

Briefing Paper:

Congress Must Retain Existing Authority to Regulate Greenhouse Gas Emissions from Coal-Fired Power Plants under the Clean Air Act

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The American Clean Energy and Security Act (ACESA, H.R. 2454), as passed by the House of Representatives on June 26, 2009, relies heavily on an untested cap-and-trade system to reduce greenhouse emissions while eliminating many of the most successful existing Clean Air Act mechanisms to do so. There is no good reason for discarding effective provisions of existing law that can ensure real pollution reductions. Efforts to reduce greenhouse gas emissions through a cap-and-trade scheme as contemplated under ACESA can and must be *in addition to* rather than *instead of* the Clean Air Act's critical safety net.

Specifically, ACESA would eliminate EPA's ability to regulate greenhouse gas emissions from dirty, coal-fired power plants and other sources under Clean Air Act provisions that include (1) *New Source Performance Standards (NSPS)*; (2) *New Source Review*; (3) *Criteria Pollutant Designation/Establishment of National Ambient Air Quality Standards*. These Clean Air Act provisions are among our most effective tools for reducing greenhouse pollution and must be retained as part of the Senate bill and final legislation. These exemptions would remove existing requirements to reduce emissions, allowing hundreds of millions of tons of additional and unnecessary greenhouse pollution from coal-fired power plants and encouraging the construction of new plants with outdated, dirty technology. For example, the exemptions would prevent the EPA from requiring common-sense efficiency improvements which alone could reduce emissions from existing coal-fired power plants by 250 million metric tons of CO₂ per year, or 3.4% of total U.S. emissions. As currently structured, ACESA gives a continued free ride for polluters that Americans cannot afford.

ACESA's Clean Air Act Exemptions Must be Removed from the Climate Legislation.

The Clean Air Act works. The Clean Air Act protects the air we breathe, saves lives, saves money, and provides a level playing field for all economic entities. Any new global warming solutions bill should work together with the Clean Air Act to preserve the lives and health of our children and our planet. Congress should not discard time-tested Clean Air Act tools that can be put to work today in favor of a new, untested system, placing all our eggs in one precarious basket. Please support removal of ACESA Sections 331 (adding new Clean Air Act exemptions sections 811(b), 831, 832, 833, 834, and 835), and ACESA Sections 116 (adding new weakened Clean Air Act section 812) from the Senate version of the bill.

ACESA Would Facilitate the Construction of Additional Coal-Fired Power Plants.

Coal-fired power plants are the single largest contributor to U.S. greenhouse pollution, accounting for approximately 27% of total emissions in 2007, or 1,967 of the total 7,150.1 million metric tons of

CO₂eq in that year.¹ Leading scientists warn that we cannot continue to burn coal for energy in traditional dirty coal-fired power plants without triggering catastrophic climate impacts.² Yet ACESA would allow additional plants to be built without greenhouse gas pollution controls for over a decade, and allow total coal-fired power plant emissions to increase substantially. This is because capped facilities like coal-fired power plants can compensate for up to 2 billions tons of increased emissions through the purchase of domestic and international offsets.³ According to one analysis, the maximum use of offsets would allow capped emitters to increase their direct emissions by 38% at the onset of the cap-and-trade program, and emissions would not be required to again reach 2005 levels until 2026.⁴ Passage of ACESA in its current form means that emissions from coal-fired power plants *will continue to grow for nearly two decades*. This growth is already well on its way: the National Energy Technology Laboratory lists 87 new coal-fired power plants that are either announced or in the permitting process as of April, 2009,⁵ and over 50 of these dirty plants are already in the permitting or construction phase today. If completed, these plants would produce about 250 million additional metric tons of CO₂eq per year.⁶

Allowing construction of these new coal-fired power plants is the worst possible policy outcome and could foreclose the achievement of sufficient emissions reductions to avert climate chaos. ACESA not only allows the construction of many new plants, but actually encourages it by removing existing pollution reduction requirements under successful Clean Air Act programs.

New Source Performance Standards (NSPS): Under the NSPS program, the EPA sets baseline pollution reduction measures by emissions source so that all facilities of a given type must meet the same minimum standards nationwide. EPA presently regulates about 80 different types of sources under NSPS. The EPA is required to set emission reduction standards at the level achievable through the “best” system of emissions reduction that has been “adequately demonstrated.” Nearly all major greenhouse sources, including coal-fired power plants, are *already* subject to these standards for other air pollutants, and greenhouse gas standards can be implemented *immediately* through this program.

ACESA’s cap-and-trade program would ultimately cover sources accounting for approximately 86% of U.S. emissions, including power plants, oil refineries, and some industrial plants.⁷ ACESA would prohibit EPA from issuing NSPS for greenhouse emissions from these covered sources.⁸ Thus, rather than require minimum standards for major sources of greenhouse gas emissions, ACESA allows capped sources to avoid incorporating feasible on-site emission reduction technologies by trading allowances and purchasing offsets of uncertain effectiveness. While EPA would still be allowed to issue NSPS for stationary sources that produce the remaining 14% of emissions and are not covered by the cap, the

¹ U.S. EPA, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2007 (April 2009), at 2-1, 2-18.

² James Hansen et al., *Target Atmospheric CO₂: Where Should Humanity Aim?*, 2 OPEN ATMOSPHERIC SCIENCE J. 217, 217-18 (2008).

³ In 2020, ACESA would allow 7,056 million metric tons of CO₂eq to be emitted, 5,056 million metric tons of allowances for the capped sectors, plus another 2,000 million metric tons of offsets. (ACESA § 311 (adding Clean Air Act § 721(e)) and § 722(d)(1).) This means the capped sectors alone can produce nearly as much greenhouse gas pollution in 2020 as the entire U.S. economy produces today.

⁴ See <http://internationalrivers.org/node/4223>.

⁵ Shuster, E. 2009, *Tracking New Coal-Fired Power Plants*. National Energy Technology Laboratory, Office of Systems Analyses and Planning, April 6, 2009, available at <http://www.netl.doe.gov/coal/refshelf/ncp.pdf>.

⁶ Data compiled by the Sierra Club; see, e.g., <http://www.sierraclub.org/environmentallaw/coal/plantlist.asp>.

⁷ CONGRESSIONAL BUDGET OFFICE, H.R. 2454, AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009 (June 5, 2009) at 5.

⁸ ACESA § 331 (adding Clean Air Act § 811(b)).

agency could take up to 10 years to issue standards for these sources, allowing further harmful delay.⁹ Moreover, ACESA removes agricultural sources of methane such as industrial feedlots from these existing pollution reduction requirements.¹⁰

ACESA provides for separate performance standards for coal-fired power plants, but these provisions are so weak that scores of plants could be built without greenhouse emission control standards for well over a decade. First, neither existing plants nor the over 50 plants already in the permitting process would be subject to the standards. Plants initially permitted between January 1, 2009 and January 1, 2020 would be required, in theory, to achieve a 50% reduction in emissions, but only by the earlier of (1) January 1, 2025 or (2) four years after successful commercial operation of carbon sequestration of a certain size as determined by EPA.¹¹ Because carbon capture and sequestration technology is expensive and some 15-20 years from commercial operation, these plants – the leading source of greenhouse gas pollution in the U.S. – would operate without any greenhouse gas controls for well over a decade, with even the 2025 “deadline” subject to extension based on a showing of technological infeasibility.¹²

In contrast, were the EPA to retain (and exercise) its existing authority to require performance standards for new coal plants under Clean Air Act section 111(b) and for existing coal plants under section 111(d), immediate emissions reductions would be achieved. The National Energy Technology Laboratory conservatively estimates that available efficiency improvements alone (including measures such as upgrading plant components and fixing leaks) could improve plant efficiency on average by more than 5%, saving 250 million metric tons of CO₂ emission per year, or 3.4% of total U.S. emissions, when all available measures are implemented.¹³ Other measures, such as fuel-switching to natural gas, could further reduce emissions dramatically. Currently, the EPA can and should also require new plants to be built, if at all, with integrated gasification combined cycle (IGCC) technology. Not only are IGCC plants cleaner and more efficient compared to traditional plants that burn pulverized coal, but they can also capture and sequester CO₂ emissions more easily and less expensively than a traditional plant. Given ACESA’s plan to invest billions in commercializing carbon capture and sequestration, it makes no sense to continue to construct antiquated pulverized coal plants. Yet, this is precisely what ACESA authorizes and incentivizes.

New Source Review: The new source review program complements the national standards set by the NSPS program by requiring any new “major emitting facility” to receive a permit. A “major emitting facility” is one that may emit at least 250 tons of a pollutant per year.¹⁴ In addition to complying with any applicable NSPS, each such facility must also incorporate the “best available control technology” to reduce pollution, which may reduce pollution below the NSPS baseline.¹⁵ The Supreme Court’s ruling in *Massachusetts v. EPA* confirmed that greenhouse gases are indeed “air pollutants,” and numerous efforts are currently underway to require new coal-fired power plants around the country to obtain NSR permits that include greenhouse gas reductions. At least one court has already ruled that the permitting

⁹ ACESA § 331 (adding Clean Air Act § 811(a)(2)(B)).

¹⁰ ACESA § 331 (adding Clean Air Act § 811(a)).

¹¹ ACESA § 116 (adding Clean Air Act § 812(b)(2)); plants permitted after January 1, 2020, would be required to achieve a 65% reduction.

¹² ACESA § 116 (adding Clean Air Act § 812(b)(3)).

¹³ Nichols, C. 2008, *Reducing CO₂ Emissions by Improving the Efficiency of the Existing Coal-fired Power Plant Fleet*, National Energy Technology Laboratory, DOE/NETL-2008/1329, July 23, 2008, at 7-8, available at <http://www.netl.doe.gov/energy-analyses/pubs/CFPP%20Efficiency-FINAL.pdf>.

¹⁴ 42 U.S.C. § 7479 (Clean Air Act § 169(1)).

¹⁵ 42 U.S.C. § 7475 (Clean Air Act § 165(a)(4)).

process must include greenhouse gases.¹⁶ ACESA would exempt greenhouse gas pollution from all sources initially permitted after January 1, 2009 from the new source review program.¹⁷ This exemption would prevent EPA from requiring new coal-fired power plants to incorporate existing emission reduction measures and further facilitate the construction of dirty plants with outdated, polluting technology – an end-run around efforts to stem global warming.

Criteria Air Pollutant Designation, National Ambient Air Quality Standards and State Implementation Plans: ACESA exempts greenhouse gases from the criteria air pollutant program of the Clean Air Act, which adds important tools to the basic requirements of NSPS and NSR for those substances which the EPA has designated as “criteria” pollutants. A criteria pollutant is one which may reasonably be anticipated to endanger public health or welfare, which is emitted from numerous sources, and for which the EPA plans to issue air quality criteria. For each criteria air pollutant, the EPA sets national ambient air quality standards (NAAQS) to address those impacts. The NAAQS are national standards capping the total amount of pollution in the ambient air (as opposed to the amount of pollution emitted from a given facility) at levels sufficient to protect the public health and welfare. To accord with the recommendations of leading climate scientists, the EPA should set the NAAQS for carbon dioxide at no more than 350 parts per million.¹⁸

Once a NAAQS is set, each state develops and implements a state implementation plan (SIP) to meet or maintain the NAAQS. By statute, EPA must set a NAAQS for a criteria air pollutant within one year from the designation of that pollutant, and states must finalize their SIPs within three years thereafter. Enlisting the states to reduce emissions is vital, as states possess additional tools for reducing greenhouse pollution in areas such as land use and transportation planning. Within the SIP process, each state has the flexibility to choose the combination of pollution control measures that best fits its individual situation. Federal actions must also conform to an approved SIP. Criteria pollutant designation for greenhouse gases, prompt designation of NAAQS, and generation of SIPs can provide for a comprehensive, workable domestic emissions reduction system that would allow the U.S. to meet its share of the emissions reductions needed globally to avert the worst impacts of climate change.

Please Oppose all Rollbacks of the Clean Air Act. The Clean Air Act works, both economically and environmentally. It has saved countless lives and will continue to do so if Congress does not exempt greenhouse gas emissions from its effective protections. The law supplies a comprehensive system for greenhouse gas emission reductions that has a proven track record of success. Any new global warming solutions bill should work together with the Clean Air Act to preserve the lives and health of our children and our planet.

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¹⁶ *Friends of the Chattahoochee v. Georgia Department of Natural Resources*, Docket No. 2008CV146398 (filed June 30, 2008) (holding that under *Massachusetts v. EPA*, CO₂ is an air pollutant, and that the Georgia Department of Natural Resources could not issue a permit for the Longleaf coal-fired power plant without CO₂ emission limitations.)

¹⁷ ACESA § 331 (adding CAA § 834).

¹⁸ CENTER FOR BIOLOGICAL DIVERSITY, WHITE PAPER, NO REASON TO WAIT: REDUCING GREENHOUSE GAS EMISSIONS THROUGH THE CLEAN AIR ACT (2009), *available at* http://www.biologicaldiversity.org/programs/climate_law_institute/legislating_for_a_new_climate/index.html; establishment of a NAAQS for greenhouse gas emissions would supplement most Clean Air Act provisions with the exception of section 111(d), which it would replace.