

ANALYSIS OF KEY PROVISIONS OF THE AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009 (ACESA), AS AMENDED JUNE 22, 2009

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I. INTRODUCTION

After years of inaction, the possibility of substantive federal action to address the climate crisis is finally in sight. With so much time already squandered, insufficient action today will foreclose the ability to prevent catastrophe tomorrow. If we are to avoid saddling future generations with extreme economic and environmental hardships, proposed federal climate legislation must ensure a high probability of keeping future warming below dangerous levels.

Unfortunately, the American Clean Energy and Security Act (ACESA), the leading climate bill now up for consideration by Congress, is not strong enough to control global warming. First, the bill’s greenhouse gas reduction objectives fall short of what leading scientists tell us is necessary to avoid the most severe impacts of climate change. Moreover, even realization of these objectives is highly unlikely, in part because the bill’s proposed cap-and-trade program relies heavily on the use of offsets, a mechanism for reducing emissions that frequently does not result in real and additional emission reductions. Second, ACESA would strip EPA of much of its existing authority to address greenhouse gases through the Clean Air Act. There is no legitimate reason for these exemptions. Efforts to reduce greenhouse gas emissions through an untested cap and trade

scheme as contemplated under ACESA must complement rather than replace the Clean Air Act's proven mechanisms.

II. ACESA'S GREENHOUSE GAS POLLUTION REDUCTION OBJECTIVES ARE INADEQUATE

What the Bill Does:

The American Clean Energy and Security Act (ACESA) aims to reduce greenhouse gas pollution through mechanisms that include a cap-and-trade system ultimately covering approximately 85% of U.S. emissions, direct regulation of some uncapped sources and supplemental investments to reduce international deforestation. Expressed with reference to 1990 emissions levels, the cap and trade component of the bill would potentially reduce U.S. emissions to 1% below 1990 levels by 2020 and 68% below 1990 levels by 2050. When complementary provisions for uncapped sectors are included, reductions are 5% below 1990 levels by 2020 and approximately 71% below 1990 levels by 2050.¹ Assuming full realization of a program to limit international deforestation to achieve 720 million tons of supplemental emissions reductions by 2020 and the maximum use of international offsets, for which a 1.25 multiplier applies beginning in 2018, maximum reductions under ACESA are 23% below 1990 levels by 2020 and 77% below 1990 levels by 2050.²

Analysis:

The maximum possible emission reductions envisioned under ACESA are insufficient to significantly reduce the risk of severe, widespread, and irreversible impacts. Leading scientists warn that "to preserve a planet for future generations similar to that in which civilization developed and to which life on Earth is adapted . . . CO₂ will need to be reduced from its current 385 ppm to at most 350 ppm."³ The U.S. Global Change Research Program recently affirmed this finding.⁴

ACESA's reductions fall far short of this goal. In fact, they are insufficient even to achieve a 450 ppm CO₂eq stabilization level.⁵ A stabilization target of 450 ppm CO₂eq provides only a 50/50 chance of limiting global average temperature increase to 2°C (3.6° F) from pre-industrial levels and a 30% chance that global average temperature would rise more than 3°C (5.4° F).⁶ The consequences of a 2°C temperature increase include the displacement of millions due to sea level rise, irreversible loss of entire ecosystems, the triggering of multiple climactic "tipping points" such as complete loss of summer Arctic sea ice and the irreversible melting

1. World Resources Institute, Emission Reductions Under the American Clean Energy and Security Act of 2009, May 19, 2009, available at www.wri.org/publication/usclimatetargets.

2. *Id.*

3. James Hansen et al., *Target Atmospheric CO₂: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCI. J. 217, 226 (2008).

4. U.S. Global Change Research Program, GLOBAL CLIMATE CHANGE IMPACTS IN THE UNITED STATES at 23 (2009) (finding that "atmospheric concentration of carbon dioxide would need to be stabilized in the long term at around today's levels" to have a "good chance (but not a guarantee)" of avoiding severe, widespread, and irreversible impacts).

5. Developed countries need to reduce emissions to 25-40% below 1990 levels by 2020 and to 80 to 95% below 1990 levels by 2050 to stabilize atmospheric greenhouse gas concentrations at 450 ppm CO₂eq. S. Gupta et al., *Policies, Instruments and Co-operative Arrangements*, in CLIMATE CHANGE 2007: MITIGATION, CONTRIBUTION OF WORKING GROUP III TO THE FOURTH ASSESSMENT REPORT OF THE INTERNATIONAL PANEL ON CLIMATE CHANGE 776 (2007). 450 CO₂eq is approximately equivalent to 400 ppm CO₂ stabilization, and 400 CO₂eq is approximately equivalent to 350-375 ppm CO₂ stabilization. Michel den Elzen & Malte Meinshausen, *Multi-Gas Emission Pathways for Meeting the EU 2°C Climate Target*, in AVOIDING DANGEROUS CLIMATE CHANGE 300, 305 (2006).

6. UNION OF CONCERNED SCIENTISTS, HOW TO AVOID DANGEROUS CLIMATE CHANGE: A TARGET FOR U.S. EMISSIONS 16 (2007); Malte Meinshausen, *What Does a 2°C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates*, in AVOIDING DANGEROUS CLIMATE CHANGE 270-72 (2006).

of the Greenland ice sheet, loss of agricultural yields and increased water stress for billions of people.⁷ As dire as the projected impacts are from a 2°C average temperature increase, increases above 2°C would result in impacts exponentially more devastating. At a 3°C temperature increase from pre-industrial levels, 22 percent of ecosystems would be transformed, losing 7 to 74 percent of their extent.⁸ An additional 25 to 40 million people would be displaced from coasts due to sea level rise, an additional 1.2 – 3 billion people would suffer an increase in water stress, and 65 countries would lose 16 percent of their agricultural gross domestic product.⁹

Falling short of a 450 ppm CO₂eq stabilization trajectory, ACESA's current emission reduction goals would give us worse odds than a coin toss of leaving future generations with few choices beyond mere survival. This is not risk management; it is recklessness.

The bill's emission targets must be strengthened to provide for stabilization below 350 ppm CO₂. In addition, more significant emission reductions are needed in the near term, along with immediate reductions of shorter-lived greenhouse pollutants, including methane and black carbon, that can reduce warming within weeks to decades.¹⁰ These changes are urgently needed if we are to have any chance of slowing the rapid melting of the Arctic, saving the polar bear and other ice dependent species, and avoiding the most severe impacts for the rest of the world as well.

III. ACESA STRIPS EPA OF AUTHORITY TO EFFECTIVELY REGULATE GREENHOUSE GAS EMISSIONS UNDER NUMEROUS PROVISIONS OF THE CLEAN AIR ACT

What the Bill Does:

Section 331 of ACESA would amend the Clean Air Act to exempt regulation of greenhouse gases under the following mechanisms:

- 1) ***New Source Performance Standards (NSPS) for Capped Sources.*** Proposed Section 811(b) would amend the Clean Air Act to provide that “[n]o standard of performance should be established under section 111 for capped greenhouse gas emissions from a capped source unless the Administrator determines that such standards are appropriate because of effects that do not include climate change effects.”
- 2) ***New Source Review (NSR).*** Proposed Section 834 would amend the Clean Air Act to provide that the “provisions of part C, title I [the New Source Review program requiring preconstruction permitting of new and modified stationary sources] shall not apply to a major emitting facility that is initially permitted or modified after January 1, 2009, on the basis of its emissions of any greenhouse gas.”
- 3) ***Criteria Pollutants.*** Proposed Section 831 would amend the Clean Air Act to provide that “no greenhouse gas may be added to the [criteria pollutant] list under section 108(a) on the basis of its effect on global climate change.” This provision precludes the establishment of National Ambient Air Quality Standards for greenhouse gas emissions.

7. Rachel Warren, *Impacts of Global Climate Change at Different Annual Mean Global Temperature Increases* in AVOIDING DANGEROUS CLIMATE CHANGE 95, 98 (2006).

8. *Id.* at 99.

9. *Id.* at 96–97.

10. U.S. Global Change Research Program, GLOBAL CLIMATE CHANGE IMPACTS IN THE UNITED STATES at 23 (2009).

- 4) *Additional Exemptions:* ACESA would also exempt greenhouse gases from international air pollutant provisions and provide that no greenhouse gas may be designated as a hazardous air pollutant or trigger Title V reporting requirements.

Analysis:

These provisions would senselessly discard some of our most effective existing tools for reducing greenhouse pollution. For four decades, the Clean Air Act has protected the air we breathe, saved thousands of lives each year and otherwise improved public health. According to the Environmental Protection Agency's (EPA) own data, the economic benefits of Clean Air Act regulation have exceeded the costs by at least 42 times.¹¹ No changes are needed to the statute before it can be deployed to reduce carbon dioxide emissions and other forms of greenhouse pollution. The three primary provisions of the Clean Air Act that can be brought to bear on greenhouse emissions are sections dealing with mobile sources, stationary sources and national air quality standards. ACESA retains mobile source regulation under the Clean Air Act but exempts greenhouse emissions from most other provisions of the statute. There is no legitimate reason for the exemptions. Efforts to reduce greenhouse gas emissions through an untested cap and trade scheme as contemplated under ACESA can be *in addition to* rather than *instead of* the Clean Air Act's time-tested system.

Regulation of Stationary Sources

New Source Performance Standards: Under the NSPS program, the EPA sets baseline pollution reduction measures by emissions source (e.g. oil refinery, cement manufacturing facility, etc), so that all facilities of a given type must meet the same minimum standards nationwide. At present there are about 80 different types of sources regulated 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 are *already* subject to these standards for other air pollutants, and greenhouse standards can be implemented immediately through this program.

The cap-and-trade program in ACESA will ultimately cover sources accounting for approximately 85% of U.S. emissions, including power plants, oil refineries, and some industrial plants.¹² EPA is prohibited from issuing NSPS for greenhouse emissions from these covered sources.¹³ 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 through the trading of allowances and purchase of offsets of uncertain effectiveness. While EPA is allowed to issue NSPS for stationary sources outside the cap, which produce the remaining 15% of emissions, agricultural sources of methane such as feedlots are specifically excluded from this requirement.¹⁴

ACESA provides for separate performance standards for coal-fired power plants, but these provisions are so weak that numerous coal-fired power plants could be built with no additional greenhouse emission reduction requirements for well over a decade.¹⁵ In contrast, under existing law, NSPS and NSR (as detailed

11. EPA 1997. *The Benefits and Costs of the Clean Air Act: 1970 to 1990*, available at <http://www.epa.gov/air/sect812/>.

12. Congressional Budget Office, H.R. 2454, American Clean Energy and Security Act of 2009 (June 5, 2009) at 5.

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

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

15. Performance standards for coal-fired power plants require new plants permitted after January 1, 2009 to achieve a 50% reduction in emissions, but only by the earlier of 1) January 1, 2025 or 2) 4 years after successful commercial operation of carbon sequestration of a certain size as determined by EPA. ACESA § 116 (adding CAA § 812(b)(2)). Indeed, this deadline can be

below) would require any new coal-fired power plants to be built (if at all) with significant emissions reductions effective upon construction.

New Source Review: The NSR program complements the national standards set by the NSPS program by requiring that any new “major emitting facility” receive a permit. A “major emitting facility” is one which emits at least 250 tons of a pollutant per year.¹⁶ In addition to complying with any applicable NSPS, each such facility must also incorporate the “best available control technology” to reduce pollution, which may result in pollution reductions beyond those set by the NSPS.¹⁷ The Supreme Court’s ruling in *Massachusetts v. EPA* confirmed that greenhouse gases are indeed “air pollutants,” and new coal-fired power plants around the country are being challenged on the basis that greenhouse pollutants must be included in NSR permits. By providing a blanket exemption of greenhouse gas pollution from NSR, ACESA prevents EPA from requiring new emission sources like coal-fired power plants from incorporating emission reduction technologies and facilitates construction of new coal-fired power by removing legal barriers to their approval.

Criteria Air Pollutant Designation, National Ambient Air Quality Standards and State Implementation Plans: ACESA also 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 specifying the total amount of pollution allowed in the ambient air (as opposed to the total amount of pollution that may be emitted from a given facility), and are set at a level sufficient to protect the public health and welfare. A NAAQS for carbon dioxide of 350 parts per million would be consistent with the recommendations of leading climate scientists.

Once a NAAQS is set, each state develops and implements a state implementation plan (SIP) to meet or maintain the NAAQS. If deadlines are enforced, EPA has one year from the designation of a pollutant as a criteria air pollutant to the setting of a NAAQS, while states have three years from the setting of the NAAQS to finalize their SIPs. The SIPs are a vital mechanism for engaging the states in pollution reduction, because many sources of pollution are in areas traditionally regulated by the states, such as land use and transportation planning. Through the SIP process, each state has the flexibility to choose the combination of pollution control measures that best fit its individual situation. Federal actions also have to be in conformance with an approved SIP. Criteria pollutant designation for carbon dioxide and other greenhouse gases and prompt designation of NAAQS and adoption and implementation of SIPs could provide for a comprehensive, workable domestic emissions reduction plan that would allow the U.S. to meet its proportional share of global emissions reductions necessary to avert the worst impacts of climate change.

IV. HEAVY RELIANCE ON OFFSETS UNDERMINES ATTAINMENT OF ACESA’S EMISSION REDUCTION OBJECTIVES

What the Bill Does

further extended based on a showing of technological infeasibility. ACESA § 116 (adding CAA § 812(b)(3)).

16. 42 U.S.C. § 7479 (Clean Air Act § 169(1)).

17. 42 U.S.C. § 7475 (Clean Air Act §165(a)(4)).

ACESA relies primarily on a cap and trade program to achieve emission reductions.¹⁸ Depending on the calendar year, 28 – 65% of a capped entity’s emissions allowance could be met through offsets.¹⁹ This means that instead of actually reducing emissions, a polluter could buy emissions reductions on the offset market.

Analysis

ACESA’s high reliance on offsets to achieve emission reductions undermines the integrity of the cap-and-trade program and will likely result in higher levels of worldwide emissions than would have occurred in the absence of the offset program. A key rationale behind allowing the use of carbon offsets in a cap-and-trade program is that it reduces compliance costs for covered entities. However, unless the offsets represent real and additional emission reductions – reductions that would not have otherwise occurred in the absence of the incentive provided by the offset credits – they do not represent progress toward the targets or caps. Nonadditional offset credits compromise the environmental integrity of an emissions cap because these credits allow covered entities to increase their emissions without a corresponding reduction in emissions elsewhere. This results in a rise in emissions above the target set by the program and introduces uncertainty as to the actual level of reductions, if any, actually achieved.

Due to their inherent uncertainty, offsets should not be relied upon to allow covered entities to meet their cap and trade obligations. In an analysis of the world’s largest existing offset market, the Clean Development Mechanism (CDM), the U.S. Government Accountability Office (GAO) found that “the use of carbon offsets in a cap-and-trade system can undermine the system’s integrity, given that it is not possible to ensure that every credit represents a real, measurable, and long-term reduction in emissions.”²⁰ Indeed, a 2007 study examining 93 official projects registered by the CDM between 2004 and 2007 found additionality questionable in 40 percent of the projects.²¹ Contrary to the GAO’s determination that, even with reforms, carbon offsets “may not be a reliable long-term approach to climate change mitigation,”²² the percentage of offsets a capped entity may use under ACESA significantly increases over the long-term as the overall emissions cap is reduced.

According to an analysis by International Rivers and Rainforest Action Network, 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.²³ It would not be until 2027 that offsets could not meet a polluter’s entire reduction obligation. As

18. The Congressional Budget Office estimates that the cap and trade program would cover about 72 percent of U.S. emissions of greenhouse gases in 2012, about 78% in 2014, and about 86% in 2020 as additional emission sources are phased into the program. Congressional Budget Office, H.R. 2454, American Clean Energy and Security Act of 2009 (June 5, 2009) at 5.

19. For each year, the percentage of potential offsets that can be utilized by a covered entity to demonstrate compliance with the cap is calculated by dividing two billion by the sum of two billion plus the annual tonnage limit for that year. ACESA, proposed CAA § 722(c)(1)(B) (total emission allowances per year are listed in proposed CAA § 722(e)). Thus, in 2012, when the annual tonnage limit is 4.627 billion tons, the offset percentage would be 30.20 percent (2 divided by 6.627 times 100 percent.) In 2050 and beyond, when emission allowances are reduced to 1.035 billion tons, the offset percentage would be 65.89 percent. Covered entities may collectively use up to 2 billion tons of offsets to demonstrate compliance with the cap, with as much as 1.5 billion tons of offsets supplied by international sources. ACESA, proposed CAA § 722(d)(1).

20. U.S. Government Accountability Office, *International Climate Change Programs: Lessons Learned from the European Union’s Emissions Trading Scheme and the Kyoto Protocol’s Clean Development Mechanism* at 8 (Nov. 2008), GAO-09-151.

21. Lambert Schenider, *Is the CDM fulfilling its environmental and sustainable development objectives? An evaluation of the CDM and options for improvement* (Nov. 5, 2007) at 8-9.

22. U.S. Government Accountability Office, *International Climate Change Programs: Lessons Learned from the European Union’s Emissions Trading Scheme and the Kyoto Protocol’s Clean Development Mechanism* at 56 (Nov. 2008), GAO-09-151.

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

offsets may be less costly than on-site reduction measures, this leaves little incentive for capped entities to make infrastructure and other technological investments necessary to reduce their own emissions, an outcome that will ultimately slow the development of, and transition to, a less carbon-intensive economy. Moreover, with ACESA stripping EPA of its authority to regulate capped entities under NSPS and NSR, there will be no ability to require capped entities to adopt even minimal emission reduction technologies. To ensure meaningful progress toward ACESA's emission reduction objective, EPA must retain its authority to regulate under NSPS and NSR, and the potential use of offsets to meet emission reduction obligations must be significantly curtailed.

APPENDIX A: SUMMARY OF KEY PROVISIONS OF ACESA

ACESA aims to reduce greenhouse gas pollution primarily by amending the Clean Air Act to create a cap-and-trade program that would ultimately capture 85% of domestic greenhouse gas pollution sources and through direct regulation of some uncapped emission sources. The goal of these provisions is to reduce the quantity of United States greenhouse gas emissions to 3% below 2005 levels by 2012, 20% below 2005 levels by 2020, 42% below 2005 levels by 2030 and 83% below 2005 levels by 2050.²⁴ ACESA's proposed cap-and-trade program would displace existing EPA authority under the Clean Air Act to regulate greenhouse gas emissions from stationary sources.

Other provisions of ACESA include a renewable/energy efficiency target and building, lighting, and appliance efficiency standards. Because these measures would reduce emissions from capped sectors, they do not result in additional reductions beyond the cap. ACESA also calls for 720 million tons of supplemental emissions reductions by 2020 through a program to reduce international deforestation. Key provisions of ACESA are summarized below.

I. CAP-AND-TRADE PROGRAM

A. Reduction Targets for Capped Sectors

ACESA requires that capped sources reduce emissions on the following trajectory: 3% below 2005 levels by 2012, 17% below 2005 levels by 2020, 42% below 2005 levels by 2030 and 83% below 2005 levels by 2050.²⁵

B. Entities Covered Under Cap and Trade Program

Entities covered under the cap include:

- 1) any electricity source;
- 2) stationary sources that produce, import or sell petroleum based or coal based liquid fuel, coal-based liquid fuel, petroleum coke, or natural gas, the combustion of which would emit more than 25,000 tons of CO₂eq;
- 3) stationary sources that produce, import or sell more than 25,000 tons of CO₂eq of fossil fuel based carbon dioxide or HFCs;

24. ACESA §311 (adding Clean Air Act § 702).

25. ACESA § 311 (adding Clean Air Act § 703).

- 4) stationary sources in certain industrial sectors such as cement production or ammonia manufacturing;
- 5) stationary sources in certain sectors, such as pulp and paper manufacturing or food processing, that emit more than 25,000 tons/yr;
- 6) any fossil fuel-fired combustion device (such as a boiler) that is not already covered in other stationary categories and would emit more than 25,000 tons CO₂eq.²⁶

Covered entities are phased into the cap-and-trade program over time. Beginning in 2012, covered entities in the cap are all electricity sources, stationary sources that produce, import, or sell petroleum-based or coal-based liquid fuel, petroleum coke or natural gas liquid emitting more than 25,000 tons CO₂eq emissions or fossil fuel based carbon dioxide.²⁷ Beginning in 2014, industrial facilities that manufacture a variety of products or burn fossil fuels resulting in more than 25,000 CO₂eq emissions would come into the cap-and-trade program.²⁸ Beginning in 2016, natural gas distributors would be included in the cap-and-trade program.²⁹ HFC sources are regulated under a separate cap that would begin in 2012.³⁰

According to estimates by the Congressional Budget Office (CBO), the capped programs would cover approximately 72 percent of U.S. emissions of greenhouse gases in 2012, 78% in 2014, and 86% in 2020.³¹ CBO also estimates that 7,400 facilities would be affected by the cap-and-trade programs established under ACESA.³²

For sources that fall under the cap only where emissions are greater than 25,000 CO₂eq, starting in 2020 and every 8 years thereafter, EPA may consider lowering this threshold to no less than 10,000 CO₂eq.³³

C. Operation of GHG Cap and Trade Program

The cap and trade program allocates covered entities 4,627 million metric tons (mmt) CO₂eq emissions in 2012, about 97% of the amount of such emissions by covered entities in 2005. The number of allowances increases to as high as 5,482 mmt CO₂eq in 2016 to account for the inclusion of additional entities into the program and then declines by 100 to 150 million CO₂eq per year, decreasing to 1,035 mmt CO₂eq in 2050.³⁴

The cap-and-trade program allows an unlimited number of allowances obtained in one year to be saved or “banked” indefinitely to be used or sold in future years.³⁵ However, EPA has the authority to establish regulations and procedures for the expiration of banked allowances.³⁶ Limited borrowing of future allowances is also permitted.³⁷ ACESA also requires EPA to create a strategic reserve of about 2.7 billion allowances by

26. ACESA § 312 (adding Clean Air Act § 700(13)).

27. ACESA §§ 311, 312 (adding Clean Air Act §§ 700(13)(A-C); 722(a)).

28. ACESA §§ 311, 312 (adding Clean Air Act §§ 700(13)(D), (F), (G), (H), & (I); 722(c)(1)).

29. ACESA §§ 311, 312 (adding Clean Air Act §§ 700(13)(J); 722(c)(2)).

30. ACESA § 332.

31. Congressional Budget Office, H.R. 2454, American Clean Energy and Security Act of 2009 (June 5, 2009) at 5.

32. *Id.* at 4.

33. ACESA § 311 (adding Clean Air Act §722(g)).

34. ACESA § 311 (adding Clean Air Act §721(e)).

35. ACESA § 311 (adding Clean Air Act § 725(a)(2)).

36. ACESA § 311 (adding Clean Air Act § 725(b)).

37. ACESA § 311 (adding Clean Air Act § 725(c)).

setting aside a small number of allowances authorized to be issued each year. EPA would auction allowances from the reserve if the market price of allowances rose to unexpectedly high levels.³⁸

The cap for the greenhouse gas cap and trade program would take effect in 2012. Of the emission allowances established for the program less the amount set aside for the strategic reserve, 29.6% would initially be auctioned for sale from that vintage year (the calendar year for which the allowance is established). Emission allowances not specified for auction would be distributed free of charge to covered entities, states, and other specified recipients, who could then retire, sell or use such allowances to meet the annual obligation for their own emissions. The percentage of allowances auctioned decreases to 17.9% in 2014 and to 17.5% in 2016. In 2022, the percentage of allowances auctioned would increase to 18.4% and gradually increase to about 70% in 2031 and remain at that level through 2050.³⁹

D. Use of Offsets to Meet Emissions Allowance

Covered entities may use offsets to demonstrate compliance with the cap up to 2 billion tons annually. One billion tons of these offsets may be from international sources. However, EPA may increase this amount to 1.5 billions tons. Starting in 2018, a 1.25 multiplier applies to the use of international offsets.⁴⁰

Each covered entity can use offsets to meet a specific percentage of the allowances it must hold to demonstrate compliance. For each year, the percentage is calculated by dividing two billion by the sum of two billion plus the annual capped tonnage limit for that year.⁴¹ For example, in 2012, when the annual tonnage limit is 4.627 billion tons, the percentage would be 30.20 percent (2 divided by 6.627 times 100 percent.) In that year, a source that emitted 100,000 tons of carbon dioxide equivalent could use offset credits to demonstrate compliance for 30,200 tons of emissions. In 2030, when the annual tonnage limit is 3.533 billions tons, the percentage would be 36.15 percent, so the source that emitted 100,000 tons could use offset credits to demonstrate compliance for 36,150 tons.

Under the offset system envisioned under ACESA a domestic capped polluter would be permitted to increase its greenhouse gas emissions so long as offsets were purchased to make up for the additional emissions. According to an analysis by International Rivers and Rainforest Action Network, 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.⁴² It would not be until 2027 that offsets could not meet a polluter's entire reduction obligation.

1. Eligible Offset Projects

EPA is required to establish a list of the types of projects eligible to generate offset credit. EPA can periodically revise the list and accept petitions to add or remove project types from offset eligibility.⁴³

38. ACESA § 311 (adding Clean Air Act § 726).

39. Congressional Budget Office, H.R. 2454, American Clean Energy and Security Act of 2009 (June 5, 2009) at 6.

40. ACESA § 311 (adding Clean Air Act § 722(d)(1)).

41. ACESA § 311 (adding Clean Air Act § 722(c)(1)(B) (total emission allowances per year are listed in proposed Clean Air Act § 722(e)).)

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

43. ACESA § 311 (adding Clean Air Act § 733(a)-(c)).

While the types of domestic offsets are not enumerated in ACESA, the Committee of Energy and Commerce states in its Statement of Oversight Findings and Recommendations that it is its expectation that the types of projects EPA will evaluate for offset eligibility include:

- 1) agricultural, grassland, and rangeland sequestration and management practices, including:
 - altered tillage;
 - winter crop covering;
 - reduction in the frequency or duration of flooding and rice paddies;
 - reduction in nitrogen use or increase in nitrogen use efficiency
- 2) changes in carbon stocks attributed to land use change and forestry activities, including:
 - afforestation or reforestation of acreage not forested as of 1/1/07;
 - reduced deforestation or avoided forest conversion;
 - conservation of grassland and forested land;
 - forest management resulting in an increase in forest carbon stores including but not limited to harvested wood products
- 3) manure management and disposal;
- 4) methane collection and combustion at mines, landfills, and natural gas systems.⁴⁴

International offsets could come from three possible sources: 1) “sector-based credits” whereby middle-income developing countries (e.g., India, China, Brazil) reduce emissions from a sector below business-as-usual; 2) offsets issued by a body established under the UN climate convention (such as the CDM); and 3) reduced deforestation.⁴⁵

II. EFFECT OF ACESA ON EXISTING CLEAN AIR ACT REGULATION

A. Clean Air Act Regulatory Mechanisms That Cannot Be Applied to Greenhouse Gas Emissions

ACESA would amend the Clean Air Act to exempt regulation of greenhouse gases under the following mechanisms:

- 1) *NSPS for Capped Sources*. ACESA would amend the Clean Air Act to provide that “[n]o standard of performance should be established under section 111 [of the Clean Air Act] for capped greenhouse gas emissions from a capped source unless the Administrator determines that such standards are appropriate because of effects that do not include climate change effects.”⁴⁶ By removing EPA’s authority to regulate under NSPS, capped sources can opt to purchase offsets or emission credits rather than first be required to adopt technologies that effectively reduce on-site generation of greenhouse gas emissions.⁴⁷

44. House Committee of Energy & Commerce, H.R. 2454, American Clean Energy and Security Act of 2009 (as amended June 5, 2009), Report at 410.

45. ACESA § 311 (adding Clean Air Act § 743(c) – (e)).

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

47. Under a separate provision, ACES calls for specific performance standards for new coal fired power plants. ACESA § 116

- 2) ***Criteria Pollutants.*** Under ACESA, “no greenhouse gas may be added to the [criteria pollutant] list under section 108(a) [of the Clean Air Act] on the basis of its effect on global climate change.”⁴⁸ This provision precludes the establishment of National Ambient Air Quality Standards for GHG emissions.
- 3) ***International Air Pollution.*** Under ACESA, Clean Air Act regulations applying to international air pollution would “not apply to an air pollutant with respect to that pollutant’s contribution to global warming.”⁴⁹
- 4) ***Hazardous Air Pollutants.*** Under ACESA “[n]o greenhouse gas may be added to the list of hazardous air pollutants under section 112 [of the Clean Air Act] unless such greenhouse gas meets the listing criteria of section 112(b) independent of its effects on global climate change.”⁵⁰
- 5) ***New Source Review.*** ACESA would amend the Clean Air Act to provide that the “provisions of part C, title I [the New Source Review program requiring preconstruction permitting of new and modified stationary sources] shall not apply to a major emitting facility that is initially permitted or modified after January 1, 2009, on the basis of its emissions of any GHGs.”⁵¹
- 6) ***Title V Operating Permits.*** Under ACESA “no stationary source shall be required to apply for, or operate pursuant to, a permit under title V [of the Clean Air Act], solely because the source emits any greenhouse gases that are regulated solely because of their effect on global climate change.”⁵²

B. NSPS for Uncapped Sources

Within a year of the passage of ACESA, EPA is required to publish an inventory of the categories of stationary sources that contain sources that individually have uncapped greenhouse gas emissions greater than 10,000 tons of CO₂e.⁵³ While EPA is required to include source categories responsible for at least 10% of uncapped methane emissions, ACESA specifically excludes regulation of sources of enteric fermentation (e.g. animal feedlots).⁵⁴ The promulgation of performance standards for uncapped sources is phased in over 3-10 years.

C. Mobile Sources

ACESA requires EPA to promulgate greenhouse gas regulation of heavy-duty motor vehicles and engines, and nonroad vehicles and engines. Under existing law, EPA’s endangerment finding would also trigger regulation of these mobile sources, though ACESA gives clear timelines for some EPA actions. Under ACESA, EPA is required to set greenhouse gas standards for heavy duty vehicles by December 31, 2010, and standards for nonroad vehicles by December 31, 2012.⁵⁵

Unlike existing regulation under the Clean Air Act, ACESA allows for the averaging, banking, and trading of emission credits “within or across classes or categories of motor vehicles and motor vehicle engines,

(adding Clean Air Act § 812).

48. ACESA § 331 (adding Clean Air Act § 831).

49. ACESA § 331 (adding Clean Air Act § 832).

50. ACESA § 331 (adding Clean Air Act § 833).

51. ACESA § 331 (adding Clean Air Act § 834).

52. ACESA § 331 (adding Clean Air Act § 835).

53. ACESA § 331 (adding Clean Air Act § 811(a)(1)).

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

55. ACESA § 221 (adding Clean Air Act § 821(a) – (b)).

nonroad vehicles and engines (including marine vessels), and aircraft and aircraft engines.”⁵⁶ The trading and banking of emissions credits for vehicles could result in fewer emission reductions than would otherwise have occurred under existing EPA authority to regulate these mobile sources.

III. PERFORMANCE STANDARDS FOR COAL-FUELED POWER PLANTS

ACESA contains specific provisions for performance standards for new coal-fueled power plants - defined as units supplied by at least 30% coal and/or petroleum coke. A new proposed facility that has received a Clean Air Act preconstruction approval or permit after January 1, 2009 is required to achieve an emission limit that is a 50% reduction in emissions.⁵⁷ However, a facility would not need to comply with this reduction until the earlier of: 1) January 1, 2025; or 2) 4 years after successful commercial operation of carbon sequestration of a certain size as determined by EPA. If the deadline for compliance is 2025 (in other words, if sequestration is not developed), an operator may request an addition extension based on a showing that it is technically infeasible to meet the reduction.⁵⁸ Facilities that are initially permitted after January 1, 2020 are required to meet a 65% reduction in emissions.⁵⁹

IV. SUPPLEMENTAL EMISSIONS REDUCTIONS THROUGH REDUCED DEFORESTATION

ACESA requires EPA to establish a program in consultation with USAID to build capacity in developing countries to reduce emissions from deforestation to achieve additional reductions with the objective of reducing emissions by at least 720 million tons of emissions by 2020.⁶⁰ This program would be funded by the sale of allowances in the cap-and-trade program (5% of allowances from 2012-2025, 3% from 2026-2030, 2% from 2031-2050).⁶¹

V. COMBINED EFFICIENCY AND RENEWABLE ENERGY STANDARD

Section 101 of ACESA (adding section 610 to the Public Utility Regulatory Policies Act) requires that retail electricity suppliers - defined as utilities that sell more than 4 million megawatt hours of electricity for purposes other than resale - meet a certain percentage of their load with electricity generated from renewable electricity and electricity savings.⁶² The combined renewable electricity and electricity savings requirements begins at 6 percent in 2012 and gradually rises to 20 percent in 2020. Up to ¼ of the combined target can be met through energy savings. However, upon petition of the governor of any state, FERC is authorized to increase the proportion that can be met through energy savings to 40%.⁶³ This would reduce the renewable energy requirement to a minimum of 12 percent by 2020.

Renewable energy is defined to include wind, biomass, solar, geothermal, certain hydropower projects, marine and hydrokinetic renewable energy, and biogas and biofuels derived exclusively from eligible biomass.

56. ACESA § 221 (adding Clean Air Act § 821(c)). Although a provision requiring the promulgation of standards for aircraft and aircraft engines by December 31, 2012 was removed from the June 5th version of ACESA, aircraft are still listed in the trading and banking provisions.

57. ACESA § 116 (adding Clean Air Act § 812(b)(2)).

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

59. ACESA § 116 (adding Clean Air Act § 812(b)(1)).

60. ACESA § 311 (adding Clean Air Act § 753).

61. ACESA § 321 (adding Clean Air Act § 781).

62. ACESA § 610(d).

63. ACESA § 610(b)(4).

Other qualifying energy resources include landfill gas, wastewater treatment gas, coal mine methane, and qualified waste-to-energy.⁶⁴

VI. BLACK CARBON

ACESA requires EPA to submit a report with one year of enactment that includes: 1) an inventory of major domestic and international sources of black carbon; 2) control technologies and strategies for additional domestic and international black carbon emissions reductions, such as diesel retrofits and programs to address residential cookstoves and forest and agriculture-based burning; and 3) potential metrics and approaches for quantifying climate effects of black carbon emissions.⁶⁵

Within 18 months of enactment, EPA is required to propose regulations of black carbon under its existing Clean Air Act authority or propose a finding that regulations under the Act already adequately regulate black carbon emissions. In reaching this determination, EPA must consider the public health and environmental impacts of black carbon, including effects on regional warming, the Arctic, and other snow and ice-covered surfaces. Black carbon regulations “shall not apply to specific types, classes, categories, or other suitable groupings of emissions sources that [EPA] finds are subject to adequate regulation.”⁶⁶

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64. ACESA § 610(a)(16) & (18).

65. ACESA § 333(b).

66. ACESA § 333(c) (adding Clean Air Act § 851(a)).