

October 29, 2009

Chairman Barbara Boxer
Senate Environment and Public Works Committee
410 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Boxer,

We thank you for your continued leadership in working toward a solution for the climate crisis. The environment, economy, public health, and national security – of both the United States and the world – require strong climate action. We believe that the Clean Energy Jobs and American Power Act (Kerry-Boxer), S.1733, falls short of what is needed and we urge you to strengthen the legislation before it comes to the Senate floor.

The Senate climate bill must ensure emissions reductions that are consistent with the best available science and that can be adjusted as that science further develops. The latest science warns that the concentration of carbon dioxide in the atmosphere must be reduced to no more than 350 parts per million. While the targets in the Kerry-Boxer bill are stronger than those in the House-passed American Clean Energy and Security Act (ACES), H.R. 2454, they are both less than what is necessary to avoid the worst effects of climate change.

The Clean Air Act already provides the President with tools to curb greenhouse gas emissions. By protecting most of the administration's existing authority to use the Clean Air Act to regulate greenhouse gases, Kerry-Boxer makes a significant improvement over ACES. Any climate legislation must not repeal these existing protections.

Unfortunately, the Boxer-Kerry bill contains many of the same loopholes in ACES that undermine the integrity of the cap. Of particular concern is the large number of offsets. By allowing pollution from domestic capped sources to increase for many years, offsets not only threaten the integrity of the cap, they also delay the shift to low-carbon technologies in the United States, and create localized toxic hotspots in communities of color and vulnerable communities.

Any mechanism to limit greenhouse gas emissions must be transparent, stable, and predictable, while minimizing the ability of private entities to manipulate the system. The Kerry-Boxer bill currently does not contain protections to ensure the integrity of the market mechanisms. The large quantity of offsets in Kerry-Boxer further increases the likelihood of market instability.

The Kerry-Boxer bill does not live up to the United States' international obligations on climate change. To reach a fair international deal with meaningful global emissions reductions, the United States must both deeply reduce domestic emissions and provide adequate international climate finance for clean technology, adaptation, and reduced deforestation. Fulfilling these commitments will be essential to securing an effective international agreement.

Finally, any climate legislation must ensure that polluting industries are responsible for the costs of their pollution. All pollution permits should be auctioned off and the proceeds should be used to help consumers, those most at risk to climate change effects at home and abroad, and to promote clean energy and efficiency. Climate legislation must also be free of other subsidies or provisions that will foster the proliferation of dangerous or dirty energy such as nuclear power, coal, oil, and harmful biofuels.

What follows is our detailed analysis of the Kerry-Boxer legislation. A further analysis of the allocation scheme will be forthcoming. We thank you for your leadership on climate change and we look forward to working with you to improve the bill.

Sincerely,

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Center of Concern
Church World Service
Clean Air Carolina
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Corporate Ethics International
Friends Committee on National Legislation
Friends of the Earth
Greenpeace USA
International Forum on Globalization
International Rivers
The Leadership Conference of Women Religious
Maryknoll Office for Global Concerns
National Catholic Rural Life Conference
Public Citizen
Rainforest Action Network
Sustainable Energy & Economy Network
Unitarian Universalist Association of Congregations
Unitarian Universalist Ministry for Earth
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Greenhouse Gas Emission Targets

Background

The greenhouse gas emissions reduction targets set by the Clean Energy Jobs and American Power Act (Kerry-Boxer), S.1733, will have profound long-term implications not only for the United States, but for the entire world.

The United Nations Framework Convention on Climate Change (UNFCCC), to which the United States and over 180 countries are a party, calls for the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.” With its historical responsibility as the world’s largest global warming polluter, the United States must lead the way by reducing its fair share of emissions to reach a scientifically sound level of atmospheric greenhouse gas concentrations that will minimize dangerous climate change.

An atmospheric greenhouse gas stabilization target of 450 parts per million (ppm) CO₂eq (or approximately 400 ppm CO₂)¹ was historically viewed as a target sufficient to avoid dangerous climate change. However, this is no longer the accepted scientific consensus. The best available science now indicates that the level of atmospheric CO₂ must be reduced to 350 ppm or below to stabilize climate change and avoid global catastrophe.

Greenhouse gas concentrations of 450 ppm CO₂eq (~400 ppm CO₂) provide less than a 50/50 chance of limiting warming to 2°C (3.6° F) – at best, a flip of a coin for the well-being of future generations.² Scientific projections are now clear about the impacts that are likely at 2 degrees Celsius.³

- Multiple climactic “tipping points” triggered, such as complete loss of summer Arctic sea ice and irreversible melting of the Greenland ice sheet.
- Several developing nations will be permanently and completely under water, while many others stand to lose significant portions of their land mass.
- The UNFCCC and others have predicted serious escalation of hunger, new disease threats and increased child mortality in certain regions of the developing world.
- Ecosystems will be irreversibly lost. A UN project to quantify the costs of climate change on nature concluded that current climate targets will not be enough to save the world's coral reefs.

The United States, with the rest of the international community, faces a moral, legal, and existential imperative to take action to prevent such devastation from occurring by setting rigorous emissions caps to avoid a 2°C temperature rise. To avoid saddling future generations with extreme economic and environmental hardships, the United States must immediately begin cutting greenhouse gas emissions to reduce the atmospheric concentration of CO₂ to 350 ppm.

There is now substantial support in the scientific community for the 350 ppm CO₂ goal:

- Dr. Rajendra Pachauri, the UN's top climate scientist and chairman of the Intergovernmental Panel on Climate Change (IPCC), endorsed a 350 ppm target.
- Twenty top climate scientists issued an open letter to President Obama and Congress stating that objectives of 450 ppm CO₂eq “are inadequate to sustain the integrity of global climate and to hold the risk of ruinous climatic change to an acceptably low level.”
- Dr. James Hansen, the director of NASA’s Goddard Institute for Space Studies concluded that the safe upper limit for CO₂ in the atmosphere is approximately 350 ppm.

The IPCC estimated that one pathway to reach a 450 ppm CO₂eq (~400 ppm CO₂) atmospheric stabilization level would begin by requiring emissions from the United States and other developed (Annex I) countries to be reduced by 25 to 40 percent below 1990 levels by 2020. In addition, developing countries would be required to make a "substantial deviation" from their emissions baseline. This emissions pathway is not projected to bring the world to a 350 ppm CO₂ atmospheric stabilization level. See Recommendations below.

S.1733 (Kerry-Boxer) Greenhouse Gas Emission Targets Provisions

The emission reduction targets set by S.1733 fall far short of the reductions that could reasonably be viewed as necessary to limit atmospheric concentrations of carbon dioxide to 350 ppm.

The Senate bill sets a cap on greenhouse gases of 20 percent below 2005 levels by 2020 (or a 7 percent reduction from 1990 levels). This is a slight increase in reductions from H.R. 2454, which calls for 17 percent cuts below 2005 levels by 2020 (or 4 percent below 1990 levels).

The required reductions under the cap come from sectors of the economy that are responsible for approximately 85 percent of total U.S. greenhouse gas emissions; both House and Senate bills set non-binding economy-wide goals of 20 percent below 2005 levels by 2020 (the Senate bill would meet this goal entirely through the binding cap). Both bills aim to reduce emissions to 83 percent below 2005 levels by 2050, both under the cap and as an economy-wide goal.

Additional international reductions would be achieved through supplementary forestry efforts, but are not counted toward domestic emissions reductions.

The adequacy of the proposed Senate targets must also be viewed in light of the quantity of offsets that are provided in the legislation, which would allow for no domestic emissions reductions to be achieved for many years (see Offsets Section).

Recommendations on Greenhouse Gas Emission Targets

The United States must participate in an emissions reduction pathway that brings the world to 350 ppm CO₂, leads to a successful international agreement, and fulfills our fair share of reductions based on historical emissions.

Modeling of emission reduction trajectories consistent with a 350 ppm CO₂ stabilization objective are not yet available. Given that 350 ppm CO₂ is a more stringent target than the modeled 450 CO₂eq pathways, and given the United States' responsibility for greenhouse gases already in the atmosphere, U.S. emission reductions should be at the high end or greater than the range estimated by the IPCC for stabilization at 450 CO₂eq.

This corresponds to emissions reductions by the United States of at least 40 percent below 1990 levels by 2020 and 95 percent by 2050. This is equivalent to emissions reductions of 48 percent below 2005 levels by 2020 and 96 percent by 2050. The House-passed climate bill, H.R. 2454, and the Kerry-Boxer bill, S. 1733 contain 2020 cuts that are less than half as stringent as those required for this emissions pathway.

Reaching 350 ppm CO₂ requires an unprecedented international cooperative effort. In addition to an ambitious emissions reductions target, the type and amount of international climate finance for developing countries will also be key to reaching an international agreement on climate change that will help reach 350 ppm CO₂ (see International Finance Section).

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¹ Bill Hare and Malte Meinshausen, "How Much Warming are We Committed to and How Much can be Avoided?," *Climatic Change* 75, nos. 1-2 (2006): p. 131

² Ibid.

³ Intergovernmental Panel on Climate Change (IPCC), *Climate Change 2007: Synthesis Report, Summary for Policymakers, Fourth Annual Assessment Report*, 2007.

http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf

Clean Air Act

Background

The Clean Air Act has protected the air we breathe for four decades and is our strongest existing tool for reducing greenhouse pollution.

The Clean Air Act works. The Clean Air Act is directly responsible for saving lives, improving health, and decreasing hospitalizations and lost school and work days. According to the EPA, in 2010, the Clean Air Act will save 23,000 lives and prevent 1.7 million asthma attacks, 4.1 million lost work days, and over 68,000 hospitalizations and emergency room visits.¹

The Clean Air Act saves money and protects our economy. In its first two decades alone, the Act provided benefits including decreased healthcare costs and reduced lost work time worth \$22.2 trillion.² These benefits are 42 times greater than the estimated costs of the regulation.³

Similar results can be expected when the Environmental Protection Agency (EPA) starts using the Clean Air Act's successful programs to reduce greenhouse gas pollutants, as is required by law. The Obama administration has already begun the process to use Clean Air Act authority to require the largest polluters to use the best available technology to reduce greenhouse gas emissions.

S.1733 (Kerry-Boxer) Clean Air Act Provisions

The House-passed American Clean Energy and Security Act (ACES), H.R. 2454, repealed important pollution reduction authority under the Clean Air Act, moving us in the wrong direction and facilitating the construction of new coal-fired power plants. ACES would strip the Environmental Protection Agency's (EPA) authority to regulate greenhouse gases under Clean Air Act provisions that include New Source Performance Standards and New Source Review.

Taking a major step in the right direction, the Kerry-Boxer bill maintains EPA's authority to regulate greenhouse gas pollution through the Clean Air Act largely intact. This is a marked improvement. The Clean Air Act provides a critical safety net for the largely untested cap-and-trade system contemplated under proposed climate legislation; it is critical that EPA's existing authority under the Clean Air Act be retained in future Congressional negotiations.

The Kerry-Boxer bill, however, does strip EPA of its authority to set performance standards for specific uncapped stationary sources such as coal mines, landfills, and certain agricultural operations (Sec. 811 and 733), which will have a particularly negative impact on mandating methane reductions. This is an unnecessary rollback from ACES, which required EPA to promulgate standards for certain uncapped sources with emissions greater than 10,000 tons CO₂eq which would include many of the sources above (ACES Sec. 811). Minimum national standards of performance should be required for all large sources of emissions, whether in a capped sector or not.

Like ACES, the Kerry-Boxer bill does contain performance standards for new coal-fired power plants (Sec. 812).

If permits are obtained between 2009 and 2020, a plant must achieve a 50 percent emissions reduction (from an undefined baseline) within the earlier of (a) 4 years after an aggregate of 4 gigawatts of generating capacity is sequestering at least 12 million tons of carbon dioxide per year in the United States or (b) 2025 (which can be extended by 18 months).

New plants permitted after 2020 must achieve a 65 percent reduction (also from an undefined baseline) (Sec. 812 (b)).

Furthermore, after 2025, the EPA shall promulgate more stringent standards for new plants if the best available control technology provides greater reductions than the existing 65 percent reduction standard (Sec. 812(c)).

Under these provisions alone, scores of new plants could still be built without greenhouse gas emission control standards for over a decade.

There is no explicit language in Kerry-Boxer keeping the EPA from also subjecting all coal-fired power plants to New Source Performance Standards (NSPS) and New Source Review (NSR) under existing CAA authority.

EPA's authority to regulate coal-fired power plants under NSPS and NSR is critical because it allows the EPA to begin the process of regulating emissions from new and existing coal-fired power plants today.

Recommendations on Clean Air Act

Any legislative efforts to reduce greenhouse gas emissions must be *in addition to* rather than *instead of* the Clean Air Act's critical safety net. The Clean Air Act must be retained, not discarded in favor of a new, untested system, which would place all of our eggs in one precarious basket.

Existing Clean Air Act authority should be strengthened by adding deadlines for the oldest and dirtiest coal-fired power plants to meet pollution reduction requirements or be shut down.

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¹ The U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act, 1990 to 2010*, November 15, 1999, <http://www.epa.gov/air/sect812/prospective1.html>

² The U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act: 1970 to 1990*, October 15, 1997, <http://www.epa.gov/air/sect812/retro.html>

³ Ibid.

Offsets

Background

The Senate Clean Energy Jobs and American Power Act (Kerry-Boxer), S.1733, and the House-passed American Clean Energy and Security Act (ACES), H.R. 2454, both provide a maximum of two billion tons of offsets per year for U.S. capped entities to use in lieu of reducing their own emissions.¹

Offsets allow U.S. industries to continue emitting above cap-levels for decades. Offsets undermine the incentive to develop and deploy low-carbon technologies here in the United States. This, in turn, will slow the creation of green jobs and the green economy. The longer we delay action in the United States, the more difficult and expensive it will be to make future reductions.

Theoretically offsets reduce the cost of achieving global emissions reductions since they are assumed to be cheaper – in particular when they take place in developing countries or in U.S. agricultural and forest sectors – than reducing U.S. emissions in electricity or manufacturing sectors.²

One major source of offsets is expected to be avoided deforestation in tropical countries. Yet "avoided deforestation" is notoriously difficult to measure, inherently impermanent and highly vulnerable to natural disturbances and political and economic volatility.

Rather than reducing emissions, many of the projects approved thus far for offset credits would have happened anyway and thus do not represent real emissions reductions. Dr. David Victor of Stanford University estimates that between one- and two-thirds of projects under the Clean Development Mechanism – the largest international offset program in the world – “do not represent actual emissions cuts.”³

S.1733 (Kerry-Boxer) Offsets Provisions

S.1733 offsets language was left largely the same as the ACES offsets language. S.1733 limits total annual offset use to 2 billion tons, initially split between 1.5 billion tons domestic and 0.5 billion tons international offsets. If 0.9 billion tons domestic are not available, international offsets can make up the difference up to a maximum of 1.25 billion tons (Sec. 722). ACES also allowed 2 billion tons of offsets annually, but with a maximum of 1.5 international tons.

Kerry-Boxer gives authority over the domestic offset program to "the President," leaving the program's jurisdiction unsettled. However the bill keeps the international offset program under the Environmental Protection Agency (EPA), and most program details are left to be fleshed out through the regulatory process.

There are no trading restrictions on offset credits that do not apply to allowances; offset holding, trading, and selling is not restricted to covered entities (Sec. 742).

Offsets are divided up pro rata between covered entities (Sec. 722) and discounting of international offsets starts in 2018; a covered entity must turn in 5 tons of international offsets for every 4 tons credited. Domestic offsets, on the other hand, are never discounted (Sec. 722).

To receive offset approval, offset project developers must submit an “offset approval petition” on a project-by-project basis to "the President" (Sec. 735). All offset projects must be approved by a third-party verifier before offset credits are issued. S.1733 also requires offsets reductions to have already occurred to receive credit (Sec. 736 - 737). Finally, "The President" shall conduct random audits on projects, credits, and third-party verifiers (Sec. 738).

"The President" is to create and publish an initial list of eligible offset types within one year of enactment. Kerry-Boxer enumerates “project types to be considered for initial list,” and the list includes: methane emissions from coal mines, landfills, and oil and gas distribution facilities, agricultural, grassland and rangeland sequestration and management practices, and changes in carbon stocks attributed to land use change and forestry activities (Sec. 733). ACES contained no such listing of specific offset sources to be considered for the offset eligibility list.

EPA reported that ACES provisions would allow for the direct regulation of the above listed methane sources, making them ineligible for offset credits, and providing additional emissions reductions beyond the cap of approximately 130 million tons of CO₂eq in 2020.⁴ Instead, by putting a hold on Clean Air Act regulations on sources in "the President's" offset list until 2020 (e.g. methane), Kerry-Boxer allows these sources to be eligible as offsets (Sec. 811).

"The President" is instructed to address offset reversals; establishment of an “offsets reserve” or "offset insurance" is recommended. The offset reserve would allow "the President" to withhold a percentage of offsets issued, and deposit them into the reserve, which would be used in the case of an offset reversal. "The President" is given guidelines for establishing offset “crediting periods,” which limit the length of time a project can receive offset credits (Sec. 734).

An “Offsets Integrity Advisory Board” is established to make recommendations to "the President," but "the President" appoints the board members and retains ultimate authority (Sec 731).

"The President" is temporarily authorized to approve offsets from existing offset programs (e.g. Chicago Climate Exchange) to allow for an early offset supply (Sec. 740). New to Kerry-Boxer, an “Office of Offsets Integrity” housed in the Department of Justice is established. The Office is tasked with investigation and civil enforcement of the offset program (Sec. 743).

International offsets must generally meet the offset criteria established in Sections 732-742 (Sec. 744). In addition, the United States is required to be a party to a bilateral or multilateral agreement with the developing country where an offset activity would take place before international offset credits can be issued in the United States.

The EPA can issue international offsets through five mechanisms (Sec. 744):

- Project-by-project offsets pursuant to regulations in Sections 733-742;
- Sectoral offsets;
- International body-issued offsets;⁵
- Reduced deforestation offsets; and
- “Supplemental international offset categories” (This is a change from ACES)

Recommendations on Offsets

The 2 billion tons of offsets allowed annually in the Senate and House climate bills will make it impossible for the United States to play its part in meeting a 350 ppm target of carbon dioxide in our atmosphere. In order for legislation to meet the best available science, we recommend eliminating the offsets provisions or greatly reducing their use to a level which ensures immediate domestic emissions reductions. Offsets of particularly low-quality, such as sub-national avoided deforestation offsets, should be excluded.

As an alternative to offsets, we support direct allowance revenue set-asides for programs to support avoided deforestation, and other land-use activities that sequester and reduce emissions from domestic and international sources outside of the cap.

Both House and Senate climate bills already support and should continue to support "Supplemental Emission Reductions" programs that reduce international deforestation and forest degradation (S.1733 Sec. 753, 704).

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¹ Note: There is some dispute as to the statutory limit of offsets in ACES. See: *EPA Analysis of the American Clean Energy and Security Act of 2009 H.R. 2454 in the 111th Congress*, June 23, 2009, page 37,

http://www.epa.gov/climatechange/economics/pdfs/HR2454_Analysis.pdf

² John Stephenson, U.S. Government Accountability Office, *Climate Change: Observations on the Potential Role of Carbon Offsets in Climate Change Legislation*, testimony before the House Energy and Commerce Subcommittee on Energy and Environment, March 5, 2009, <http://www.gao.gov/new.items/d09456t.pdf>

³ John Vidal, “Billions Wasted on UN Climate Programme: Energy Firms Routinely Abusing Carbon Offset Fund, US Studies Claim,” *The Guardian*, May 26, 2008.

<http://www.guardian.co.uk/environment/2008/may/26/climatechange.greenpolitics>

⁴ U.S. Environmental Protection Agency, *EPA Analysis of the American Clean Energy and Security Act of 2009 H.R. 2454 in the 111th Congress*, June 23, 2009, Appendix page 24.

http://www.epa.gov/climatechange/economics/pdfs/HR2454_Analysis.pdf

⁵ International body-issued offsets must be sanctioned by the UN Framework Convention on Climate Change (UNFCCC), e.g. the UN Clean Development Mechanism (CDM), or the forthcoming UNFCCC REDD deal (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries).

Carbon Markets

Background

In light of the current financial crisis, it is crucial to properly regulate any emissions trading program that is established by climate change legislation. However, the rules governing carbon markets will not only be determined by market assurance provisions in the climate bill, but also by broader financial regulations, which are currently in the process of being overhauled.

The House-passed American Clean Energy and Security Act (ACES), H.R. 2454, includes new rules specifically governing carbon markets, as well as universal derivatives regulations (Sec. 341-360). Specifically, ACES places the Federal Energy Regulatory Commission (FERC) in charge of the carbon cash/spot market, and the Commodity Futures Trading Commission (CFTC) in charge of carbon derivatives. Carbon derivatives would be subject to relatively stricter regulations (similar to those governing agricultural commodities), including tough sanctions for violating anti-fraud and manipulation rules

ACES also seeks to rein in the over-the-counter, or OTC, derivatives markets; with few exceptions, it would require all derivatives trading -- including carbon trading -- to occur on regulated exchanges rather than in the less-regulated OTC markets. Traders would not be able to trade directly with each other, but rather must go through a "middleman," or clearinghouse. Clearinghouses, in turn, will require traders to deposit money with them in order to make sure that buyers will be able to make good on purchases. Although these rules on OTC trading are relatively strong, the bill includes language that would nullify and replace them with new regulations developed through the broader financial reform effort underway in Congress.

In October 2009, the House Financial Services Committee passed an OTC derivatives bill, H.R.3795, which, while achieving some measure of reform, fails to close certain loopholes and has the potential to create new ones. For example, the CFTC currently bars most OTC swaps in agricultural commodities unless expressly approved in a transparent public process and hearing by the CFTC. This prohibition is regularly violated by commodities traders, and instead of assuring its implementation, the bill would remove the rule altogether. The bill also creates exemptions for financial end-users that could serve as loopholes for banks and hedge funds.

The House Agriculture Committee also recently passed its own OTC derivatives bill (as an amendment in the nature of a substitute for H.R.3795). It makes vital improvements to the Financial Services legislation, such as aggregate position limits across all markets, exchanges and platforms; however, additional improvements would be necessary in order to assure complete market transparency and financial stability, and to prevent systemic risks posed by potential counterparty defaults.

Finally, in July 2009, Senators Feinstein and Snowe introduced the Carbon Market Oversight Act, S.1399, which includes many of the same provisions as ACES. However, it would give all market oversight authority to the CFTC, and require the establishment of, rather than just standards for, a clearinghouse for carbon. Feinstein-Snowe also would classify standardized OTC swaps as derivatives, thus subjecting them to regulation; and require carbon traders to meet minimum professional standards.

S.1733 (Kerry-Boxer) Carbon Markets Provisions

Section 131 of Kerry-Boxer is entitled “Carbon Market Assurance” and provides a placeholder for carbon market regulation. It includes a “sense of the Senate” that there should be a “single, integrated carbon market oversight program.” It outlines a set of regulatory objectives for carbon market oversight, including protecting consumers and environmental integrity, ensuring market liquidity, enhancing price discovery (e.g. ensuring that carbon prices reflect the marginal cost of abatement), and preventing excessive speculation and leverage.

Recommendations on Carbon Markets

Kerry-Boxer currently does not contain specifics regarding the regulation of carbon markets. In order to protect the environmental and financial integrity of a trading system, robust and detailed legislative guidance for market regulations should be enumerated. Even more critically, carbon markets should be designed to be small, simple, transparent, and easy to regulate.

- Carbon markets should not be established before robust derivatives reform is passed. New market reform law must require regulations for OTC swaps and derivatives - including pushing standardized trades onto exchanges and requiring mandatory clearing for all trades. New regulations must set aggregate position limits, allowing the CFTC to pursue market manipulation with the same authority as the SEC and FERC. New regulations must also require foreign boards of trade operating in the United States to have comparable regulations and ban high frequency trading. Loopholes for “customized” deals should be closed to the fullest extent possible.
- Carbon markets should be subject to regulation beyond basic market regulation. These should include requiring all carbon derivatives to be standardized, cleared and exchange traded; banning “naked shorting” of carbon (when a trader sells carbon before borrowing it or gaining permission to borrow it, which can artificially drive down the price of the commodity); and prohibiting passive index investing in carbon.
- Carbon markets should limit market participation primarily to carbon emitters (rather than financial speculators). One approach to achieve this is to establish stable and predictable carbon prices. According to the Congressional Budget Office, a “managed price approach” to carbon trading would contain costs and carbon futures trading.¹ It would also minimize the need for a very large and difficult to regulate carbon derivatives market.
- Limit the use of carbon offsets and banking. Carbon offsets will likely be a source of subprime carbon (carbon derivatives that have a relatively high risk of failing to deliver emissions reductions and thus collapsing in financial value). Certain types of offset credits, such as international offsets, are particularly risky and should be prohibited or greatly restricted. Finally, policymakers should limit banking, as unlimited banking of allowances opens the door for hoarding and artificially high carbon prices.

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¹ Douglas Elmendorf, U.S. Congressional Budget Office, testimony before the House Ways and Means Committee, March 26, 2009, http://www.cbo.gov/ftpdocs/100xx/doc10020/03-26-Cap-Trade_Testimony.pdf

International Finance

Background

The Senate Clean Energy Jobs and American Power Act (Kerry-Boxer), S.1733, will have a profound influence on the course of current international climate change negotiations and the economic and social development of developing nations, most notably the 54 classified as low-income nations.¹

As the largest economy in the world and the largest historical greenhouse gas emitter, the United States brings a range of concerns and resources as well as tremendous political power to the table when negotiating a global agreement on climate change. The international community is looking to the United States government to demonstrate moral and political leadership by crafting solutions that are effective and fair.

In this light, any U.S. climate bill needs to be evaluated based on the following fronts:

- The level of greenhouse gas emissions reduction targets (see Greenhouse Gas Emission Targets Section);
- The type and amount of international climate finance for developing countries; and
- The protections for the most vulnerable communities and the rights of those most likely to be impacted by climate change and its policy responses.

Climate legislation must address three areas of international climate finance to help advance the international negotiations. Climate legislation must:

- Stimulate the use of appropriate clean energy technologies among developing nations so they can pursue an ecologically sustainable and just growth path;
- Enable developing countries and communities to adapt to climatic changes already occurring, which requires improvements in such sectors as emergency preparedness, agricultural production and extension services, water and sanitation systems, and housing in at-risk areas;
- Enable developing countries - and forest-dependent communities and indigenous peoples within them - to better manage and preserve forests, given the vital importance of forests to absorb carbon dioxide and lower global temperatures. Forest management must preserve and strengthen traditional rights of indigenous peoples and communities.

The methods by which the United States will supply international climate finance and how the financing will be monitored and evaluated, will determine its effectiveness and impact on human rights and democratic processes.

S.1733 (Kerry-Boxer) International Finance Provisions

The Kerry-Boxer bill contains important climate finance components, including authorizing programs on international clean energy and adaptation, and a section on forest protection. The bill also establishes a board to oversee these programs. Many of the details of the governance and structure of the funds have yet to be developed.

According to an initial analysis from the Breakthrough Institute, the bill allocates a total of approximately 2 percent of the emission allowances to international adaptation and clean technology from 2012 to 2021. According to the same analysis, these allowances are worth approximately \$1.5 billion. In addition, according to the Breakthrough Institute, approximately 4.2 percent of allowances from 2012 to 2025 are allocated for international forest protection. These allowances are valued at approximately \$3.2 billion.²

Recommendations on International Finance

As the Senate proceeds, in addition to the recommendations made in the Emissions Targets Section, the following steps should be taken to specify and strengthen the international provisions in the bill:

- We thank Senators Kerry and Boxer for allocating revenue to international clean technology, forest protection, and adaptation. However, the international adaptation and clean technology allocations remain far too low. At least \$3.5 billion each for adaptation and for clean technology should be provided by the legislation immediately. This funding should not rely solely on allowance allocation percentages because the price of carbon may fluctuate.
- Resources for these programs should be funneled through multilateral funds under the authority of, and fully accountable to, the UN Framework Convention on Climate Change.
- The forest set-aside program should recognize that to achieve lasting forest protection, climate funding must support the broad suite of policy approaches and incentives available to developing countries to reform their forest sectors and provide long-term sustainable development and mitigation benefits.
- In the face of the climate crisis, the emphasis of international clean technology provisions should be on technology sharing, not on the protection of intellectual property rights (IPR). Any language on IPR protections in these provisions should be removed.
- There should be stronger and more explicit standards for monitoring and evaluation.
- Specific protections and promotion of human rights and indigenous peoples' rights should be included in sections related to forest protection, adaptation, and clean energy assistance.
- Specific mention should be made for protections of vulnerable communities, in particular taking into account gender and women's issues in funding efforts.

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¹ The 54 developing nations classified as low-income have annual per capita income of \$875 or less.

² The Breakthrough Institute, *Kerry-Boxer Climate Bill Allowance Allocation Breakdown*, http://thebreakthrough.org/blog/2009/10/kerryboxer_climate_bill_allowa.shtml (accessed October 27, 2009)

Biofuels and Bioenergy

Background

Bioenergy, including biofuels and bioelectricity, have been long touted as sustainable, ecologically beneficial, and carbon-neutral sources of energy. Unfortunately, as science develops and as we begin to understand the complexities of ecosystems and agricultural markets, as well as how to properly account for bioenergy emissions, it has become clear that bioenergy has the potential to cause ecological damage. Ecological damage can come in the form of unsustainable agricultural practices, and competition with food production and other land uses such as forests and other natural carbon sinks.

S.1733 (Kerry-Boxer) Biofuels and Bioenergy Provisions

The Biomass Loophole: Bioenergy is traditionally treated as “carbon-neutral” because trees and other plant life absorb and store carbon as they grow. However, when that tree or plant material is removed and burned, that same carbon is emitted into the atmosphere, neutralizing any carbon sequestration benefit from the biomass. Re-planting new biomass would not fix this problem, because carbon sequestration is not as effective from plantations as it is from natural ecosystems. Furthermore, sequestration takes decades and emission reductions are needed immediately, not decades down the road. Carbon emissions from biomass energy are actually quite similar to that of coal; according to the Energy Information Administration.¹

If a carbon cap does not cover bioenergy emissions, energy producers may find it cheaper to burn biomass rather than coal. This creates a huge incentive to unsustainably cut down trees for energy production. Exempting such a significant emission source diminishes the strength and credibility of the cap.² An analysis by the Natural Resources Defense Council indicates that the biomass loophole in the House-passed American Clean Energy and Security Act (ACES), H.R. 2454, could weaken the 2020 emissions target from 17 percent below 2005 levels to 14 percent.³

The Kerry-Boxer bill specifically exempts emissions from renewable biomass-derived energy from the cap (Sec. 722). The Kerry-Boxer bill also has no emission accounting for deforestation. Therefore, if deforestation occurs as a result of increased bioenergy production, and greenhouse gases are also released from the burning of biomass, the greenhouse gas impacts of bioenergy will be ignored.

Defining Biomass and Lands Safeguards: The Kerry-Boxer bill definition of renewable biomass slightly weakens forest and lands protections from that which was established in the Renewable Fuels Standard (RFS). While the definition in the Kerry-Boxer bill currently only refers to materials that are exempted through the biomass loophole, if this bill is merged with the Senate Energy and Natural Resources bill, these definitions will be synched. As a result, the weaker definition could apply to both a renewable electricity standard as well as the RFS, two policies that essentially mandate the use of bioenergy. These policies create a huge incentive for bioenergy and without proper safeguards could result in severe ecological damage, which would be amplified as a result of the biomass-loophole described above.

Advanced Biofuel Subsidies: Without greenhouse gas performance standards, or other environmental performance criteria incorporated into climate legislation, biofuels subsidized through the Kerry-Boxer bill's advanced biofuel subsidies program could have the opposite impact than the program intends to accomplish, resulting in greater environmental damage instead of less.

Under this program, incentives would be created for biofuels through grants awarded by the Environmental Protection Agency based on a variety of criteria, including technological feasibility and cost-effectiveness. However, none of the criteria include any sort of environmental performance standards.

The program does not define "advanced" biofuels. Previous legislation, such as the 2007 Renewable Fuels Standard, stated that "advanced" biofuels had to achieve greater greenhouse gas emission reductions than conventional biofuels. This program should be refined to include a strict definition of "advanced" biofuels, including restrictions on sourcing, agricultural inputs, air and water pollution, and biodiversity conservation, in order to ensure only the best of the best are given incentives through this program.

Recommendations on Biofuels and Bioenergy

There are only a few types of bioenergy that are environmentally sustainable, and that volume of bioenergy that can be produced sustainably is extremely small. No climate or energy policy should create incentives for biofuels that compete with critical land uses, such as food production, wildlife habitat, or natural carbon sequestration. Any incentive for bioenergy requires standards that avoid detrimental effects to these land uses.

After these essential uses are accounted for there is very little land left for biomass extraction. The land that does make sense includes waste biomass (such as corn stover) that is harvested in sustainable quantities, and biomass grown on truly marginal lands. We must also account for full-lifecycle greenhouse gas emissions, including direct and indirect land use change, and prohibit the use of bioenergy that produces more global warming pollution than the dirty fossil fuels that the bioenergy is meant to replace.

Bioenergy that uses unsustainable agricultural and forestry practices, including the use of synthetic pesticides and fertilizers should not be subsidized through the RFS mandate or other more direct subsidies. Lastly, it is critical that the use of emerging technologies, such as nanotechnology and synthetic biology, are undertaken with the precautionary principal in order to avoid unforeseen problems, such as genetic mutation and other human health risks.

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¹ Energy Information Administration, Energy Department, *Voluntary Reporting of Greenhouse Gases Program: Fuel and Energy Source Codes and Emission Coefficients*, <http://www.eia.doe.gov/oiaf/1605/coefficients.html#note2> (accessed October 27, 2009)

² MA Wise and others, Pacific Northwest National Laboratory, Energy Department, *The Implications of Limiting CO₂ Concentrations for Agriculture, Land Use, Land-use Change Emissions and Bioenergy*, February 2009, http://www.pnl.gov/GTSP/publications/2009/200902_co2_landuse.pdf

³ David Hawkins, testimony before the Senate Environment and Public Works Committee, July 7, 2009, http://www.epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=c9d3cc45-c3e4-4a42-b3b0-7885c6ae75e2