



NATURAL RESOURCES DEFENSE COUNCIL

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Hearing on the American Energy Initiative: A Focus on EPA's Greenhouse Gas Regulations

**Subcommittee on Energy and Power
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Summary

- Nearly 2 million Americans – more than double the previous record – have already raised their voices in comments to support EPA’s proposed carbon pollution standard for power plants. More than 60 percent of Americans support EPA’s setting carbon pollution standards according to a recent bipartisan poll conducted for the American Lung Association.
- Carbon pollution is imposing staggering health and environmental costs, including by contributing to more severe heat waves and worsened smog pollution and by fueling increasingly extreme weather that takes lives and causes billions of dollars in property damage each year. June 2011-May 2012 was the warmest 12-month stretch ever in the U.S.
- Two Supreme Court decision, *Massachusetts v. EPA* and *American Electric Power v. Connecticut*, confirm that it is EPA’s job under the Clean Air Act as Congress enacted it to protect the American people from carbon pollution from both cars and power plants.
- By proposing standards for new power plants under Section 111(b) of the Clean Air Act, EPA is simply following the law and the science. Power plants are the largest U.S. source of greenhouse gases: 2.3 billion metric tons per year of CO₂ emissions, approximately 40 percent of the U.S. total.
- NRDC supports EPA’s decision to establish a single category including all new plants, however fueled, that perform the same function of base-load and intermediate-load power generation. Owners and operators have the flexibility to choose among these technologies when building new plants to serve this function.
- The proposed new source standard recognizes that the market has already turned away from building new conventional coal plants due low-cost natural gas, strong growth in wind and solar power, big opportunities to improve energy efficiency, and even the potential for nuclear power. Analysts from government, the power industry, and the financial world all forecast that we will meet electricity needs over the next two decades without constructing new coal-fired plants.
- Thus, despite all the rhetoric and scape-goating, this standard will impose no additional costs on the industry or on electricity rate-payers and will have no adverse impact on jobs.
- NRDC agrees that CCS-equipped coal-fired plants are technically feasible today and can meet the proposed standard. NRDC supports proposed provisions to facilitate construction of CCS-equipped plants. NRDC has long supported well-designed legislative measures to accelerate the deployment of CCS, including tens of billions of dollars of support that would have been provided to power companies for adopting CCS under the climate and energy legislation considered in the last Congress.
- EPA needs to move forward to start the joint Federal-state process of cutting the 2.3 billion tons of dangerous carbon pollution from the existing fleet of power plants under Section 111(d). It is just plain false to claim that existing coal plants will be required to meet the new plant standard. The criteria and procedures for new and existing plants are different. EPA and the states must set existing source standards that are achievable and affordable. NRDC believes significant, cost-effective reductions can and should be made within that legal framework.

Thank you Chairman Whitfield and Ranking Member Rush for the opportunity to testify on behalf of the Natural Resources Defense Council about the Environmental Protection Agency's proposed carbon pollution standard for new electric power plants, and related actions to carry out the agency's responsibilities under the Clean Air Act to address the pollution that drives dangerous climate change. Founded in 1970, NRDC is a national nonprofit environmental organization of scientist, lawyers, and environmental specialists with more than 1.3 million members and online activists, served from offices in New York, Washington, Chicago, San Francisco, Los Angeles, and Beijing. I am policy director of NRDC's Climate and Clean Air Program, and our principal lawyer on climate change matters. I have been with NRDC twice, from 1978 through 1992 and from 2001 to the present. In the 1990's I served as director of climate change policy in the EPA Office of Air and Radiation.

Although the period for public comment has not yet finished, already nearly two million citizens across this country – more than double the previous record number in the EPA's history – have raised their voices in comments to support action under the Clean Air Act to curb the dangerous carbon pollution from our fleet of power plants.

This record outpouring should come as no surprise, since public polling consistently shows the American people supports the Environmental Protection Agency's doing its job, under the laws that Congress enacted, to protect their health and their future. For example, 60 percent of the American people support EPA's setting standards for carbon dioxide pollution, even after hearing the arguments against that many of you are making today, according to the most recent bipartisan poll conducted for the American Lung Association.¹

Americans in record numbers are concerned, because scientists tell us that carbon pollution is imposing, and will continue to impose, staggering health and environmental costs. The health consequences include contributing to more severe heat waves and worsened smog pollution, which

¹ <http://www.prnewswire.com/news-releases/american-lung-association-bipartisan-poll-shows-strong-public-support-for-lifesaving-clean-air-act-116319864.html>.

trigger more asthma attacks and other life-threatening illnesses. Carbon pollution is driving climate change that is fueling increasingly extreme weather, including more extreme heat, more extreme precipitation, devastating tropical storms, rising sea levels and more severe coastal flooding, and many other threats to life, limb, and property.² Americans had extraordinary personal experiences with extreme weather last year. Across the country, 2011 gave us 3,251 broken monthly weather records -- so many extreme events that NRDC created an online map tool to track them and the destruction they caused.³ 2012 is off to another record-smashing start: March 2012 was the hottest March in the contiguous US since record-keeping began back in 1895.⁴ May 2012 marked the end of the warmest 12-month stretch ever in the US.⁵

Looking back over the past decade, case studies of six extreme weather events – heat waves, wildfires, floods, smog episodes, hurricanes, and disease outbreaks – yielded health-related costs of more than \$14 billion.⁶ A new study by the Rocky Mountain Climate Organization and NRDC shows that the number of extreme rainstorms – storms dumping more than three inches of rain in a day – has doubled over the last 50 years in eight Midwestern states, causing huge flooding losses.⁷

² IPCC, 2012: Summary for Policymakers. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 3-21.

³ NRDC's *Extreme Weather Map 2011* website is available at: www.nrdc.org/extremeweather and on NRDC's *Climate Change Threatens Health* webpages at: www.nrdc.org/climatemaps. Data for the map was taken from the National Oceanic and Atmospheric Administration-National Climatic Data Center (NOAA-NCDC); the methods used to develop the map are described at: <http://www.nrdc.org/health/extremeweather/methods.asp> (updated Feb. 2012).

⁴ NOAA-NCDC (2012) website at: <http://www.ncdc.noaa.gov/temp-and-precip/time-series/index.php?parameter=tmp&month=3&year=2012&filter=1&state=110&div=0> ("Contiguous U.S. Temperature: March 1895-2012").

⁵ NOAA-NCDC (2012), <http://www.ncdc.noaa.gov/sotc/national/2012/5>.

⁶ Knowlton, *et al.*, "Six Climate Change-Related Events In The United States Accounted For About \$14 Billion In Lost Lives And Health Costs," *Health Affairs*, **30**:11, pp. 2167-76 (Nov. 2011). See also NRDC, "Health and Climate Change: Accounting for Costs," Nov. 2011, <http://www.nrdc.org/health/accountingforcosts/files/accountingcosts.pdf> (attached for the record).

⁷ Rocky Mountain Climate Organization & NRDC, "Double Trouble: More Midwestern Extreme Storms," May, 2012, <http://www.rockymountainclimate.org/images/DoubledTroubleHigh.pdf>.

The Supreme Court's landmark 2007 ruling in *Massachusetts v. EPA*⁸ confirmed that greenhouse gases, just like any other chemicals released into the air, are "air pollutants" under the Clean Air Act. The Court held that EPA must make a science-based determination whether these pollutants may reasonably be anticipated to endanger public health or welfare, and if so, that EPA must set standards to their emissions under the Clean Air Act. EPA made that endangerment finding in 2009, based on a mountain of scientific evidence that demonstrates that carbon dioxide and other heat-trapping pollutants are already harming, and will continue to harm, the health and well-being of our families, our children, and our communities. You have heard about EPA's other initial steps – the clean vehicle standards and permitting requirements for the biggest new industrial facilities – from Daniel Weiss of the Center for American Progress on the first panel. I will concentrate on the carbon pollution standard proposed in April for new power plants.

The Supreme Court spoke a second time specifically addressing power plants, in June 2011 in *American Electric Power v. Connecticut*,⁹ confirming that it is EPA's job to protect the American people from power plants' dangerous carbon emissions by setting standards under Section 111 of the Clean Air Act. The "new source performance standard" that EPA has proposed for new power plants under Section 111(b) is a critical step towards providing that protection.

Power plants have long topped the list of categories of industrial stationary sources that contribute significantly to air pollution that endangers public health and welfare. Fossil fuel-fired power plants are responsible for more than 2.3 billion metric tons per year of CO₂ emissions, approximately 40 percent of total U.S. CO₂, and more than a third of all U.S. greenhouse gas emissions. American power plants account for nearly 10 percent of *global* CO₂ emissions. By any standard, power plants contribute significantly to dangerous greenhouse gas air pollution. By proposing standards for new power plants under Section 111(b) of the Clean Air Act, EPA is simply following the law and the science. Its proposal

⁸ 549 U.S. 497 (2007).

⁹ 131 S.Ct. 2527 (2011).

to set the first national limits on carbon pollution from new power plant, which applies only to new plants, not existing or modified ones, is long overdue.

NRDC supports EPA's determination to establish a single category that includes both natural gas-fired generating units and coal-fired generating units. As EPA has found, these units perform the same function of base-load and intermediate-load power generation, and prospective owners and operators have the flexibility to choose among these technologies when building new plants to serve this function. Consequently, NRDC also supports setting a single emissions-rate standard applicable to all new plants in the category. EPA has proposed 1000 lbs/MWh standard and a range of levels around this mark. NRDC supports setting the new source standard somewhat below 1000 lbs/MWh because modern new natural gas combined cycle plants can meet such levels at no additional cost. New coal-fired plants equipped with carbon capture and storage technology (CCS) can also meet that level, especially with the 30-year averaging provisions that EPA has proposed.

There is no truth to claims that grouping all new plants that perform the same function – whether natural gas- or coal-fired – in the same category under the proposed new source standard is a “de facto ban” on constructing new coal-fired plants, nor to claims that the standard will cause lost jobs and higher utility bills. These are phony arguments. The proposed new source standard actually will impose no additional costs on the industry or on electricity rate-payers and will have no adverse impact on jobs.

The reason is that market realities have already driven decisions on new power plants away from building new conventional coal plants. As Brookings senior economist Peter Wilcoxon explained in April: “To put it simply: the life-cycle costs of coal-fired power are considerably higher than gas-fired power. This is not a theoretical matter: over the last decade, the electric power sector has responded by adding more than about 200 gigawatts of gas-fired capacity and about 2 gigawatts of coal. The US now has considerably more gas-fired capacity than coal-fired capacity and low gas prices will accelerate

that trend even without the EPA decision.” He continued: “Finally, because it only rules out an expensive option that wouldn’t have been used anyway, the EPA rule will have no significant effect on electricity prices.”¹⁰

Analysts from government departments, the power industry, and the financial world all agree in forecasting that the nation will meet its electricity needs over the next two decades without constructing new coal-fired plants.¹¹ Power companies simply aren’t planning to build new coal plants due to the availability of low-cost natural gas, strong growth in wind and solar power, big opportunities to improve energy efficiency, and even the potential for nuclear power. For example, the country’s largest current CO₂ emitter, American Electric Power, stated that the proposed rule “doesn’t cause immediate concern” for the company. “We don’t have any plans to build new coal plants,” said AEP spokesperson Melissa McHenry in March. She continued, “Any additional generational plants we’d build for the next generation will be natural gas.”¹² And Jim Rogers, CEO of Duke Energy, operating in the Carolinas, Indiana, Kentucky, and Ohio, told the National Journal in February: “We’re not going to build any coal plants in any event. You’re going to choose to build gas plants every time, regardless of what the rule is.”¹³

These market forecasts are robust. EPA’s sensitivity analyses in the Regulatory Impact Analysis show that power companies will not choose to construct any new conventional coal-fired plants before 2030 even if natural gas becomes *4-5 times more costly than it is today and power demand increases faster than expected*.¹⁴

¹⁰ <http://mediamatters.org/research/201204020012>.

¹¹ See sources cited by Lashof, “Financial Analysts, Private Economists, and Government Forecasters All Agree: Market Realities, Not EPA, Driving New Power Plants Away from Coal,” April 2012, http://switchboard.nrdc.org/blogs/dlashof/financial_analysts_private_eco.html.

¹² National Journal, Government Executive (Mar. 27, 2012), <http://www.govexec.com/oversight/2012/03/first-major-climate-regs-obama-epa-sure-stir-political-debate/41580/>

¹³ National Journal, Need to Know: Energy (Feb. 2, 2012).

¹⁴ EPA Regulatory Impact Analysis for the Proposed Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, Chapter 5 (March 2012), <http://epa.gov/carbonpollutionstandard/pdfs/20120327proposalRIA.pdf>.

The proposed new source standard reinforces what most power company executives and investors already understand – that carbon pollution and climate change are serious concerns, and that if and when underlying market economics support a comeback for new coal-fired power plants, they will need to be designed with CCS.

The nation’s utilities also have huge money-saving opportunities to shift investments to energy efficiency, which is cheaper than power from either coal or gas-fired plants. By doing so they will create hundreds of thousands of jobs, since it takes a lot more people to upgrade homes, offices, and factories with better insulation and lighting, high performance heating and cooling systems, and more efficient appliances and equipment. Between 2007 and 2011, American electric efficiency budgets more than doubled, from \$2.7 billion to \$6.8 billion, but they have only scratched the surface of the cost-effective efficiency resource that is available to us.¹⁵ According to McKinsey & Co., we could save \$1.2 trillion on our national energy bill while creating almost 1 million jobs if we captured all of this resource.¹⁶

NRDC supports provisions EPA has proposed to facilitate construction of coal-fired plants equipped with CCS. NRDC agrees that CCS-equipped plants are technically feasible today and can be built – and are being built today¹⁷ – even under current market conditions with subsidies provided under federal law. Further, NRDC agrees with EPA’s assessment that further experience with CCS can bring costs down. I will also note that NRDC has long supported well-designed legislative measures to accelerate the deployment of CCS, including tens of billions of dollars of support that would have been provided to power companies for adopting CCS under the climate and energy legislation considered in the last Congress.

¹⁵ Consortium for Energy Efficiency, “Energy Efficiency Picture Emerges,” <http://www.cee1.org/ee-pe/2011AIR.php3>.

¹⁶ McKinsey & Co. , “Electric Power and Natural Gas, Unlocking Energy Efficiency in the U.S. Economy,” 6 and 118, McKinseyGlobal Energy and Materials, July 2009, http://www.mckinsey.com/client_service/electric_power_and_natural_gas/latest_thinking/unlocking_energy_efficiency_in_the_us_economy.

¹⁷ For example, Mississippi Power Company’s Kemper County Plant Ratcliffe is now under construction and will capture and sequester 65 percent of its carbon dioxide emissions.

As already mentioned, EPA's proposed standards apply to new plants only, not existing or modified ones. Despite some rather clear statutory language to the contrary, EPA has even proposed to treat as existing plants a set of so-called "transitional" coal-fired plants that have permits but not commenced construction yet, provided they do so within a year. Like dozens of other proposals for new coal-fired capacity that have been abandoned because of market realities over the past years, many of these plants probably will not go forward because they lack financing and can't meet other, non-Clean Air Act legal requirements. Indeed, at least one of the transitional plants has already been dropped. Tenaska, which had proposed a coal-fired plant for southern Illinois has dropped it in favor of a new natural gas plant. Further, the majority owner of the proposed Holcomb 2 project, Tri-State Generation and Transmission, Inc., has published and filed with the Colorado Public Utilities Commission a final Electric Resource Plan stating that it has no need for any new coal-fired power until at least 2027. Tri-State's extensive resource planning modeling demonstrated that future demand could be met with a combination of cleaner alternatives, such as demand side management and renewable generation resources.¹⁸ When questioned, Tri-State has advised the press that it planned to delay construction of Holcomb 2.

Going forward, EPA also needs to issue standards and guidelines under Section 111(d) of the Clean Air Act to start the joint Federal-state process of cutting the 2.3 billion tons of dangerous carbon pollution from the existing fleet of power plants. Another false claim you will hear is doing so will wipe out existing coal plants by requiring them to meet the same standard that EPA has proposed for new plants. But this is not what the Act requires. The criteria and procedures under Sections 111(b) and 111(d) are different, and under the statute EPA and the states share the job of setting performance standards for existing sources. EPA and the states have a legal obligation to set standards that are

¹⁸ Integrated Resource Plan / Electric Resource Plan for Tri-State Generation and Transmission Associate, Inc., Submitted to Western Area Power Authority, Colorado Public Utilities Commission (Nov. 2010). Tri-State Generation and Transmission Associate, Inc., Resource Planning Presentation (June 10, 2010).

achievable and affordable. Within that legal framework, NRDC believes significant, cost-effective reductions in the heat-trapping CO₂ from existing power plants can and must be made, and EPA must begin that process forthwith.

In conclusion, the proposed carbon pollution standard for new power plants is another important step that EPA has taken under President Obama to clean up and modernize the nation's two most polluting sectors – the power plants that provide our electricity, and the motor vehicles that move us around. When the second round of carbon pollution and fuel economy standards for new cars and light trucks are finalized later this summer, they will cut carbon pollution in half and double miles per gallon, saving car-owners thousands of dollars at the pump and dramatically cutting our oil dependence. Because of these standards, and the ones set for heavy duty trucks, America's oil use is finally falling, and is expected to continue falling as far as the eye can see, even as oil production grows.

Scientists and the public agree overwhelmingly that it is time to start protecting our families and the planet from the clear harm carbon pollution is causing. We owe it to our children to act now. Denial won't change the facts about carbon. It won't keep rising seas from eroding coastal property, just like it won't stop the wind from carrying pollution from one state to the next, mercury from being a brain poison, or soot from lodging in our lungs. Cleaning up pollution shouldn't be about politics. It's about fulfilling the promise to our families and our children that we will protect their health and their future from dangerous air pollution.