and prevented millions of cases of respiratory problems, including

[16] The Clean Energy Group's Clean Air Policy Initiative members include Austin Energy, Avista Corporation, Calpine Corporation, Constellation Energy, Exelon Corporation, National Grid, New York Power Authority, NextEra Energy, PG&E Corporation, Public Service Enterprise Group, Inc., and Seattle Light.

[17] Letter to Lisa Jackson, Administrator, EPA, from Michael Bradley, Executive Director of the Clean Energy Group's Clean Air Policy Initiative (June 15, 2011), http://www.thecleanenergygroup.com/documents/Letter_Jackson_UtilityToxicsRule.pdf

[18] Peter Darbee, chairman, president and CEO,PG&E Corp.; Jack Fusco, president and CEO, Calpine Corp.; Lewis Hay, chairman and CEO, NextEra Energy, Inc.; Ralph Izzo, chairman, president and CEO, Public Service Enterprise Group, Inc.; Thomas King, president, National Grid USA,; John Rowe, chairman and CEO, Exelon Corp.; Mayo Shattuck, chairman, president and CEO, Constellation Energy Group; Larry Weis, general manager, Austin Energy , "We're OK With the EPA's New Air-Quality Regulations," Letter to the Editor, Wall Street Journal, December, 8, 2010.

[19] May 3, 2011 Wisconsin Energy Corporation 1st Quarter 2011 Earnings Call.

bronchitis and asthma.[20] They also enhanced productivity by preventing 13 million lost workdays; and kept kids healthy and in school, avoiding 3.2 million lost school days due to respiratory illness and other diseases caused or exacerbated by air pollution.[21]

However, few of the emission control standards that gave us these huge gains in public health were uncontroversial at the time they were developed and promulgated. Most major rules have been adopted amidst claims that that they would be bad for the economy and bad for employment.

In contrast to doomsday predictions, history has shown, again and again, that we can clean up pollution, create jobs, and grow our economy all at the same time. Over that same 40 years since the Act was passed, the Gross Domestic Product of the United States grew by more than 200 percent.[22]

It is misleading to say that enforcement of the Clean Air Act is bad for the economy and employment. It isn't. Families should never have to choose between a job and healthy air. They are entitled to both.

Some may find it surprising that the Clean Air Act also has been a good economic investment for our country. A study led by Harvard economist Dale Jorgenson found that implementing the Clean Air Act actually increased the size of the US economy because the health benefits of the Clean Air Act lead to a lower demand for health care and a healthier, more productive workforce. According to that study, by 2030 the Clean Air Act will have prevented 3.3 million lost work days and avoided the cost of 20,000 hospitalizations every year.[23] Another study that examined four regulated industries (pulp and paper, refining, iron and steel, and plastic) concluded that, "We find that increased environmental spending generally does not cause a significant change in employment."[24]

The EPA's updated public health safeguards under the Clean Air Act will encourage investments in labor-intensive upgrades that can put current unemployed or under-employed Americans back to work. Environmental spending creates jobs in engineering, manufacturing, construction, materials, operation, and maintenance. For example, EPA vehicle emissions standards directly sparked the development and application of a huge range of automotive technologies that are now found throughout the global automobile market. The vehicle

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[20] USEPA (2011). The Benefits and Costs of the Clean Air Act from 1990 to 2020. Final Report. Prepared by the USEPA Office of Air and Radiation. February 2011. Table 5-5. This study is the third in a series of studies originally mandated by Congress in the Clean Air Act Amendments of 1990. It received extensive peer review and input from the Advisory Council on Clean Air Compliance Analysis, an independent panel of distinguished economists, scientists and public health experts.

[21] Ibid.

[22] Bureau of Economic Analysis, National Economic Accounts, "Table 1.1.5. Gross Domestic Product," http://bea.gov/national/index.htm#gdp

[23] Dale W. Jorgenson Associates (2002a). *An Economic Analysis of the Benefits and Costs of the Clean Air Act 1970-1990. Revised Report of Results and Findings.* Prepared for EPA. http://yosemite.epa.gov/ee/epa/eerm.nsf/vwAN/EE-0565-01.pdf/$file/EE-0565-01.pdf

[24] Morgenstern, R. D., W. A. Pizer, and J. S. Shih. 2002. "Jobs versus the Environment: An Industry-Level Perspective." *Journal of Environmental Economics and Management* 43(3):412-436.

emissions control industry employs approximately 65,000 Americans with domestic annual sales of $26 billion.[25] Likewise, in 2008, the United States' environmental technologies and services industry of 1.7 million workers generated approximately $300 billion in revenues and led to exports of $44 billion of goods and services,[26] larger than exports of sectors such as plastics and rubber products.[27] The size of the world market for environmental goods and services is comparable to the aerospace and pharmaceutical industries and presents important opportunities for U.S. Industry.[28]

Jobs also come from building and installing pollution control equipment. For example, the U.S. boilermaker workforce grew by approximately 35 percent, or 6,700 boilermakers, between 1999 and 2001 during the installation of controls to comply with EPA's regional nitrogen oxide reduction program.[29] Over the past seven years, the Institute for Clean Air Companies (ICAC) estimates that implementation of just one rule – the Clean Air Interstate Rule Phase 1 – resulted in 200,000 jobs in the air pollution control industry.[30]

**Conclusion**

As we did more than two decades ago during debate of the Clean Air Act Amendments of 1990, we are hearing claims that our rules will lead to potential adverse impacts on electric reliability. Our analysis and past experience indicate that warnings of dire consequences of moving forward with these important rules are exaggerated at best. For example, during development of the 1990 Clean Air Act Amendments, industry estimated that the cost of the new requirements for sulfur dioxide would be $7.5 billion per year. In reality, the cost of achieving the reductions was around $1.5 billion per year – a fraction of the costs estimated by those seeking to prevent enactment of that landmark legislation.[31] In fact, at the time, one utility warned of unrealistic compliance dates and issues with electrical reliability. These predictions were not true then, and industry's remarkably similar claims about the current Clean Air Act regulations are not true now.

I would like to suggest that the Committee should be clear about what is at stake here as those who have stalled in cleaning up their pollution call for further delays. We are pursuing

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[25] Manufacturers of Emissions Control Technology (http://www.meca.org/cs/root/organization_info/who_we_are)
[26] DOC International Trade Administration. "Environmental Technologies Industries: FY2010 Industry Assessment. http://web.ita.doc.gov/ete/eteinfo.nsf/068f3801d047f26e85256883006ffa54/4878b7e2fc08ac6d85256883006c452c/$FILE/Full%20Environmental%20Industries%20Assessment%202010.pdf (accessed February 8, 2011)
[27] U.S. Census Bureau, Censtats Database, International Trade Data--NAICS, http://censtats.census.gov/naic3_6/naics3_6.shtml (accessed September 6, 2011)
[28] Network of Heads of the European Environment Protection Agencies, 2005. "The Contribution of Good Environmental Regulation to Competitiveness." http://www.eea.europa.eu/about-us/documents/prague_statement/prague_statement-en.pdf (accessed February 8, 2011).
[29] International Brotherhood of Boilermakers, *Boilermaker Labor Analysis and Installation Timing*, March 2005, EPA Docket OAR-2003-0053 (docket of the Clean Air Interstate Rule).
[30] November 3, 2010 letter from David C. Foerter, Executive Director of the Institute of Clean Air Companies, to Senator Thomas R. Carper (http://www.icac.com/files/public/ICAC_Carper_Response_110310.pdf (accessed February 8, 2011).
[31] National Acid Precipitation Assessment Program Report to Congress: An Integrated Assessment, 2005 http://www.epa.gov/airmarkets/resource/docs/NAPAP.pdf

these rules because they will dramatically improve public health, they are affordable, and they are technologically achievable. Delay encourages companies to keep cash on the sidelines instead of spending it putting people to work modernizing their facilities. And most importantly, delay means that the public health benefits of reducing harmful pollution are not realized.

Thank you for the opportunity to testify today. I look forward to your questions.