

CARBONfirst (April/May 2008)

Executive editor: Shandi J Modi, Founder & CEO, IDEAglobal Group Climate policy and market insights



Lord Nicholas Stern, Vice

Chairman, IDEAGlobal Group



Mr Ian Johnson,

Chairman, IDEAcarbon



Mr Ng Kok Song, MD, GIC, Singapore and IDEAGlobal Advisor



Mr Shandi J Modi, Chairman, IDEAGlobal Group

Highlights

- S Ian Johnson highlights the importance of developing world in achieving a global deal on climate change, focussing on R&D and forestry.
- IDEAglobal Group Vice Chairman Nicholas Stern and team present global deal elements, focusing upon effectiveness, efficiency, and equity
- S The UK's Committee on Climate Change advises on 5 year carbon budgets.
- An analysis of competitiveness in the EU reveals firms may profit from the EU ETS if allowances are freely allocated and costs can be passed along through consumer prices.

Contents

<i>Inside Policy Track</i> IDEAcarbon Chairman Ian Johnson	P2
<i>Feature</i> Key Elements of a Global Deal by Nick Stern Vice Chairman IDEAglobal group	P4
The UK is building climate change institutions	P6
<i>Analysis</i> International Competitiveness in the EU	P9
Carbon Calendar™	P12
pCER Price Index™	P14

CARBONfirst is a membership-based interactive resource. We welcome your comments, questions and suggestions. Please contact us on info@IDEAcarbon.com or +44 207 664 0211.

WARNING TO ALL CARBONFIRST READERS: Be advised that you will be subject to criminal and civil legal action and material liability from any unauthorised use of any CarbonFirst product or any part thereof. Photocopying, forward e mails, and any disclosure or distribution of any CarbonFirst product or any part thereof are restricted to those named individuals expressly set forth in the IDEAcarbon contract and any action taken by you, your agents or by others on your behalf or with your knowledge or participation, will subject you to such liability. IDEAcarbon fax products are supplied on IDEA carbon's standard terms and conditions, a copy of which is available on request. Without prejudice to any provisions contained, in such terms, IDEAcarbon and all identified data suppliers obtain information for their analysis and forecasts from sources they consider reliable but neither IDEAcarbon nor any identified data supplier guarantees its accuracy or completeness. All conditions, warranties and representations expressed or implied by statute, common law or otherwise in relation IDEAcarbon services are excluded and in no event shall IDEAcarbon or any identified data supplier be liable for any losses or damages, whether indirect or consequential foreseen or unforeseen including loss of profit or other economic loss arising out of any IDEAcarbon service. The liability of IDEAcarbon and any identified data supplier shall be limited as set out in subscription agreements (or shall be ni if there is no subscription agreement). ©2008 IDEAcarbon



Inside Policy Track: Ian Johnson, Chairman, IDEAcarbon



Ian Johnson -Chairman

lan ioined **IDEAcarbon** following а distinguished career at the World Bank. For eight years he was the Bank's Vice President for

Sustainable Development overseeing its work on climate change and carbon finance. Prior to that he played a major role in negotiating the establishment of the Global Environment Facility (GEF) and managed its day-to-day operations for six years. Ian is presently an advisor to Globe, the G8+5 and to the UNFCCC.

Generally, how bullish or bearish are you about the state of the carbon markets?

The market is going through a bearish patch at the moment, but there are still many reasons to be bullish. No one doubts anymore that carbon markets will be a key feature of the emerging post-Kyoto regime. Moreover, the bearish phase we are going through is probably healthy and may trigger some important corrections that will make the market stronger in the long term. Some market participants have been too cavalier about the risks associated with CDM projects, for example. They are now going through an adiustment phase with their portfolios. This is painful, but a better understanding of the actual risks in these projects can only be healthy. Similarly, on the regulatory side, policy makers are hearing the calls for better regulation and long-term clarity post-2012.

What do you think is the best solution to improving transparency and liquidity in the markets?

Transparency and liquidity go hand-inhand. The most obvious ways to boost liquidity is a clear price signal for the various carbon assets-EUAs, CERs, and VERs. Price signals in term require a clear understanding of the underlying risks, and ideally standardisation of risk а categories, based independent on assessments. Once the risk is understood, investors will more freely invest, boosting the information, capital, and financing available on the markets. It follows that transparency and liquidity should develop in tandem. There is certainly evidence for greater transparency and liquidity as the markets mature, but having clear understandings about the risks involved will take it one step further.

How optimistic are you about the possibility of a Global Deal by 2009, and what do you think it will take to bring all parties to agree at the negotiating table?

On the global deal I am slightly less optimistic - or more realistic - than my IDEAcarbon colleague Nick Stern. There will be a new global deal, I have little doubt about that, but the time remaining until 2009 is really quite short. We have seen countries like China and more recently Russia taking guite a strong stance. This is in part pre-negotiation positioning, but reaching consensus from these starting points will take time. What this means, in my view, is that we may well end up with a meaningful agreement only in 2010 (when, for example, the new American administration has had time to settle in) or with a fudge in 2009 that will take a few years to clarify. Arguably, this is what we had in Kyoto, and it took 4 vears (until Marrakesh in 2001) to sort out the detailed rules of engagement.

Are you bullish about the CDM in a post-Kyoto framework?

Absolutely. We expect CDM volumes to slow over the next two years or so, as developers await the outcome of the negotiations. But the market will only need a minimum of regulatory clarity to pick up again. Obviously, post-2012 risk will remain for quite some time. That will



affect the price, but the market should also recognise the considerable upside. Stern's *Key Elements*, for instance, would move the CDM to the next level. He is right to propose a wholesale mechanism where carbon can be traded on a much larger scale, without compromising the environmental integrity of the scheme. I see a fair amount of consensus that this is the direction in which we should go.

What would the price of carbon need to be to truly create sufficient flows of technology and funds to the developing world and bring about meaningful emissions reductions?

I've heard different estimates. The EU wants a price north of \in 30, partly to promote new technologies. However, we have to be careful not to burden one policy instruments - trading - with too many objectives. The main benefit of carbon markets is to find the least expensive abatement solutions. They also provide an incentive to innovate, but if we really want to accelerate R&D on a big scale, we may have to complement the \in 30 carbon price with other policy instruments that specifically promote incentivise R&D and new technologies. I'm not sure if €30 on its own would be high enough to achieve that objective.

Lord Stern's report emphasises that the developing world should not face caps until 2020 but instead should continue to benefit from the CDM and endorse sector benchmarks that are scalable. What needs to be done between Copenhagen and 2020 to ensure that countries such as China and India are on the road to an eventual cap-and-trade?

The most important step will be to find investors in Chinese and Indian markets. This will demonstrate to these countries that there is something "in it for them". Current CDM countries have huge development needs. It is unrealistic (and unfair) to expect them to constrain unless emissions the West can demonstrate that the move to a lowcarbon economy is compatible with economic growth. In that sense, the CDM is not a distraction, but a training ground for future cap-and-trade.

The report emphasises the importance of financial mechanisms to reduce emissions from deforestation. What are your hopes for currently proposed mechanisms (i.e. the World Bank's Forest Carbon Partnership Facility)?

I agree with Stern that we have to devote much more financial and administrativeand intellectual-resources to deforestation. The Forest Carbon Partnership Facility is a key initiative in this respect. Deforestation is crucial for several reasons. First, we cannot stabilise the climate without addressing forestry emissions. Second, forestry is part of the political glue that will hold the global deal together. Reducing forestry emissions brings developing countries into the fold. Finally, addressing deforestation host also has а of additional environmental and social benefits, from watershed protection to poverty alleviation. One of the challenges we have, and where the World Bank can help, is to monetise these additional services alongside and in the same way as we should monetise the carbon benefits of avoided deforestation.

Panellists at the Key Elements of a Global Deal launch mentioned that 70% of CO2 abatement can be achieved via current technology. Is this an accurate estimate? What level of investment in R&D is necessary to generate 17% IRR? This is a very encouraging estimate. I can't cite specific numbers, but to me the 70% sounds credible only if carbon capture and storage (CCS) is classified as a current technology. CCS is well-known and the issues are understood, but realistically it is not yet a current

realistically it is not yet a current technology. Much more effort is needed, and the same is true for other technologies that are promising but not yet economic. It's hard to pinpoint a level of investment that would secure the desired outcome. But one thing we know is that the developed world has to do its share to transfer financing and technologies to the less-developed world.



Key Elements of a Global Deal

By Lord Nicholas Stern, Vice Chairman, IDEAglobal Group

Over the last few months Lord Stern along with IDEAcarbon colleagues and others, have overseen a framework that is designed to encourage collaboration between the public and private sector towards a new global deal. Below Nick Stern summaries the ambitions and scope of this initiative.

This initiative brought together leading institutions across the private and public sectors to author an analysis of what will be specifically crucial to achieving worldwide reductions in CO2 emissions. Given the size and scope of the project, it is hoped that market players, policymakers, and the general public will be paying attention: it details a coherent yet uncomplicated roadmap to achieving a truly global deal—something Bali arguably failed to achieve.

More significantly, this is the first time that an academic institution has taken such a significant step in climate change advocacy. The LSE has utilised its global network to incorporate discussions with UNFCCC Secretary General Yvo de Boer with the expertise of climate change economists and carbon market professionals. In addition to IDEAcarbon members, contributors to the report included several UK government departments, LSE academics and HSBC.

Key Elements of a Global Deal reinforces the discussions at the World Economic Forum meetings at Davos, and is three principlesunderpinned by effectiveness - the ability to reduce GHGs emissions to an acceptable level: efficiency - controlling overall costs; and equity - taking into account relative living standards, historical responsibilities and aspirations for growth and developmentunderscoring the broader six recommendations.

The initiative details a coherent, uncomplicated roadmap to achieving a truly global deal—something that Bali failed to achieve

Among the policymakers at Davos, former Prime Minister Tony Blair led the concluding day of talks, stressing the scale of the global warming challenge. Since Davos in January, Blair has redoubled his commitment to combating global warming. By teaming up with the Climate Group in mid-March and using his experience to begin an initiative (conjoined with Key Elements of a Global Deal on many levels) ahead of the G8 Summit on Climate Change in Hokkaido this summer, Blair seeks to invoke the support of the biggest contributors to climate change. Blair's initiative, Breaking the Climate Deadlock is drawing on Key Elements of a Global Deal and focuses on the key actors underpinning the success of a global agreement by 2009, including the US, EU, Japan, India and China.

On the other hand, rather than targeting country-specific dialogues, our initiative outlines the key *areas* necessary for agreement.

The Key Elements of a Global Deal publication underscores the following six key areas—which the Stern Review advocated in 2006—necessary for international harmonisation on climate change mitigation:

1. The need for universal targets

A target of 500 ppm CO2e is necessary to stabilise global warming, which will be met by cutting 50% of all GHG emissions by 2050 with a 1990 baseline. This is a commitment of less than 2 tonnes of CO2e for average per capita emissions:



about 80-90% cuts in emissions for developed countries such as the UK and US.

2. An international cap and trade system

This is essential for a post-2012 global deal because it ensures efficiency, equity and effectiveness by reducing the costs of action, generating financial flows to developing countries, and imposing an absolute limit on emissions. International cap and trade has already generated a carbon market valued at \notin 40 billion in 2007. Putting a price on carbon is an essential incentive to limiting emissions.

3. Developing countries' participation in mitigation and trade

Developing countries must contribute to the global deal from the outset. However, they are unlikely to accept sufficiently stringent targets in the shortterm. Until this is the case a "one-sided mechanism" like the CDM - which rewards emission reductions but does not punish emission growth -has to remain in place. However, the system has to move from project-by-project scrutiny to а wholesale approach to scale up financial and technological transfers to the level required.

4. Including deforestation and afforestion as offsetting projects

With about 20% of global GHG emissions derived from forestry, the 'Kyoto 2' deal should integrate forestry credits into its project and or trading platform. Addressing deforestation therefore should be at a significantly large scale, requiring public resources and demonstration projects for capacity building.

5. Getting technology policy right

To achieve a low-carbon economy, carbon productivity growth must increase, attainable through investment in low-carbon technologies. A large, coordinated increase in public R&D funding for low-carbon technologies is necessary, incentivised for developing countries.

6. Financing adaptation

Climate change will hit poorest countries hardest. The solution is climate-resilient development, for which rich countries must provide assistance financially and technologically. Adaptation assistance must be integrated into development spending.

The key elements will be advocated by major climate leaders and financial institutions, increasing the likelihood of collective acceptance

What does this mean for the road to Copenhagen, and climate change on a greater scale? The hope is that because these specific six areas will be advocated by major climate spokespeople, as well as financial institutions and carbon consultancies, the likelihood of achieving consensus will increase. Getting these players on board and in agreement is absolutely crucial, given the difficulty in uniting 183 countries behind a single front.

There already exist major hurdles in international agreement, seen since Bali during the Bangkok negotiations and the Major Emitters meetings in Washington, Honolulu, and Paris. The aim of *Key Elements of a Global Deal* will be to facilitate congruence on the six key areas, and in tandem with Tony Blair's *Breaking the Climate Deadlock* initiative, a unified front from the developed world will certainly provide a formidable advocate for reduction targets.

Slow but steady progress is under way. The difference between a truly global agreement and disintegration of the existing system are divided by a very fine line. It is my sincere hope along with IDEAcarbon members and other colleagues, that *Key Elements of a Global Deal* will bridge the divides to formulate an effective long-term international agreement on fighting global climate



change, whilst maintaining robust growth in the developing world.

For more information or to participate with us on this initiative please contact <u>info@ideacarbon.com</u>.

Feature

The UK is Building Climate Institutions

By Samuel Fankhauser, Managing Director, IDEAcarbon Strategic. Sam has recently been appointed to be a member of the Committee on Climate Change and here he outlines how the committee works.

More and more world leaders, from the G8 to California's Arnold Schwarzenegger, are calling for emission reductions in the 50-80% range by the middle of the century. The problem with these pronouncements, important though they are, is that on their own they lack credibility. The challenge is to convert long-term aspirations into binding short and medium-term commitments.

In a new Climate Change Bill, currently before Parliament, the UK is breaking new institutional ground to address this issue. The bill includes several features to ensure long-term commitments are met. First, the bill includes a statutory emission reduction target for 2050 of at least 60%. Second, the path towards the long-term goal will be sketched out in a series of statutory five-year carbon budgets. The government believes that this approach balances the need for long-term certainty (to make investment decisions) and short-term flexibility (to absorb annual fluctuations related to, for instance, the weather and energy prices).

To give further credence to the targets, the government is setting up a new independent body, the Committee on Climate Change. The committee's primary task is to advise the government on the five-year budgets and to subsequently monitor adherence to the budget targets. In an annual report to Parliament, the committee will testify whether the UK is on track to remain within the relevant five-year budget. The committee itself does not have the authority to set the budgets. It is an advisory body. However, the climate change bill requires government to justify any deviation from the committee's advice to Parliament (and civil society), which will de facto give the committee a fair amount of influence over carbon targets.

Within two years investors should have legal certainty over the UK's emission reduction path until 2027

Recommendations for the first three carbon budgets (covering the period 2008-2022) are to be made by December 2008 and will be passed into law in early 2009. The bill prescribes that the first three budgets have to lead to emission reductions of at least 26%. (Originally the bill specified a range of 26% - 32% but during parliamentary discussions the upper limit was removed).

Agreement on the fourth budget period is expected by 2009/2010. That is, within two years UK investors should have legal certainty over the UK's emission reduction path until 2027 (although not necessarily over the policies that will get us there).

In its considerations the Committee is expected to take into account a number of important additional considerations. They include:

- competitiveness
- fuel poverty



- energy security
- fiscal implications and
- impact on UK regions.

Particularly the first three budgets will also be influenced by the climate change policy of the European Commission, which is proposing EU-wide emission targets for 2020. Since the committee will report in early December, before the Commission's climate change package is finalised, its recommendations are likely to influence the UK's position on the final package.

At the outset, the Committee will take on a number of additional tasks. Chief among them is a recommendation on the UK's emissions target for 2050. The climate change bill specifies that the UK's long-term target should be a reduction in CO2 emissions of at least 60%. Originally, the bill had specified a range of 60 - 80%, but as in the case of the 2020 target, the upper bound has been removed. The 60% figure is based on the 2007 Energy White Paper, while 80% has been advocated by influential advisors like Lord (Nicholas) Stern, Vice Chairman of IDEAglobal Group.

In addition, the committee has been asked to opine on a number of technical issues, including:

- The role played by credit imports, both from the Kyoto mechanisms and through the EU Emissions Trading Scheme. The role of the latter is, of course, determined by the market, since there are no trade restrictions on UK installations. However, there may be a debate about the role of UK compliance buyers (and perhaps the government) in the CDM and JI.
- The inclusion in the target of non-CO2 gases. The UK's current target concerns only CO2, but a powerful case has been made by people like Bob Watson, Chief Scientist in the Department of the Environment,

Forests and Rural Affairs (DEFRA), to include all GHGs.

The inclusion of international • transport (aviation and shipping). This is primarily a guestion of delineation (the allocation of emissions between country of origin and country of destination) and the establishment of international accounting rules in this respect. But it has been claimed that UK emissions would be higher than in 1990 if international transport emissions were included.

By 2050 the UK will reduce carbon emissions by at least 60%

Also mooted is a role for the committee in monitoring adaptation policy and the UK's preparedness to deal with climate change. Much of this work, in particular in terms of flood defense, is currently spearheaded by the UK Environment Agency.

The effectiveness of the Committee will depend not least on the stature of its members.

Observers welcomed the appointment of Lord (Adair) Turner as Committee chair. A former Director General of the Confederation of British Industry, Lord Turner is respected in both business and government circles. He is also known for his independence. In his earlier role as chair of the Pensions Commission he famously clashed with then-Chancellor Gordon Brown.

The other members include:

 two scientists: Lord (Bob) May, the government's former Chief Science Advisor, and Sir Brian Hoskins, who heads the Grantham Institute for Climate Change at Imperial College;



- two economists: Professor Michael Grubb, Chief Economist at the Carbon Trust, and IDEAcarbon's Sam Fankhauser; and
- a technologist: Professor Jim Skea, Research Director at the UK Energy Research Centre.

Up to three further members will be appointed later for a committee of nine. The committee is supported by a 25 person strong Secretariat which should ensure its credibility as an independent body.

The climate change bill is expected to be passed later this year. Until then the committee will function as a "shadow body".

Sam Fankhauser is a member of the Committee on Climate Change. For further information contact info@IDEAcarbon.com.



International Competitiveness in the EU

Competitiveness has come to the fore of international climate policy in recent months. There concern is among economies and their respective industries that cost increases induced by carbon restrictions could result in competitive disruptions vis-à-vis foreign competitors not subject that are to carbon constraints. Potential losses in market share and eventually leakage-i.e. the shift of carbon-intensive production to unregulated jurisdictions - are often used as an argument to caution against strong domestic action on climate change.

Competitiveness concerns can explain that major economies such as the US and Japan put priority on creating a post-2012 climate policy regime that entails carbon constraints for all major emitters. A more even playing field among the world's economic superpowers is put forward as a condition sine qua non. A similar motive lies behind the EU's provision to only post-2012 increase its reduction commitment from 20 to 30 per cent, if other major economies shouldered comparable commitments under a future agreement.

At the level of the European Union, the international competitiveness of individual industries is primarily discussed in the context of the EU ETS, the main European instrument to induce industrial mitigation activity. In this context, a distinction has to be drawn between intra competitiveness. and extra-EU The former largely depends on the fairness of national allocation plans, that is whether the firms of one sector receive comparable allowance volumes in Other key factors that influence the economic impacts of the EU ETS on a given sector are its energy intensity, its opportunities for CO2 abatement and the allocation method. Together, the three determine the size of the marginal cost increase that companies face.

different member states. However, this issue is likely to lose significance towards phase III of the scheme, when allowances will be allocated on the basis of fully harmonized rules. All competitors within the EU will then be affected equally by carbon prices.

What is more, firms may profit from the EU ETS. This opportunity arises if allowances are handed out for free and firms can pass the opportunity costs through to product prices. This has largely been the case in phase I of the scheme. when utilities in Europe generated massive profits. windfall However, the energy sector is a special case, as it lacks exposure to international competition.

Firms may profit from the EU ETS if allowances are freely allocated and costs can be passed along through consumer prices

In contrast, industries operating in a global market are restricted in their ability to pass through costs to their customers. If such companies simply adjusted prices in proportion to their CO2 costs, they may suffer losses in export demand and domestic production could be displaced by cheaper imports or by other substitutes (it is a matter of demand elasticity). To some extent, these effects are mitigated by trade barriers such as transport costs or import restrictions.

Higher energy inputs imply greater vulnerability to carbon prices. On the other hand, increasing carbon and thus energy prices are a lesser concern where energy is not a significant cost factor. With regard to a firm's direct CO2 emissions - which have to be matched by



allowances - the marginal costs increase depends on the extent to which allowances are given for free or have to be bought (e.g. at an auction). Extra costs can be smoothed to some extent, if untapped opportunities for low cost abatement are available.

Affected Sectors

Economic analyses conducted on industrial competitiveness impacts of EU ETS indicate that only a very limited number of industries are likely to be affected. A case in point is cement and steel production. Both sectors have relatively high direct emissions and therefore face high CO2 costs. However, as a result of various barriers (e.g. transport) the intensity of trade in these products is found to be rather low.

In theory, this provides firms with the opportunity to pass a large share of their CO2 costs trough to product prices. But firms assert that this picture might change in a potential future with much higher carbon prices than today. At a sufficiently high cost differential, trade barriers may no longer be prohibitive.

In contrast, the aluminium sector is in a more vulnerable position. Firms face sharp global competition and need high energy inputs for primary aluminium production. Many analysts see a severe risk that the sector's ability to compete with non-EU firms could erode - even though it is not yet part of the EU ETS. Other sectors that are a cause for concern in terms of competitiveness are paper production, pulp and some chemical processes and fertilizer products, and to a lesser extent, steel.

Policy options

Sectoral approaches feature prominently in discussions on post-2012 climate policy. The basic idea is that a specific industrial sector takes on a sector-wide target or "benchmark" across international boundaries. Competing firms around the world would then have comparable abatement obligations. Assuming broad participation, this would create a level playing field and thus ease competitiveness concerns. However, a lot of technical work and negotiation on how such a scheme would function actually remains to be determined. Unless a workable and satisfying approach is established by the international community, the industries in question will be kept under the umbrella of EU ETS.

The EC intends to auction allowances progressively from 2013 onward, factoring in exceptions for sectors at risk

The concept of border tax adjustments has been mooted by the European Commission and some member states as another option to guard against leakage and ensure the competitiveness of European industry. European industries with CO2 costs would high be compensated when exporting, e.g. by tax breaks or some free allowances. Similarly, importers from countries that do not impose a CO2 cap on their industry would be taxed for emissions embedded in their products or required to buy a corresponding number of allowances. Again, many questions of technical design still need to be sorted out, as well the WTO compatibility of such mechanism. In addition, there is concern that the consideration of protectionist border tax adjustments could be perceived as a hostile attitude and become an obstacle to reaching a multilateral agreement. An easier option to compensate for potentially negative competitiveness effects and to avoid leakage is to simply continue free allocation of allowances for relevant sectors. The European phase Commission wants to in auctioning progressively from 2013 onwards, but considers such exceptions for sectors at risk. Outlook

The European Commission has signalled understanding for the competitiveness



of European companies. concerns However, it does not intend to take a decision on any of the outlined policy options in the near future. As competitiveness concerns are very much contingent on the outcome of the international negotiations, the Commission wants to wait for the conclusion of a renewed global climate framework, which is scheduled for late 2009. In the light of this agreement, it plans to determine by 2010 which sectors are more at risk of competitive disruptions. Thereafter, by 2011, the Commission intends to carry out an indepth assessment of the situation of energy-intensive industry and the risk of carbon leakage.

For more information contact <u>info@ideacarbon.com</u>



Solution Solution Carbon Calendar[™]

	Date	Event	Significance	Location
S	7-9 May 2008	Carbon Expo	Leading trade fair with an accompanying conference on all aspects of emissions trading	Cologne, Germany
9	12-14 May 2008	39th Meeting of the CDM Executive Board	Meeting to discuss new methodologies, project registration and CER issuance under the CDM	Bonn, Germany
5	24-26 May 2008	G8 Environment Ministers' Meeting	Dialogue platform for the G8 where Ministers will voice and prepare their positions in anticipation of the G8 Summit in July 2008; discussions will focus on issues of adaptation, binding and sectoral targets, technology transfer and finance	Kobe, Japan
(June 2008	GLOBE International Japanese Legislators Forum	Fourth meeting of the Legislators Forum of the G8+5 Climate Change Dialogue will convene in advance of the G8 Leaders Summit	Tokyo, Japan
(June 2008	Major Economies Meeting	Semi-formal discussions between leaders of major emitters in the developed and developing world; organized by the US, the meetings provide background to the G8 and UN process. Issues include trade, technology transfer, binding targets and commitments, and sectoral targets	Paris, France
S	June 2008	India Climate Change Report published	Report will provide long term and comprehensive climate policy covering every sector	India
S	June 2008	Major Economies Meeting	Semi-formal discussions between leaders of major emitters in the developed and developing world; organized by the US, the meetings provide background to the G8 and UN process. Issues include trade, technology transfer, binding targets and commitments, and sectoral targets	TBD
S	2 June 2008	Final US Senate Vote on the Lieberman -Warner Bill	The passing of the Bill would be a significant shift in US climate change policy and would signal the beginning of the process of establishing a US-wide emissions-reducing cap-and-trade system	Washington, DC, USA
6	2 June 2008	Auctioning begins under the US-based Regional Greenhouse Gas Initiative (RGGI)	Auctions will give a price signal for carbon credits in advance of RGGI's launch on 1 January 2009	Northeast/mid- Atlantic USA



5	Date 7-8 June 2008	Event G8 Energy Ministerial Meeting	Significance Dialogue platform for the G8 where Ministers will voice and prepare their positions in anticipation of the G8 Summit in July 2008; discussions will focus on issues of energy security and renewable energy	Location Aomori, Japan
S	2-12 June 2008	2nd Session of the Ad Hoc Working Group on Long-Term Cooperative Action and 5th Session of the Ad Hoc Working Group on Further Commitments for Annex I Parties to the Protocol	Second round of official negotiations on the implementation of the Bali roadmap and the development of a post-2012 system. The two Ad Hoc Working Groups cover, respectively, Annex 1 Parties to the Kyoto Protocol, and developed and developing countries	Bonn, Germany
S	2-13 June 2008	Conference of the Parties for Officials (SB28)	In follow up the Bali roadmap of December 2007, formal negotiations on post-2012 climate change policy continue here	Bonn, Germany
\bigcirc	15-16 June 2008	40th Meeting of the CDM Executive Board	Meeting to discuss new methodologies, project registration and CER issuance under the CDM	Bonn, Germany
Ş	16-17 June 2008	11th Meeting of the Joint Implementation Supervisory Committee (JISC)	Formal JI meeting under the UNFCCC new methodologies, project determination and ERU issuance under JI	Bonn, Germany
5	June/August 2008	Informal International Environment Ministers' Meeting (the Greenland Dialogue)	Ministers will discuss issues of adaptation, binding and sectoral targets, technology transfer and finance	TBD
S	7-9 July 2008	G8+5 Summit	Dialogue platform for world leaders. Japan has made climate change and sustainable development a priority for the summit, which will complement discussions under the UNFCCC and the Major Economies Meetings	Hokkaido, Japan
5	2nd half of 2008	OECD high level conference on the economics of climate change	Dialogue platform for policy makers; discussions will focus on climate change and the outlook to 2030, the cost of inaction and global competitiveness	TBD
S	August/September 2008	3rd Session of the Ad Hoc Working Group on Long-Term Cooperative Action and 6th Session of the Ad Hoc Working Group on Further Commitments for Annex I Parties to the Protocol	Third round of official negotiations on the implementation of the Bali roadmap and the development of a post-2012 system. The two Ad Hoc Working Groups cover, respectively, Annex 1 Parties to the Kyoto Protocol, and developed and developing countries	TBD
5	30 September 2008	Final publication of Australian Garnaut Climate Change Review	Examines impacts of climate change on Australian economy, and recommend medium to long-term mitigation and adaptation policies	Australia
5	19-20 November 2008	9th International Conference on Greenhouse Gas Control Technologies	Informal meeting on mitigation technologies	Washington, DC, USA

Market Perception: IDEAcarbon pCER Index[™]

IDEAcarbon over the last couple of months has now established the 1st regular pCER survey, which helps to provide increased visibility in the marketplace. Participation is by invitation and includes a cross section of industry specialists that shares their views on pCER developments. The survey captures what market participants would currently pay for pCERS with four different risk features. In particular, the survey asked participants the following question (the survey was completed on 1 May, 2009).

A CDM project is at validation and plans to request registration by the end of 2008. How much would you currently pay per CER for the 2008-2012 strip with the following characteristics (all payment on delivery)?

- (a) The validation, registration and volume risk are taken by the buyer
- (b) As (a), but the seller takes the validation risk
- (c) As (b), but the seller takes the registration risk
- (d) As (c), but the seller takes the volume risk

Results for Week 6 revealed the following prices for the four different scenarios:



Primary CER prices saw a general increase from last week across scenarios (a) to (c), with scenario (d)—essentially an sCER—falling from ≤ 14.90 to ≤ 13.85 . Scenario (d), seller takes the volume risk, continues to demand the highest premium and average price. As expected, the EUA-CER spread which widened to an all-time high of ≤ 9 last week,



narrowed to about €7.75 this week. EUAs came down and CER movement was sluggish, responding to last week's EUA gains and this week's losses.

Over the past three weeks however, pCER price movement has been generally sideways. No major regulatory and political progress has emerged: project issuance rates, EB progress, as well as announcements about the ITL have been largely unchanged. These would alter the perceptions of risk scenarios (a) to (d), the rising tide lifting all boats.

Volume risk, scenario (d), remains the most uncertain and therefore demands the highest premium (≤ 2.35), followed by validation (≤ 1.7) and registration (≤ 1.60). Validation risk is generally perceived by market players as a greater barrier to pCER issuance than registration, which does not carry as much regulatory risk. The max-min spreads within the scenarios widened from last week, and as usual spreads amongst decrease from (a) to (d), reflect decreasing levels of uncertainty around pCER delivery amongst respondents. The buy and sell side still differ markedly in their price expectation for (a) and (b) in particular, but market transparency will alleviate this discrepancy and lend liquidity to the pCER buy (and sell) sides. Scenario (a) again saw a minimum price of zero. Coming from the buy side of the market, this unsurprisingly shows a substantial reticence to assuming all project-based risk.

Whilst the index continues to provide buy and sell side price expectation, the market's liquidity will be greatly enhanced with the ITL's provision of quantitative supply figures.

For a 6 week complimentary copy of the survey, or if you would like to participate in the survey, please contact <u>tzoltani@ideacarbon.com</u>.

WARNING TO ALL CARBONFIRST READERS: Be advised that you will be subject to criminal and civil legal action and material liability from any unauthorised use of any CarbonFirst product or any part thereof. Photocopying, forward e mails, and any disclosure or distribution of any CarbonFirst product or any part thereof are restricted to those named individuals expressly set forth in the IDEAcarbon contract and any action taken by you, your agents or by others on your behalf or with your knowledge or participation, will subject you to such liability. IDEAcarbon fax products are supplied on IDEAcarbon's standard terms and conditions, a copy of which is available on request. Without prejudice to any sources they consider reliable but neither IDEAcarbon nor any identified data supplier guarantees its accuracy or completeness. All conditions, warranties and representations expressed or implied by statute, common law or otherwise in relation IDEAcarbon services are excluded and in no event shall IDEAcarbon or any identified data supplier be liable for any IDEAcarbon service. The liability of IDEAcarbon and any identified data supplier shall be limited as set out in subscription agreements (or shall be nil if there is no subscription agreement). ©2008 IDEAcarbon