NATURAL RESOURCES DEFENSE COUNCIL

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Hearing on H.R. 6172

Subcommittee on Energy and Power
Committee on Energy and Commerce
House of Representatives
September 20, 2012

Summary

- NRDC strongly opposes H.R. 6172 because it would interfere with EPA's ability to do its job of setting standards to protect public health from the effects of dangerous carbon pollution emitted by power plants.

- 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. January through August, 2012 was the warmest such period ever in the U.S.

- Arctic sea ice extent is currently at the lowest level ever recorded—45 percent below the 1979-2000 average for this time of year. Unfortunately, what happens in the Arctic doesn't stay in the Arctic. The dramatic loss of arctic ice contributes to more extreme weather in the United States.

- By proposing carbon pollution standards for new power plants under Section 111(b) of the Clean Air Act, EPA is following the law and the science. Power plants are the largest U.S. source of heat-trapping pollution: 2.2 billion metric tons of CO_2 last year, which was 39 percent of the U.S. total.

- Two Supreme Court decisions, *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.

- Section 1(a) of H.R. 6172 would rewrite the Clean Air Act to block EPA from setting any standards for power plant carbon pollution until one specific technology – carbon capture and storage (CCS) – is deemed "technologically and economically feasible" for fossil fuel-fired power plants by a panel of four federal officials outside of EPA.

- This new legal hurdle has just one purpose: To block EPA from doing its job to protect us from dangerous power plant pollution. We would never have held clean car and fuel efficiency standards hostage to one technology, like electric cars. It makes no more sense for power plants and CCS.

- No other polluter and no other pollutant are shielded by such a special hurdle under the Clean Air Act. For more than 40 years EPA has set pollution standards for scores of industrial categories based on emissions performance, not on a particular technology. Instead of command-and-control requirements to use a specific technology, each company is free to choose the cheapest way to meet that standard. H.R. 6172 would turn that approach on its head, weakening the Clean Air Act to protect the country's biggest carbon polluters. H.R. 6172 puts authority over power plant standards in the hands of four non-EPA officials with no mandate to protect public health and the environment. This is an unprecedented and dangerous change to the Clean Air Act.

- The panel may never be able to make the finding that CCS is economically competitive because the marketplace is already providing cleaner and more competitive alternatives. New coal-fired plants aren't competitive today even without CCS, because our needs for new power are being met more cheaply by low-cost natural gas, improved wind turbines, and inexpensive energy efficiency. So even though there are proven ways to cut power plant carbon emissions, EPA could be permanently blocked from setting any standards at all.

- 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.

- Other jurisdictions have already established power plant carbon dioxide emission standards. Canada recently set a standard equivalent to 926 lbs/MWh, which is significantly more stringent than the standard proposed by EPA. New York, Washington, Oregon, and California also have power plant carbon emission performance standards.

- Thus, despite all the rhetoric and scape-goating, EPA's proposed standard, which this bill would interfere with, will impose no additional costs on the industry or on electricity rate-payers and will have no adverse impact on jobs.

- It is technically feasible today to build CCS-equipped coal-fired plants that meet EPA's proposed standard. NRDC supports provisions proposed by EPA to facilitate construction of CCS-equipped plants by allowing such plants to average their emissions over their first 30 years of operation. NRDC has also long supported well-designed legislative measures to accelerate the deployment of CCS. But under current market conditions there is little or no interest in building new coal-fired power plants with or without CCS.

- H.R. 6172 would do nothing to accelerate deployment of CCS. Instead it would just block other solutions.

- More than 3 million Americans have raised their voices in comments to support EPA's proposed carbon pollution standard for power plants—far more comments than EPA has received on any previous proposal. 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.

- EPA needs to move forward to start the joint Federal-state process of cutting the more than 2 billion tons of dangerous carbon pollution from the existing fleet of power plants under Section 111(d) of the Clean Air Act. 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.

Introduction

Thank you Chairman Whitfield and Ranking Member Rush for the opportunity to testify on behalf of the Natural Resources Defense Council about H.R. 6172. 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 director of NRDC's Climate and Clean Air Program. Before joining NRDC in 1989 I served as an environmental scientist at EPA. I have taught environmental policy at Yale and the University of Maryland. I hold a Ph.D. in Energy and Resources from the University of California.

Dangers of Carbon Pollution

NRDC strongly opposes H.R. 6172 because it would prevent EPA from establishing life-saving standards to reduce carbon dioxide emissions from power plants, the largest source of this dangerous pollutant in the United States.[1] 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 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 storms, more severe droughts, rising sea levels and more severe coastal flooding, and many other threats to life, limb, and property.[2]

Americans have had extraordinary personal experiences with extreme weather this year. January through August, 2012 was the warmest such period ever in the U.S., with more than 29,000

[1] Power plants were responsible for 39 percent of energy-related carbon dioxide emissions in 2011 according to data from the Energy Information Administration, Monthly Energy Review, August 2012.

[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.

daily high temperature records set so far this year.[3] If America's climate were not changing we would expect approximately the same number of record high temperatures and record low temperatures each year, but so far this year there have been almost seven times as many daily high temperature records as low temperature records. In mid-July more than 80 percent of the United States was abnormally dry or in drought conditions. Despite recent storms, which caused their own problems, more than 70 percent of the country remains abnormally dry or worse.[4] The drought is devastating U.S. crops, with more than half of the corn crop rated as being in poor or very poor conditions as of September 9th.[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 recent 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] Looking forward, excessive heat due to global warming could kill more than 150,000 Americans by the end of this century in our 40 largest cities.[8]

The effects of global warming are perhaps most obvious and dramatic in the Arctic, where the sea ice extent is currently at the lowest level ever recorded—at least 45 percent below the 1979-2000 average for this time of year. Unfortunately, what happens in the Arctic doesn't stay in the Arctic. The

[3] http://www.ncdc.noaa.gov/extremes/records/, accessed September 17, 2012.
[4] http://droughtmonitor.unl.edu/DM_tables.htm?conus, accessed September 17, 2012.
[5] http://usda01.library.cornell.edu/usda/current/CropProg/CropProg-09-10-2012.pdf
[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.
[8] http://www.nrdc.org/globalwarming/killer-heat/

dramatic loss of arctic ice contributes to more extreme weather in the United States in at least three ways[9]:

- by altering the position and shape of the jet stream, favoring a pattern with more pronounced waves that allows tropical air to penetrate further north and arctic air to penetrate further south;
- by amplifying warming across the Arctic, accelerating melting of the Greenland ice sheet, which raises sea levels, increasing the risk of coastal flooding in the United States; and
- by accelerating the release of carbon dioxide and methane from what used to be permafrost.

The driving force behind the disappearance of arctic sea ice, the rise of global temperatures, and the increasing incidence of heat waves, severe storms and intense droughts is not difficult to find. In fact, it's all around us. The concentration of carbon dioxide in our atmosphere has increased by 24 percent during my lifetime, from 316 parts per million when continuous measurements began in 1959 to 392 parts per million in 2011.[10] We know that burning fossil fuels produces carbon dioxide and we know that carbon dioxide traps heat in our atmosphere—that's basic physics and chemistry. What would be surprising is if carbon pollution were not affecting our climate.

[9] http://www.climatecentral.org/news/astonishing-arctic-sea-ice-melt-may-lead-to-extreme-winter-weather-14989

[10] As measured at the Mauna Loa Observatory, Hawaii. Carbon dioxide remains in the atmosphere for many decades after being emitted, allowing it to mix almost evenly throughout the atmosphere. Hence the observations at Mauna Loa are representative of the atmosphere as a whole. Data from http://co2now.org/Current-CO2/CO2-Now/noaa-mauna-loa-co2-data.html, accessed September 17, 2012.

EPA Following the Law and the Science

The Supreme Court's landmark 2007 ruling in *Massachusetts v. EPA*[11] 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.

The Supreme Court spoke a second time specifically addressing power plants, in June 2011 in *American Electric Power v. Connecticut*,[12] 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 toward 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 billion metric tons per year of CO_2 emissions, approximately 40 percent of total U.S. CO_2, and more than a third of all U.S. greenhouse gas emissions. American power plants account for nearly 10 percent of *global* CO_2 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 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.

[11] 549 U.S. 497 (2007).
[12] 131 S.Ct. 2527 (2011).

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, fuel- and technology-neutral, 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. In fact, Canada has recently established as standard for both new and existing coal plants set at the equivalent of 926 lbs/MWh. New York, Washington, Oregon, and California also have power plant carbon emission performance standards.

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 Wilcoxen 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."[13]

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.[14] 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."[15] 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."[16]

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

[13] http://mediamatters.org/research/201204020012.
[14] 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.
[15] 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/
[16] National Journal, Need to Know: Energy (Feb. 2, 2012).

2030 even if natural gas becomes *4-5 times more costly than it is today and power demand increases faster than expected*.[17]

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, energy efficiency budgets of American electric utilities and non-utility program administrators 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.[18] 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.[19]

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 today[20] – even under current market conditions with subsidies provided under

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[17] 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.

[18] Consortium for Energy Efficiency, "Energy Efficiency Picture Emerges," http://www.cee1.org/ee-pe/2011AIR.php3.

[19] 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.

[20] 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.

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.

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 achievable and affordable. Within that legal framework, NRDC believes significant, cost-effective reductions in the heat-trapping CO_2 from existing power plants can and must be made, and EPA must begin that process forthwith.

H.R. 6172 Blocks Life-Saving Standards

While EPA is proceeding deliberately to set carbon pollution standards that follow the law and the science, H.R. 6172 would rewrite the Clean Air Act and indefinitely block action to clean up America's largest source of carbon pollution.

Section 1(a) of H.R. 6172 would rewrite the Clean Air Act to block EPA from setting any standards for power plant carbon pollution until one specific technology – carbon capture and storage (CCS) – is deemed "technologically and economically feasible" for fossil fuel-fired power plants by a panel of four federal officials outside of EPA. H.R. 6172 puts authority over power plant standards in the

hands of four non-EPA officials with no mandate to protect public health and the environment. This is an unprecedented and dangerous change to the Clean Air Act.

Make no mistake; H.R. 6172 would do nothing to advance CCS. Instead, it blocks other solutions. This new legal hurdle would have just one effect: To prevent EPA from doing its job of protecting the public from dangerous power plant pollution. No other polluter and no other pollutant are shielded by such a special roadblock under the Clean Air Act. For more than 40 years EPA has set pollution standards for scores of industrial categories based on emissions performance¸ not on a particular technology. Instead of command-and-control requirements to use a specific technology, each company is free to choose the cheapest way to meet that standard.

H.R. 6172 would turn that approach on its head. We would never have held clean car and fuel efficiency standards hostage to one technology, like electric cars. It makes no more sense for power plants and CCS.

In fact, the panel established by H.R. 6172 may never be able to make the finding that CCS is "economically feasible" because the marketplace is already providing cleaner and more competitive alternatives. New coal-fired plants aren't competitive today even without CCS, because our needs for new power are being met more cheaply by low-cost natural gas, improved wind turbines, and inexpensive energy efficiency. So even though there are proven ways to cut power plant carbon emissions, EPA will be permanently blocked from setting any standards at all.

Americans want electricity that is both cleaner and affordable. Fortunately, they are starting to get both now from a revolution in the electricity industry driven by competition in the marketplace and technology-neutral clean air performance standards. Americans are getting power that is both cleaner and cheaper from a range of resources that are out-competing more expensive and dirtier alternatives.

Americans want EPA to continue to set and enforce life-saving standards. More than three million citizens across this country – more than triple 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, after hearing the most common arguments for and against, 60 percent of the American people support EPA's setting standards for carbon dioxide pollution, according to the most recent bipartisan poll conducted for the American Lung Association.[21]

Conclusion

Congress should stick with Clean Air Act performance-based standards and let the market work. Performance standards and markets drive innovation and save money for consumers. It worked for acid rain, it's working for clean cars, and it will work for carbon pollution.

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.

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