

June 25, 2012

Environmental Protection Agency

By electronic delivery to a-and-r-Docket@epa.gov

Re: Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units Docket ID No.EPA–HQ–OAR–2011–0660

Contact Information:

Name: Marlo Lewis, Ph.D. Organization: Competitive Enterprise Institute Address: 1899 L Street, NW, 12th Floor, Washington, DC 20036 Tel: 202-331-1010 Email: mlewis@cei.org

On behalf of the Competitive Enterprise Institute (CEI), a non-profit public policy group specializing in regulatory issues, I respectfully submit this comment letter on the Environmental Protection Agency's proposed "Carbon Pollution Standard."¹

CEI recommends that the EPA withdraw the proposed rule for the following reasons:

- 1. The EPA's proposal would effectively ban construction of new coal-fired power plants, a policy Congress has not approved and would reject if proposed in legislation and put to a vote.
- 2. The proposal is an underhanded 'bait-and-fuel-switch.' The EPA assured stakeholders in March 2011 that it would not redefine source categories to require fuel-switching from coal to natural gas. Had the EPA come clean about its agenda in 2010 and 2011, Senators Murkowski and Inhofe would likely have garnered more support for their efforts to overturn the agency's greenhouse gas regulations.
- 3. The proposal relies on weird contortions a consequence of the EPA's attempt to use the Clean Air Act as a framework for regulating greenhouse gases, a purpose for which the Act was neither designed nor intended. For example, the EPA pretends that natural gas combined cycle a type of power plant is a "control option" and "system of emission reduction" that has been "adequately demonstrated" for coal-fired power plants.
- 4. The proposal will provide another precedent for establishing National Ambient Air Quality Standards for greenhouse gases, taking America one step closer to policy disaster.

I. Introduction

The proposed rule requires new fossil-fuel electric generating units (EGUs) to emit no more than 1,000 lbs of carbon dioxide (CO_2) per megawatt hour (MWh). About 95% of all natural gas combined cycle power plants already meet the standard, according to the EPA.² No existing coal power plants come close; even the most efficient, on average, emit 1,800 lbs CO_2/MWh .³

A coal power plant equipped with carbon capture and storage (CCS) technology could meet the standard, but the levelized cost of new coal plants already exceeds that of new natural gas combined cycle plants,⁴ and "today's CCS technologies would add around 80% to the cost of electricity for a new pulverized coal (PC) plant, and around 35% to the cost of electricity for a new advanced gasification-based (IGCC) plant."⁵

In short, the EPA has proposed a standard that no commercially-viable coal plant can meet. This is not surprising given President Obama's longstanding ambition to "bankrupt" anyone who builds a new coal power plant⁶ and his vow to find other ways of "skinning the cat"⁷ after the election-day "slaughter"⁸ of cap-and-trade Democrats. The proposal is another EPA end-run around the legislative process.⁹ Surely, Congress would not approve the Carbon Pollution Standard – a de facto ban on the construction of new coal power plants – were it introduced as legislation and put to a vote.

II. Bait and Fuel Switch

Not so long ago, the EPA assured us it would not require new coal power plants to meet the CO₂ emissions profile of natural gas combined cycle plants. Let's review some recent history.

As the EPA interprets the Clean Air Act's (CAA) New Source Review (NSR) provisions,¹⁰ new and modified major emitting facilities became subject to Best Available Control Technology (BACT) standards for CO₂ on January 2, 2011. That was the day the EPA's greenhouse gas (GHG) motor vehicle emission standards took effect, making CO₂ a "regulated air pollutant." During the previous two years, there was much angst and speculation about whether the EPA might define BACT for CO₂ so stringently that new coal power plants could not comply without fuel switching to natural gas. In March 2011, the EPA published a guidance document¹¹ assuring stakeholders that BACT for CO₂ would not require fuel switching. The agency specifically disavowed plans to "redefine the source" such that coal boilers are held to the same standard as gas turbines. The EPA stated:

The CAA includes "clean fuels" in the definition of BACT. Thus, clean fuels which would reduce GHG emissions should be considered, but EPA has recognized that the initial list of control options for a BACT analysis does not need to include "clean fuel" options that would fundamentally redefine the source. Such options include those that would require a permit applicant to switch to a primary fuel type (i.e., coal, natural gas, or biomass) other than the type of fuel that an applicant proposes to use for its primary combustion process. For example, when an applicant proposes to construct a coal-fired steam electric generating unit, EPA continues to believe that permitting authorities can show in most cases that the option of using natural gas as a primary fuel would fundamentally redefine a coal-fired electric generating unit.¹²

The EPA reiterated this assurance in a Q&A document¹³ accompanying the guidance:

12. Does this guidance say that fuel switching (coal to natural gas) should be selected as BACT for a power plant?

- No.
- BACT should consider the most energy efficient design and control options for a proposed source.
- BACT should also include consideration of "clean fuels" that may produce fewer emissions but does not necessarily require a different type of fuel from the one proposed, particularly when it can be shown that using another type of fuel would be inconsistent with the fundamental purpose of the facility.

This bears directly on the ethical and legal propriety of the EPA's proposed New Source Performance Standards (NSPS) for CO_2 emissions from power plants (a.k.a. the Carbon Pollution Standard). In general, NSPS provide the "floor" or minimum emission control standard for determining a major emitting facility's BACT requirements. Under CAA § 169(3), application of BACT may not result in emissions that exceed those allowed by the applicable NSPS.¹⁴ BACT is intended to push individual sources to make deeper emission reductions than the category-wide performance standard requires. As one EPA official explained:

The NSPS are established after long and careful consideration of a standard that can be reasonably achieved by new sources anywhere in the nation. This means that even a very recent NSPS does not represent the best technology available; it instead represents the best technology available nationwide, regardless of climate, water availability, and many other highly variable case-specific factors. The NSPS is the least common denominator and must be met; there are no variances. The BACT requirement, on the other hand, is the greatest degree of emissions control that can be achieved at a specific source and accounts for site-specific variables on a case-by-case basis.¹⁵

Yet despite the EPA's assurance that BACT, although more stringent than NSPS, will not require fuel switching or redefine coal power plants into the same source category as natural gas power plants, the Proposed Carbon Pollution Standard does exactly that.

To repeat, Congress never voted to ban new coal generation. Indeed, Congress declined to adopt similar CO₂ performance standards for coal power plants when Senate leaders pulled the plug on cap-and-trade. Section 116 of the Waxman-Markey "American Clean Energy and Security Act"¹⁶ would have established NSPS requiring new coal power plants to reduce CO₂ emissions by 50% during 2009-2020 and 65% after 2020. Congress did not pass Waxman-Markey because the public rejected it. The legislation became politically radioactive soon after it narrowly passed in the House. In the November 2010 elections, 29 Democrats¹⁷ who voted for Waxman-Markey got pink slips from their constituents.

In April 2011, a bipartisan majority in the House passed H.R. 910, the Energy Tax Prevention Act, sponsored by Rep. Fred Upton (R-Mich.), by a vote of 255-172. H.R. 910 would overturn all EPA GHG regulations except for those the auto and trucking industries had already made plans and investments to comply with. Senatorial efforts to rein in the EPA — particularly Sen. Lisa Murkowski's (R-Alaska) Congressional Review Act resolution of disapproval¹⁸ in 2010 and Sen. James Inhofe's (R-Okla.) companion bill to H.R. 910¹⁹in 2011 – would likely have gained more support had the agency admitted, before the votes on those measures, that, come 2012, it would promulgate CO_2 performance standards that no commercially-viable coal plant can meet.

III. Five Ways Weird

The Carbon Pollution Standard may be among the weirdest regulations ever proposed. This dubious distinction is no doubt related to the fact that the EPA is attempting to regulate GHGs through a statute neither designed nor intended for that purpose. The proposal is bizarre in at least five ways.

(1) The EPA classifies natural gas combined cycle — a type of power plant — as a "control option" or "system of emission reduction" for coal-fired power plants.

The EPA picked 1,000 lbs CO_2/MWh as the "standard of performance" for new fossil-fuel EGUs because that is the "degree of emission limitation achievable through natural gas combined cycle generation."²⁰ But consider how the CAA defines "standard of performance" [CAA § 111(a)(1)]:

The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.²¹

Performance standards are supposed to reflect the best "system of emission reduction." But natural gas combined cycle is not a *system of emission reduction*. It is a *type of power plant*. EPA is not proposing that new coal power plants install *emission reduction systems* that have been "adequately demonstrated." Rather, EPA is proposing that new coal power plants *be new natural gas plants*. EPA is saying with a straight face that natural gas combined cycle is an *emission reduction system* that has been *adequately demonstrated* for *coal power plants*. This is no more reasonable than claiming that zero-carbon nuclear-, hydro-, wind-, or solar-electric generation is an emission reduction system that has been adequately demonstrated for natural gas combined cycle power plants.

The proposed rule is the first time EPA has ever defined a performance standard such that one type of facility can comply only by *being something other than what it is*.

(2) The EPA lumps coal boilers and natural gas turbines together in a newly-minted industrial source category (fossil-fuel EGUs) — but only for CO_2 emissions, not for criteria or toxic air pollutants.

The EPA sets performance standards for specific *categories* of industrial sources. A coal boiler is different from a gas turbine, and up to now the agency reasonably regulated them as different source

categories, under different parts of the Code of Federal Regulations – Subpart Da for coal boilers,²² Subpart KKKK for gas turbines.²³ The EPA now proposes to regulate coal boilers and gas turbines as a single source category — fossil-fuel EGUs — under a new subpart numbered TTTT. But only for CO_2 ! Coal boilers and gas turbines will continue to be regulated as separate source categories for criteria and toxic pollutants under Subparts Da and KKKK.²⁴

Why hold coal boilers and gas turbines to different standards for those pollutants? The EPA's answer:

This is because although coal-fired EGUs have an array of control options for criteria and air toxic air pollutants to choose from, those controls generally do not reduce their criteria and air toxic emissions to the level of conventional emissions from natural gas-fired EGUs.²⁵

The same logic argues even more strongly against imposing a single CO_2 standard on coal boilers and natural gas turbines. Coal plants have no "adequately demonstrated" options for reducing CO_2 emissions to the level of emissions from natural gas plants. CCS may qualify in 10-20 years, but it is too costly now and is not expected to become economical in the near future.

Subpart TTTT is clearly a contrivance aimed at killing the future of coal generation. It is the epitome of 'results-oriented' (agenda-driven) regulation.

(3) The proposed rule exempts modified coal power plants from the CO₂ performance standard even though CAA Sec. 111 requires modified sources to be regulated as "new" sources.

CAA § 111(a) defines "new source" as "any stationary source, the construction or *modification* of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source."²⁶ The provision defines "modification" as "any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted." These definitions clearly imply that, once the EPA proposes CO₂ performance standards for power plants, a coal-fired EGU that increases its CO₂ emissions due to a physical change or change in operation is a "new" source.

That modified sources are new sources is the opinion of the D.C. Circuit Court of Appeals. In *Asarco v. EPA*, the Court stated:

Finally, EPA claims that § 111 is aimed primarily at *new construction*, br. for *EPA at 19-20*, and candidly admits that it intended "to develop a modification regulation * * * which minimizes that impact on existing sources." May Meeting Minutes, *supra* note 11, at 11. The Act's language, however, is aimed at *new sources*, not just new *construction*, and defines existing sources that are altered so that their emissions increase as *new sources*.

The New Source Performance Standards are designed to enhance air quality by forcing all newly constructed *or modified* buildings, structures, facilities, or installations to employ pollution control systems that will limit emissions to the level "achievable through application of the best technological system of continuous emission reduction which * * * the Administrator determines has been adequately demonstrated."²⁷

The EPA cited the Asarco case and invoked the plain meaning of CAA § 111 when rejecting a proposal to exempt modified Portland cement kilns from NSPS requirements:

Industry commenters requested that EPA either exempt modification from the NSPS, or set separate limits. In this final rule we are still including modified kilns as an affected source. *The suggestion that modified kilns be outright exempted from these NSPS revisions appears legally strained, given that modified sources are a type of new source for which EPA is obligated to develop, and review and revise as appropriate This would undermine the basis of section 111 standards, where Congress wanted to assure that BDT [best demonstrated technology] was applied to modified sources qualifying as "new." The purpose of the Act is to enhance the Nation's air quality (CAA Sec. 101(b)(1)), and new source performance standards under section 111 serve that goal. <i>Asarco v. EPA*, 578 F. 2d 319, 327 (DC Cir. 1978).²⁸

On what grounds, then, does the EPA set aside the plain meaning of CAA § 111, the case law, and its own interpretation of the text? The agency claims that it does "not have adequate information as to the types of physical or operational changes sources may undertake or the amount of increase in CO_2 emissions from those changes."²⁹ That is strange. Since October 2009, the EPA has required the reporting, accurate recordkeeping, and verification of greenhouse gas emissions by any facility that emits at least 25,000 tons per year of CO_2 -equivalent emissions.³⁰ The EPA publishes this information in a public database covering nine industry groups, which include 29 source categories and 1,562 power plants.³¹ In addition, the CAA Amendments of 1990 required power plants to monitor and report their CO_2 emissions to the EPA by no later than January 1, 1995,³² and the agency has been collecting data on power plant modifications since the 1970s.

The EPA also says it lacks "adequate information as to the types of control actions sources could take to reduce emissions, including the types of controls that may be available or the cost or effectiveness of those controls."³³ But the EPA knows full well that the only available options to meet the proposed 1,000 lbs CO_2/MHw standard are to install CCS or re-power with natural gas.

A reasonable speculation is that the EPA is again adopting a bait-and-fuel-switch ploy, postponing until after the November 2012 elections a decision on how to apply the Carbon Pollution Standard to modified coal-fired power plants. The issue is potentially explosive, because the agency's Utility MACT Rule and Cross-State Air Pollution Rule will require existing coal power plants to make substantial "physical changes." To comply with those rules, hundreds of coal power plants will have to install new pollution controls such as flue gas desulfurization scrubbers, bag houses, and select catalytic reduction systems.³⁴ Pollution control equipment can increase a power plant's CO_2 emission rate, as the EPA acknowledges:

We expect EGUs to undertake changes in the foreseeable future that would increase their maximum achievable hourly rate of CO_2 emissions for purposes of the NSPS. We expect that most of those actions would constitute pollution control projects. In many cases, those projects would involve the installation of add-on control equipment required to meet CAA requirements for conventional air pollutants.³⁵

There is thus a risk that coal-fired power plants adding equipment to comply with the Utility MACT and Cross State Air Pollution rules would qualify as "new" sources under the Carbon Pollution Standard. The three rules in combination could have the effect of requiring many existing coal plants to either repower with natural gas, or shut down. Confronting this issue now would create a political liability for President Obama's re-election campaign. That would appear to be the EPA's real reason for not proposing at this time to regulate modified sources as new.

One possible way to avoid the train wreck is to decree that pollution control projects (PCPs) are not modifications within the meaning of CAA § 111. Citing 40 CFR 60.14(e)(5), the EPA notes that its regulations exempt from the definition of "modification" the "addition or use of any system or device whose primary function is the reduction of air pollutants \dots "³⁶

But the EPA also acknowledges that in *New York v EPA*, the D.C. Circuit Court of Appeals struck down a similar PCP exemption in the agency's NSR regulations. Among other points, the Court agreed with environmental petitioner Natural Resources Defense Council that "nothing in the statute or its legislative history suggests an intent to authorize a blanket exclusion of pollution control projects." In fact, the Court noted, legislative history suggests the opposite: "[I]n enacting the NSPS program Congress rejected one version of the statute that defined 'modification' to exclude 'pollution abatement facilities.'"³⁷ The EPA acknowledges that the Court's voiding of the PCP exemption for NSR "may call into question the continued validity" of the PCP exemption for NSPS.³⁸

In any event, the EPA's exclusion of modified coal power plants from the proposed Carbon Pollution Standard is inconsistent with the plain language of the statute and appears to be another instance of "tailoring." As in the EPA's application of BACT and NSR to CO₂, the agency finds itself compelled to amend the statute to avoid a snafu of the agency's own making.³⁹

(4) The Carbon Pollution Standard has no monetized costs or benefits.

The EPA says the proposed rule will not "add costs" to the electric power sector, ratepayers, or the economy, because the agency "does not project construction of any new coal-fired EGUs" between now and 2030. Rather, the EPA expects power companies "to build new EGUs that comply with the regulatory requirements of this proposal even in the absence of the proposal, due to existing and expected market conditions," namely, the superior economics of natural gas.⁴⁰

The rule won't "add costs" because, according to the EPA, it ratifies where the market is already going. By the same token, however, the rule has no estimated benefits. The EPA does "not anticipate any notable CO_2 emissions changes resulting from the rule," hence "there are no direct monetized climate benefits in terms of CO₂ emission reductions associated with this rulemaking."⁴¹ A key assumption is that between now and 2030, natural gas will remain abundant and prices will remain low.

Several developments could upset this applecart. A dash to gas in the electric utility sector combined with federal subsidies for natural gas vehicles and fueling infrastructure⁴² and the expansion of U.S. export markets⁴³ could significantly increase gas prices. Concurrently, restrictions on hydraulic fracturing and the regulation of natural gas as a 'carbon-intensive' fuel (based on life-cycle analysis of fugitive methane emissions)⁴⁴ could significantly decrease supply.

Politics is an obvious wild card. An environmental movement that favored gas as a "bridge fuel" when prices were high and reserves were declining became hostile when, thanks to the "shale revolution," reserves expanded and prices fell. For example, the Sierra Club, which during 2007-2010 received \$26 million in donations for its "Beyond Coal" campaign from natural gas mogul Aubrey McClendon,⁴⁵ launched a "Beyond Gas" campaign in 2012 to stop hydraulic fracturing.

Let's assume that the EPA is correct and the superior economics of gas preclude new coal power plants from being built. What then is the point of this rulemaking – why propose a Carbon Pollution Standard that will not reduce CO_2 emissions or achieve any measurable climate benefit?

Several reasons spring to mind. The rule expands the EPA's control over electric utilities and creates a powerful new tool for "skinning the cat." It puts fossil-fuel EGUs squarely under the EPA's regulatory thumb with respect to their inescapable and principal byproduct, CO_2 . It sets the precedent for the EPA to promulgate CO_2 performance standards for other sources – including natural gas combined cycle. As indicated above, if natural gas combined cycle can set the CO_2 standard for coal boilers, then wind and solar power can set the CO_2 standard for natural gas turbines.

Perhaps most importantly, the Carbon Pollution Standard tees up the EPA to put the regulatory squeeze on modified and existing coal power plants in a second Obama administration. In EPA's words:

Although modified sources would not be subject to the 1,000 lb CO2/MWh standard for new sources, the EPA anticipates that modified sources would become subject to the requirements the EPA would promulgate at the appropriate time, for existing sources under 111(d).⁴⁶

* * *

The proposed rule will also serve as a necessary predicate for the regulation of existing sources within this source category under CAA Section 111(d).⁴⁷

The proposal is the EPA's first — not last — action to fulfill the agency's December 2010 settlement agreement with State attorneys general and environmental groups. The agreement requires the EPA to set CO_2 performance standards for both new *and* modified EGUs *plus* emission guidelines for non-modified EGUs.⁴⁸ By creating the framework for limiting CO_2 emissions, the Carbon Pollution Standard puts fossil-fuel electric generation in an ever-tightening regulatory noose.

(5) The EPA inconsistently claims that CCS is and is not a commercially-viable alternative to fuel switching to natural gas.

The EPA acknowledges that, despite economic conditions favoring natural gas combined cycle, a "limited amount of new coal-fired construction may nevertheless occur." The agency thus anticipates the criticism that the Carbon Pollution Standard "may limit construction of new coal-fired power plants."⁴⁹ The EPA's response is that the Carbon Pollution Standard "would not foreclose the construction of new coal-fired EGUs," because the new units would have the option to "install CCS control equipment (if not at the time of construction, then not long thereafter.)"⁵⁰ But, as noted above, the EPA acknowledges that CCS can increase the cost of coal-generated electricity by as much as 80%.

The EPA contends that Federal and State programs can make CCS "more affordable."⁵¹ However, in a period of fiscal crisis, such support will not be extended to more than a handful of demonstration projects. With the national debt exceeding GDP, how can Congress justify spending billions for CCS equipment when natural gas combined cycle is so much cheaper?

The EPA expects that the "costs of CCS will decrease over time," partly because the Carbon Pollution Standard will create a "regulatory framework" that puts an implicit price on CO₂ emissions.⁵² But as attorney Peter Glaser pointed out in recent testimony, the proposed rule will likely have the opposite effect, because it will prevent industry from achieving economies of scale:

It may be true in general that the cost of the first unit in a new industry is high, while the cost of the thousandth unit is lower, but the maxim won't apply in an industry where no one is allowed to build coal plants. There will be no way to get from the first unit to the thousandth unit.⁵³

The proposed rule also gives new coal-fired power plants the option to meet an immediate performance standard of 1,800 lbs CO_2/MWh as long as they install CCS 10 years later and, over next 20 years, average no more than 600 lbs CO_2/MWh , "such that the weighted average CO_2 emissions rate from the facility over the 30-year period would be equivalent to the proposed standard of performance of 1,000 lb CO_2/MWh ."⁵⁴ But, argues Glaser, this option too will fail to preserve a future for new coal generation:

No unit can get financed if it violates EPA standards in 10 years unless it installs a technology that, at best, is only projected to be viable in 10 years. Lending institutions putting more than a billion dollars at risk will require considerably more certainty than the *possibility* that the unit will avoid violating regulatory standards if in 10 years CCS technology proves to be ready both commercially and as a matter of law and regulation.⁵⁵

The EPA is trying to square a circle. The agency knows that using NSPS to require fuel switching is not kosher. So the EPA needs the fiction that installing CCS is a viable alternative compliance option. But to get the proposal out of legal jeopardy, CCS would have to be an "adequately demonstrated" system of emission reduction, and the agency knows full well that it is not.

IV. Pandora's NAAQS

The EPA argues that there is no need for a new and separate endangerment finding to authorize CO_2 performance standards for power plants under CAA § 111. The agency has already made the determination, under CAA § 202, that greenhouse gas emissions endanger public health and welfare, and, according to the EPA, recent studies "strengthen the scientific conclusion that GHG pollution endangers public health and welfare."⁵⁶

An implication of this argument is that the EPA need not make a new endangerment finding to regulate GHGs via the National Ambient Air Quality Standards (NAAQS) program. All the agency has to do is invoke the CAA § 202 endangerment finding by which it obligated itself to regulate GHG emissions from new motor vehicles.

CAA § 108 requires the EPA to initiate a NAAQS rulemaking for "air pollution" from "numerous or diverse mobile or stationary sources" if such pollution "may reasonably be anticipated to endanger public health and welfare." Carbon dioxide obviously comes from numerous *and* diverse mobile *and* stationary sources, and the EPA has already determined that the associated "air pollution" – the "elevated concentration" of GHGs in the atmosphere – endangers public health and welfare.⁵⁷ Logically, the EPA must establish NAAQS for GHGs, and set the standards below current atmospheric concentrations.

The Center for Biological Diversity and 350.Org petitioned the EPA more than two years ago to establish NAAQS for CO₂ at 350 parts per million (~ 40 parts per million below current concentrations) and for other GHGs at pre-industrial levels.⁵⁸ The potential for mischief is hard to exaggerate. Not even a worldwide depression that permanently lowers global economic output and emissions to, say, 1970 levels, would stop CO₂ concentrations from *rising* over the remainder of the century.⁵⁹ Yet the CAA requires States to adopt implementation plans adequate to attain primary (health-based) NAAQS within five or at most 10 years.⁶⁰ A CO₂ NAAQS set at 350 parts per million would require a level of economic sacrifice vastly exceeding anything contemplated by the Waxman-Markey bill or the Copenhagen climate treaty, which aimed to stabilize CO₂-equivalent emissions at 450 parts per million by 2050. If the NAAQS for CO₂ did not require much of the economy – all fossil-fuel-based power generation, manufacture, transport, and agriculture – to simply shut down, it would effectively prohibit growth in those sectors.

Unless overturned by Congress or the courts, the Carbon Pollution Standard will provide another precedent for applying NAAQS to GHGs and take America one step closer to policy disaster.

V. He's Got Cards He Ain't Showing⁶¹

The EPA has been eerily silent about the CBD/350.Org petition. To my knowledge, the Obama administration has addressed the NAAQS issue only once, in a Department of Justice brief on behalf of Tennessee Valley Authority in *American Electric Power v. Connecticut*. The brief argued that the CAA displaces tort litigation to control GHG emissions, because the EPA has a broad array of regulatory mechanisms for addressing climate change. Among the provisions cited is CAA § 108:

Section 108 of the Clean Air Act also provides EPA with a mechanism for listing pollutants that "endanger public health and welfare" and meet certain other criteria. When an air pollutant is listed, the Act requires States to regulate emissions to prevent pollution exceeding the EPA standards.⁶²

NAAQS regulation of GHGs would empower the EPA, State AGs, and environmental litigants to restructure the U.S. economy beyond any plausible legislative mandate from Congress. Petitioners in *Massachusetts v. EPA* set the stage for such a 'climate coup'⁶³ when they assured the Court that the case dealt solely with the EPA's authority to regulate new motor vehicles under Title II of the CAA. Title II, they asserted, is "separate" from Title I, and "entirely separate" from the agency's Title I authority to promulgate NAAQS.⁶⁴ This assurance was profoundly misleading, because Title I and Title II are interconnected. Title II regulation of motor vehicle GHG emissions made major GHG emitters subject to regulation under the Title I (BACT/PSD) permitting program. And the EPA now claims that its Title II endangerment finding authorizes another form of Title I regulation, NSPS for CO₂ emissions from fossilfuel power plants.

Sooner or later the EPA will have to face the NAAQS issue. Both statutory logic and precedent (if the Carbon Pollution Standard is upheld) will favor the CBD/350.Org petition.

Some good may yet come of this. A policy crisis over NAAQS regulation of GHGs would finally make clear that *Massachusetts v. EPA* created a constitutional crisis by authorizing the EPA to enact policies that the people's representatives have not approved and would reject if proposed in legislation and put to a vote.

¹ U.S. Environmental Protection Agency, *Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units*, Proposed rule, 77 FR 22392-22441, April 13, 2012.

² 77 FR 22414. However, an industry expert at a recent hearing disputes the EPA's claim that the vast majority of natural gas combined cycle plants meet the 1,000 lbs CO₂/MWh. "Tri-State has reviewed the carbon dioxide emissions from its facilities and found that its natural gas combined cycle plants emitted approximately 1,300 lbs CO₂/MWh (while its gas-fired simple cycle turbines emitted between 1,200 and 1,600 lbs CO₂/MWh). Despite the fact that these units use EPA's preferred fuel – natural gas – they still do not meet the GHG NSPS emission limit." Barbara Walz, testimony, Committee on Energy and Commerce, Subcommittee on Energy and Power, *The American Energy Initiative: A Focus on EPA's Greenhouse Gas Regulations*, June 19, 2012, pp. 5-6. ³ 77 FR 22417

 ⁴ U.S. Energy Information Administration, *Levelized Cost of New Generation Resources in the Annual Energy Outlook 2011*, November 2010, http://205.254.135.7/oiaf/aeo/electricity_generation.html.
⁵ 77 FR 22415

⁶ Barack Obama, interview, *San Francisco Chronicle*, Jan. 18, 2008, http://www.youtube.com/watch?v=DpTIhyMa-Nw.

⁷ Press Conference by the President, November 3, 2010, http://www.whitehouse.gov/the-press-office/2010/11/03/press-conference-president

⁸ Darren Samuelsohn & Robin Bravender, "Democrats day of reckoning comes for climate vote," *Politico*, November 3, 2010, http://www.politico.com/news/stories/1110/44617.html#ixzz14G0EOqgi

⁹ Marlo Lewis, "EPA Regulation of Fuel Economy: Congressional Intent or Climate Coup?" *Engage* Vol. 12, No. 3, November 2011

¹⁰ EPA, Reconsideration of Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 FR 17004, April 2, 2010, http://www.gpo.gov/fdsys/pkg/FR-2010-04-02/pdf/2010-7536.pdf

¹¹ EPA, *PSD and Title V Permitting Guidance for Greenhouse Gases*, EPA-457/B-11-001, March 2011, http://www.epa.gov/nsr/ghgdocs/ghgpermittingguidance.pdf (hereafter *PSD Guidance*)

¹² EPA, *PSD Guidance*, p. 27

¹³ EPA, Clean Air Act Permitting for Greenhouse Gases: Guidance and Technical Information Questions and Answers, http://www.globalwarming.org/wp-content/uploads/2012/04/EPA-QA-on-BACT.pdf.

¹⁴ 42 USC § 7479

¹⁵ Gary McCutchen, Chief New Source Review Section, U.S. Environmental Protection Agency, Letter to Mr. Richard Grusnick, Chief Air Division, Alabama Department of Environmental Management, July 28, 1987,

http://www.globalwarming.org/wp-content/uploads/2012/04/EPA-explanation-NSPS-is-BACT-floor.pdf.

¹⁶ The text is available at http://www.globalwarming.org/wp-content/uploads/2012/04/Waxman-Markey-bill-as-passed-by-the-House.pdf.
¹⁷ A list of the 29 ousted cap-and-traders is available at http://cei.org/news-releases/cap-and-trade-hurts-

¹⁷ A list of the 29 ousted cap-and-traders is available at http://cei.org/news-releases/cap-and-trade-hurtsdemocrats.

¹⁸ S.J.Res.26 (http://www.murkowski.senate.gov/public/?a=Files.Serve&File_id=a4804b50-284a-4cab-8be0-3d537c9947ca) failed by a vote of 46-53 on June 10, 2010.

¹⁹ S. 482 (http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=9bf020bf-185e-4789-8545-88657ec841a0) failed by a vote of 50-50 on April 7, 2011.

²⁰ 77 FR 22394-22395

²¹ 42 USC § 7411

²² CFR, Title 40, Part 60, Subpart Da – Standards of Performance for Electric Steam Generating Units

²³ CFR, Title 40, Part 60, Subpart KKKK – Standards of Performance for Stationary Combustion Turbines

²⁴ 77 FR 22406

²⁵ 77 FR 22411

²⁶ 42 USC § 7411 (emphasis added)

 ²⁷ Asarco, Inc. v. EPA, 578 F.2d 319, 327-28 (D.C. Cir. 1978) (emphasis in original, citation and footnotes omitted)
²⁸ EPA, National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plant; Final Rule, 75 FR 54996, September 9, 2010, (emphasis added)

²⁹ 77 FR 22421

³⁰ EPA, *Mandatory Reporting of Greenhouse Gases*, 74 FR 56260, October 30, 2009

³¹ EPA, Greenhouse Gas Reporting Program Data for Calendar Year 2010,

http://epa.gov/climatechange/emissions/ghgdata/index.html

³² 42 USC § 7651K

³³ 77 FR 22421

³⁴ North American Electric Reliability Corporation, *2011 Long-Term Reliability Assessment*, November 2011, p. 150, http://www.nerc.com/files/2011LTRA_Final.pdf

³⁵ 77 FR 22420-22421

³⁶ 77 FR 22420

³⁷ New York v. EPA, 413 F.3d 3, 41

³⁸ 77 FR 22421

³⁹ Marlo Lewis, "The Environmental Protection Agency's End Run Around Democracy," *Pajamas Media*, January 1, 2011, http://pjmedia.com/blog/the-environmental-protection-agency%e2%80%99s-end-run-around-democracy/
⁴⁰ 77 FR 22399

⁴¹ 77 FR 22340

⁴² D

⁴² Proposed, for example, by H.R. 1830, the New Alternative Transportation to Give Americans Solutions Act, http://www.gpo.gov/fdsys/pkg/BILLS-112hr1380ih/pdf/BILLS-112hr1380ih.pdf

⁴³ EIA, Effect of Increased Natural Gas Exports on Domestic Energy Markets, January 2012, http://205.254.135.7/analysis/requests/fe/pdf/fe_lng.pdf ⁴⁵ Ron Arnold, "Chesapeake takes shareholder heat for giving Sierra Club \$26 million," *The Examiner*, June 14, 2012, http://washingtonexaminer.com/chesapeake-takes-shareholder-heat-for-giving-sierra-club-26-million-to-attack-coal/article/731361

⁴⁶ 77 FR 22421

⁴⁷ 77 FR 22430

⁴⁸ 77 FR 22404

⁴⁹ 77 FR 22411

⁵⁰ 77 FR 22411

⁵¹ 77 FR 22411

⁵² 77 FR 22416

⁵³ Testimony of Peter Glaser, House Committee on Oversight and Government Reform, Hearings on "Rhetoric vs. Reality: Does President Obama Really Support an 'All-of-the-Above' Energy Strategy?" May 31, 2012, p. 6, http://oversight.house.gov/wp-content/uploads/2012/05/5-31-12-Full-Glaser.pdf

⁵⁴ 77 FR 22394

⁵⁵ Glaser, Testimony, p. 6.

⁵⁶ 77 FR 22397

⁵⁷ EPA, Endangerment and Cause or Contribute Finding for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 FR 66516, December 15, 2009

⁵⁸ Center for Biological Diversity & 350.Org, Petition to Establish National Pollution Limits for Greenhouse Gases Under the Clean Air Act (2009),

http://www.biologicaldiversity.org/programs/climate_law_institute/global_warming_litigation/clean_air_act/pdfs /Petition_GHG_pollution_cap_12-2-2009.pdf

⁵⁹ "Dialing In Your Own Climate," World Climate Report, April 10, 2006,

http://www.worldclimatereport.com/index.php/2006/04/10/dialing-in-your-own-climate/

⁶⁰ EPA, *Regulating Greenhouse Gases Under the Clean Air Act*, Advance Notice of Proposed Rulemaking, 73 FR 44481, July 30, 2008

⁶¹ The lyric is from the protest ballad "Sunshine" by Jonathan Edwards. Other relevant lines from the song: "Some man's gone he's tried to run my life, Don't know what he's asking . . .But he can't even run his own life, I'll be damned if he'll run mine, Sunshine": http://lyrics-a-plenty.com/s/sunshine.lyrics.php

⁶² Brief for Tennessee Valley Authority on Behalf of Petitions at 2, *American Electric Power v. Connecticut* (U.S. August 2010), http://www.openmarket.org/wp-content/uploads/2010/08/obama-brief-aep-v-connecticut-aug-2010.pdf

⁶³ An apt phrase coined by Dr. Patrick Michaels, editor of *Climate Coup: Global Warming's Invasion of Our Government and Our Lives* (Cato Institute, 2011).

⁶⁴ Brief for Petitioners at 28, Massachusetts v. EPA (U.S., August 31, 2006), available at

http://www.americanbar.org/content/dam/aba/publishing/preview/publiced_preview_briefs_pdfs_06_07_05_11 20petitioners.authcheckdam.pdf

⁴⁴ Several studies by the Howarth/Marino Lab at Cornell University argue that shale gas has a greater carbon footprint than either diesel oil or coal. See *Climate Impacts of Shale Gas Development*,

http://www.eeb.cornell.edu/howarth/Marcellus.html