



May 30, 2008

The Honorable Barbara Boxer  
United States Senate  
Chairwoman  
Committee on Environment and Public Works  
410 Dirksen Senate Office Building  
Washington, D.C. 20510

**Re: Lieberman-Warner Climate Security Act of 2008  
(Manager's Substitute Amendment)**

Dear Chairwoman Boxer:

The Carbon Offset Providers Coalition (the "COPC" or "Coalition") has previously expressed its support for the Lieberman-Warner Climate Security Act of 2008, and has written to provide comments on that bill. S. 2191, as passed out of the Senate Environment and Public Works Committee December 5, 2007, recognizes the critical role of emissions reductions through offsets from non-capped economic sectors. Millions of tons of greenhouse gases can be avoided by harnessing the innovation and American entrepreneurial spirit that will enable farmers, forest owners, small businesses, manufacturers, renewable energy providers, and consumers to find large and small scale reductions throughout our diverse economy, thus significantly lowering the overall cost of achieving our climate change goals by as much as 93%, according to the U.S. Environmental Protection Agency and other economic analyses.<sup>1</sup>

We write to offer our comments on the proposed Manager's Substitute Amendment to the bill. In short, while the amendment contains some improvements, it would make many other changes that have not been vetted with stakeholders and others with direct experience building offset projects. These changes tend to complicate and undermine the efficient functioning of an offset program; accordingly, we ask that the sponsors of the bill consider the comments below.

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<sup>1</sup> Source: U.S. EPA, Analysis of the Climate Stewardship and Innovation Act of 2007 (McCain-Lieberman, S. 280) (July 16, 2007); U.S. EPA, Analysis of the Low Carbon Economy Act of 2007 (Bingaman-Specter, S. 1766) (Jan. 15, 2008); U.S. EPA, Analysis of the Lieberman-Warner Climate Security Act (S.2191) (March 14, 2008).

## **Background Comments**

The Carbon Offset Providers Coalition (“COPC” or “Coalition”)<sup>2</sup> is the alliance of the leading companies in the carbon offset market, including those involved in financing, producing, generating, providing, aggregating and/or marketing greenhouse gas emission reductions for sale as offsets in existing and emerging voluntary and compliance GHG emission trading markets. We offer the following comments based upon our members’ experience operating within these markets, including the collective experience from hundreds of offset projects in nearly all 50 states here in the U.S. and abroad that have achieved millions of tons of greenhouse gas reduction.

The Coalition supports the Lieberman-Warner Climate Security Act, and in particular the bill’s recognition of the vital role that offset projects will play in achieving the United States’ goal of significant cuts in greenhouse gas emissions and liberating our nation from foreign oil. Economic analyses by the U.S. Environmental Protection Agency (“EPA”) and others have shown that incentivizing a robust market in offset reductions (*i.e.*, emissions reductions from diverse sources outside a mandatory cap) can dramatically reduce the overall cost to American taxpayers and consumers of meeting the goals of global warming legislation. Indeed, without offsets, the cost of compliance could be over  $2\frac{1}{2}$  times higher than with unrestricted use of offsets. Accordingly, offsets provide critical cost-containment and price stability by providing flexibility to covered industries to find the lowest available cost emissions reductions across a range of options. Greenhouse gas reductions opportunities are diverse and spread across the entire economy,<sup>3</sup> and offset trading is the best means to tap these opportunities and create real change by overcoming market barriers, investment needs and misaligned incentives.

Apart from providing cost-containment and price moderation, by energizing innovation and market forces, offset projects provide an essential bridge to a low-carbon economy. Offset projects are already providing jobs and opportunity for the U.S. economy through a robust voluntary market. Such projects have provided important incentives and revenue to many corners of the economy, including family farmers and small businesses, and have already demonstrated their ability to bring about real, positive changes in the way America generates electricity (for example, renewable energy from wind, biomass, landfill gas and solar), grows crops (through advanced farming practices and manure management), and manufactures products (through cleaner, smarter industrial processes and pollution control). In addition to reducing carbon emissions, offsets have funded the development of commercially viable methods of sequestering carbon through tree planting, agricultural advances, and long-term storage in geologic formations.

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<sup>2</sup> The members of the Coalition include the following companies: Blue Source, LLC; Camco International Group, Inc.; The CarbonNeutral Company; CO2 Solutions; Commonwealth Resource Management Corp.; Environmental Credit Corp.; GE AES Greenhouse Gas Services; Kolibri Group; MGM International; and N-Serve Environmental Services. More information is available at [www.carbonoffsetproviders.org](http://www.carbonoffsetproviders.org).

<sup>3</sup> See McKinsey & Company, Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost, U.S. Greenhouse Gas Abatement Mapping Initiative (Dec. 2007).

Offsets also deliver important co-benefits over and beyond combating global warming, including reduction of conventional air pollutants, improved water quality, and energy security that improve the lives of all Americans. Many offset projects directly benefit disadvantaged urban and rural communities, such as urban tree canopy projects that reduce “heat island effect” and beautify our inner cities. In addition, offset projects can incentivize the development and adoption of new, low-carbon technology developed by American industry and research institutions, which may be exported to the rest of the world.

Finally, offsets provide critical flexibility to those heavy industry sectors covered under an emissions cap as they transition to a carbon-constrained economy. If properly incentivized, offset projects are available to begin achieving greenhouse gas reductions immediately – giving regulated industry time to phase in new technology and capital investment while avoiding premature retirement of assets that could result in unnecessary economic hardship and avoidable life-cycle costs.

In short, the potential of offset projects should be “unleashed” to help attain the goal of mitigating climate change and achieving America’s energy independence. While the Manager’s Amendment, as currently drafted, generally allows offsets to make some degree of contribution, several provisions of the bill artificially constrict the effectiveness of the offset market or create ambiguities that may foreclose opportunities for cost-effective emission reductions. The COPC respectfully offers the following recommendations with respect to the Manager’s Amendment.

### **Specific Comments on the Manager’s Amendment**

1. **Section 302: Artificial Numerical Limits on Domestic Offsets.** The bill continues to place artificial and counter-productive numerical limits on the use of offsets. Although the bill would change the limit from 15% of a regulated company’s compliance obligation to 15% of the overall allowance pool, such limits are still unjustified. This “pooled” approach to restricting the use of offsets appears to be unworkable in practice because it does not make it clear how projects would be selected by EPA for the 15% offset allowance pool. (Would it be “first come, first served” mechanism, which would lead to a *de facto* race by developers, or some other mechanism?) Because offsets are an essential cost-containment mechanism and offer real emission reductions of greenhouse gases, there is no logical reason to limit the ability of offset projects to deliver cost-effective reductions at lower overall cost to society. The COPC recognizes that offsets must maintain a high level of integrity, including third-party verification of all emission reductions. To this end, the bill provides a regulatory structure that will guarantee that certificates awarded to eligible offset projects represent real, verifiable, additional, permanent, and enforceable emission reductions equivalent on a ton-for-ton basis to internal reductions by covered industries. Thus, there is no need – either theoretically or practically – to limit the beneficial use of offsets, and we recommend removing any quantitative limits from the bill, in particular one based on the pooled approach here. At a minimum, the quantitative limits should be raised significantly beyond their current level.

2. **Sections 321-322: International Offsets.** The Coalition supports the use of international offsets as a mechanism for limiting program cost, linking with other GHG regulatory jurisdictions and promoting and supporting the transfer of clean low-carbon

technologies from the United States to other, less-developed countries. The Bill allows the restricted use of international offsets, subject to oversight, from high quality projects developed under the United Nations' Clean Development Mechanism ("CDM"). However, as written the provisions in section 321 will limit the environmental and cost containment benefits that international offsets are anticipated to deliver and thus will limit the ability of the provision to achieve the objectives outlined above. It is also unclear how section 321(c)(2)(B), which restricts the use of international offsets from facilities which compete directly with a U.S. facility, will be interpreted. Lastly, similar to the concerns outlined in Comment 1 above, the mechanism by which offset allowances are registered and issued by the Administrator is not at all clear; i.e. whether this is on a "first come, first served" basis, on a project type basis, on a price basis or some other basis.

**3. Sections 521 and 523: Price Controls.** The Coalition appreciates and supports that the proposed substitute has retained the authority of the Carbon Market Efficiency Board in Section 521(a)(4) to adjust the quantity of offset allowances, which is a more efficient and preferable method of controlling allowance prices and price volatility than a so-called "safety valve," which would undermine the allowance cap and jeopardize attainment of greenhouse gas reduction goals.

**4. Section 303: Exclusion of Avoided Fossil Fuels.** Section 303(a) apparently continues to unwisely disincentivize certain renewable energy projects that generate power from cleaner sources of energy, such as wind and solar, which are essential if America wants to transform its energy economy. Although it is unclear whether "avoided fossil fuel projects" addressed in 303(a) would qualify for allowance awards under Section 332, we are concerned that this provision could be construed to disqualify projects with important environmental and social co-benefits. These include "on farm" projects that generate electricity from animal wastes or biomass, or land-use projects such as urban tree canopy planting initiatives that displace cooling loads on urban buildings and save energy, which are being developed in cooperation with environmental justice communities and urban sustainability efforts. These projects rely on financial incentives from the sale of offsets, and may not be undertaken otherwise.

Put simply, America needs to take advantage of the millions of tons of real carbon reductions that can be provided by renewable energy, energy efficiency and other projects that avoid the combustion of fossil fuels. It can best do this by using a market-based offsets trading system to direct investment to the most worthy projects, while at the same time providing direct incentives to emerging solutions in the form of set-asides or grants.

Accordingly, the COPC has proposed a "Green Energy Allowance" title that could be added to the current bill with no restructuring. A short white paper is attached hereto. The proposed program would provide real incentives for the development of beneficial projects such as

- *renewable energy projects*, including wind, solar, biomass, synthetic gas from municipal or solid waste, non-dam hydropower, geothermal, tidal and ocean wave power;

- *energy efficiency projects*, including waste gas/heat recovery, fuel switching, and combined heat and power; and
- *transportation improvement projects*.

5. **Section 302(b): Inter-Program Offset Allowance Exchange.** The Coalition agrees that offsets from other mandatory capped programs should be convertible to allowances under the Lieberman-Warner program. The COPC suggests that certified offsets from other state or regional programs that may be in place as of 2012, such as offsets registered in accordance with the Climate Action Reserve program of the California Climate Action registry, be included within the exchange program.

6. **Section 303: Eligible Domestic Offset Project Types.** Section 303 should recognize a much broader “positive list” of eligible offset project types. There are many more project categories with proven methodologies and that now are widely accepted as delivering clear and quantifiable greenhouse gas emission reduction benefits. The bill should identify projects that have been commercially proven in existing markets, including the U.S. voluntary market and international programs. Further, rather than leave this to the agency’s discretion, as the current draft does, the bill should require EPA to recognize these identified projects in its implementation of the program. The Coalition therefore recommends the inclusion of several additional project categories that are on par with the categories already listed and that are ready to start delivering emission reductions today. Although the proposed amendment does include a “catch all” category, listing particular projects types is important to give EPA guidance as to the methodologies that should be given priority attention.

**COPC Proposal:** Amend Section 303 to include, at a minimum and in addition to those provisions elsewhere in the current draft of the bill, the following categories:

- (A) methane recovery and destruction or utilization through anaerobic digestion or other processes from sources such as source-separated municipal solid waste, landfills, or municipal or commercial wastewater systems;*
- (B) methane capture and destruction or utilization at coal mines;*
- (C) reduction, avoidance, or destruction of sulfur hexafluoride emissions from sources of such emissions, including electrical transformation and distribution equipment;*
- (D) the capture and geological sequestration of greenhouse gas emissions that would not otherwise have been covered under the limitation on the emission of greenhouse gases under this Act;*
- (E) product reformulation or process improvements, such as at cement and other manufacturing plants;*
- (F) industrial gas utilization or destruction;*
- and*
- (G) combinations of any of the offset practices listed pursuant to this subparagraph.*

7. **Sections 302 to 304: Project Methodologies.** Section 303(c) provides too much time (3 years after enactment) for the adoption of offset methodologies, which would seriously undermine the cost-containment function of the offset program. There is no need for such a lag time, as many proven methodologies are ready today as developed by the EPA Climate Leaders program, CDM, and other programs referred to in section 308(b) such as RGGI, the California Climate Action Registry, and the Chicago Climate Exchange. The bill should provide EPA with discretion to adopt any of these methodologies as an important bridge that will allow EPA to review and revise as appropriate existing methodologies on an appropriate timeframe.

Similarly, the proposed system for testing by “three independent expert teams” would delay and complicate the adoption of methodologies. For many project categories, extensive data is already available from the offset sector’s prior experience under the Kyoto protocol and in U.S. and global voluntary carbon markets.

Section 303(c)(2)(B) would disqualify projects that receive other forms of government support. However, there is no logical basis for this restriction. Many salutary projects benefit from incentives other than carbon credit revenue; for example, agricultural projects may be covered by disaster relief or crop insurance programs. While it is critical to avoid double counting, the additionality analysis will ensure that projects are rewarded only if they achieve greenhouse gas reductions beyond business as usual.

8. **Sections 302-303: Crediting Period and Expiration of Project Methodologies.** As noted, many robust methodologies for offset projects are already in use and endorsed by regulatory bodies. These methods must match project investment timelines and reasonable expectations of project originators and investors. Section 302(f)’s 5-year crediting period is completely unrealistic from a capital formation/investment standpoint to encourage market investment in greenhouse gas reductions. It should be at least ten years with provisions for the extension of that period.

Section 303(c)’s requirement that methodologies expire unless EPA reviews and re-adopts a method every five years is likely to create gaps and breakdown of the offset market. The experience under the Clean Air Act shows that it is rarely possible for an administrative agency to adhere to a strict schedule of review.

9. **Section 305(b): Annual Re-Evaluation of Offset Projects.** As currently drafted, the Manager’s Amendment establishes a two-step approval process for offset projects. Section 304 first requires “project initiation and approval” under which projects undergo rigorous review of the proposed plan for reducing or sequestering greenhouse gases, including the methodology for quantifying and monitoring these reductions. Section 305 then outlines the process for verification which determines, after the project is built, that the project has achieved its reduction or sequestration goals and should be issued offset allowances.

The project initiation stage requires an evaluation of baseline emissions, monitoring plans, additionality and other eligibility criteria, which makes perfect sense. However, Section 305 requires as part of the subsequent verification process not only a quantification of the project results, but also a *post hoc* “subsequent analysis of the offset project” which appears to require a

re-assessment of the same criteria that were evaluated, and approved, in the initiation process, including a re-examination of additionality, leakage and permanence. As written, these sections might be construed to require a full re-assessment and re-approval of each project, each year, such that projects that have already been approved might be disqualified in future years before the end of the accounting period approved upon project validation.

This language creates a cumbersome process and potentially prohibitive level of risk for investments that require more than a one or two year project duration. As written, the bill thus would dramatically limit the benefits of the offset program by discouraging long-term and large-scale investment. The offset provisions properly require that projects be credited only for the emission reductions or sequestration that they actually achieve, but should be clarified so that there is no need for a full re-evaluation of the project methodology at the verification stage.

**10. Section 303: Additionality.** Section 303(c) requires offset projects to demonstrate that they are additional to business as usual. The COPC supports the use of clear, objective criteria to determine whether a project is additional. These criteria must provide certainty and clarity to project owners that a project they develop will be eligible to generate carbon credits and must promote high standards of environmental integrity to ensure that offsets represent real GHG emissions reductions. However, the draft goes beyond this standard by imposing requirements that would increase uncertainty among project owners; these potentially problematic requirements include, among other things, an inherently subjective financial additionality test. These requirements could have the perverse effect of discouraging many projects that could deliver real, additional carbon reductions. The concerns about the so-called “financial additionality” test are well-known: it is subjective, extremely difficult to administer, subject to gaming, and burdensome to attempt to demonstrate on a case-by-case basis. The bill’s current formulation of the “common practice” requirement, which is imposed as an additional layer of obligation, is also problematic in this context. For example, suppose that 80% of the dairy farms in a particular area install manure digester technology, such that it is considered common practice. The remaining dairy farms will have no incentive to invest in the technology and society will lose the benefit of those additional potential reductions.

**11. Sections 302 and 306: Project Reversals.** Accounting for, tracking, adjustment and liability for reversals of projects involving carbon sequestration should be dealt with in a manner that protects the integrity of the allowance cap. As drafted, the bill contains conflicting provisions in Section 302(e) and 306(c) which place liability alternatively on the project developer or owner of the offset allowance. The easiest approach from the perspective of the regulatory agency (in this case, EPA) is to account for reversals at the point of compliance (i.e., making any necessary adjustment to the compliance account of a covered entity) while at the same time allowing market participants to use market mechanisms (such as insurance, pooled reserves, or clearinghouse) to allocate liability between buyers and sellers. In this way, EPA is not put in a position of evaluating private contracts and compliance goals are met while not interfering with market functions.

**12. Section 308: Credits for Pre-Existing Projects.** Section 308 is ambiguous about whether EPA must recognize certain offset projects (i.e., those registered under The Climate Registry, the California Climate Action Registry, the GHG Registry, the Chicago Climate

Exchange, and the GHG Clean Projects Registry) that were begun prior to the effective date of EPA offset audit regulations. For other pre-existing projects, section 308 allows but does not require EPA to recognize such projects and banked credits, where those projects “satisfy the applicable requirements of this subtitle” (i.e., the standards to be developed by EPA). In order to recognize early actors that have voluntarily invested in low-carbon projects and technologies and to encourage continued investment prior to the effective date of EPA regulations, it is critical that investors and project developers are able to rely on a clear signal that existing projects will be fully credited. This is especially important given the multi-year planning horizon and investment time frame required to finance and build these projects. Similarly, investors that took early action to reduce greenhouse gases ought to be rewarded – rather than punished – for taking action while others sat idly by. Accordingly, rather than left to agency discretion at some later date, recognition of pre-existing projects through the issuance of offset allowances for early greenhouse gas reductions projects should be clarified as being mandatory for all projects listed on one of the registries identified above.

Because EPA eligibility rules have not yet been written, pre-existing projects may not meet these future procedural or other standards even though they may be consistent with the statutory criteria and of comparable environmental integrity. Accordingly, the bill should require EPA to recognize early-implemented offset projects that are consistent with the goals of the statute, even if those projects do not exactly meet the eventual regulations.

**13. Section 315: Federal Review Requirements.** In absence of an express provision to the contrary, it might be argued that approval and issuance of offsets under Section 315 might be subject to the National Environmental Policy Act, the Administrative Procedure Act, or other federal statutes which require study or review of federal actions. This would be duplicative of the review mandated under the offsets program created by the bill, and would delay and complicate approvals of individual projects. Of course, the programmatic regulations promulgated under the bill would be subject to public review and comment and agency consultation under relevant law, thus making further duplicative review unnecessary.

**14. Title VII: Early Action Credits.** Title VII provides a set-aside of allowances for early actors that voluntarily reduced greenhouse gas emissions after 1994. Rewarding those companies that acted early to mitigate global warming is a critically important and salutary policy. However, the bill largely leaves to EPA the decision of how to allocate credits, what projects will be credited as “verified and credible,” and, in the event there are fewer allowances available than qualified applicants, how to make preferential or partial allocations. In order to encourage continued investment in “early action” emission reductions and positive changes in behavior at emitting facilities, the bill should provide greater certainty to investors that each ton of emissions reduction will be fully credited on a ton-for-ton basis. Alternatively, the bill should establish precise standards for crediting so that the value of reductions can be estimated.

**15. Section 1306: Use of Domestic Offsets in International Reserve Program.** Under the International Reserve Allowance Program set out in Section 1306 of the bill, importers of certain goods must submit international reserve allowances, or in lieu thereof, foreign cap-and-trade allowances or international credits. However, it does not expressly allow the use of domestic offset allowances. The goals of this provision can be served equally well by providing

an option for importers to purchase and submit domestic offset allowances. Including domestic offsets as a compliance option would provide more flexibility to the importer program, would potentially lower the price of goods for consumers, and would provide additional market opportunities and important incentives for U.S.-based emission reduction projects that will complement the overall goal of the bill to lower global greenhouse gas concentrations.

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Thank you again for this opportunity to express our views on the manager's amendment. The Carbon Offset Providers Coalition would be pleased to provide further information upon request.

Sincerely,



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Roger Williams, Chairman  
CARBON OFFSET PROVIDERS COALITION

cc: Hon. Harry Reid, Senate Majority Leader  
Hon. Mitch McConnell, Senate Minority Leader  
Hon. James Inhofe, Ranking Member, Senate Committee on Environment and Public Works  
Hon. Joseph Lieberman, Chair, Senate Committee on Environment and Public Works  
Subcommittee on Private Sector and Consumer Solutions to Global Warming and  
Wildlife Protection  
Hon. John Warner, Ranking Member, Senate Committee on Environment and Public  
Works Subcommittee on Private Sector and Consumer Solutions to Global  
Warming and Wildlife Protection  
Members of the United States Senate  
Hon. Nancy Pelosi, Speaker of the House of Representatives  
Hon. John Dingell, Chair, House Energy and Commerce Committee  
Hon. Joe Barton, Ranking Member, House Energy and Commerce Committee  
Hon. Rick Boucher, Chair, House Energy and Commerce Committee Subcommittee on  
Energy and Air Quality  
Hon. Fred Upton, Ranking Member, House Energy and Commerce Committee Subcommittee  
on Energy and Air Quality  
Hon. Henry Waxman, Chair, House Oversight and Government Reform Committee  
Hon. Tom Davis, Ranking Member, House Oversight and Government Reform Committee  
Hon. Ed Markey, Chair, House Select Committee on Energy Independence and Global  
Warming  
Hon. James Sensenbrenner, Ranking Member, House Select Committee on Energy  
Independence and Global Warming

## Attachment

### Addressing the exclusion of energy efficiency and renewable energy from carbon markets with downstream “Green Energy Allowances”

#### Issue Overview

The Lieberman-Warner Climate Security Act of 2008 covers all emissions from natural gas, transport fuels, and coal powered electricity “upstream” at the point of production, rather than “downstream” at the point of energy use. While this approach has benefits, it has a serious negative side effect on renewable energy and energy efficiency projects: any downstream activity that reduces fossil fuel consumption may not be able to generate carbon credits to help pay project costs. Since reduced downstream consumption lowers upstream compliance obligations, selling credits from downstream projects could allow emissions to exceed the cap unless an accounting adjustment is made.

This means that critical mitigation options, including energy efficiency, renewable energy, fuel switching, biofuels, transportation and green building projects could be entirely excluded from regulatory and voluntary carbon markets. Carbon finance, an important source of capital, will be cut off. Voluntary corporate commitments will lose meaning. The ability to leverage the capital, initiative, and innovation of carbon investors and downstream energy users – the players best positioned to drive energy efficiency and alternative energy sources – will be lost.

#### Solution: Downstream “Green Energy Allowances”

Providing downstream projects with direct access to carbon markets and finance can accelerate emission reductions, minimize energy price increases, and foster innovation and initiative where it is needed most. This can be achieved by awarding downstream “Green Energy Allowances” to projects that reduce fossil fuel use or increase low-carbon energy supplies. The project developer could then sell those allowances to generate revenue and recoup project costs. So long as these allowances are assigned from planned auction or allocation pools, the total number of allowances will be constant, and overall emissions will stay below the capped amount. In other words, Green Energy Allowances will not increase the cap, but will help meet the cap at lower cost.

#### Benefits: Market-based Cost Control + Behavior Modification + Environmental Integrity

This solution addresses the limitations of complementary price-based and top-down approaches (noted below). It is a truly carbon-weighted market-based mechanism that provides long-lasting and predictable support to the most efficient technologies and projects. Rather than relying on top-down picking of winners by government, it achieves key benefits by rewarding the initiative, innovation and investment of utilities, manufacturers, builders, transportation providers, entrepreneurs and consumers:

- **Cost control.** By helping ensure “efficiency comes first,” Green Energy Allowances can accelerate emissions reductions at lower energy prices. Energy users, such as manufacturers, can mitigate rising costs by taking the initiative to adopt low carbon technologies that qualify for allowance revenues as a complement to energy savings. Such early adopters of best practices also drive down technology costs and help disseminate information, accelerating their adoption as common practice across the economy.
- **Behavior modification.** Rather than the across-the-board “automatic” support provided energy users from other allowance allocation pools, “Green Energy Allowances” are held out to those changing behavior beyond business as usual. In addition, utility and energy providers’ ability to derive revenue from downstream efficiency projects will provide incentives beyond rate decoupling, and help ensure “efficiency comes first.”

- **Environmental integrity.** Because the total number of allowances will not be increased, emissions will not exceed those envisioned by the cap and pressure to transform the energy infrastructure shall be maintained.

### Limitations of Complementary Approaches

In the absence of carbon finance incentives, improvements in energy efficiency and renewables will depend on three different drivers, all of which have significant limitations:

- **Rising energy prices.** Due to the relatively low share of energy in most companies' total expenditures, as well as split incentives, financial and institutional barriers, price has historically been a relatively weak driver of efficiency (see, e.g., Nicholas Institute's *Convenient Guide for Climate Change Policy* re: barriers). Without carbon finance, energy prices will need to rise higher to achieve comparable reductions, imposing unnecessary economic burdens and potentially generating opposition to climate action.
- **Top-down incentives and mandates.** S.2191 includes allowance and auction revenue allocations that may be used to promote efficiency and renewables but could be re-purposed for more than a dozen now-authorized uses or unforeseen budgetary demands. Moreover, top-down programs are not known for driving downstream innovation or beyond-compliance best practices.
- **Bi-lateral contracts.** In theory, upstream covered entities could pay downstream energy users to reduce use. However, this is uncertain as it runs counter to upstream business models where most energy is transacted via "many-to-many" distribution systems rather than bi-lateral contracts. Moreover, downstream users would be dependant on upstream players' initiative, capital allocation and pricing power.

### Implementation Options

There are several ways downstream Green Energy Allowances could be incorporated in the current structure of the bill. We suggest a drop-in amendment to the current bill:

- Add a new subtitle on "Green Energy Allowances"
- Qualifying projects could be defined via both a positive list and performance standards based on MWh or CO<sub>2</sub>e metrics; start date similar to that contemplated for offset projects; baselines from 3-yr average facility energy consumption or regional power carbon intensity
- Provide a certification and approval process similar to the existing offset program: energy efficiency and renewable energy projects apply for allowances; approval is granted based on validated methodology that establishes beyond business as usual additionality, monitoring and verification plans
- Application for allowances is made by submission of third-party verification report for preceding period; allowances are issued within 90 days of submission; EPA records issuance of allowance in the Registry; initial ownership of allowance rights shall lie with the facility owner, unless otherwise specified in a legally binding contract or agreement

- To maintain market certainty and predictability, the amount of downstream Green Energy Allowances should be flexible to respond to the level of qualifying projects submitted; therefore, Allowances should be debited from the subsequent year's allocation pool, and taken "off the top" before other allocations are made

**Next Steps**

We are exploring these solutions in a number of venues. Please contact the following individuals if you are interested in participating or would like more information. Thank you.

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