



**Testimony of Rachel Cleetus in support of EPA's Power Plant Carbon Standard  
On behalf of the Union of Concerned Scientists  
*May 24, 2012***

Thank you for the opportunity to testify today in support of EPA's power plant carbon standard. My name is Rachel Cleetus and I am a senior climate economist at the Union of Concerned Scientists (UCS). UCS is the nation's leading science-based nonprofit working for a healthy environment and a safer world. We work to advance both awareness of the science of climate change, and the solutions available to help lower emissions and mitigate some of the worst impacts of climate change.

On behalf of UCS's more than 400,000 supporters, and network of more than 18,000 scientists, I want to say today that we strongly support the Environmental Protection Agency's (EPA) efforts to regulate carbon emissions from fossil fuel-fired power plants under the Clean Air Act. Our supporters have written over 55,000 supportive comments to EPA, which is part of over one million such comments that are being delivered to the EPA.

We believe that EPA's actions are firmly grounded in science. The threat posed by unchecked climate change, which is driven by human activities, has been clearly articulated by numerous national and international scientific organizations, including the U.S. National Academy of Sciences. If we fail to make deep reductions in our carbon emissions, we will greatly increase the risk of serious economic, public health and environmental consequences including sea level rise, extreme weather events, increased risks of asthma and heat stress, a strain on water resources and the loss or degradation of vital ecosystems.



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EPA's obligation and authority to regulate global warming emissions under the Clean Air Act is clearly supported by a 2007 Supreme Court ruling<sup>1</sup> and the subsequent endangerment finding issued by the agency in 2009.<sup>2</sup> In 2010, carbon dioxide (CO<sub>2</sub>) emissions from power plants were the largest single source of U.S. CO<sub>2</sub> emissions, responsible for approximately 40 percent of these emissions.<sup>3</sup> Taking action to reduce emissions from the electricity sector is therefore crucial to our overall efforts to tackle climate change.

EPA's draft proposal for carbon standards for new power plants is a good start. Setting an ambitious but achievable output-based standard that is applied uniformly to all new fossil-fuel fired power plants will help ensure a transition to cleaner generation sources over time. We believe the standard would be improved by lowering it from 1000 pounds CO<sub>2</sub> per megawatt-hour (lbs CO<sub>2</sub>/MWh) of electricity generated to 800 lbs CO<sub>2</sub>/MWh, a level of emissions that is currently achievable by a modern natural gas combined cycle (NGCC) unit.

As EPA has noted, based on EIA's 2011 reference case forecast, there are no new conventional coal-fired power plants projected to be built through 2030, beyond a handful of plants that are currently under development. EIA's most recent projections<sup>4</sup> carry the same message: even under a business-as-usual scenario, virtually no new conventional coal-fired plants are forecast to be built through 2035. Low natural gas prices, mounting production and pollution costs of coal-fired power, and increased competition from low-

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<sup>1</sup> Massachusetts et al. v. Environmental Protection Agency et al. 2007. <http://www.supremecourt.gov/opinions/06pdf/05-1120.pdf>

<sup>2</sup> U.S. Environmental Protection Agency. 2009. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule. 40 CFR Chapter I. [http://epa.gov/climatechange/endangerment/downloads/Federal\\_Register-EPA-HQ-OAR-2009-0171-Dec.15-09.pdf](http://epa.gov/climatechange/endangerment/downloads/Federal_Register-EPA-HQ-OAR-2009-0171-Dec.15-09.pdf)

<sup>3</sup> U.S. Environmental Protection Agency. 2012. Inventory of US Greenhouse Gas Emissions and Sinks, 1990-2010. <http://www.epa.gov/climatechange/emissions/downloads12/US-GHG-Inventory-2012-Main-Text.pdf>

<sup>4</sup> Energy Information Administration. 2012. Annual Energy Outlook 2012 Early Release Overview. <http://www.eia.gov/forecasts/aeo/er/>



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cost alternatives like energy efficiency and renewable energy are making coal-fired power plants increasingly uneconomic. Thus the proposed carbon standard for new plants simply underscores a reality that is already underway.

We do have some serious reservations about the 30-year averaging alternative compliance mechanism proposed, both because of difficulties in enforcing the provisions of this mechanism and because of concerns about the cost and performance assumptions for carbon capture and sequestration (CCS) technology. If this provision remains in the final rule, it must be significantly tightened to ensure that it does not merely serve as a loophole for new high-emitting power plants to continue to be built with a high risk that those emissions may never be significantly reduced. Furthermore, we do not see a reason for special treatment for CCS. EPA should explore the possibility of alternative compliance mechanisms that utilize other measures that help reduce emissions, such as energy efficiency and renewable energy. These options are already readily available and affordable and therefore far less risky than banking on CCS.

Of course reducing emissions from the power sector requires that we also set standards for the existing fleet of power plants, which are the main source of emissions currently. Since much of our current fleet of power plants is old, inefficient and dirty, there are significant opportunities to lower emissions by modernizing our electric system. Now that EPA has moved to regulate emissions from new power plants under section 111(b) of the Clean Air Act, we note that it is legally obligated to similarly regulate emissions from existing power plants under section 111(d). As EPA itself has stated in the draft rule: *Once the Administrator promulgates standards for new sources under CAA section 111(b), the States, consistent with EPA regulatory requirements, must take action under CAA section 111(d) to establish requirements for “any existing source for any air pollutant (i) [that falls into specified categories] but (ii) to which a standard of performance under this section would apply if such existing source were a new source...”*



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We hope to see a draft proposal for existing plants issued in a timely fashion. This will provide more certainty to investors and utilities as they make decisions about how best to meet all their Clean Air Act obligations.

We encourage EPA's efforts to engage with and consult with states and appropriate stakeholders to ensure that standards for the existing fleet are well-coordinated with state actions to reduce carbon emissions. Several states and regions have taken a leadership role in setting up carbon reduction programs and they should have appropriate incentives to continue to implement and strengthen their programs. In all cases the Clean Air Act standards for the existing fleet should provide an ambitious framework to encourage greater emission reductions than would occur without it. We especially encourage EPA to conduct this dialog in an open fashion, perhaps by holding public listening sessions with relevant stakeholders.

The work that the EPA has begun to reduce global warming emissions is of crucial importance to the health and well-being of Americans. We request that you move quickly to finalize these carbon standards for new power plants, and we also urge you to issue strong carbon standards for existing power plants without delay. Ultimately, other strong actions will be required to achieve the deep reductions in emissions needed to reduce or avoid some of the worst impacts of climate change, but these standards are very necessary and important first steps.

UCS will also be submitting detailed written comments related to the power plant carbon standard by June 25, which we hope will be taken into account as you move forward to finalize these standards.

On behalf of UCS and all our members and supporters, we thank you for all the good work you are doing.