Statement of Kjell Olav Kristiansen Director of Advisory Services on behalf of Point Carbon before The United States Senate Committee on Finance February 14, 2008 hearing on

International Aspects of a Climate Change Cap and Trade Program

Summary and oral testimony

Thank you, Chairman Baucus, Ranking Member Grassley, and distinguished members of the committee, for this opportunity to testify before you today on behalf of Point Carbon, to discuss international carbon market experiences and implications for a US cap-and-trade program. My name is Kjell Olav Kristiansen and I am the Director of Advisory Services for Point Carbon. Point Carbon is a global provider of news and non-partisan research, analysis and advisory services on carbon and energy markets.

The United States Congress is facing important choices about how to design a federal cap-and-trade scheme. Your decisions will have a significant impact on the cost for US consumers, the cost for US industry, and consequently, the competitiveness of US industry.

Knowing the importance of these choices, we can look towards the European Union, and learn from its three years of experiences setting up and running an Emissions Trading System for carbon dioxide. While the market functioned well during the first year and a half, it experienced a sudden price collapse when it became apparent that the market was oversupplied with allowances. The generous allocation of allowances was caused predominantly by lack of reliable emissions data. The most important lesson from the first phase of the EU scheme is that there must be scarcity of allowances in the market to maintain a carbon price and cause emission reductions. It is critically important to set an appropriate cap to achieve the desired emissions reductions.

Despite this, the pilot phase developed the knowledge, infrastructure, participants, and financial instruments necessary to embark on the next stage of the program. The EU now has emissions data that has been verified, and the allocations proposed by Member States have been curbed to create the needed scarcity. The phase II is developing well with allowances trading in \$ 30 range.

My next point is that the European Union allows emitters to use carbon offsets from reduction projects in developing countries. Because of the low cost of these reductions, they offer European companies an attractive option to reduce compliance cost. Studies for the Intergovernmental Panel on Climate Change show that the potential for reducing greenhouse gas emissions in non-DECD countries is twice as high as within DECD-nations. As the Congress considers creating a national cap-and-trade system which may place restrictions on the use of international offsets, it is important to remember the costs and benefits of such restrictions. Restricting the use of global offsets would have the benefit of increasing

investment in domestic emissions reductions. However, such limits would also make it more expensive for the US economy to achieve its emissions reduction goals. These limits would likely place US businesses at a competitive disadvantage with respect to global peers with lower emissions costs.

Another reason to allow offsets is that they may prove to be indispensable to reach short to mid-term reduction targets. Whereas mid- to longterm emissions reduction targets are feasible with a combination of various non-emitting technologies, clean fuels and energy efficiency, the greatest challenge may be the lack of flexibility to break the short term emission trends. In this case, offsets function as an important "safety valve" or a transitional remedy against excessive carbon prices.

Lastly, I'd like to discuss the economic benefits of linking a domestic cap-and-trade program with other similar international schemes. As markets grow bigger, they become more efficient. Direct linking between a US trading program and the EU scheme would create a mutually beneficial, larger market which would increase choice, improve market liquidity, decrease price volatility, and equalize competitive disparities. We believe a US program can be successfully linked with existing international programs.

Distinguished members of the committee, the United States invented emissions trading with the creation of the Acid Rain Program in the 1990's, and was instrumental in making offsets and global trading key components of the Kyoto protocol. The EU then adopted these concepts successfully in its greenhouse gas cap-and-trade program. As we now embark on designing what will become the world's largest emissions market, we can reap the benefits of these achievements and learn from the experiences gained to create a program that will reach targets and minimize costs to consumers and to US industry. Again, thank you for the opportunity to appear before the committee today. I look forward to your questions.

Introduction

The United States pioneered the idea of using market mechanisms to cap and reduce the emissions of pollutants with the Acid Rain Program. The United States further pushed for the Kyoto Protocol to include a number of trading mechanisms which have a decade later led to the formation of vibrant new markets. In the years since the negotiation of the Kyoto Protocol, the European Union has set the standard for greenhouse gas capand-trade programs while the US stood on the sidelines. This situation is, however, rapidly changing. With the bills now before Congress, the US is poised to regain the lead by creating the largest emissions market to date.

The emission reduction targets that have been proposed in several of the current bills in Congress will have far reaching consequences for our economy, and will require a fundamental change in the way energy is produced and consumed. The United States is facing some important choices designing a federal cap-and-trade scheme. How such a program is implemented and how it interacts with other markets will have an impact on the cost of the program for US consumers, the cost to comply for US industry and consequently its competitiveness.

Observations of the global market show us that carbon trading works. Several important lessons have been learned which will help us design a cap-and-trade scheme that will reach reduction targets faster and at lower cost than other policy options. Point Carbon's testimony will provide an overview of global carbon markets emphasizing key lessons learned and highlighting how carbon trading and the use of project based offsets are helping countries and companies mitigate the costs of addressing climate change. Our hope is to help identify some of the choices and issues that need to be addressed as Congress moves forward in developing climate change legislation.

State of the Global Carbon Market

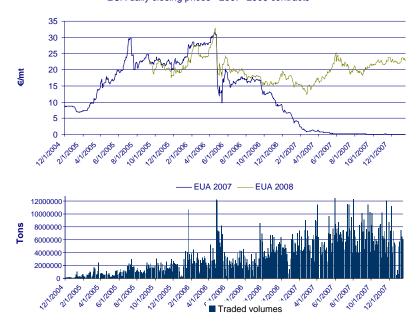
The "global carbon market" is already multi-faceted. There are currently two significant drivers shaping this market. They include government demand for emissions reductions to meet Kyoto targets and private demand for emissions reductions under the EU cap-and-trade program (EU ETS). Two main commodities are traded. Emission allowances or permits are being traded between entities covered by a cap-and-trade scheme and carbon credits or offsets which represent verified emissions reductions. Offsets are generated in unregulated sectors outside the scope of the cap-and-trade scheme and they originate in individual projects set up with the primary objective of using the financial incentive provided by the carbon market to reduce emissions.

Government Demand for Carbon Reductions

The first form of carbon market is tied to public demand for CO_2 reductions from European, Japanese and other governments, which are supplementing domestic greenhouse gas reduction programs with global offset purchases in order to meet their Kyoto protocol reduction commitments. Based on current commitments and announced purchase plans, government demand for carbon offsets is expected to reach close to 0.8 billion tons by the end of 2013, when they are required to demonstrate compliance with the Kyoto protocol.

Private Demand for Carbon Reductions

The second form of carbon market is from private demand from domestic trading schemes. The European Union Emission Trading Scheme (EU ETS) which took effect in 2005 is the only cap-and-trade scheme for CO_2 to date. This program with a cap at approximately 2 billion tons of CO_2 not only creates significant trading among its participants, but it also generates substantial demand for greenhouse gas (GHG) offsets from emission reduction projects all over the world. The EU ETS covers emissions of CO_2 from power and heat sectors, metals, cement, paper and pulp and minerals industries. The pilot phase from 2005-2007 covered close to half of EU CO_2 emissions including some 11,500 installations. The power and heat sector is the largest sector representing some 58 percent of the average annual cap of close to 2.3 billion tons of CO_2 . The overall target of Phase II which runs from 2008 – 2012 is to create CO_2 emission reductions of 6.5 % compared to 2005. Emission allowances for Phase II currently trade in the 30 \$ range.



EUA daily closing prices - 2007- 2008 contracts

Figure 1 Prices and traded volumes for Phase 1 (EUA 2007) and Phase 2 (EUA 2008) of EU ETS.

What is the Size of the Global Carbon Market?

Point Carbon tracks global carbon markets and estimates that transaction volume grew from 1.6 billion metric tons in 2006 to 2.7 billion tons in 2007. As depicted in the graph below, the market value grew even more, from \$ 32 billion in 2006 to \$ 60 billion in 2007. Over 60 percent of the transactions were in the European Union Emissions Trading Scheme, while the remaining trades predominantly were offsets from emission reduction projects.

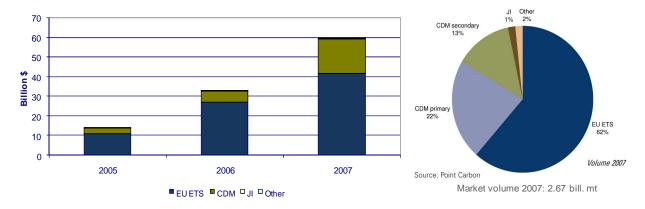
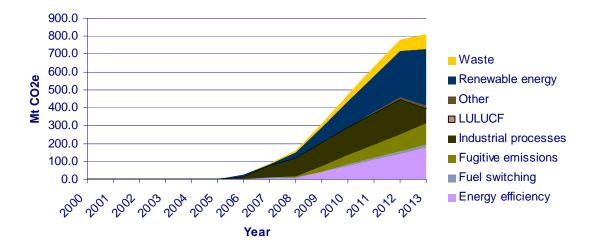




Figure 2 Global carbon transactions 2005-2007 - volumes and value by market segment

In terms of supply of carbon offsets, Point Carbon has identified over six thousand reduction projects in more than one hundred countries of which some 900 projects have been approved by the CDM Executive Board. To date (February 11), only 115 million tons of offsets have been issued from the CDM scheme. Our estimates indicate that the current pipeline of emission reduction projects is likely to produce a risk adjusted 3.2 billion tons of carbon offsets by the end of 2013.



CER and ERU Issuance 2000-2013

Figure 3 Estimated supply of CDM (CER) and JI (ERU) offsets 2000-2013 - risk adjusted

The success, growth and liquidity of these financial markets are largely due to the creation, by the European Commission, of a single, common, tradable commodity across 25 countries. While the carbon market is still small by the metric of the major energy or grain commodities, it has doubled in each of the past three years with recent volume records reported by the major energy exchanges.

In comparison to the EU market, the Climate Security Act of 2007 passed by the Senate Committee on Environment and Public Works would have a cap of 5.7 billion tons, two and a half times the size of the EU ETS.

US companies are already heavily involved in many aspects of the global carbon markets. A number of leaders in the development of carbon reducing projects around the world, including EcoSecurities, AgCert or Econergy, were founded by Americans or are headquartered in the United States. Three of the ten largest private carbon investment funds are domiciled and managed out of the United States, including one by the Bill and Melinda Gates Foundation Trust. The large US investment banks, Goldman Sachs, Morgan Stanley, JP Morgan and Merrill Lynch to name a few are all very active in these new markets.

Key lessons learned from the European Union Emission Trading Scheme

The European Union introduced a cap-and-trade scheme for CO_2 in 2005. The initial 3 year pilot phase is coming to an end as participants will surrender allowances for their 2007 emissions by April 30.

Several important lessons were learned during the pilot phase of the EU ETS. The most significant lesson was on the consequences of an oversupply of emissions allowances. When the program was first setup, the European Commission lacked reliable emissions data for forecasting future emissions. This lack of data in combination with incentives at installation and national level to exaggerate emissions numbers in order to receive more favorable allocations, resulted in overly generous national emissions allocations. This oversupply of allowances became apparent at the first true-up in April 2006 at which time verified emissions from 2005 were made publicly known. The market responded with a price

collapse. As the market gradually adjusted to the fact that Phase I would remain oversupplied with allowances, market prices descended to near zero levels.

The price collapse during phase I of the EU ETS illustrates the importance of setting an appropriate emissions cap to cause an allowance shortage. Without any allowance shortage, the first phase of EU ETS had little effect on overall emissions within the EU. There were numerous beneficial results from Phase I of the EU ETS. Through the phase I program, the EU has developed the knowledge, infrastructure, participants, and financial instruments necessary to reduce GHG emissions in phase II of the EU ETS.

Before prices collapsed, there was however a general perception that offsets from developing countries would be less expensive than reducing own emissions. Hence, EU companies have been instrumental in creating the significant pipeline of global CDM emission reduction projects seen today. As Phase I is currently oversupplied with allowances, offsets that have been generated can be banked and focus on investments in CDM projects now has shifted towards using these for compliance with Phase II of the scheme.

Experiences from Phase I were helpful in guiding the EU Commission to take a more restrictive position on National Allocation Plans for Phase II. The overall target of Phase II is to create CO_2 emission reductions of 6.5 % compared to 2005. Following the EU commission's final decisions on National Allocation Plans, it is now expected that there will be an appropriate allowance shortage for Phase II. This view is supported by current prices for Phase II allowances which trade in the \$30 range.

The European Commission recently released its proposal for changes to the EU Emission Trading Directive for a third phase succeeding expiration of Phase II in 2012. The proposal extends the scheme to 2020 with an emission reduction target of 21 percent compared to 2005. Additional sectors and greenhouse gases will be included. The Commission proposes to introduce a centrally determined cap and will later suggest harmonized rules for allocation and verification to be used by Member States.

During the proposed Phase III, the main allocation methodology will move gradually towards auctioning, with full auctioning suggested for sectors which are in a position to pass through the added costs to their consumers. In Phase I and II of the scheme, industrial sectors exposed to global competition were generously allocated free allowances to offset the potential negative impact on global competitiveness. The current proposal from the European Commission suggests that this approach will be continued for the 2013-2020 period.

The new EU target will add further stringency to the market and will encourage market participants to continue pursuing global offsets as an important compliance option. Access to use offsets will however be scaled back to about one third of the reduction target and additional limits are suggested on the origination of offsets including preference for Least Developed Countries. These restrictions may be relaxed if post-Kyoto negotiations materialize in a new international agreement on climate change leading to comparable reduction commitments for additional DECD states and adequate commitments from advanced developing countries.

As significant greenhouse gas reductions only come about through a change of investment behavior, increased clarity on the framework for 2012-2020 injects more predictability which improves investor confidence. The lack of a global framework post Kyoto has not been helpful aiding investors making long term decisions. There is increasing recognition that cap-and-trade markets need to designed to last for decades.

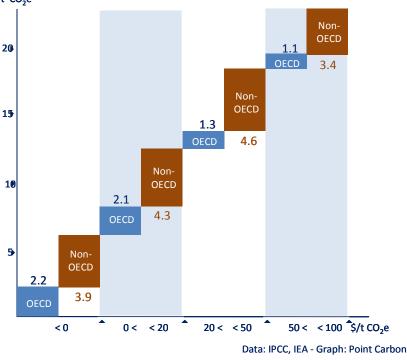
The European Commission looks favorably on global carbon trading and considers the EU ETS as a component of a future global network of emission trading systems. Bi-directional linking of a US cap-and-trade program to the EU emission trading scheme can take place from 2013 at the earliest as allowances and offsets issued in the United States cannot be used by EU for compliance under the first period of the Kyoto protocol (2008-12).

The framework for a Phase III of the EU ETS proposed by the EU Commission will be subject to political processes within EU before final legislation is passed.

Why Create a Global Carbon Market?

The impact of greenhouse gas emissions on global warming is the same wherever in the world they take place or wherever emissions are reduced. At the same time, the costs of emissions reductions vary significantly across the world. Together, these properties explain why a global approach to climate change policy is imperative to achieving greenhouse gas reduction targets efficiently.

In recognition of this, the Kyoto protocol - building upon the United Nations Framework Convention on Climate Change (UNFCCC) - represented the first attempt to set a global framework for reducing emissions for the 2008-2012 timeframe. Several studies performed by institutions such as the IEA¹ and IPCC², have identified a very significant and low cost potential of emission reductions in non-DECD countries.



 $_{Gt CO_{2}e}$ Global GHG abatement cost by economic region and cost range - 2030

Figure 4 Global GHG abatement cost by economic region and cost range - 2030

This chart shows the volume of potential reductions that can be achieved in OECD and non-DECD countries within given cost ranges. For each cost range, the potential is two to three time larger in non-DECD countries.

While it was politically unviable to reach agreement over reduction targets for developing countries and economies in transition at that time, parties to the Kyoto negotiations were able to identify and agree on mechanisms that make it possible to address this low cost emission reduction potential.

The Kyoto protocol, largely at the behest of the United States, provides a framework for global carbon trading through the introduction of three "flexible mechanisms", which offer countries with emission reduction commitments the opportunity of reaching those targets by various methods of carbon trading.

¹ International Energy Agency

² Intergovernmental Panel on Climate Change

- a) States with reduction commitments can either trade those commitments between themselves;
- b) States with reduction commitments can develop reduction projects domestically and trade those reductions and;
- c) Invest in GHG emission reductions in signatory states without reduction commitments also referred to as the Clean Development Mechanism (CDM).

The objective of this framework is to allocate capital to the least cost emissions reductions, thus minimizing the aggregated cost of reducing emissions for the signatory states.

This framework extends to nations the choice of either meeting targets by domestic reductions or paying for emission reductions where they are cheapest. Macroeconomic studies show that the importation of carbon credits to DECD countries reduces the negative impact on GDP growth by lowering compliance costs. Similar conclusions have been reached by the US Energy Information Agency in studies of current US proposals for greenhouse gas legislation.

Irrespective of its position on the Kyoto protocol, the United States can adopt the same logic and take advantage of low-cost GHG reduction potential either by recognizing Kyoto offsets or by establishing a dedicated program with its allowed subset of project types and host countries to serve the requirements of US cap- and-trade regulations.

Global carbon trading and environmental integrity

offsets need to represent *real, additional, permanent and verifiable* reductions of greenhouse gas emissions. Rigorous control mechanisms must be in place to safeguard these principles. This concern is shared by The United States as well as all states that are buying global offsets for compliance with their commitment under the Kyoto protocol.

The CDM mechanism has suffered teething problems, one being the allocation of resources to build institutions and capacity to deal appropriately with the rapidly increasing pipeline of project proposals. Point Carbon has identified over six thousand reduction projects in more than one hundred countries of which some 900 projects have been approved by the CDM Executive Board.

The Executive Board has had to balance quick and smooth processing of projects against the imperative of maintaining the environmental integrity of the scheme. The requirement of *additionality*, i.e. proof that projects would not have been implemented in the absence of the incentive from the carbon market, is a challenging concept which requires that project proposals must be subjected to a certain level of scrutiny.

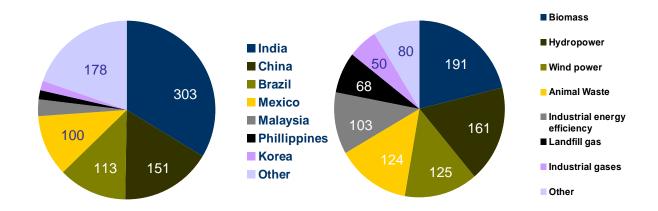


Figure 5 Number of registered CDM projects by project type and host country (900 by January 2008)

The Clean Development Mechanism is a transparent mechanism where information disclosure and public hearing requirements extend to each individual project. This is an important strength of CDM, but it is also a feature that makes the mechanism vulnerable to criticism and public debate. In a scheme with several thousand projects in over one hundred developing nations, there will be incidents which will test the integrity of the framework, its institutions as well as the market participants. Parties to the Kyoto protocol and the institutions under the UNFCCC have spent and will continue to spend considerable time and effort to develop and enforce a reliable framework to ensure that criteria for environmental integrity are being met.

The reputation of global offsets is also vulnerable to the questionable practices in some segments of the voluntary offset markets which do not have to meet the standards or transparency requirements of the CDM. The voluntary market which is unregulated aims at providing consumers and businesses with an opportunity to voluntarily offset carbon emissions associated with their operations and lifestyle. Ongoing work by many dedicated institutions to improve the legitimacy of the voluntary carbon market is critical to avoid damaging the general reputation of a system that can make a significant contribution to reaching greenhouse gas reduction targets cost effectively.

Provided, however, that the environmental integrity of offsets is institutionally guaranteed, the project based approach to emissions reduction has already proven its value as an extremely efficient way of deploying private capital and new technological solutions to address the climate change problem, both domestically and internationally. Point Carbon's US database has already identified over 500 domestic abatement projects in addition to the thousands of international projects. The project markets thus represent interesting new investment opportunities for US entrepreneurs and US technology.

Restrictions on Access to use Offsets

primary responsibility for emissions reductions on OECD countries by stating that carbon trading shall be *supplemental* to domestic emission reduction efforts in meeting GHG reduction targets. This is based on the recognition that investing in emissions reductions in non-OECD economies will not suffice in the face of the environmental challenges of global warming. Growth in energy demand in OECD countries and the replacement of ageing energy production infrastructure requires investment decisions which will influence emission trajectories for several decades. These technology choices should be made with due consideration of the environmental cost of GHG emissions.

Intense discussions are taking place in both Europe and the United States on the extent to which resorting to imported low cost carbon offsets is appropriate, partly out of fear that the deployment of low carbon technologies might be impeded by extensive use of offsets. However, in view of the stricter emission reduction targets now being discussed in USA and Europe, use of offsets is likely to be a necessary supplement in order to avoid potentially excessive costs. This has forced governments to strike a balance between the costs of reaching targets domestically and restrictions on the use of imported offsets.

During the implementation of Phase II of the EU Emission Trading Scheme (2008-12), member states were allocated allowances and credit import restrictions based on a guideline that each state should not cover more than 50 percent of their national emission reduction target with imported offsets from outside the European Union. This translates to a limit of 13-14 percent of total the emissions from entities covered by the European trading scheme.

In a recent proposal for changes to the EU emission trading directive to accommodate a continuation of the EU Emission Trading Scheme post 2012, the EU Commission proposes to reduce Member States' access to use imported offsets to a level of approximately one third of their reduction commitment if no satisfactory international agreement succeeds the Kyoto Protocol.

Similarly, the proposed limit on the use of international offsets and allowances under the Climate Security Act of 2007 is 15 percent of emissions, but imports are restricted to countries that have implemented domestic carbon caps, thus removing access to Clean Development Mechanism projects and greatly reducing the available offset supply to a number likely to be a fraction of the allowed 15 percent.

Creating a Global Carbon Market

A number of approaches exist to connecting markets and creating global carbon standards, they include:

- Directly linking regional traded markets;
- Indirectly linking regional trading schemes by using common offset standards;
- Other means of internalizing environmental cost in world trade;

Direct Linking of Cap-and-Trade Schemes

Connecting a US cap-and-trade scheme to other markets can be done either by linking to comparable cap-and-trade schemes, such as the EU ETS, by allowing offsets from unregulated jurisdictions (e.g. CDM) to be used for compliance, or through a combination of these options.

The European Commission looks favorably on global carbon trading and considers the EU ETS as a building block for the development of a global network of emission trading systems. While the current Directive allows for linking the EU ETS with other industrialized countries that have ratified the Kyoto protocol, the Commission is proposing to extend this to include any country or administrative entity which has established a cap-and-trade system with design elements that do not undermine the environmental integrity of the EU ETS. The Climate Security Act of 2007, with its ambitious long-term reduction objectives and multi-sector approach could meet those requirements.

Similarly, the Climate Security Act allows the importation of up to 15 % of allowances from countries with equally stringent cap-and-trade schemes, which would in all likelihood include the EU ETS.

Direct linking between a US ETS and the EU ETS would create a much larger market with advantages for all parties by offering more GHG reduction opportunities, increased market liquidity, less price volatility, equalization of competitive disparities and economies of scale to name a few. Despite their differences, both regions have progressed far in terms of economic efficiency and environmental regulation, thus avoiding major inequalities and imbalances in potential allowance trade flows upon linking of the schemes. A linking of EU ETS to a US cap-and-trade scheme could take place following expiration of the Kyoto compliance period in 2012.

Indirect Linking of Cap-and-Trade Schemes

Indirect linking of cap-and-trade schemes would occur if the United States accepts global carbon offsets, but does not link directly with other cap-and-trade markets. Prices would then be affected by prices in the common pool of offsets, as well as regional factors and limits to the use of offsets. In an efficient domestic carbon market, carbon prices will be determined by the cost of the marginal emission reduction necessary to reach the target. Import of offsets will be preferred to the extent that their prices are below the cost of reducing emissions domestically. There is abundant proof that this is the case, and US emitters could realize significant cost savings by connecting to global markets.

Demand for international offsets from the United States would create more scarcity of offsets in the global market and hence contribute to higher prices. Conversely, absence of the US in the global offset market would mean that other nations could feed off the large stock of low cost emission reduction projects and compliance cost for US industry would become higher.

Access to global offsets may, however, not only limit cost but prove indispensable in reaching the short to mid-term reduction targets expressed in several of the bills proposed in Congress. Under the Climate Security Act, we estimate the gap between projected emissions and the cap to be 582 million tons in 2012, growing to 2007 million tons by 2020. Whilst mid- to long-term reduction targets seem feasible with a combination of cleaner power generation technologies, renewable fuels, improved energy efficiency and carbon capture and storage, the greatest challenge may be the lack of immediate flexibility to break the emission trend in the short to mid-term. In this perspective, use of global offset may be viewed as an important "safety valve" to avoid an excessive carbon price response.

Project developers, investors and financial institutions from the Unites States have been instrumental in developing global carbon markets to date. Connecting a US cap-and-trade scheme to global markets would enhance US business opportunities to develop and deploy renewable energy, energy efficiency and new technologies on a global scale.

Offset and Allowance Shuffling

Linking of cap-and-trade schemes with different eligibility rules for offsets and allowances may create unintended shuffling of these instruments that undermine the intentions of the restrictions. If the United States were to accept links with the EU ETS, but reject CDM offsets, EU corporations would buy and use CDM credits within the EU, but make EU allowances available to US buyers. This effect would, however, be restricted by the quantitative restrictions on the use of CDM offsets within the EU ETS. Regardless, it would indirectly link a US ETS to the global CDM market, likely keeping prices lower for all.

A similar effect would occur if the United States accepts offset types rejected by the EU ETS. The EU currently does not accept offsets generated from land use and forestry out of concerns over their environmental integrity. If the United States accepts this subset of offsets and the domestic supply of these offsets turns out to be abundant, a comparable shuffling of US allowances towards the EU would take place to the benefit of EU participants.

The European emission trading market consisting of 25 states has demonstrated that a market can function effectively despite national differences in regulation and market design parameters. Differences in eligibility rules for offsets will not prevent linking between programs, but depending on how significantly such differences impact trade flows and prices, they may have to be addressed in the specific provisions regulating the linking of the markets.

Global Carbon Standards Achieved via Adjustment Mechanisms

Many DECD countries, including the United States, have voiced concerns that many CDM host countries have progressed to a level of economic development where their emissions can be restricted without undue harm to their economies. In the absence of such restrictions, interest groups and policymakers have explored other means by which the environmental cost of GHG emissions could be embedded in the cost of producing goods and services. Border adjustments represent one approach for assessing this environmental cost. Other approaches include the rejection of international offsets from countries with no comparable domestic measures as proposed by the Climate Security Act and other direct interventions in the carbon market.

The United States is faced with a choice. On the one hand offering US businesses under a cap-and-trade scheme access to the global offset markets will lower their compliance cost, it will reduce negative effects on their international competitiveness and it will reduce the cost for consumers. On the other hand restrictions on use of global offsets would direct attention and investment to emission reduction opportunities within the United States with additional domestic benefits, but also with their additional cost.

Using the carbon market as a means of forcing climate policy commitments onto other countries has its strengths and weaknesses. There is evidence that the CDM mechanism has contributed to improving developing world opinions regarding the use of carbon trading and caps as a means of addressing greenhouse gas reduction targets.

From a market perspective, restrictions should be introduced in such a way that they do not impair the efficiency of the market. As markets are based on price mechanisms, carbon trading work best when deployed within market based systems and in conjunction with policy instruments that rely on price mechanisms. As such they work better with tools that penalize emissions, for example through the proposed border emissions tariffs, than with actions that significantly reduce the scope of the carbon market and the options available to the market participants.

Point Carbon's view is that the stringency of targets such as the one proposed by the Climate Security Act of 2007 will require access to multiple sources of abatement opportunities. The allocation process further creates wealth that can be judiciously directed to compensate for undesired distributional and competitive effects as well as promote both domestic and international technological development.

Conclusions

- Despite initial challenges and criticism, experiences from Europe show that cap and trade programs have worked, and are working to allow European countries to cost effectively manage their GHG emissions.
- Linking of regional or international cap-and-trade schemes provides benefits to the economy by offering more reduction
 opportunities, improved market efficiency and reduced competitive disparities.
- Restrictions on international emissions offsets, such as those in the Climate Security Act of 2007, are likely to increase the compliance costs for the US economy, and have the potential to place US businesses at a competitive disadvantage.
- Policies to draw additional economies into emissions reduction agreements should not impair the functioning of markets and should avoid limiting cost effective compliance options available to US companies.
- The allocation process creates wealth that can be judiciously directed to compensate for undesired distributional and competitive effects as well as promote both domestic and international technological development.