

**Statement of David G. Hawkins,
Director Climate Program
Natural Resources Defense Council
Public Hearing on EPA Proposed Standards of Performance for Greenhouse
Gas Emissions from New Electric Generating Units
February 6, 2014**

We can't protect the climate unless we control carbon pollution from power plants. They are the largest source of carbon pollution in the US and on earth.

EPA has proposed standards that set a level playing field for competition with the other leading fossil resource for power plants, natural gas. That is good policy, period. Any one who argues that EPA should coddle the coal industry by setting sweetheart standards for coal plants is acting against the interests of electricity customers and all of us who depend on a hospitable climate to enjoy safe, secure, and fulfilling lives.

EPA's proposal rests on solid technical, economic and legal grounds. EPA bases the emission standard for new coal on the capability of partial carbon capture technology, coupled with geologic sequestration of the captured carbon (CCS).

CCS systems have three components, all of which have been demonstrated in commercial, industrial-scale applications for decades. CO₂ capture equipment separates CO₂ from industrial gas streams. Compressed captured CO₂ is then typically transported off-site, by truck in smaller applications, and by pipeline for large-scale operations. Large-scale geologic injection of CO₂ has been practiced for decades in enhanced oil recovery (EOR) operations and since 1996 in dedicated geologic storage sites. Details on this experience can be found at the database maintained by MIT and other databases linked from the MIT site. http://sequestration.mit.edu/tools/projects/index_database.html

This commercial experience proves that carbon capture is demonstrated technology for commercial-scale industrial facilities and that systems to transport and inject captured CO₂ in amounts relevant to the power sector are also demonstrated.

We also know that carbon capture works at power plants because it is in use today at a number of plants to produce CO₂ for the food and beverage industry. The amounts captured are only a fraction of these plants' CO₂ emissions but that is not due to any technical limitation on capture. Rather, it is entirely an economic decision. In the absence of any legal requirement to capture CO₂, power plant operators practice it only at a scale that is profitable today.

But larger-scale CCS can be applied to any new coal plants that are built, with only modest cost impacts. The analysis accompanying EPA's proposed standards demonstrates that the cost of producing electricity from a new coal plant employing partial CCS systems designed to meet the standards would fall in the range of alternative power systems other than natural gas combined cycle (NGCC). (As EPA notes, new NGCC plants have a lower electricity production cost than new coal plants *without* CCS, so the appropriate comparison is to alternatives other than NGCC.)

EPA projects the costs of a new coal plant with partial CCS to range from \$92 to \$110 per Megawatt-hour (MWh), compared to a range for other non-NGCC options of \$80 to \$130 per MWh. In comparing a new coal unit with *no* CCS to a coal unit with partial CCS, EPA projects that partial CCS would increase the power production costs compared to the no-CCS case by 20% -- from \$92 per MWh to \$110 per MWh, if the CCS project received no revenues from the sale of CO₂ for enhanced oil recovery (EOR). If the income from CO₂ sales for EOR is included, the net production cost from the new CCS-equipped unit would range from \$88 to \$96 per MWh, depending on the price received for the captured CO₂.

It is important to note that the impacts on customers' electric rates from this standard would be much less than these comparative production cost increases. That is because production costs are only a fraction of each customer's electric bill and because new coal plants will be a very small fraction of the generation fleet in all power markets.

Turning to legal issues, some have claimed that EPA's proposal runs afoul of the 2005 Energy Policy Act. That is incorrect. EPA's proposal rests on substantial existing experience with all aspects of

CCS systems that I summarized earlier, to conclude that CCS is adequately demonstrated technology. EPA also cited several pending projects using CCS, three of which have received federal financial aid, to show that the power industry has confidence in the technical readiness of CCS systems. EPA Act 2005 does not prevent EPA from considering such projects in assessing whether CCS has been adequately demonstrated. EPA Act 2005 says only that such projects alone shall not establish that the technology is demonstrated. EPA's mention of these projects is entirely consistent with that provision and EPA's conclusion is supported by ample evidence entirely apart from these projects. See my analysis at http://switchboard.nrdc.org/blogs/dhawkins/smoke_from_capitol_hill.html and http://switchboard.nrdc.org/blogs/dhawkins/read_my_lips_no_tax_credit_pol.html.

Finally, some have asked why EPA should set carbon standards for new coal plants since with current market conditions, no new coal plants are projected to be built. The answer is simple. Market conditions change and America's electricity system needs to be designed to meet the health and environment standards we need today and tomorrow. Power plant planning and construction timelines often exceed a decade. We cannot leave the rules of the road for new plants to be decided later. Waiting for the coal power market to revive before setting carbon standards for new plants would be irresponsible. It would be like a school bus driver who waits until an oncoming train appears and then tries to race it to the rail crossing.

It is wrong that there are no national carbon standards for America's largest carbon polluters – coal-fired power plants. We need carbon pollution standards for new plants and for old plants. EPA's new plant standards are technically achievable and affordable. They will close a glaring loophole in America's clean air programs and will help restore American leadership on climate policy and set an example for other countries to follow.

NRDC urges EPA to issue final carbon standards for new coal plants promptly after it has considered the public's comments on this important safeguard.