

MAKING THE CASE FOR A FEDERAL GREENHOUSE GAS OFFSETS PROGRAM

Executive Summary

IETA believes the use of offsets is an effective way to reduce greenhouse gas (GHG) emissions outside a cap-and-trade system while controlling the costs of regulated firms complying with emissions targets. Offsets allow covered entities to receive credit for investing in emissions reductions not covered by the cap-and-trade system. A robust offset program that includes a rigorous approval process ensures reductions achieved outside the cap are environmentally equivalent to those within a regulated firm's own assets. IETA encourages Congress to support the development of a global offset system that will enable consolidation of real GHG reductions from around the world into a common trading system.

Offsets allow the greatest emissions reductions in the least time for a given expenditure of societal resources. Once released, a ton of carbon dioxide remains in the atmosphere and contributes to warming for an average of 100 years. Other greenhouse gases can remain in the atmosphere even longer. Maximum benefit is gained by eliminating the greatest quantity of emissions as quickly as possible. The use of offsets provides an efficient means of eliminating tons in the near-term, while the new technologies that will eventually transform our economy and achieve long-term reductions are developed and deployed.

Offsets have tremendous potential to reduce costs. According to the EPA, allowing unlimited domestic offsets and international credits in the Lieberman-Warner bill would cause allowance prices in 2020 to fall by 71%, from \$51 per ton to \$15, compared to the bill as reported out of committee. That translates into GDP savings of \$333 billion in 2020. Conversely, not allowing any offsets would increase prices 93% compared to the current version. According to EPA, the use or limitation of offsets and international credits has a larger impact on allowance prices than the availability of key technologies, such as carbon capture and storage and nuclear power.

A second study by the independent research firm New Carbon Finance found that allowing up to 15% international offsets would reduce allowance prices in 2015 from \$40 to \$15. That would reduce the estimated impact on electricity prices by nearly two thirds, from 20% to 7%, and would cut the impact on natural gas prices in half, from 10% to 5%.

Offsets help maintain US competitiveness in the global marketplace. Offsets help American businesses stay competitive by keeping both energy costs and compliance costs down. For example, offsets provide a means of reducing emissions without forcing the premature retirement of capital assets. By keeping costs down, offsets help prevent the

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shift of manufacturing capacity overseas, which not only costs domestic jobs, but also fails to reduce emissions as the activity causing emissions is simply shifted overseas as well.

Finally, offsets promote innovation and broad participation in the carbon market.

Offsets allow all sectors of the economy, including foresters and farmers, to earn revenue for the emission reductions they achieve, while at the same time stimulating innovation in areas that are outside a cap. Offsets also provide an effective method of linking carbon markets and engaging developing countries in the global carbon market, and have the potential to broaden the collaboration between nations that will be required to protect the climate over the long term.

Recommendations

In order to make use of the full ability of offsets to reduce costs and protect the climate, IETA makes the following six recommendations:

- 1. Allow all offsets that meet environmental criteria.** All offsets meeting robust environmental standards should be available for use. Placing arbitrary limits on the availability of offsets reduces the ability of offsets to reduce both emissions and costs, while doing nothing to improve the ratio of high-to-low quality credits.
- 2. Permit broad sectoral, geographic, and activity eligibility for offsets.** In order to achieve the widest possible reductions with the broadest environmental benefits, all emissions outside the cap should be eligible to receive offsets. Geographic, sectoral, or activity-specific limits encumber the ability of offsets to reduce emissions and provide cost containment.
- 3. Recognize internationally fungible compliance offsets.** Federal legislation should recognize international project-based credits such as Certified Emission Reductions (CERs) approved under the Clean Development Mechanism (CDM). EPA analysis shows that excluding CERs alone would make climate legislation 34% more expensive. In addition, including international project-based credits helps developing countries build their capability to participate in the global response, while at the same time providing export and relationship-building opportunities for U.S. businesses in clean technologies, finance, and management.
- 4. Provide credit for early action.** Credits for early action should be awarded to qualifying offset projects implemented before enactment of regulation. Recognizing early action promotes immediate emission reductions while also helping control the initial costs of the program. The eligible “project start date” for early action projects should be announced as soon as possible to foster investor certainty, promote prompt reductions, and ensure baseline protection.
- 5. Provide multi-year offset crediting periods.** Legislation should provide for multi-year crediting periods, e.g. 10 years. Environmental projects often rely on a predictable stream of revenue over a period of time to recoup substantial upfront



investments. Multi-year crediting periods create investor certainty and spur innovation by encouraging larger upfront investments.

6. Minimize transaction costs. A US offsets program should minimize transaction costs by applying lessons learned from the CDM and simplifying the rules and administrative processes of the system. Two specific ways of reducing costs are by providing a "positive list" of eligible offset project types based on existing protocols, and, to the extent possible, consolidating existing methodologies using a "standard-based" approach.

Introduction

The International Emissions Trading Association (IETA) believes environmental markets are the most cost-effective means of achieving regulatory compliance, and therefore, that a cap-and-trade system for greenhouse gas emissions (GHGs) should be developed in the U.S. to mitigate climate change. IETA believes offsets should be an integral feature of any such climate policy, nested within a broader suite of policies to reduce GHG emissions. Offsets are a valuable way to address climate impacts, create incentives for all to act, and achieve the greatest reductions at the least cost to society. With decades of experience in environmental markets¹ and a substantial knowledge of how offset programs work, IETA's members believe an environmentally robust offsets program can be implemented in the US that will mobilize private capital and facilitate a cost-effective transformation to a low carbon economy.

This paper outlines the benefits of using compliance offsets in a greenhouse gas cap and trade program, and offers recommendations to policymakers on designing an offsets program that maintains the environmental integrity of the system and facilitates cost-effective compliance opportunities.

What is an "Offset"?

In a cap-and-trade system there are typically emissions that are covered and "capped" by regulations, while others remain outside the practical or economical reach of regulations due to their size, location, or other criteria. These uncovered emissions may offer reduction potential that is greater or cheaper than controlling covered sources.

Compliance offsets thus represent the reduction, removal, or avoidance of uncovered greenhouse gas emissions in order to "offset" emissions in covered sectors. The use of similar flexible mechanisms was pioneered in the US and remains a feature of many regulatory programs.²

While this paper focuses on "compliance offsets" used under a cap-and-trade system, it is worth noting that a market for "voluntary offsets" also exists. Also known as Verified

¹ The first carbon offset deal, brokered in 1989 when the American corporation AES invested in an agro-forestry project in Guatemala, pre-dates the Kyoto Protocol (1997) and the acid rain emissions trading program of the early 1990's.

² One early example of this was the "Cash for Clunkers" program that many states used to reduce NOx and ozone, whereby it was more cost effective to buy up and retire older cars than it was to put more controls on stationary sources such as power plants and factories.



Emission Reductions (VERs), voluntary offsets can be voluntarily purchased by companies or individuals. While many of these projects are developed according to standards such as the Voluntary Carbon Standard (VCS), there is no requirement for them to do so.

Offsets can be generated under both **domestic** and **international** programs. Internationally, compliance offsets are generated primarily through the Clean Development Mechanism (CDM)³.

Since offsets are used to demonstrate compliance with a regulatory mandate, they must meet criteria to ensure that 1) the reductions they represent are environmentally equivalent, that is, they provide equal environmental benefit to those for which they are being substituted; 2) there is an enforcement mechanism in place to ensure that the environmental benefits are delivered as promised; and 3) economic benefits from the program exist for both the covered entity and the governing agency. The key criteria for carbon offsets are most frequently defined as follows:

- **Real:** offsets must represent actual GHG reductions measured in tons of carbon dioxide equivalent (CO₂e)⁴, and it must be possible to measure how much CO₂e was mitigated.
- **Additional:** emission reductions or increases in sequestration are incremental to what would have happened without the project or action in question.
- **Surplus:** emission reductions exceed what is required by existing regulation.
- **Verifiable:** a qualified, independent third party (or appropriate government agency) can confirm the GHGs were reduced/sequestered. Verification provides impartial confirmation to regulators that offsets are truly real and additional.
- **Permanent:** emission reductions are not reversible, or if they are (as may be the case with carbon capture and storage or forestry), reversals should be accounted for and compensated appropriately.
- **Enforceable:** the credit or emission reduction can be enforced by a regulating agency.

Offset Benefits

IETA believes a robust offset policy will provide a number of core benefits to the US:

Reduce compliance costs while achieving the same environmental benefits

³The Clean Development Mechanism (CDM) authorized by the Kyoto Protocol is the world's most prominent offset system or project-based mechanism. Projects registered under the Kyoto Protocol's Clean Development Mechanism (CDM) allow industrialized countries to generate Certified Emission Reductions (CERs) by investing in GHG reductions in developing countries. The CDM is considered the "common currency" for offsets. To date, nearly 1,000 projects potentially representing more than 2 billion tCO₂e have been registered by the CDM Executive Board. Whereas the CDM has had successes in achieving reductions in developing countries, reducing compliance costs for regulated firms and engaging developing countries in the effort to address climate change, many practitioners have expressed concern regarding the inefficient nature of the process. Its project-by-project approval process has been characterized as inefficient. IETA and its members have been and continue to be engaged in the processes to improve it and are dedicated to sharing our practical experience with policy-makers and other interested parties in the US as they attempt to incorporate a workable offset program in the US that achieves economic and environmental objectives.

⁴The term "equivalent" is used because there are 6 GHGs total, each with a different greenhouse warming potential. Measuring offsets based on different strengths of GHGs would be confusing, so the relative "power" of each GHG is converted into a carbon dioxide equivalent.



1. Generate broader emission reductions than would otherwise occur in capped sectors alone; thereby “extending the reach” of the cap to additional sectors and reduction opportunities;
2. Provide for immediate and near-term reductions of GHG emissions and possibly accelerate the rate of GHG reduction by targeting the least cost options, first;
3. Provide provisional buffering necessary to continue absolute reductions while economies and energy systems are in transition;
4. Enable the stringent long-term reductions required to stabilize atmospheric concentration of GHGs;
5. In some instances, provide co-benefits, including habitat protection, job creation, and other benefits⁵;

Maintain U.S. competitiveness in the global marketplace

6. Encourage emission reductions where they are most cost effective. This will reduce the societal cost of achieving real reductions and avoid diverting resources from other important activities;
7. Save money for businesses and consumers⁶ and minimize regressive impacts⁷;
8. Prevent manufacturing jobs from being shifted overseas, thus reducing domestic job loss and emission “leakage” elsewhere if high compliance costs cause production to shift to other countries;
9. Prevent the premature retirement of capital assets while long term technologies are being developed that are required to achieve long-term climate protection objectives;

Promote innovation and broad participation in the carbon market

10. Stimulate innovation outside the cap in uncovered or unidentified sectors, and in capped sectors by giving companies both a way to avoid locking in suboptimal technologies, and time to pursue R&D;
11. Allow all sectors of the economy, e.g. foresters, farmers, etc. the opportunity to earn revenue for emission reductions they achieve, participate in the market, and promote a uniform carbon price;
12. Create an effective method of linking to other GHG regulatory jurisdictions through a common commodity, if the US allows internationally recognized offsets⁸. This would help broaden the international effort necessary to achieve long term global targets, and would create US economic opportunities in the global search for low cost reductions.

Design Principles

⁵ For example, anaerobic digesters at farms that capture biogas and generate electricity can reduce ammonia, a precursor of fine particulate matter (PM_{2.5}), which has been cited by Resources for the Future as “arguably the number-one environment-related public health threat facing the nation.” Shih et al, “Ammonia and Methane from Livestock Operations: Valuation and Policy Options.” RFF DP 06-11, March, 2006.

⁶ New Carbon Finance, North America White Paper - February 2008. The report shows that allowing 15% international offsets would save each person in the US \$480.

⁷ According to the Center on Budget and Policy Priorities, “Unless Congress includes adequate measures in climate-change legislation to shield low-income families, even a relatively modest climate-change policy (one aimed at reducing greenhouse-gas emissions by 15 percent) would impose an estimated \$750-\$950 a year in added costs, on average, for a family in the bottom 20 percent of the income spectrum. These households have average incomes modestly over \$13,000.” See <http://www.cbpp.org/pubs/climate-brochure.htm> for the full report.

⁸ Jaffe, J. and R. Stavins (2007). “Linking Tradable Permit Systems for Greenhouse Gas Emissions: Opportunities, Implications, and Challenges.”



IETA believes that offset policies should be guided by **4 key principles**:

1. Grounded in environmental integrity and effectiveness;
2. Clear predictable rules for offset creation and use that minimize transaction costs;
3. Global in reach, creating and recognizing assets that are tradable in international markets;
4. Flexible enough to spur invention and innovation of new mitigation measures.

Recommendations

Consistent with these principles, IETA has **6 recommendations** for designing an offsets program that ensures environmental equivalence:

1. Allow the use of all offsets that meet compliance criteria for environmental equivalence.

- All environmentally equivalent offsets should be available for use. Limiting the eligible pool of credits by any other means simply reduces the size of the available offsets pool, while doing nothing to improve the ratio of high-to-low quality credits overall. Robust standards for environmental equivalency should be the limiting factor, with no reference to quantity or location.⁹

2. Permit broad sector and activity eligibility for offsets.

- There are many GHG mitigation options that are immediately available, low cost and multi-benefit¹⁰. Significant market penetration of many such options can be realized *only* through project-based credits. These actions will not be stimulated simply by capping emissions and/or imposing a carbon price.
- All sinks and emissions not subject to emissions limits should be eligible to receive offsets for reductions. This will encourage the widest possible reductions with the broadest environmental benefits.
- Arbitrary geographic, activity-specific, or other limits do not promote environmental objectives, but simply encumber the ability of offsets to meet demand and provide cost containment, and reduce the incentive for innovation in uncapped sectors.

3. Recognize internationally fungible “compliance” offsets, e.g. Certified Emission Reductions (CERs).

- EPA analysis shows that excluding CERs would make climate legislation 34% more expensive.¹¹
- Inclusion of international project-based credits engages developing countries and helps build their capability to participate in the global response. This also provides export and relationship-building opportunities for U.S. businesses in clean technologies, finance and management.

⁹ Stavins, Robert. “A U.S. Cap-and-Trade System to Address Global Climate Change.” Brookings Institute, Oct 2007. “Allowing even a small number of bad offsets does not make sense, nor does it make sense to deny high-quality offsets. Instead, strict criteria should be developed for allowing the generation of approved offsets, but without reference to quantity or location.”

¹⁰ The IPCC has identified around 3 dozen of these, but this is by no means exhaustive and many other opportunities also exist.

¹¹ Environmental Protection Agency. EPA Analysis of the Lieberman-Warner Climate Security Act of 2008. March 14th, 2008. Page 6.



- A recent UN report¹² shows that 14% of technology and 10% of knowledge transferred through the CDM is currently US-based; this could grow significantly with direct US engagement in the market.
 - Explicitly allowing use of emission reduction credits from developing countries would help contain exposure of U.S. consumers to possible carbon price spikes while also boosting the ability of developing countries to adopt domestic emissions management systems.
- 4. Award offsets for early action to qualifying projects implemented before enactment of regulation.**
- Awarding offsets¹³ for early action can promote immediate emission reductions that prevent the stock of GHGs in the atmosphere from further accumulating.
 - Early action credits can also help control the initial cost shock of the program.
 - Announce the eligible “project start date” as soon as possible for early action projects to foster investor certainty, promote prompt reductions, and ensure baseline protection.
- 5. Multi-year offset crediting periods¹⁴ create investor certainty and spur investment and innovation.**
- A multi-year crediting period, e.g. 10 years, is essential to creating investor certainty and securing debt financing. Truly environmentally additional projects often rely on a predictable stream of revenue from credits over a period of time to recoup substantial upfront investments.
 - Multi-year crediting periods can spur innovation by encouraging larger upfront investments.
- 6. Minimize transaction costs in a US offsets program by applying lessons learned from the CDM and simplifying the rules and administrative processes of the system.**
- a. Provide a broad “positive list”¹⁵ of eligible offset project types based on existing protocols, as well as a clear process for introducing new project types.**
- A positive list can ease administrative burdens and reduce uncertainty for project managers, particularly when dealing with common and well-understood project types. However, case-by-case reviews can complement a “positive list” as a means of introducing new project types and to encourage innovation. There should be a clear process for moving projects that have been successfully reviewed on a case-by-case basis to the positive list.

¹² Seres, Stephen. “Analysis of Technology Transfer in CDM Projects.” December 2007.

¹³ IETA recommends awarding offsets, rather than allowances, for early action. Using allowances to credit early action does not provide additional cost containment and will likely force early actors to fight over a finite number of credits, rather than providing a clear reward.

¹⁴ In a multi-year crediting period, additionality is assessed up front for a set number of years; when the period expires, project parameters are reassessed before more credits are approved.

¹⁵ A “positive list” identifies activities that are eligible to create offsets; it can also define a fixed crediting level. This approach has been adopted under RGGI and can help promote quality offsets by identifying opportunities that are well tested and suitable for compliance use.



b. To the extent possible, consolidate existing methodologies using a “standards-based” approach.¹⁶

- More than 100 “methodologies” have already been developed under the CDM and other voluntary and regional offset systems. Consolidating existing methodologies, as has been done in the CDM, is a good way to avoid reinventing the wheel while streamlining the crediting process.
- A clear and administratively simple offset program based on a “standards-based approach” reduces transaction costs and broadens the scope of possible reductions, ensuring that its benefits are not outweighed by its costs.
- A standards-based approach can promote quality offsets by reducing the subjectivity of baselines found in a case-by-case approach, balancing the likelihood of false-positives and negatives, and subjecting projects within a given category and region to the same assumptions.
- Standardization should serve to improve efficiency, not to limit the offset pool or stifle innovation.

¹⁶ “Standardized” approaches to baseline and additionality determinations seek to avoid the administrative overhead of case-by-case methods while maintaining high levels of quantification accuracy and environmental integrity. For a longer discussion of “standardized” approaches to offset crediting, see IETA’s “Expanding Global Emissions Trading: Prospects for Standardized Offset Crediting” at <http://www.ieta.org>.



Appendix I. Economic Benefits of Offsets

Estimates of economic impacts of restrictions on offset use

Several economic analyses, including recent analyses prepared by the Massachusetts Institute of Technology (MIT), Stanford University and Battelle Memorial Institute for the U.S. Department of Energy (DOE)¹⁷, have noted the value of “where”, “what” and “when” flexibility. These terms are used to define the location and timing of emission reductions, and the GHGs subject to controls. The study, and several others that it cites, concludes that these elements of flexibility can reduce the costs of control programs “by an order of magnitude” compared to those that do not provide for such flexibility. This has also been the view of regulated sources that must comply with emission reduction requirements. By expanding the types and locations of activities that can generate emission reductions that can be used for compliance, offset programs effectively increase the “where” and “what” flexibility of trading programs.

Two recent studies by the U.S. Environmental Protection Administration (EPA) and New Carbon Finance illustrate the economic benefits of authorizing the use of domestic and international offsets for compliance with emissions targets, and the costs of restricting such use. They estimate allowance prices under the Lieberman-Warner Climate Security Act (S. 2191), and changes in allowance prices resulting from different policy options relating to offsets. The bill sets a limit on use of domestic offsets for compliance at 15% of compliance (i.e. 15% of the total allowance allocation), and a similar 15% limit on the use of international allowances (such as EU Allowances). In its current form, the bill does not allow for use of international credits (such as offsets created by CDM projects.). The two studies consider the potential impact of allowing the use of international offsets as well as domestic offsets.

Some of the key findings follow.

EPA¹⁸

- “From the various scenarios analyzed, the use or limitation of offsets and international credits has a larger impact on allowance prices than the modelled availability or constraint of key technologies [i.e. carbon capture and storage and nuclear power].”
- “If the use of domestic offsets and international credits is unlimited, then allowance prices fall by 71% [from \$51 per metric ton to \$15 in 2020] compared to the bill as written.” This translates into GDP savings of \$333 billion in 2020.
- “If the use of domestic offsets is unlimited, and international credits are still limited to 15% of compliance obligation, then allowance prices fall by 26% compared to the bill as written.”

¹⁷ Scenarios of Greenhouse Gas Emissions and Atmospheric Concentrations, Synthesis and Assessment Product 2.1 – Draft version dated August 2006, US DOE, page 4-24.

¹⁸ U.S. Environmental Protection Agency, *EPA Analysis of the Lieberman-Warner Climate Security Act, S. 2191 in 110th Congress*, March 14, 2008, http://www.epa.gov/climatechange/downloads/s2191_EPA_Analysis.pdf



- “If international credits are not allowed (or are more expensive than U.S. GHG allowances), and domestic offsets are still limited to 15%, then allowance prices increase by 34% compared to the bill as written.”
- “If domestic offsets and international credits are not allowed, and the caps must be met solely through emissions reductions in covered sectors, then allowance prices increase by 93% compared to the bill as written.” This translates into additional costs to GDP of \$314 billion in 2020.

New Carbon Finance¹⁹

- “The Lieberman-Warner Climate Security Act, could result in the U.S. economy facing carbon prices of \$35-40/t by 2015 increasing to \$45/t by 2020.”
- Allowing for the use of international offsets up to the 15% limit would reduce prices to as low as:
 - \$15 up to 2015 (a reduction of 57-63% from \$35-40); and
 - \$25 up to 2020 (a reduction of 44% from \$45).
- This would reduce costs to the U.S. economy by up to \$145 billion per year (\$480 per person living in the U.S.).
- By reducing allowance prices from approximately \$40 to \$15 in 2015, allowing for the use of international offsets up to the 15% limit would:
 - Reduce electricity price increases from an estimated 20% to 7%, and
 - Reduce residential natural gas price increases from an estimated 10% to 5%.

Practical experience: Cost savings of offset use in existing GHG emissions markets

The international offsets market provides an illustration of how emissions offsets can reduce compliance costs in a cap-and-trade system. The average price for primary CDM credits²⁰ in 2006 was \$10.90, compared with average EU allowance prices of \$22.10.²¹ As a result of this pricing dynamic, the international CDM market grew to \$ 17.1 billion in 2007, according to Point Carbon.²²

At the time of this writing, EU allowance prices are nearly €25 (\$40), and primary CDM credits range from approximately €8 to €14 (\$13 to \$22). If we assume (conservatively) that: (1) the 1.39 billion ton limit on CDM and JI credits that EU ETS entities may use for compliance is all used in 2008-12; (2) primary CDM/JI credit prices remain at approximately one-half of EUA prices; and (3) EUA prices will average approximately €25, access to international offsets will save EU ETS entities approximately €17.5 billion (\$27.8 billion) in 2008-12.

¹⁹ New Carbon Finance, “North America White Paper – February 2008,” available by subscription.

²⁰ Primary CDM credits refer to credits sold directly by a project developer.

²¹ World Bank, “State and Trends of the Carbon Market 2007,” May 2007.

²² Bloomberg, “Emissions trades rose 80% in value last year, Point Carbon says,” January 18, 2008.



International Emissions Trading Association (IETA) - Membership

IETA is a not-for-profit business organization that is dedicated to ensuring that the objectives of the UNFCCC and ultimately climate protection are met through the establishment of effective global systems for trading in greenhouse gas emissions (GHG) by businesses, in an economically efficient manner while maintaining societal equity and environmental integrity.

IETA is active in the EU, North America, the UNFCCC, and around the world, promoting market mechanisms to environmental problems.

IETA's membership is currently 181 companies out of which 51% represent project developers, intermediaries, financial institutions, brokers, verifiers, legal firms, etc engaged in a new economic activity as a result of the GHG market. The balance of 49% represents industrial organizations.

IETA Chairman: Jack Cogen, President, Natsource

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38	Codelco	94	International Paper
39	ConocoPhillips	95	Invista
40	Constellation Commodities Group	96	Italcementi Group
41	Credit Suisse	97	Japan Quality Assurance Organization
42	De Brauw Blackstone Westbroek	98	J-Power
43	Deloitte and Touche	99	JP Morgan Chase Bank N.A.
44	Det Norske Veritas (DNV)	100	Kansai Electric Power Co. Inc.
45	Deutsche Bank	101	Kenya Electricity Generating Company Ltd.
46	Dow Chemical Company	102	Kolibri Capital LLC
47	Dresdner Kleinwort Wasserstein	103	KPMG
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49	DuPont Inc.	105	Lanco Infratech Ltd.
50	ECON	106	LeBoeuf, Lamb, Greene & MacRae
51	EcoSecurities Group Ltd.	107	Lehman Brothers
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54	Edison Trading SpA.	110	Macleod Dixon LLP
55	Electricity Supply Board (ESB)	111	Marsh, Inc.
56	EmC Emission Control s.r.l.	112	Marubeni Corporation
113	MASDAR	148	Shell International Ltd.
114	Menezes, Dessimoni e Abreu Advogados	149	Sindicatum Carbon Capital
115	Merrill Lynch	150	Spectra Energy



116	MGM International Ltd.	151	SRF Limited
117	Mintz Levin	152	Standard Chartered Bank
118	Misys Plc	153	Stark Investments
119	Mitsubishi Corporation	154	Statkraft
120	Morgan Stanley & Co.	155	StatoilHydro
121	Munich Reinsurance Company	156	Suez – Tractebel SA
122	National Commodity & Derivatives Exchange Ltd	157	Sumitomo Corporation
123	Natixis Environment & Infrastructures / ECF	158	Suncor Energy Inc
124	Natsource	159	Sustainable Forestry Management
125	New Values	160	SwissRe
126	Nexen Inc.	161	Syngenta Foundation
127	Noble Group Ltd	162	Taiwan Emission Trading Association
128	Nörr Stiefenhofer Lutz	163	TFS – Tradition Financial Services
129	Norsk Hydro ASA	164	The Carbon Neutral Company
130	Norton Rose	165	The Rowet Group
131	Nuon	166	Tokyo Electric (TEPCO)
132	NYMEX	167	Total
133	Ontario Power Generation	168	Toyota Motor Marketing Europe
134	Orbeo	169	Trading Emissions PLC
135	Pakarab Fertilizers (Pvt.) Ltd.	170	TransAlta Corporation
136	Perry Johnson Registrars CDM	171	TransCanada Corporation
137	Petrobras	172	Tricorona
138	Pioneer Carbon	173	TUV Süddeutschland
139	PointCarbon	174	Unica
140	PricewaterhouseCoopers	175	Union Fenosa Generacion, S.A.
141	PT. PLN Persero	176	Vale
142	Repsol YPF	177	Van Ness Feldman, PC
143	Rio Tinto Alcan	178	Vattenfall AB
144	RWE	179	Veolia Environment
145	Scottish Power Energy Management	180	World Energy Solutions, Inc.
146	Sempra Energy Europe Limited	181	Zero Emissions Technologies, S.A.
147	SGS Société Générale de Surveillance		