Executive editor: Shandi J Modi,
Founder & CEO, IDEAglobal Group

CARBON*first*

Climate policy and market insights

The January edition of CARBON*first* takes a fresh look at climate change developments and policies around the world. Czech Environment Minister Martin Bursik gives his insights into the EU Energy and Climate Package, complemented by an IDEAcarbon analysis of the same. Lord Nicholas Stern examines Brazil's climate and forestry policies, while Ian Johnson goes behind the scenes in China. CARBON*first* also covers the road ahead for the international negotiations.

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Highlights

- The Czech Republic is positive about its potential to deliver on climate change, both within Europe and beyond, during its 6 month tenure as EU President
- Brazil has placed forestry at the top of its climate change agenda and will play a key role in determining forestry's role in the global deal
- While on the world stage China continues to push for developed country actions, behind the scenes it is enacting ambitious domestic climate programs
- 2009 will be an uphill climb in the UNFCCC negotiations, given the uncertainty surrounding the US and the multitude of unresolved issues after Poznan
- With a 2008-2020 offset credit cap of 1.77 $GtCO_2e$, 380 $MtCO_2e$ higher than it was before, compliance for firms in the EU ETS will be noticeably cheaper

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Inside Policy Track

Martin Bursik – Minister for the Environment of the Czech Republic

- A carbon price of €35 per tCO_2 is expected in the future
- The Czech Republic plans on selling 10 $MtCO_2e$ in AAUs by spring, partly through an auction and partly through direct sales to countries
- US leadership is seen as critical for the global deal, for which reason the Czech Republic's first port of call as EU President will be Washington

Martin Bursik first held the position of Minister for the Environment in 1998. Between 1998 and 2005 he worked as an energy and environment consultant and an advisor to the government. In 2005 he became Chairman of the Green Party and in 2006 was elected as an MP in the Czech Parliament. In 2007 he was appointed Deputy Prime Minister and Minister for the Environment of the Czech Republic.

What are the climate priorities of the Czech government while holding the Presidency of the EU?

The agreement on the Energy and Climate Package by the French Presidency means that Europe now speaks with one voice. This is a very good base for the Czech Republic, as President of the EU, to initiate a dialogue with major economies and developing countries to develop the consensus needed at Copenhagen. The first priority will be to develop the financial mechanisms and flows to developing countries for the purposes of adaptation and mitigation. This is a necessary precondition to overcoming the obstacles in our way and finding a consensus.

To this end, I plan to visit Russia, the US, Brazil, Argentina, China, India and Japan. With me for most visits will be a representative of the Swedish government {which will hold the EU presidency in the second half of 2009} in order to show a unified Europe, as well as somebody from the European Commission.

The Presidency is partly dependent on the European Parliamentary elections. Members of the European Parliament (MEPs) are leaving in early April, so most of our work has to be done before then.

What concrete steps will you take to implement the package in order to prepare the EU for phase III of the EU ETS?

A number of steps are going to be taken, though mainly by Member States themselves. Under the EU Emissions Trading Scheme (ETS), the auctioning system is being organised so that there will be 27 auctioning points, one in each of the 27 Member States. Then there are binding targets for each country to increase the share of renewable energy in its power mix and to improve energy efficiency by 20%, for which countries will have to report to the Commission.

What was your position in the negotiations regarding the number of offset credits from the CDM to be allowed in the EU ETS in phase III, and on the system of allowance allocation in phase III of the EU ETS?

I agree with the decisions made in the climate package. In this regard I have had several debates with Satu Hassi {Finnish MEP and Vice President of the Parliament's Committee on Environment, Public Health and Food Safety who prepared the Effort Sharing Directive}, concerning the limits placed on the import of Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs).

The decision to allow a 1% increase in the import of credits {on top of the standard 3%} on the condition that the source projects are in least developed countries or small island states is particularly good, because it sends a clear message to the most vulnerable countries that the EU will invest in those countries that need the most help.

I very much appreciate that the system of grandfathering allowances to installations for free will transform into one of auctioning.

How will Czech industry be affected by stricter caps in phase III of the EU ETS? Do you expect Czech installations to be net buyers or net sellers of EUAs?

Czech industry will be indirectly affected by the price of energy and will thus be pushed in the direction of energy savings. Energy facilities in turn will concentrate on low carbon fuels, i.e. moving away from coal and towards gas and renewables. These effects will be amplified by an expected higher price of carbon.

What do you believe the market price of carbon should be to incentivise sufficient levels of emissions abatement?

It is hard to say. Different models show different sensitivities and willingness to change behaviour and invest in new technologies. We have our own prediction of €35 per tCO_2 or more but it is by no means definitive.

As President of the EU, you will play a key role in the international negotiations in the run-up to Copenhagen. Where do you see the key issues that still need to be resolved?

What role can the EU play to forge a consensus?

The first discussions should be with the US, as it is clear that China, India and others are waiting for the US to move. We know the position of the Obama administration, of 80% reductions below 1990 levels by 2050. We also know that over 20 US Governors have asked the federal administration (before Obama was elected) to initiate a federal climate program, and that those states represent over 50% of the US population. Everything is therefore showing that there will be a change in direction in US policy.

We will ascertain whether they are able to sign the new global architecture agreement, how far they are prepared to go and how much they willing to invest in developing countries. This is something the world is expecting from the US, as well as from the EU.

I appreciate the fact that Carol Browner, the former head of the Environmental Protection Agency, will be Obama's advisor on environment and climate change issues. We met and worked together when I was a minister in the government ten years ago, which will prove an advantage in negotiations.

As far as China and India are concerned, the discussions will be about technology transfer, and about how they understand the opportunities for their economies to compete in a new, low carbon economy. India is already the second largest user of wind power plants, and has the second highest installed capacity after Germany. It has also launched the one million photovoltaic roofs program. And China has adopted its own climate change policy program.

The outcome of Bali was that developed countries would adopt measurable, reportable and verifiable (MRV) targets and that developing countries would adopt MRV actions. It is important to know what is happening in these countries, and what is planned, in order to identify where they can cooperate and be part of the global initiative.

My experience from Bali, when the EU influenced the negotiations, is that when Europe is able to speak with one voice, it is a strong negotiating force. We now have a binding reduction target of 20% or 30% below 1990 levels by 2020, and we want to move forward from that. But the first step is the hardest, which is why we have to move now, as detailed by the Stern Review. My vision is a single European market, linked to other markets around the world, for example to that in the US.

What do you think would be a realistic emissions reduction target to aspire for in Copenhagen, both globally and for industrialised countries like the Czech Republic?

The Intergovernmental Panel on Climate Change has spoken of a global reduction target of 50% by 2050, and preferably 60%. In terms of the distribution of responsibility, developed countries will have to do more to take account of expected industrial growth in developing countries. This really is a shift from the present economic model to a low carbon economy. Countries will need to phase out oil and coal and concentrate on decentralised sources of energy generation, and energy efficiency. These moves will both create green jobs and engender money and emissions savings. My feeling is that the economic recession is a good time to show people that they can save money and at the same time save the environment.

Does the Czech Republic have plans to sell Assigned Amount Units (AAUs) in the 2008-12 period under Green Investment Schemes? If so, how much are you intending to sell, who to, and by when?

There are two steps in the process. We are currently negotiating a contract between the Czech Republic and, amongst others, Japan, Austria and Ireland. We are very close to signing a deal, perhaps by the end of March or the beginning of April, and wish to deliver a total of ten million AAUs. At the same time we are preparing an international auction of AAUs. This will diversify the AAU process: the contracts with individual countries are expected to fetch a different price to the auction, by nature of the different participants involved. We will do both in order to know the price range that AAUs can sell for.

The important thing is the greening, i.e. the extent to which we will use the revenues from AAU sales for further mitigation. The Czech Republic will take advantage of the opportunity to invest the money gained from selling AAUs. A prime focus will be energy savings from households. We will provide the consumer with a means to invest in house insulation, the regulation of heating, solar panels, geothermal power and biomass.

What emissions abatement efforts has the government undertaken so far and what do you plan to do in the future?

Early in 2009 the government will release its climate change program, under which a 30% reduction in emissions by 2020 is included.

In the energy sector, the present government has passed legislation to support renewable and intends to more than double renewable energy production by 2020. To this end we have adopted a feed-in tariff system, with a fixed price that increases every year according to an industrial price index. The tariff works so well that we have seen an annual more than 100% increase in the amount of installed production, and 200% in 2008. It is one of best schemes of its kind in Europe.

What role is there for the private sector in emissions abatement in the Czech Republic?

It will be in the interest of those sectors covered by the EU ETS to lower their emissions in order to be competitive on the market. There will also be a huge market for other investors. Provided that carbon has a price, that price will be incorporated into the price of all goods and services. I expect that the price of carbon will rise, with the launch of the new, auctioning-based EU ETS, and it will filter through to the whole economy.

For further information please contact *info@ideacarbon.com*.

Feature

Brazil positions itself ahead of global deal and moves domestically
By Lord Nicholas Stern, Senior Member of the IDEAglobal Advisory Board

- Brazil has a key role in setting the agenda for the global deal in Copenhagen in December and will carry clout in determining forestry's role
- Brazil wishes to finance reducing deforestation, responsible for 75% of Brazil's emissions, with international funds and without carbon market involvement
- However, Brazil is in need of better institutional capacity and governance, as well as a shift in the economics of forestry, to realise its aims

As a key player in the developing world coalition that is setting the framework and the tone for international negotiations this year, Brazil has a clear voice in the global climate change agenda. In its efforts to combat climate change the country has put the highest emphasis on the fight against deforestation, responsible for over three-quarters of Brazil's total emissions. But forestry remains a contentious issue as questions over national sovereignty, ownership of land and responsibility for emissions replay themselves. Brazil will be key to any deal to allow the developed world access to forestry projects as part of an international carbon market, a potential source of financial support for action. How will Brazil act in balancing these prerequisites and concerns with an international agreement and its own reductions?

In this regard there are three issues of importance to be considered: Brazil's current National Climate Change Plan, the international Amazon Fund for the prevention of deforestation and the relationship between forestry and low carbon growth, in Brazil and beyond.

In the run up to last month's Poznan talks, Brazil published its National Climate Change Plan. This placed it within a broader group of developing countries that have also come up with national climate change strategies, and underscores the seriousness with which Brazil – and other developing countries – are taking the issue. In line with newfound expectations on the developing world to "commit to commit" to emission reduction targets, the G77 group of developing countries have begun drafting policy. China, Costa Rica, India, Mexico and South Africa have produced corresponding plans and programs of varying degrees of intensity and scope: all of them show strong commitment.

Tropical deforestation causes almost 20% of world GHG emissions, of which Brazil accounts for approximately 20%. This number has been volatile over the past decade as food and commodity prices have impacted the rate of deforestation, as land is cleared for conversion into agricultural usage. In 2008 Brazilian deforestation totalled 4,600 square miles (12,000 km^2), up from the previous year by 3.8% as a result of the food price increases in 2008, but down from much higher levels during the 1996-2005 period.

Brazil has committed to reduce tropical deforestation by more than half by 2018 from current rates and by 72% from the average rate over 1996-2005. This is in keeping with the generally ambitious tenor of developing countries' intentions, though it does represent a backing down from the country's initial proposal (from an earlier draft of the Action Plan) to halt deforestation altogether by 2012, which was revised to reflect a more reasonable (and convincing) approach after developed world scepticism.

The current proposal would involve a reduction in the annual deforested area to 2,260 square miles (5,850 km^2). The target will be broken down into successive periods: in 2006-09 the deforestation rate will be reduced by 40% from 1996-2005 levels, and by 30% in each of the 2010-2013 and 2014-2017 periods. The achievement of this goal would avoid emissions of 4.8 $GtCO_2e$ between 2006 and 2017, assuming a carbon content of 100 tCO_2e per hectare. It would reduce emissions per capita in Brazil by 2.1 tCO_2e, from 8.9 tCO_2e in 2000 to 6.8 tCO_2e in 2017.

There will also be a focus on reforestation and afforestation. The total area of forest plantation will double from the current 5.5 million hectares to 11 million hectares. Based on the fast-declining deforestation rates after 2005, the initial target of 40% might be achieved relatively easily. This buys Brazil time until 2013 to decide on the best way to pursue future reductions in deforestation. The next batch of 30% cuts looks more difficult.

One policy instrument Brazil plans to take advantage of in achieving its targets is the use of large amounts of funding, specifically through the Amazon Fund launched by President Lula da Silva in 2007. Brazil plans to accumulate $21 billion over 13 years from the donations of developed countries for the purpose of reducing deforestation. An initial $1 billion over seven years has been pledged by Norway. The fund would perform a range of tasks, from the monitoring and legal enforcement of reduced deforestation activities to the financing of reduced deforestation projects. It is also intended to build up the ability of Brazilian institutions and communities to prevent the loss of forests, more than capacity-building in the traditional sense.

Under the scheme, Brazil will however be tasked with ensuring that donor funds are dealt with transparently and appropriately. In this vein Brazil took steps in Poznan to demonstrate that funding will not be in the hands of the government, but in a bank. Funding for projects will be driven by performance standards, assessed continuously, and independently monitored. 2009 will reveal whether or not the developed world is convinced of the likely effectiveness of these measures.

The promotion of the Amazon Fund as an instrument reflects Brazil's reluctance to forego national sovereignty and allow the developed world access to forests as part of an international carbon market – at least until the foundation in Brazil has been laid and the rich world shows its own commitments to cutting emissions. This position was stated in Poznan within the Ad Hoc Working Group on Long-term Cooperative Action, of which Brazilian Luis Machado was the Chairman in 2008. Notwithstanding the potential benefits of the carbon market, Brazil claims that it can make strong progress in managing its forests on an environmentally and socially sustainable basis without recourse to market mechanisms such as the Clean Development Mechanism. Other forest nations propose either a combination of markets and funding or a purely market-based approach.

All the above is qualified however by the extent to which forestry and economic or social development are related. In many areas (e.g. northeastern Brazil) large, poor and expanding populations depend on forests for their livelihoods and thereby put immense pressure on those forests. Target-setting and the provision of funding will not suffice in such areas. A shift in the economics of forestry, a move towards more sustainable industries and a strengthening of institutional capacity will be necessary, and they are far harder to implement than the aforementioned targets and money. This is a crucial point: halting deforestation and promoting development are inextricably linked. Alternative activities and good governance must go side-by-side with avoiding deforestation.

The lack of capacity and enforceability cited by sources close to the government and Brazilian projects underline the difficulties. There is a clear and stated absence of effective policing in forested areas. Simply put, the rate of deforestation cannot be

accurately monitored and controlled because the manpower, property rights enforcement and legal framework for repercussions are missing. Problems of governance at the local and regional level also exist.

This is not to say that Brazil's forests are altogether ill-managed. In fact, compared to other developing countries with similar forestry assets, Brazil is ahead in terms of forestry protection and management. The problems of governance and of development are of basic importance on this issue.

There is much still to be done both domestically and internationally before Brazil's goals are reached. But the important thing is that goals have been set, that they were set within the context of those of other developing countries, and that Brazil is at the forefront of those who see the importance of getting an international agreement where all countries move strongly.

For further information please contact *info@ideacarbon.com*.

Feature

China making progress on climate policy
By Ian Johnson, Chairman of IDEAcarbon

- Despite international perceptions regarding China's lack of action on domestic emissions controls, China is making significant progress behind the scenes
- China's White Paper on Climate Change, and the forthcoming 12th Five Year Plan continue to show progression on Chinese climate change investment
- China is working hard behind the scenes to prepare itself to take on more ambitious mitigation efforts, perhaps including a cap-and-trade scheme

Perspectives on China's evolving climate policy vary almost as widely as Chinese growth forecasts for 2009. The debate is marked by the political discrepancies between the conservatives and the reformists within the state. Although China may be playing its cards close to its chest while pressure from the developed world bears down, CARBON*first*'s analysis is that there is some reason for optimism.

Commentators and observers are prone to chastising China for not doing enough domestically and for their intransigence in international negotiations. The criticize China for neglecting to take on an emissions reduction commitment of its own, wishing developed countries to themselves finance Chinese mitigation and development. All the while it is continuing to rely on fossil fuels for rapid economic growth.

This view however does not give China the credit it deserves. On, and particularly under, the surface, China is doing much more than may at first be apparent. Domestically, considerable investment, policy formation and capacity-building is taking place in the climate space, underpinned by new economic policies supporting sustainable development. And behind the scenes China is undertaking the more subtle and vital task of analysing in detail its potential to combat climate change.

International policy

China is the world's largest emitter (having surpassed the US in 2008) and the world's largest Clean Development Mechanism (CDM) host country, both in project number and net value. However, on a per capita emissions basis China ranks only about 75th globally, and cumulatively it has contributed considerably less to the global CO_2 stock than nations that industrialised in the nineteenth century.

Hence, China is in a position to ask for obligations from the developed world and continues to push for common yet differentiated responsibilities to address climate change. According to China, the developed world must fulfil certain requirements before China can make a commitment to targets. Such requirements include further technology transfer, leading by example of low carbon growth, an enhanced CDM, and a credible commitment to 80% cuts by 2050 from 1990 levels and 25-40% cuts by 2020. It has proposed the establishment of a technology fund equivalent to 0.5% of developed country GDP paid for by the international community to aid the shift to newer cleaner technologies across the energy and industrial sectors.

Domestic policy

Despite the evident drawbacks of these positions, for proof of China's development it is important to look beyond the word of mouth of international climate advisors. In

this way one can better understand the subtlety of Chinese public statements and documentation on climate change policy.

This autumn China published its White Paper on Climate Change[1], proposing sustainable economic growth mechanisms and in effect codifying its commitment to commit. It lays out plans for effective renewables targets, carbon productivity improvements and bright ideas for a low carbon growth strategy. For example, renewable energy targets have been doubled; and the goal to reduce energy intensity by 20% by 2010 will result in emissions savings of up to a hefty 1.4 billion tonnes. Many of these policies and programs were included in the 11th Five Year Plan (2006-2010), and will be continued in the 12th Five Year Plan (2011-2015), the writing of which will begin in the latter part of 2009.

China is in a position now to utilise its domestic economic stimulus plan – the package proposed by China's Transport Ministry comes to ¥4 trillion ($586 billion, equivalent to 3.5% of Chinese GDP) – for low carbon growth and to enact the above measures. The economic slowdown presents an opportunity to restructure parts of the Chinese economy, which have relied on a command and control model, laden with government (public sector) investment and often outdated technology (for example inefficient coal-fired plants).

The political climate is also changing. Reformists in particular – such as Group of 50 Leading Economists (C50) – have pricked up their ears to traditionally western free market ideologies. Ideas for domestic cap-and-trade avoiding a blunt carbon tax have been discussed, new task forces have been created to assess and propose climate policy, and statements have been issued from the government on China's willingness to act.

One of China's main newspapers, *China Daily*, has proposed that to aid the global deal, China should take on 50% cut in existing levels of CO_2 emissions by 2050 (reducing by about a third from 1990 levels), and "commit to commit" to a target by 2020. According to Chinese climate specialists, the government is aware that setting a target by 2020 given developed world commitments will be unavoidable.

Beneath the surface, China is undertaking the all important background research to undertake active commitments in the future. In Bali, developing countries agreed to undertake nationally appropriate mitigation actions that were measurable, reportable and verifiable. In order for this to be possible, the numbers and data (on emissions, technology, output etc.) for all industrial, power and agricultural sectors need to be available. Such painstaking, economy-wide groundwork is necessary to work out what can be done to reduce emissions, and what sort of technology and investment will be needed. This analysis is an essential step on the road to mitigation.

International involvement

But China will need the help of the developed world. For the international community, these opportunities offer significant room for investment. Low-carbon development is expected to be the major driver of growth in recessionary times. Indeed, the International Energy Agency estimates that world energy infrastructure investments are likely to be around $1 trillion each year for the next twenty years. This creates not only investment demand, but subsequent R&D demand and a catalyst to green ideas. One suggestion to integrate China more is through joint ventures, already seen through the CDM. These practices push capacity to building, knowledge sharing, technology transfer and financial benefits both parties involved.

For further information please contact ***info@ideacarbon.com*****.**

[1] *China's Policies and Actions for Addressing Climate Change*, State Council Information Office (29th October 2008), accessible at http://www.chinaenvironmentallaw.com/wp-content/uploads/2008/10/china-white-paper-climate-change.doc

What's been done so far? Progress in Chinese climate policy

- ✓ **China has reapplied itself to energy saving targets. China set a target of 4% cut in energy usage for 2006, but reduced just over 1%. In 2007 China still had a 4% targeted cut, but averaged over 3%.**
- ✓ **China has already reduced its energy intensity of GDP by 60% since 1980, and plans to continue doing so, aided recently by the closure of steel, iron, cement and coal factories. Goals are currently for reducing per unit GDP energy intensity by 20% and emissions intensity by 10% from 2006-2010 in the current 11th Five Year Plan. China's energy intensity target will save emissions of 1.5 $GtCO_2e$.**
- ✓ **China is the leading beneficiary of the Clean Development Mechanism and has developed projects to reduce 900 $MtCO_2e$ emissions by 2012, valued at over $10 billion.**
- ✓ **China leads the world in installed capacity of renewable energy (151 GW at end of 2007) and is second only to Germany in investment as percentage of GDP ($12 billion in 2007).**
- ✓ **Since 2005, the Chinese government has required that all new large power plants use high efficiency super-critical coal-fired technology and has shut 553 smaller inefficient plants with total generating capacity of 14.38 GW in 2007.**
- ✓ **China's Medium- and Long-term Program for Renewable Energy Development states that 15% of total energy should come from renewable sources by 2020. The Renewable Energy Law gives subsidies for wind and biomass power.**
- ✓ **China's wind power capacity increased by around 125% in 2007, ranking 5th globally and was expected to grow another 67% to 10 GW in 2008.**
- ✓ **China is second only to Japan as a manufacturer of solar photovoltaics, with 820 MW of production in 2007.**
- ✓ **Over 10% of Chinese homes use solar water heaters and the domestic market was worth $2.6 billion in 2006, 60% of the global market.**
- ✓ **In 2008, China implemented a 36 miles per gallon (mpg) fuel economy standard for passenger vehicles, almost 40% higher than the US equivalent, and the government has put an excise tax of up to 20% on SUVs.**
- ✓ **The Chinese Government has begun planting an area of marginal land half the size of England with biofuel forests which could produce 6 million metric tons of biodiesel per year by 2020.**
- ✓ **China has developed one of the world's most comprehensive mandatory energy efficiency standards and labels for home appliances that will save construction of 27 GW of power generation capacity by 2020.**
- ✓ **China's low carbon vehicle market is growing rapidly, producing over 79 million bicycles, 21 million electric bicycles and 1.64 million energy efficient compact cars in 2007.**
- ✓ **China introduced a new Building Code, the Design Standard for Energy Conservation in Civil Buildings, in 2006 requiring all new buildings to reduce energy consumption by 50%, or 65% in some cities such as Beijing and Shanghai.**

(Source: China's Green Evolution report)

Analysis

Moving beyond Poznan

- Looking beyond Poznan there are a multitude of unresolved issues that Parties need to address, including targets and future market mechanisms
- Countries are waiting to see what the US will do, though some developing countries have stated a commitment to a target

2009 is the most important year for the international climate change negotiations. This will be a run against time to finalize the post-2012 global climate policy architecture – a multitude of complex issues need to be resolved. The Poznan summit failed to create political momentum, but didn't derail the process either.

Among the main achievements of Poznan – or COP14/MOP4, as it is formally known – were 2009 work programmes for both the Kyoto track and the Convention track negotiation groups (AWG-KP and AWG-LCA), which set the conditions to reach an agreement in Copenhagen in December 2009. Further tangible outcomes were a decision to make the Adaptation Fund operational as well a set of reforms to make the Clean Development Mechanism (CDM) process more transparent, predictable and equitable.

No further progress was achieved on the key question of industrialised country mitigation targets and the potential post-2012 commitments of emerging economies. In addition, Parties failed to reach conclusions on a shared vision for long term cooperative action, a prominent item on the agenda, as well as on scaling up funding for adaptation.

Major political progress in Poznan was difficult as the conference took place amidst a weakened global economy and a change of US administration. Observers lamented a wait-and-see attitude among developed country delegates who appeared to be biding their time for the new US-presidency. Umbrella Group members Japan, Canada and Australia remain wary to commit at a time when their own emissions are rising.

Many developing countries, on the other hand, seem unwilling to move before credible political advances are made by developed countries regarding reduction goals and finance. Notable exceptions were Brazil which announced its plan to significantly reduce deforestation in the Amazon rainforest, and Mexico, South Korea and South Africa which all announced national plans to reduce emissions. China and India, however, remained indignant over the idea of hard commitments for developing countries, whatever form they may take.

Some observers suspect that despite efforts to downplay the global recession, governments are somewhat hesitant to commit to ambitious goals until the bottom of the downturn comes into view, again a wait-and-see attitude. Others draw optimism from climate policy history by pointing out that the world was able to craft the Kyoto Protocol in the midst of the Asian financial crisis.

The disunity emerging from Poznan may be taken as a sign that "real" negotiations are now beginning in earnest. The informal exchange and clarification of views and ideas, which was the focus of 2008, now fades into more meaty discussions of who is doing what and how much. In Poznan, however, it seemed too early for negotiators to give away their negotiation positions, which could be valuable bargaining chips in later sessions.

A case in point is the levy on CDM credit issuance to finance adaptation activities in developing countries, which the latter countries would like to extend to Joint Implementation and Assigned Amount Unit trading. The idea was blocked not only because of concerns that this would harm the attractiveness of these mechanisms vis-a-vis the CDM, but arguably also to keep it as a sweetener for the endgame in Copenhagen.

The lack of give-and-take has disappointed hopes for early progress and overshadowed the positive outcomes of Poznan. While the general working atmosphere was seen as constructive, the collapse of the talks on new sources of adaptation funding and other issues is not a good basis for talks in 2009.

The road ahead

The 2009 work programmes agreed in Poznan mandate the AWG-KP and the AWG-LCA to prepare draft negotiation texts for June 2009. This will be a particular challenge for the 192 members of the AWG-LCA as they need to establish common ground on all five building blocks of the Bali Action Plan within less than six months. Poznan left no indications on what shape the draft agreements might take and what their contents might be.

As regards the AWG-KP's work in the first half of 2009, the lack of substantial progress in Poznan means that many issues will be carried forward to the next sessions, overstretching the already heavy agenda. Detailed discussions on some of the contentious issues such as forestry, aviation and bunker fuel, and the approaches targeting sectoral emissions have not been held yet. In addition, the debate on post-2012 market mechanisms, adjourned in Poznan, will be resumed during the March meeting, bringing more clarity on what future mechanisms could complement the CDM.

On further commitments for Annex I Parties, the AWG-KP will start its first 2009 session with a discussion of the aggregate mid-term emission reduction to be achieved by industrialised countries. On this basis, individual country targets and the means to achieve these will be determined, but is not expected to happen before Copenhagen. The commitments nut may be easier to crack with the new US administration in place – even though it has no seat at the AWG-KP table.

2009 will be an extremely busy and exciting year for negotiations – so busy that the Copenhagen conference itself has been put back a week to allow more negotiation time. Furthermore, provisions to squeeze an additional meeting into the 2009 schedule were made in Poznan, possibly in October/November. And behind the scenes Poznan delegates considered arrangements for further negotiations in early 2010, should Copenhagen come too early to fully conclude the future climate framework. Given the multitude of unresolved issues, this is becoming increasingly realistic in senior policy circles. Perhaps the modest outcome of Poznan was a wake-up call to delegates to step up their political commitment for a happy end in Copenhagen.

Table 1: Sessions of AWG-KP, AWG-LCA and other UNFCCC bodies in 2009

Who?	When?	Where?
AWG-KP7, AWG-LCA5	29th March – 8th April	Bonn, Germany
AWG-KP8, AWG-LCA6, SBSTA30, SBI30	1st – 12th June	Bonn, Germany
AWG-KP9, AWG-LCA7	3rd – 16th August	Bangkok, Thailand
AWG-KP10, AWG-LCA8 (proposed)	*October/November*	*Lyon, France*
COP15, CMP3, AWG-KP11, AWG-LCA9, SBSTA31, SBI31	7th – 18th December	Copenhagen, Denmark

* **AWG-KP**= Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol; **AWG-LCA** = Ad Hoc Working Group on Long-Term Cooperative Action under the Convention; **SBSTA** = Subsidiary Body for Scientific and Technical Advice; **SBI** = Subsidiary Body for Implementation; **COP** = Conference of Parties (to the Convention); **CMP** = Meeting of Parties to the Kyoto Protocol. *Source: IDEAcarbon and IETA*

For further information please contact *info@ideacarbon.com*.

Analysis

The EU Energy and Climate Package: signed, sealed and delivered

- The newly legislated EU Energy and Climate Package confirms the earlier 20% target for emission reductions by 2020
- The package allows 1.78 billion CERs into the EU ETS in phases II and III, reducing compliance costs to companies
- Bankable CERs will also be seen as the more flexible compliance instrument relative to EUAs, and may be back-loaded towards the end of phase III

On Wednesday December 17th 2008 the European Parliament voted to pass the EU Energy and Climate Package into law. This represents the completion of the process launched almost exactly a year ago by the European Commission to finalise the EU's post-2012 climate policy, and lays out how the EU is to achieve its target of a 20% emissions reduction below 1990 levels by 2020.

The final agreement specifies the quotas of imported offset credits into the EU Emissions Trading Scheme (ETS) and the Non-Trading Sector (NTS), the allocations of EU Allowances (EUAs), the means for a transition to a 30% reduction target, and measures to address price volatility.

The EU ETS – credit imports

The climate package states that imported offset credits from the Clean Development Mechanism (CDM) or Joint Implementation (JI) – i.e. Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs) – should cover no more than 50% of the additional reduction effort from 2008-2020 for existing sectors, new sectors and aviation. This is according to the supplementarity principle. The reduction effort is equal to the difference between the emissions base year – 2005 according to the Commission – and the emissions cap. Halving that gives the import quota.

According to IDEAcarbon calculations this will result in a phase II and III (2008-2020) ETS credit import limit of 1.77 billion tonnes (see table 1). This is just over 380 million tonnes higher than the 1.39 billion quota initially proposed by the Commission. The banking of offset credits between phases is allowed.

While 1.77 billion tonnes is the intended overall limit of CER/ERU imports over 2008-2020, the actual method of the distribution of credits is yet to be fully decided upon. Phase II quotas (totalling 1.39 billion tonnes) for existing sectors are already laid out and enshrined in law in Member States' National Allocation Plans, so it now remains to be seen how the extra 370 million tonnes for existing sectors, new sectors and aviation will be made up.

In the package some methods are proposed. Any Member State caps for phase II below 11% will be increased to a minimum of 11% over phases II and III. Caps above 11% will not change. New entrants to the scheme in phase III, as well as the aviation sector that joins in 2012, are given CER/ERU quotas of no less than 4.5% and 1.5% respectively of their 2005 emissions. The numbers are likely to change however over the coming months.

The package also reneges somewhat on the application of strict quality standards on the type of credits to be eligible in phase III. Credits that were eligible in phase II will be accepted in phase III, though with a non-binding focus on credits from energy

efficiency and renewable energy projects. While credits from new projects approved post-2012 will need to be in least developed countries or in countries with a bilateral or multilateral agreement with the EU, there is no mention of "high quality" credits at all. Forestry credits will not be allowed.

The EU ETS – allocation of EUAs

The allocation of EUAs will be harmonized at the EU level, rather than divided at the level of Member States. This is in order to promote economic fairness and equity between industrial and power sectors across countries. Individual auctions will nevertheless take place in the 27 Member States.

Provisions to soften the landing for EU industry, and in some cases the power sector, have been made. The power sector, which initially was to be subject to 100% auctioning from 2013, may now be subject to a minimum of 30% auctioning in 2013 if certain conditions apply, rising to 100% by 2020. Member States can apply the derogations if their power sectors are not properly connected to the European power grid or if 30% of their power is generated by a single fossil fuel and their per capita GDP is less than half the EU average. According to the Commission these criteria apply to ten EU Member States: Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland and Romania.

Sectors not exposed to significant risk of carbon leakage will be subject to 30% auctioning in 2013, 70% by 2020 and 100% by 2027. Sectors exposed to carbon leakage will receive 100% of their EUAs for free at the level of the benchmark of the best available technology. There are criteria to determine whether or not a sector is exposed to carbon leakage. Due to the leniency of said criteria, it is estimated that 90% of EU industry will be deemed vulnerable to leakage.

The NTS – credit imports

In 2013-20 all Member States can use offset credits from the CDM or JI up to the equivalent value of 3% of their 2005 emissions in the NTS.

However, some Member States can use credits up to the equivalent value of 4% of their 2005 emissions if they comply with certain criteria regarding the proportion of emissions generated by transport, renewable energy targets and the cost (as a share of GDP) of compliance with their overall reduction target. Eligible countries are: Austria, Belgium, Cyprus, Denmark, Finland, Ireland, Italy, Luxembourg, Portugal, Slovenia, Spain and Sweden.

The 2013-20 quota comes to 777 million tonnes, which is just over 70% of the 2013-2020 NTS reduction effort of 1.1 billion tonnes.

Other provisions

There are also measures to address price volatility in the EU ETS. If the price of EUAs is for over 6 consecutive months more than three times the average price of the previous 2 years and it is not deemed to correspond with market fundamentals, then Member States can bring forward the auctioning of allowances (of subsequent years) or auction some of the new entrant reserve to ease upwards pressure on the price.

In order to finance the demonstration of up to 12 CCS projects some 300 million allowances will be available. The EU intends to include maritime transport in its emissions reduction program by 2013. If by the end of 2011 Member States have not approved an agreement at the level of the UNFCCC or the International Maritime Organization, then the Commission will take the initiative.

Finally, in the event that an international agreement is reached in Copenhagen there will no longer be an automatic triggering of a 30% reduction target by 2020. Instead, there will be a study of the impacts of a 30% target and another round of negotiations before any steps are taken. If a 30% target is adopted import credits will be eligible to cover up to half the additional reduction effort.

Market impacts

The greater number of CERs/ERUs allowed into the EU ETS in phase II and III (than under the Commission's proposal) will reduce the cost of compliance for companies, meaning that they are less likely to have to resort to more expensive internal abatement options, especially in phase III. The reduced phase II shortfall as a result of lower EU economic growth means that companies will largely take advantage of cheaper internal abatement options in the early years of the scheme. They will then bank their CERs/ERUs for use in phase III in anticipation of deeper cuts in that period. The demand for CERs/ERUs will thus likely be back-loaded towards the end of phase III.

The higher import quota will also sustain demand for CERs/ERUs. With a maximum EU ETS demand of 1.77 billion tonnes and a maximum post-2012 NTS demand of 777 million tonnes, the outlook for the offset credit market is more positive, which should provide some security to CDM/JI project developers.

Next steps

It now remains to implement the climate package in preparation for the launch of phase III. The Czech Presidency of the EU is committed to push this process forward. The EU will proceed via "comitology" (a method of decision-making that involves the Commission, the Parliament and the Council of (Member State) Ministers to implement the measures outlined in the agreement.

On the agenda for the coming months is the timing and administration of auctions (scheduled to be finalised by June), and the harmonization of the EU-wide allocation of allowances (by December 2010). By the end of 2009, those industrial sectors and sub-sectors to be deemed vulnerable to leakage under the EU ETS will have been determined. The determination of how exactly to allocate CERs/ERUs to existing sectors, new sectors and aviation, in accordance with the principle of supplementarity, will proceed, though with no set date for the decision.

Table 1: Phase II & III CER/ERU import limit using 50% of the reduction effort required ($MtCO_2e$)

	2005 emissions	Phase II reduction effort	Phase II CER/ERU import quota	Phase III reduction effort	Phase III CER/ERU import quota	Phase II & III CER/ERU import quota
Existing sectors	2,176	465	233	2,634	1,317	1,550
New sectors	160	N/A	N/A	339	169	169
Aviation	218	N/A	N/A	94	47	47
Total						***1,766***

Source: IDEAcarbon and European Commission

For further information please contact *info@ideacarbon.com*.

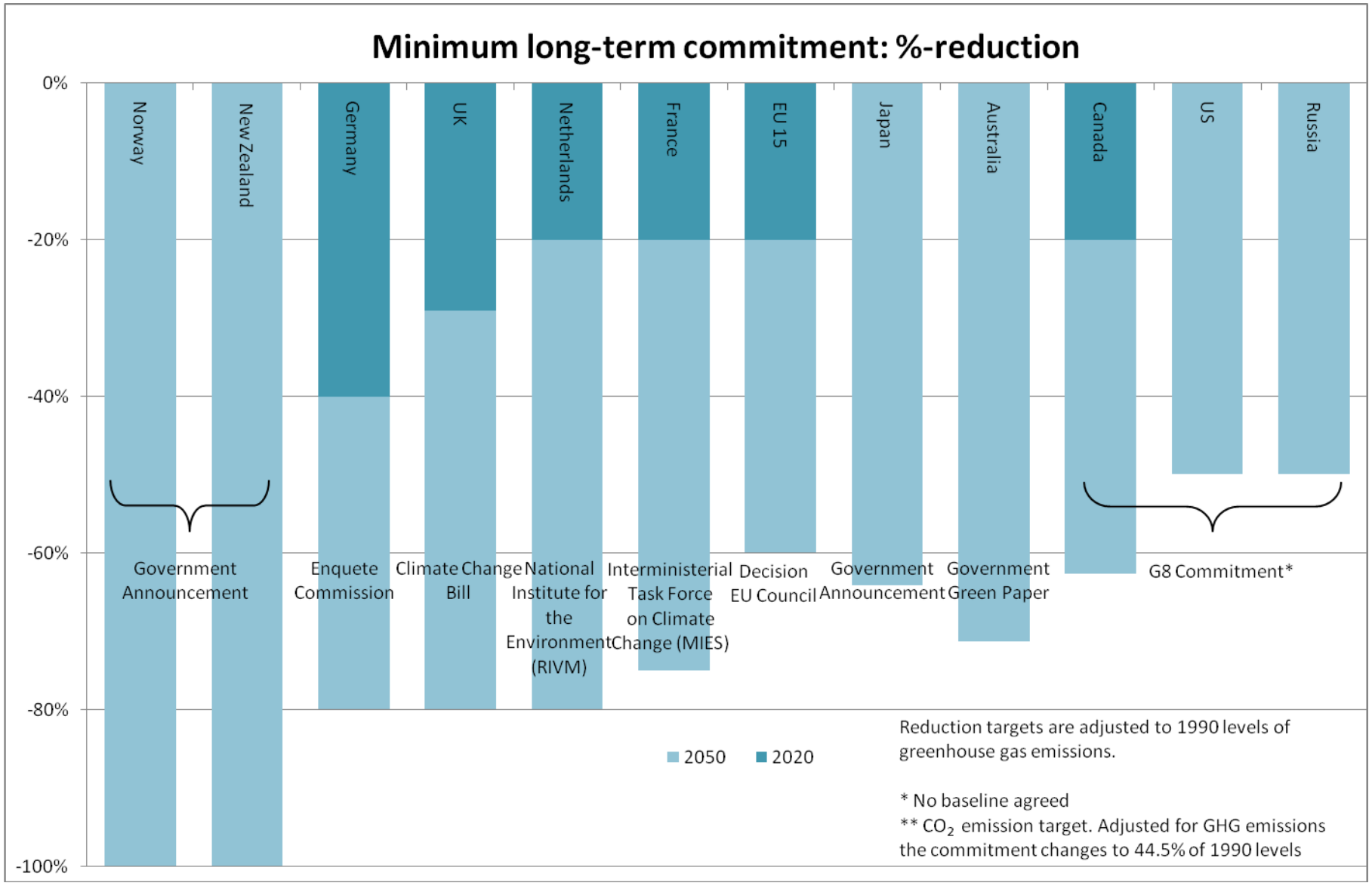
Carbon Calendar™

Notes: Events of particular significance are highlighted in bold. Market-oriented events are shaded in grey. Conferences are in italics.

22-23 January 2009	*Voluntary Carbon Markets USA*	*The event will look at whether the voluntary market has achieved credibility and transparency and business and consumer activity.*	*New York, New York, USA*
23-24 January 2009	*Carbon Market Americas*	*Carbon Markets Americas will bring local project developers together with the key investors and carbon credit buyers to drive this market forward.*	*San Paulo, Brazil*
26 January 2009	*Workshop on California's AB 32: Implementation of the Scoping Plan*	*ARB staff will discuss implementation of California's Climate Change Scoping Plan.*	*Sacramento, California*
26-27 January 2009	*EU Emission Trading in Practice*	*A conference focusing on corporate trading strategies.*	*London, UK*
26-28 January 2009	*3rd Carbon Trading Summit*	*International carbon trading conference*	*New York, New York, USA*
28-29 January 2009	*Carbon Emissions Trading*	*This event will consider regulatory requirements of trading emissions.*	*Cologne, Germany*
29-30 January 2009	*European Greenhouse Gas Emissions Trading: Lessons to be Learned*	*The conference will look at the revisions to the EU ETS from an economic and legal point of view.*	*Maastricht, the Netherlands*
29-31 January 2009	*Clean Energy Power International Trade Fair*	*International Trade Fair for Renewable Energy and Energy Efficient Building and Renovation*	*Stuttgart, Germany*
2 February 2009	*Green Monday conference/seminar*	*Green Monday is a monthly networking event that brings together people working in corporate environmental sustainability, climate change response and related green business. Includes a carbon trading 'round table' session.*	*London, UK*
03 February 2009	*Southeast Climate Policy Forum*	*The Climate Registry holds a series of regional policy meetings across the U.S.*	*Tampa, Florida*
05-07 February 2009	*Delhi Sustainable Development Summit*	*At this summit, 'Towards Copenhagen: an Equitable and Ethical Approach', industry leaders, opinion makers and climate change experts will gather to create understanding and arrive at policy agreement.*	*New Delhi, India*
11-13 February 2009	**45rd meeting of the CDM Executive Board**	**Meeting to discuss new methodologies, project registration and CER issuance under the CDM**	**Bonn, Germany**
16-20 February 2009	25th Session of UNEP Governing Council	Annual meeting of the UNEP Governing Council	Nairobi, Kenya

17-18 February 2009	*3rd Annual Climate Change Summit*	*Topics include energy efficiency, water, carbon, supply chain management, communications and stakeholder engagement strategies in depth at the conference.*	*London, UK*
23-24 February 2009	*Sustainable Bioenergy 2009*	*Conference will discuss trends and investment opportunities in the biofuels industry.*	*London, UK*
23-27 February 2009	*National Power New Zealand 2009*	*The event will include a pre-conference workshop on emissions trading for the power sector.*	*Auckland, New Zealand*
24-25 February 2009	*Aviation CO2 Initiative*	*This event will focus on current emissions regulations covering the aviation industry.*	*Budapest, Hungary*
25 February 2009	Expiry of Multi-Commodity Exchange's February 2009 CER futures contract.	Date of delivery for those holding positions in futures contracts.	Mumbai, India
25-26 February 2009	*Queensland Energy*	*This event will include sessions on the impact of emissions trading in Australia.*	*Brisbane, Australia*
26 February 2009	*Western Climate Policy Forum*	*The Climate Registry holds a series of regional policy meetings across the U.S.*	*Denver, Colorado, USA*
28 February 2009	2009 EU emissions Allowances issued to operator accounts	The EU ETS issues its allocation of EUAs each year on February 28.	EU ETS
01 March 2009	**Australian government introduces bill establishing emissions trading scheme.**	**The Australian government plans to introduce enabling legislation during March 2009. The bill is intended to be passed by the middle of the year.**	**Canberra, Australia**
18 March 2009	3rd RGGI regional auction	Third auction of 2009 allowances under the US Regional Greenhouse Gas Initiative, and will offer allowances for 2009 and 2012 compliance.	New York, New York, USA
30 March - 09 April 2009	**Seventh session of the AWG-KP and the fifth session of the AWG-LCA**	**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**
30 April 2009	EU ETS deadline for surrender of EU Allowances	Installations participating in the EU ETS must surrender 2008 EUAs by this date.	EU
1-12 June 2009	**30th session of the UNFCCC Convention subsidiary bodies (SBSTA and SBI) 6th session of the AWG-LCA and the 8th session of the AWG-KP.**	**Official negotiations on the implementation of the Bali roadmap and the development of a post-2012 system.**	**Bonn, Germany**
1-12 June 2009	**Conference of the Parties for Officials (SB30)**	**Formal negotiations on post-2012 climate change policy continue here.**	**Bonn, Germany**
7th-18 December 2009	**15th Conference of the Parties to the UNFCCC**	**COP15/MOP5: Parties intend to finalise an post-2012 global climate agreement here.**	**Copenhagen, Denmark**

Commitment Monitor



IDEAcarbon pCER Index™ January 2009, Week 43

IDEAcarbon has undertaken a market sounding amongst buyers and sellers to derive an understanding of primary Certified Emission Reduction (pCER) price ranges. The index captures what market participants would currently pay for pCERS with four different risk features, by asking the following question:

A clean development mechanism (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

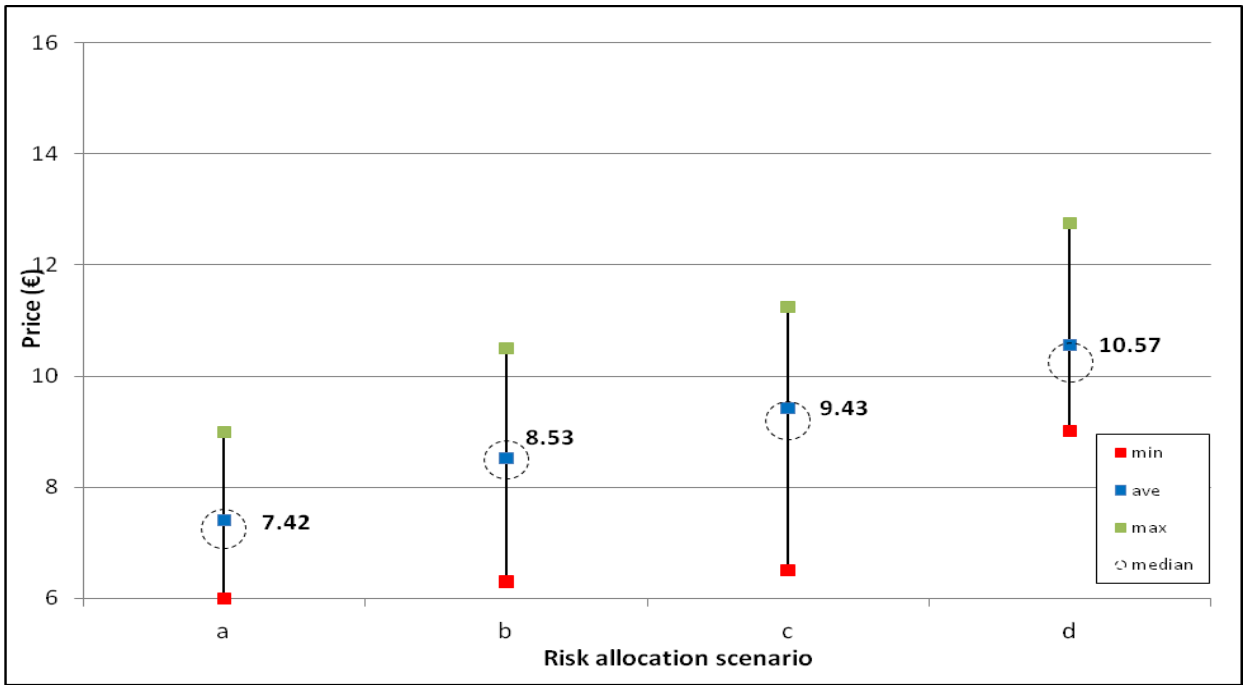
Results revealed the following prices for the four different scenarios.

Table 1: *pCER Index results*

	Scen. (a)	Scen. (b)	Scen. (c)	Scen. (d)
Max.	9.00	10.50	11.25	12.75
Avg.	*7.42*	*8.53*	*9.43*	*10.57*
Min.	6.00	6.30	6.50	9.00

(outlying data points were trimmed)

Figure 1: *pCER Index results*



Gloom-and-doom sentiment is driving the pCER, secondary CER (sCER) and EU Allowance (EUA) markets as it has historically done so. No new policy developments are on the horizon (industrial facilities can

use more CERs than expected under the EU Energy and Climate Package but this has already been priced in to both the sCER and EUA markets). However, the Chinese government is expected to unofficially release its €8 floor, looking the other way as deals are transacted in the €6-7 range, in order to perpetuate the CDM in China. In addition, many projects will become financially unattractive or simply uneconomical in the €7-10 range – energy efficiency, waste heat & wastewater treatment, biomass – in addition to difficulties in securing project finance at all.

DEC09 EUA and CER prices reached all-time lows, and pCERs are approaching lower and lower levels. The sCER market, which leads pCERs in price movements by one to two weeks, has seen demand fall markedly, accompanied by the steep downward revision in prices to reach levels usually associated with the primary market. Looking over the 42 week time series, the sCER strip for the second consecutive week has crossed below the scenario (d) pCER price, which happened only once before in mid-November when heavy selling pushed down the sCER market. Indeed, the spread between a scenario (d) (volume risk-assumed) pCER and an sCER vacillates around €0, and on average primary market participants are still reporting higher transacted pCER than sCER prices. The market will price this in over the next two weeks – more risky pCERs should not be priced above guaranteed sCER. The one caveat is that pCER prices are supported artificially by the Chinese floor price of €8 mentioned above, which for the time being deters Emission Reduction Purchase Agreements (ERPAs) contracted at lower prices but also creates difficulties in securing new project investment: why transact in the primary market when secondary risk-free CERs can be procured at the same prices?

Contracts and term-sheets are adjusting, not just by lowering prices, but by pegging primary prices to EUA and CER indices, favouring floating over fixed contracts and stretching contract-signing further and further as buyers and sellers wait for more favourable market prices. International Financial Institutions have similarly done so which is a significant market signal, and are expecting further downward revisions in pricing over the upcoming weeks.

As mentioned last week, for the foreseeable future the pCER market is in the hands of the sellers, who are holding on to credits until higher prices are actualised. CER prices – which were as high as €22 in July in the secondary market – at these levels are discouraging investment in CDM projects and shaking out the market, thereby putting project developers that are uncompetitive at such low prices out of business. In terms of geography, prices have been more stable in Indian and Latin American projects, remaining more competitive than the Chinese market at the moment according to respondents. Uncertainty over validation (i.e. the Designated Operational Entity DNV's suspension) has been put on the backburner as well, with no results expected until the next CDM Executive Board meeting in mid-February.

A quick median and mode breakdown of the pCER prices for each scenario reveal the following:

Table 2: *pCER Index Median and Mode*

	Scen. (a)	Scen. (b)	Scen. (c)	Scen. (d)
Median	7.25	8.5	9.2	10.25
Mode	8	8	9	10

Premia paid for each scenario are as follows: Scenario (d) volume risk was the highest premium this week at €1.14, followed by scenario (b) validation risk at €1.12 and scenario (c) registration at €.90. The spreads across scenarios have closed to just over €3, and may do so even more as scenario (d) prices come in on the back of the sCER market. The risk differential placed on ERPAs with widely ranging risk

categories have closed from peaks of €7-9 in late summer/fall 08, and decreasing demand has driven prices to bottom out below China's floor price of €8.

If selling continues as anticipated, the market will see EUAs and CERs narrow to near-parity, with pCER prices dropping as the market stagnates. The current pipeline of CERs will well-satisfy demand in Phases II and III under current estimates, diminishing the need for future projects and dampening prices for pCERs.

For queries, or if you would like to participate in the index, please contact tzoltani@ideacarbon.com.