‘Trading Up’: Improving and extending the European carbon market

British-German Environment Forum Conference Report

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'Trading Up': Improving and extending the European carbon market

Conference Report

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Anglo-German Foundation
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British German Environment Forum (BGEF)

The central issue of the coming decades is the need to reconcile industrial development with the protection and enhancement of our environment. The BGEF generates *action in this area*: a key goal is to develop the experience and insights of *practitioners* in business, local government and the voluntary sectors involved in designing and implementing initiatives at local and regional levels as well as the national level. The conference series reflects the acknowledgement by the UK and Germany of the significance of sustainable development, and the potential for each country to learn from the other in this area. It provides a forum for the exchange of views and lessons for good practice and innovations between the two key European countries with distinctive strengths and weaknesses in environmental policy, and with different policy cultures in relation to the environment.

Report compiled by Chris Cundy

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Summary

The sixth British-German Environment Forum was held in Berlin on 26–27 March 2007 with the aim of developing ideas and consensus to move forward the policy debate on solutions to climate change, and in particular the carbon market.

The timing of the meeting was fortunate, following closely the decision by the 2007 Spring European Council to target a 20% cut in greenhouse gas (GHG) production by 2020, compared to 1990 levels. The Council also allowed for a 30% cut if an international agreement is reached. This sets a new challenge for policy instruments in Europe.

The conference heard the serious problem the world faces in limiting the output of GHGs as countries such as China and India rapidly industrialise.

The EU, and in particular the UK and Germany, has led the way in developing mechanisms to reduce carbon dioxide (CO_2) emissions, and the meeting heard about the successes – and failings – of the EU Emissions Trading Scheme (ETS).

A robust carbon market has been established in a very short time period and the volume of trade is growing month-on-month. But there has been an over-allocation of emission allowances in the first phase (from 2005–07), which has led to a collapse in the carbon price.

While certain industries have taken measures to abate CO_2 emissions, the scheme has not had the effect of reducing EU-wide emissions. Power companies had been able to pass on almost all their carbon costs to consumers, and enjoyed windfall profits. While few argued they were wrong to take advantage of these 'opportunity costs', there was widespread acknowledgement that there should be a fairer system of allocating credits.

However, the first phase was always seen by the European Commission as a 'learning by doing' period, and the real action starts in Phase II (2008–12). For this period, it was generally agreed that the Commission had done well in tightening the national allocation plans (NAPs) and in making NAP setting a formulaic process – though Germany would have liked more information at an earlier stage.

A major review is under way to decide on the architecture of the ETS post-2012, which will focus on the following areas:

- extending the scope of the directive to other sectors and gases
- more harmonisation and predictability, looking at longer than five-year trading periods, and the possibility of an EU-wide cap
- more robust compliance and enforcement
- linking to other trading schemes – under current rules, the EU ETS can only link to the national schemes of Kyoto Protocol signatories, so it cannot link to the emerging US regional schemes, such as the Regional Greenhouse Gas Initiative (RGGI).

A better dialogue between government, industry, NGOs and other stakeholders will be essential in making the ETS a success. This is something that Germany could learn from the UK, delegates said.

There was a general consensus that auctioning of credits is the fairest way to allocate emissions targets to sectors such as power generation that are not subject to international competition. Politicians and the Commission have recognised this: the UK is already planning to auction 7% of allowances in Phase II, and talks are under way in Germany.

If credits are not to be allocated for free, industry favours a benchmarking approach (setting emissions targets per unit of output, multiplied by best-practice benchmark) for sectors that face competition from overseas – such as cement, steel, aluminium and chemicals. A sectoral agreement could be another suitable mechanism. Many saw using border taxes to deal with competition issues as a 'last resort'.

There was general support for a mixed policy of auctioning and benchmarking, but several delegates emphasised that the competitiveness debate should not be allowed to dominate future talks. While there may be short-term pain, the EU was seen to benefit from being a leader in decarbonising its economy.

Participants agreed a public debate was needed on how auction revenues would be recycled. A number of possible routes are available – returning the money to consumers or to industry; using it to fund transitional technology programmes or mitigation programmes overseas; funding a public body – for example, the UK's Carbon Trust; reducing national debt.

The US trading schemes are planning for significant percentages of auctioning, and the EU would do well to keep an eye on US developments.

The Spring Council's 20/30% target will have an influence on the ETS and other EU policies, but key details have yet to be decided. For instance, what constitutes 'international agreement' for moving to the 30% target. Reaching agreement on burden sharing between countries was seen as a particular problem and little progress has been made so far.

What was clear is that environmental policy must be considered with other policies on energy, the economy, transport, etc. – and that policy instruments other than the ETS are needed beyond 2012. The EU already has targets for biofuel usage, for instance. Carbon capture and storage (CCS) for fossil fuel-burning plants will be another part of future EU policy. However, judging where other decarbonising policies overlap with ETS will be a challenge.

On renewable energy and energy efficiency policies, the UK could learn from Germany, delegates said. The EU must also look at controlling energy demand, as this is where the biggest reductions in GHGs will come between 2010 and 2020.

There was little debate on bringing other sectors into the ETS. The Commission has proposals to include aviation and shipping, and the UK has a desire to include road transport. In the medium term, the Commission said transport will be subject to other policies.

The concept of personal carbon allowances (PCAs) attracted interest and is worth looking at, delegates agreed. The Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA), based in the UK, is looking at the application of PCAs for home energy and petrol purchases, and aviation and public transport.

The concept would help engage the public, and could be an equitable way to deal with carbon emissions. But delegates were wary of the complexity of such a scheme, the risks of double counting and overlap with ETS. The Commission has not thought a great deal about PCAs, and it's not going to be in its EU ETS review. However, the European Parliament would be interested to hear about it.

Policy-makers should be aware that public support for climate change policy is quite high. But there is still a key problem that many people think that personal efforts are a waste of time when China is building a new coal power station every week. People also want to know more about the solutions than the problem, and politicians will have to address these issues if they are to maintain support for their climate policies.

Anglo-German leadership was key in the Spring Council decision, and this should continue to be extended to the international stage. The German G8 presidency will set the stage for the United Nations Framework Convention on Climate Change (UNFCCC) meeting in Bali later in 2007 with the idea of reaching an international decision on a post-Kyoto framework in 2009 – a key year for climate discussions.

Delegates noted that there is still no meaningful offer to developing countries and emerging economies on the table, and the EU should lead this move. It was generally agreed that the EU should do more to engage developing countries in respect of climate agreements. But for the EU to maintain its leadership and credibility, the ETS and other climate policies have to be a success.

Throughout the two-day meeting, delegates engaged in honest and lively discussions on the future of European climate policy. Attempts to limit greenhouse gas emissions clearly affect a broad spectrum of stakeholders, many of whom are resistant to change, so politicians will have to be brave in making policy decisions to safeguard the future of the planet without unduly affecting economic growth and the competitiveness of the EU. The hope is that this meeting will invigorate the leadership shown by Germany and the UK in making such policies.

Opening comments: Jo Leinen MEP

Jo Leinen said this was the sixth meeting of the BGEF to discuss sustainable development. He extended thanks to the governments of the UK and Germany for their continued support for the series, and said that the value of the original concept, and the foresight shown by the founders – Ray Cunningham and Ian Christie – had become ever more apparent as it had developed.

Leinen said Germany and UK were the oldest industrialised countries, the leading nations in determining the future of climate change, and in the vanguard of climate protection measures. Twenty-seven European nations are now committed to the cause of climate protection and it is Europe making the running.

He expected to hear about the benefits and shortcomings of the ETS, and thought the group might even produce their own 'Berlin declaration' on the future direction of the EU.

Keynote speech: Matthias Machnig, State Secretary, Federal Ministry of the Environment

Those who have watched the climate debate will have noted that the UK and Germany play a key role, such as at the G8 meetings, Machnig said. There was an intensive discussion and countries aligned themselves.

The European Council's opinion is that the world will shortly be in the most dramatic growth phase of the global economy. We will see a doubling of the GDP in developing countries, and Asia will play a more important role in the future.

This economic growth will be linked to other developments. We will see a dramatic growth in world population, and growing industrialisation – by 2050, the world population will reach 9 billion, 4 billion of whom will be in industrialised nations.

That will create tremendous demand for natural resources and energy, presenting a challenge for the climate and the environment. Machnig asked how we can satisfy the demand for energy and natural resources and establish a system that is sustainable.

He reminded delegates of the conclusions of the Stern Review – that not acting to tackle GHG emissions is more costly than action, and that taking action would cost around 1% of GDP. Our sources of energy have to be transformed. Following the Integrated Pollution Prevention Control (IPPC) report, it is now almost certain that climate change is man made.

Machnig thought the March decision by the European Council to set a target to cut GHG emissions by 20% by 2020 – or 30% if broad international agreement was reached – was a historic event.

He made six further points on European policy:

1. Energy policy in Europe will have to be reshaped. The environment and the economy have not been properly linked.
2. Europe wants to become the most energy-efficient region in the world. This is important for its economic development. He said the environment and economy are 'twins'.
3. The EU wants to take the lead in transforming the energy system. Twelve CO_2-free power plants are to be built. New discussions are needed in respect of the energy mix. The US and China will continue to use coal and we need solutions to that; otherwise emissions targets will not be met.
4. The development of biofuels (10% of transport fuels by 2020) is an ambitious target. It will require a change in policy on the development of rural areas.
5. Europe's competitiveness must be improved. We have liberalised markets, but not created competitive markets.

6. We need a uniform foreign energy policy to secure supplies and ensure steady price levels.

The 20/30% target is an important signal for international policy discussions, he said. However, newly industrialised countries want to develop their economies and only want to be part of an international system to cut GHGs if the US takes on more responsibility.

Developing countries have made efforts on climate protection. For instance, Brazil has reduced its logging by 50%; China has engaged in a reforestry programme; South Africa is developing protected areas. And yet commitments by Europe have not been met. Apparently €1.2 billion of funding was promised, yet only €200 million has so far arrived, he claimed.

It is clear that developing countries expect industrialised countries to reduce CO_2 emissions, transfer technology and develop financial instruments that respond to climate change. This is where we can find solutions at international level, he said.

Machnig reiterated the challenge of the 20/30% target. The EU will have reduced CO_2 by 8% by 2012, compared with 1990. 'That's 22 years to reduce by 8%,' he said. Now, reductions will have to be made faster, requiring great structural change.

This will not be possible with traditional industrial policies; it will have to address other areas. 'We really have to step up our efforts,' he said. Emissions trading remains an important instrument in this.

Germany wants to strengthen its role in the Kyoto 'flexible mechanisms', Clean Development Mechanism (CDM) and Joint Implementation (JI). These can contribute to 20% of compliance in ETS, but Germany isn't leading here.

Regarding the procedure for setting NAPs, Machnig called for a more transparent, certain and reliable framework to be put forward by the Commission to see how they are calculated. The Commission also needs to talk about allocation of targets for five years and creating a longer period for greater certainty.

The global situation also needs to be addressed. The EU ETS is a European programme – but we need an international carbon market and need to set up the economic climate for climate change. He noted that the inclusion of air traffic in a trading scheme is necessary as a condition to bring about effective climate change policy.

The distribution of emission cuts is also a key issue, he said. It should take into account the economies in different countries, so that all countries contribute as best they can to cutting CO_2 emissions.

Machnig emphasised the need for achievable targets. And the Commission has to encourage countries to achieve these targets.

This is how Europe will be able to take the lead in the international community. 'We have to meet the targets we have set ourselves, then other countries can make their contribution,' he said.

Presentation on the EU ETS: Peter Zapfel, European Commission

Zapfel began by reporting the decision from the Commission that morning on NAPs from the Czech Republic, France and Poland. France's revised NAP was accepted and there were significant reductions in the emissions cap proposed in the Polish and Czech NAPs.

The UK and Germany have been the 'engine' of Europe's climate policy, he said, and urged the two countries to build on their leadership at this important stage.

Zapfel summarised the development of the ETS: it has been in place since 1 January 2005; it includes 25 countries with Bulgaria and Romania in the process of joining; it covers more than 10,000 installations; there is a mandatory cap of 2 billion tonnes of CO_2 emissions in the first period, which runs from 2005–07.

The ETS was designed as a simple and cost-effective approach for reducing emissions and to create a single market for emission allowances. There is an international component, with JI/CDM credits available from 168 countries and linkages to other schemes – of which we will see more in the coming years, he said.

In the 'start-up' 2005–07 period, robust monitoring and verification processes have been developed, along with an electronic accounting system. A market has been created, but emission reductions have been insignificant. Zapfel said that from the Commission's point of view the first phase had always been a 'learning-by-doing' period.

There has been significant market development in terms of the increasing number of allowances traded – now 100 million tonnes a month, and growing.

Prices of allowances in Phase I of the scheme de-linked from Phase II after summer 2006 with the increasing realisation that Phase I was oversupplied. But the market has put faith in the Commission in Phase II, with not a lot of price volatility seen in the period when the decisions on NAPs were being made.

The CDM market has also grown, and it's a side-effect of the ETS that it has garnered interest in developing countries of the benefits of a carbon policy. 'That's something we need to capitalise on,' Zapfel said.

For Phase II, running over 2008–12, 17 plans have been approved so far. To what extent will the second phase be different, Zapfel asked? Fewer allowances will be allocated, more will be auctioned and the market's development will continue, he said. Member states and the Commission must and will get a lot better at handling the release of market-sensitive data, he added.

In Phase I, four countries decided to auction a few million allowances. In Phase II, many more countries will auction significant volume of credits – for example, the UK has decided to auction 7%. Leftovers from new entrant reserves (the credits given to new installations) will also be auctioned. Zapfel noted that states in the RGGI scheme have committed to auction one-quarter of their credits. New York is intending to auction 100%. 'We will have to learn from this during our review process,' he said.

Monitoring and reporting rules have been revised for Phase II. Some non-CO_2 emissions will also come in, with France and the Netherlands proposing to include nitrous oxide emissions from fertiliser production plants. CCS will be integrated somehow, Zapfel said. Definitions of combustion sources will be harmonised across Europe, and the aviation sector will be brought into the scheme from 2011.

'We are convinced that any changes to the legislative framework should take effect from 2013. The NAPs for 2008–12 are decided this year, and it takes a long time to change the directive. We strongly believe this market needs regulatory stability,' Zapfel said.

Once the Phase II NAPs are decided, the political focus will switch to Phase III (beyond 2012). The Commission wants the ETS to remain the central instrument to tackle climate change post-2012. The European Council's target for a 20/30% reduction by 2020 is an important issue for the ETS review process to consider.

An in-depth stakeholder consultation is planned for the ETS review, but efforts will focus on four areas where 'we can create added value', Zapfel said. These are:

1. extending the scope of the directive to other sectors, and agreeing on the definition of a combustion process
2. harmonisation and predictability, looking at trading periods of longer than five years
3. more robust compliance and enforcement
4. linking to third countries (the ETS currently can only link to national schemes that have signed to the Kyoto Protocol, so it cannot link to the RGGI or the Californian schemes).

Zapfel said the 'highlights' of the review could be decisions on:

- National caps – should we continue state-by-state? Or have a European cap, perhaps set with the 20/30% target in mind?
- Harmonisation: mandatory use of auctioning – in which sectors? New entrants?
- Extended trading periods beyond five years.

Zapfel noted that events across the Atlantic will influence thinking in the EU. California has set a Kyoto-like target and is planning a cap-and-trade scheme, on which the Commission and the UK are advising. US politicians, including presidential candidates, are seriously pushing for a climate policy.

He summed up by saying that the ETS is a major achievement. A successful ETS is one of the most important things Europe can do to engage the world in climate policy. Europe should not hide the fact that our system is likely to be over-allocated in Phase I and has had teething problems. We have learned valuable lessons, he said.

Comments: Ruprecht Brandis, BP

Brandis recommended looking at climate protection from an economic point of view. 'It's very important for enterprises,' he said.

He noted the leading role of the EU in this field and agreed with the European Council's decision to reduce emissions by 20% by 2020. But he warned against high-level politicians setting targets that are beyond those realistically possible.

On CCS, Brandis felt that the EU decision-making process will slow down the development of the technology. He urged Germany not to wait for the Commission and to go ahead with national plants. On biofuels, he said the objective to move away from mineral oil was correct. However, he pointed out that differentiation is needed between first- and second-generation biofuels. On NAPs and regulations in general, transparency and simplicity are required.

He said an international price of CO_2 was important for making investment decisions. Germany and the Commission could perhaps take more heed of this in their decision making, he added. Carbon trading in 2005–07 has increased, but he expressed concerns over the low price levels; they need to rise in the second period.

On auctioning, industry has to ask what methods will be chosen and where the revenue will go. Brandis thinks it should be directed to climate initiatives.

After 2012, emissions trading will play an important role. To integrate the US and China in international climate change efforts, trading and other instruments will be needed, he said. And the second phase of the EU ETS has to be a success, he noted.

In response: Matthias Machnig

Machnig said there were questions as to whether building 12 CCS plants by 2015 was realistic. For instance, the legal conditions for CO_2 storage have not been decided. 'I'm aware of these questions,' Machnig said. CCS can be harnessed for public relation reasons, he added, but that's not what he wants to do. It can be a bridge to other technologies, and he noted that €400m is available for CCS research at the EU level.

'We do not have functioning technology platforms. I'm not sure it is right to pursue [CCS]. We need real co-operation between companies and universities to know if [CCS] is feasible or not. One thing we need is clarity on what the legal framework will be. Dimas says the Commission will make decisions by the end of the year,' he said.

Other necessary work will be carried out by the end of 2007 – then we will see if we have the framework in place to carry out these projects.

The quota up to 2020 will not be achievable using first-generation biofuels, Machnig said. 'We have been trying to talk to the German petrochemical industry to develop second-generation biofuels. This is difficult because industry has multiple approaches.

'Furthermore, the Commission's target of reaching 120mg of CO_2 per km target is only possible via the significant use of biofuels. 'We call on industry to make it work,' he said.

On the review of the ETS, the Commission must include member states in the discussions, he noted. 'The ETS will only be successful if there's better co-ordination between the Commission, member states and industry. Only if we have real dialogue will we be successful in coming years,' he said.

He added: 'Without a successful ETS, a global [carbon] market is impossible.'

Comments: Martin Nesbit, Defra

Nesbit stressed the importance of the global perspective in how the ETS is developed and how it can form the heart of a global trading mechanism.

'We are at the stage of the political process where everyone says we need more transparency and simplicity,' he said.

He urged a move away from the five-year 'firework display' of setting NAPs to a more credible long-term approach. The ETS shouldn't just be driving short-term incremental change, he said. What it needed to add was a clear signal on what is needed in 15 or 20 years time to influence investment decisions.

For the ETS review, Nesbit urged 'transparency allied to ambition'. It needs to look at competitiveness issues, and the risk of the 'leakage' of emissions overseas.

He said more focus is needed on international policy. 'Are we using European leadership as a means of levering international agreement, or is it the sucker's first step in a tragic game of the prisoners' dilemma? We need to find a way around that.

'He noted that the more a shared approach on the ETS can be developed – between countries, sectors (both within and outside the ETS), governments, civil society and NGOs – the more likely Europe's climate policy is to be successful.

Questions from the floor

Germany has plans for 26 new coal power stations. What is the planning in the UK for power stations? If CCS doesn't work, what will be the consequence of that planning?

The UK is to publish a White Paper setting out the balance between energy sources, but it is likely that all new power plants built in the UK over the next 10 years will be gas-fired. Currently, the different rules on new entrants make it sensible to build a gas-fired plant in the UK but a coal plant in Germany.

The Commission is working on CCS and will make proposals in the second half of 2007. However, although it sees CCS as important, it's not for governments to create a 'market share' for CCS technology. If CCS proves very costly, then the ETS means lower cost reductions will be found elsewhere.

The ETS will be the central instrument for reducing emissions post-2012, but other instruments will be necessary. For instance, transport will be brought into the ETS in the medium term but, in the meantime, transport emissions will need to be addressed outside the ETS.

Assessment of the impact of Phase 1 on industrial competitiveness in Germany and the UK

Provocation from Hans-Joachim Ziesing, formerly with DIW (German Institute for Economic Research)

'The general situation we have come across is that the ETS is detrimental to competitiveness,' Ziesing said. But given emissions need to be reduced, he acknowledged that the ETS is the most effective system with the least impact on industrial competitiveness. Other measures have higher costs than emissions trading.

Industry has, at the same time as the ETS, had to deal with the impact of high oil and gas prices, and Ziesing said we do not really have a full understanding of the impact of the ETS in isolation.

It makes sense to have some kind of auctioning of allowance, he said. For electricity producers, there has been a lot of free allocation, meaning that the scheme hasn't had a negative effect.

For energy intensive sectors, it's a totally different situation. They have had to cope with increasing electricity prices – but this is a desired effect of emissions trading, he noted.

To avoid competitive distortions within Europe, harmonisation of allocations is needed.

He said the target for the second phase was ambitious, and hoped that it will be successful in bringing about the desired result. However, he noted that allocation in the second phase was problematic.

Ziesing said it was a shame that there was nothing for companies outside the scheme. 'But apart from that, I really congratulate the Commission on the system,' he said.

Provocation from Jim Rushworth, BCA (British Cement Association)

Since 1990, the UK cement industry has reduced CO_2 emissions by 4 million tonnes and is looking at alternative materials and alternative fuels that are low in CO_2 or carbon neutral. In 2005, the UK industry replaced around 14% of fossil fuels with waste-derived fuels, saving 250,000 tonnes of CO_2e.

Cement-makers are actively reducing emissions over time, both incrementally and via long-term strategies – such as looking at the potential for capturing CO_2.

Rushworth said it was important that cement manufacture was kept local. Importing cement can increase its carbon footprint by up to 10%. Replacing local manufacture with import is not sustainable.

Around 40% of the sector's emissions come from kiln fuels. But the remaining 60% comes from the raw materials, and there is little opportunity to reduce these emissions, Rushworth said.

The UK has two schemes working hand in hand: the ETS and Climate Change Agreements. There is an overlap between these two schemes and that is a burden to UK industry, he said.

In terms of competitiveness, cement is certainly a global commodity. For example, 200,000 tonnes were exported from China to Europe in 2004. That figure was 2 million tonnes in 2005, and Rushworth said he would not be surprised if it was higher in 2006.

Cement is a low-price, low-margin product – a high cost for CO_2 allowances can wipe out profit margins. UK producers can only pass on additional costs in line with cement imports, he said.

Without international agreements, 100% auctioning would severely impact EU industry, Rushworth noted. Industry would not be able to pass on costs and local plants would close. The BCA's favoured approach is for benchmarking in Phase III, setting targets to improve efficiency. This would encourage investment in plants that are not meeting the benchmark, but would not result in whole plants closing, he said.

Workshop discussion

The competitiveness issue is not straightforward. Market distortions, social damage and economic losses should be avoided. So far there has been no harm to industry from the ETS, but given there was no scarcity of allowances in Phase I, distortion has been limited.

While defensible for the first phase of the ETS, we should now move away from historical allocations. Auctioning of allowances was popular among workshop participants, but industry, particularly in Germany, seems less keen. How the auctioning is done, and at what stage, needs to be carefully examined – as would the recycling of revenues. The Commission would need to open a debate on the recycling of auction revenues, and make sure that the recycling supports innovation.

There was much support for a mixed policy of auctioning and benchmarking because auctioning works for some sectors while benchmarking might be more appropriate for others.

How could consensus be reached on EU-wide benchmarking? It would be difficult, but it would also show the losers how to be winners. Working this out would be technically and politically complex.

Some argued that the competitiveness issue is exaggerated. There are only five or six sectors where it really matters. The groups agreed it was important that these discussions on competitiveness don’t hijack talks on the ETS.

Others said that we don’t really know which sectors are affected because the ETS isn’t functioning properly. Meanwhile, there is little practical experience of benchmarking.

A secure energy supply is needed, and help should be given to some sectors to make a painful transition –maybe even to close down completely. However, the current rules of the ETS encourage inefficiency by keeping old technologies ticking over and giving new entrants credits for installing old technologies.

But at what point does support for transition fall foul of state aid rules? How do governments avoid the problem of trying to pick winners? The level of state intervention is also a concern – while there is a trend away from intervention, the ETS is moving in the opposite direction. How can the right balance be found between helping the losers and giving impetus to innovation? All these factors have to be taken into account.

Border tax adjustment – whereby imports from countries without emissions targets incur an import tax – was defensible to some, but others thought it should be ruled out. Politically, it could be popular, but it would raise major international policy issues.

How could revenues be recycled? The UK experience with its Climate Change Levy saw revenues go to the Carbon Trust, an independent entity, so the government is not picking winners. There’s also the possibility to use revenues to restructure whole areas of EU subsidy and spending.

Finally, climate policies can benefit competitiveness – for instance, Japan is the leading market for energy-efficient appliances because of national legislation.

Extending the ETS

Provocation from Lucy Stone, RSA (The Royal Society for the encouragement of Arts, Manufactures and Commerce)

Stone presented the idea of 'personal carbon allowances' (PCAs). RSA is undertaking a three-year project looking at this concept, how it would work and its implications. It is supported by David Miliband, the UK environment minister.

Now that climate change is high in people's minds, there is a debate about how best to involve the public – and PCAs is one suggestion, Stone said. The idea was first proposed in 1996 and reviewed by the Tyndall Centre in 2003; the Tyndall Centre sees it as broadly feasible.

Currently around 40% of emissions can be attributed to the individual. PCAs would cover consumer purchases of energy and petrol, and possibly aviation and public transport. A cap is set by the government body, and each individual is given credits free. Credits are used every time they buy petrol or energy and, if an individual goes beyond his or her free allocation, they must buy more credits.

The technology to run the system exists in the UK; it would not be very costly and it could be introduced soon. The model might be akin to London Transport's 'Oyster Card'. Miliband is talking about a five-year timeline for implementation.

Individuals who don't care, or have lost their cards, might be able to opt out and sell all their permits at the beginning and then pay a tax on each purchase they make. RSA is exploring the pooling of credits: for instance, for those living in a block of flats, the local authority could take responsibility for their pooled domestic credits.

Stone said the proposal was much more empowering than a tax. It's equitable – high earners emit more. Meanwhile, there's a great deal of consumer confusion about climate change. At least PCAs provide a tangible framework for understanding where emissions are going.

RSA is looking at the cost-benefit equation – and is carrying out research.

Provocation from Hermann Ott, Wuppertal Institute

There is general agreement that air traffic and shipping will become part of the ETS at some stage, so there's no point making a provocation about that, Ott said. If the scheme were to extend to space programmes, or to the military, this would be more provocative. To take it to the extreme: utterly provocative would be the proposal that aliens should be forced to contribute to our efforts against climate change as they enter our atmosphere, he added.

However, Ott thought it was best to concentrate on PCAs. They would force people to think about their climate impacts – one of the advantages of this system. But they would also require a major educational effort – 20% of the people in the UK who are in financial difficulties are there apparently because they don’t understand how to deal with the bureaucracy of banks and benefits.

He asked, would we be introducing a new class system, dividing those who know how to make money from those who don’t? PCAs give power to the consumer, but are consumers able to exercise this power? This would assume that perfect information is available – otherwise some will end up spending more than others who are more intelligent.

PCA allocation is equitable, but sometimes being fair means not giving the same to everybody. Those who have more money will be able to do more, even under outwardly ‘equal’ circumstances. But maybe those who are stronger should bear a bigger burden – so actually we should give more allowances to poor people.

Summing up, Ott said that PCAs are an interesting idea. Most of the instruments that we think of today are just not up to the task. The IPPC and the Stern Review make it clear there isn’t time to tinker. We have to come up with different forms of policy, he said.

Workshop discussion

PCAs could bring consumer power to the market and would raise general awareness on carbon intensities. It’s a democratic idea, and people are willing to contribute and want to do something. There was evidence that such systems could influence behaviour.

But it’s not clear how effective it will be and how compatible it will be with the ETS.

Monitoring, verification and reporting could be difficult, and it’s practically impossible to give allowances to everyone in the world. There could be other measures in place – for instance, on fuels – that could lead to double counting. Security of information was also a concern.

Price signals would have to be different between industry and individuals, because the price elasticity is different.

Extending the ETS to other countries and schemes was basically supported, but the devil is in the detail. Participants stressed the need for manageable solutions. In the case of methane, would it be more effective to introduce a new tax instead of a new trading scheme? Regulatory standards for buildings may be more appropriate.

What is already in place should be made to work first.

Responses

PCAs are not practically impossible and are actually technically easy, according to Lucy Stone. IT and privacy experts are working with the RSA to design the system, and information stored would only be accessible by the individual. On the EU questions, the RSA is going to publish a study this summer on how it might fit with the ETS in terms of double counting.

The Commission has not thought a great deal about the idea of PCAs. But you could give allowances to individuals and leave the rest of the system (of big emitters verifying and reporting) in place.

It might be difficult to have 100% coverage of emissions with PCAs, but two or three sectors, such as transport and housing, might be possible.

It is important that the EU doesn't merely export the ETS, but sets out the plans for 2020 – when US policies are timed for.

Derek Osborn asked:
Does anyone believe the 30% figure is real?

The EU has yet to debate the conditions of moving from 20% to 30%. It also has to consider how to raise the target without having to go through the legislative process again.

It would be to Europe's disadvantage to go to 30% if other people didn't – but the reasoning behind that was based on the wrong premise – ie that it would cause problems with competitiveness. The reason why it's difficult to go to 30% is an internal reason, nothing to do with external competitiveness.

There has been no discussion on how the 20–30% burden will be shared.

Climate change and public opinion in Germany and the UK: Mark Gill, former head of political research, MORI

Gill said he was presenting a snapshot of opinions and views on models of how to present global warming to the public.

Pollsters measure perceptions, not truths or facts, he said. A lot of the time, the role of a pollster is to challenge public misperceptions. People operate on three levels: opinions – things people haven't thought much about and can easily be swayed; attitudes – can be changed with new information, or information from a trusted source; and values – typically formed early in life – eg religion – and which are difficult to change.

What does policy need to do to turn attitude into value? It has to be important and it has to make a difference to their lives, Gill said. The public asks: Does the politician have the will do to what they say? Do they have the power? There is a high awareness of global warming – almost every adult in the UK is aware of the issue. People do think it's a serious problem – in Japan, almost everyone thinks it's serious. For European countries, the idea that global warming matters has been accepted, as is the idea that people are responsible for climate change. 'In many ways, I think the arguments of past three or four years have been won,' he said.

Climate change has risen among people's 'spontaneous' concerns. When politicians start talking about it, it helps raise awareness. But until the public in Western Europe experiences the effects first-hand, you're not really going to get people talking about it, he said.

Gill said the most surprising finding was that quite a few people think global warming will present a threat in their lifetime. This is where the climate change debate is moving towards, he said.

However, global warming is only moderately important compared to other issues. In Germany, threats to the environment came 9th out of 11 issues – still a mid-table position.

In a survey last year, 37% of Germans would protect the environment even if it damaged the economy and jobs. This figure is 58% in the UK.

In a 2002 survey on the top factor in deciding what means of transport to travel from London to Paris, only 1 in 20 people chose the option that polluted the least. 'I expect that to have changed somewhat since then,' said Gill.

Most people agree that government should do something about environmental pollution, but it shouldn't cost any money. Naturally, people want low-cost, low-pain solutions but, if this is not possible, it needs to be communicated, Gill said.

In Germany, 3 in 10 of the public are convinced to do something about the problem themselves. In the UK, it's just 9%. There is the same number of 'skeptics' in the UK but more people than in Germany remain unconvinced. Also, people want to know more about solutions than problems.

In 2004, arguably when scientific data was not as certain as it is now, we had a majority of 2–1 saying we should take action now, and be wrong, rather than risk waiting. Gill said this should give policy-makers confidence that something should be done.

Comments from the floor

There is an enormous public awareness of climate change. The media hype may go down again, but there is a level of consciousness that will stick and that opens up enormous potential for policy-makers.

But can individuals make a difference on climate change? It's a collective issue and this is only possible through policies, laws and the right price signals. Consciousness is not enough.

The 'fairness' argument is important – ie whether people individually, or even as states in Europe, have the power to tackle climate change. The attitude of 'we can't do it alone, so should we really bother?' is going to be one of the themes that politicians and the media will have to tackle.

According to one contributor, 2004 was the 'middle ages' for the climate discussion and opinion has moved on greatly since much of this research was conducted. We are at a point where climate change is seen as a different environmental problem.

Opinion in Brussels is also changing. Two years ago, President Baroso was talking about climate change as 'the British obsession'. Now he, too, is obsessed. Angela Merkel has the G8 presidency and wants to take the lead on the environment. So it's not just a British obsession. The European Parliament will form a committee on climate change and make several proposals on that, and on auctioning in the ETS.

Is the economy or environment more important? The German Chancellor is reframing the debate away from either/or to say how the two can go hand-in-hand.

Allocation methods and distribution issues

Bernd Meyer, GWS (The Institute of Economic Structures Research)

Meyer noted that Germany has 58 variables that define the outcome of allocations. There has been a lot of arguing and bargaining, and it doesn't make sense to start the process again, he said. The rules of the game should not be changed while the game is in progress – but then, he added, the game has not really started.

If parties are not happy with their allocations, the situation should be changed by more auctioning, not free allocation, he said.

He was pro-auctioning for the following reasons:

- Free allocation may distort incentives. Firms will have to pay for additional permits, but they might take opportunity costs. But don't react the way we predict, he said. The ?environmental 'costs' under free allocation are too low to change behaviour.
- Problems with new market entrants. Free allocation brings inefficient firms into the market. But if companies have to pay, it's a market barrier. There are always problems, he noted.
- There is a distributional problem with free allocations. There will be windfall profits. But there will also be losses – on the consumer side and industry sectors if an industry is not able to pass costs on to the consumer.
- Free allocation will lead to negative macroeconomic effects. Auctioning removes the danger of windfall profits. Government can give back the proceeds to households, to individuals or reduce taxes.

Joerg Haas, Heinrich Boell Foundation

Haas said the ETS is creating scarcity in the economy, and this is creating value out of nothing. Since we are creating a large 'scarcity rent' with the ETS, the question is what should we do with the proceeds?He said the outcry when there was a large price hike in electricity after the ETS was introduced was absolutely wrong. Industry is justified in passing on this value because it is an opportunity cost, he said.

The problem is not that polluters pass on the costs. The problem is that they get the permits for free, he argued. This transfers wealth from many relatively poor consumers to the few relatively rich shareholders, and he thinks this is simply not fair. Why would we accept that polluters should be rewarded with billions for their past pollution? This is contrary to the polluter-pays principle – one of the basic tenets of environmental law, he said.

We should care about this injustice because it undermines the legitimacy of the EU ETS. Giving credits to polluters does not bring lasting political support, he said.

Once carbon is capped, citizens will pay higher prices for energy and products. In order to maintain their purchasing power, some of the extra money they pay should be returned to them on a per capita basis. This will create the right incentive to conserve, he argued.

Auctioning is the right approach, he said. A good proportion of the proceeds should be given back to citizens. Some should go to fund energy transition and energy efficiency. Some should go overseas, towards climate change mitigation in developing countries – this will help create international alliances and there will be no global agreement without that.

Workshop discussion

The consensus is a move towards auctioning, but there are key questions on how quickly you move, how you protect industries with competitiveness issues, and how you compensate people who made investments in the past that may now be devalued by auctioning.

There is a difference in the definition of auctioning: in Germany, it's 100%. In the UK, it's any percentage. This is making the debate difficult in Germany. The UK is also proposing smaller auctions on a monthly basis that won't affect the markets. The EU should also look overseas – the RGGI scheme in North-Eastern USA is also proposing auctioning of up to 100% of allowances in some states.

The revenue from auctioning could be used to address competitiveness at the EU level via technology support schemes. It could also be recycled by reducing social security or taxes, compensating industry or individuals, or by paying off national debt.

Would any of these approaches be fair? Most of the recycling approaches would benefit people on higher incomes, or people who are exposed to industry. Funding carbon abatement projects abroad was a good idea, but it could create constitutional problems.

Some kind of public decision-making process is needed. The first phase allocation was an opaque process, where nobody really knew what was going on. There was no debate in the newspapers. Much more public engagement is needed this time.

Stronger harmonisation – for example, a minimum level of auctioning – is needed; otherwise, there will be the danger of some member states 'free-riding' on the efforts of others.

Summing up: Derek Osborn

Opinion has moved on dramatically in recent years, Osborn said, and we now have a major political window to move on climate change. Opportunities are opening up faster than many thought possible, and who better than the UK and Germany to lead, he said.

Osborn said there is an idea that an alliance can be built between government, business and stakeholders of all kinds, and some propose – considered radical by some – that we may need to extend beyond the business sector to personal allowances.

The UK has a lot to learn from Germany in terms of support on renewable energy and energy efficiency, he added.

The ETS has had a brave beginning, but with some defects – such as over-allocation and the resulting price collapse. We should be moving towards auctioning some or all permits, he said, because this is economically more effective in sending signals to participants.

Auctioning would put large funds into public hands. That raises an important question of how they can be channelled to reinforce the transition to a low-carbon society.

Closing keynote speeches

John Healey MP, Financial Secretary to the Treasury

Healey said it is now the turn of economists and politicians to take up the baton on climate change. There's a good deal of work the UK can do collaboratively with Germany, he said.

The Spring Council agreement has once more changed the terms of the debate. It's now not a question of if we make the profound changes, but how, he said.

Now, every ministry has to be an environment ministry, he said. This issue is far too important to be left to the environment ministry alone.

The Stern Review has shown that, with the right policies in place, the threat of climate change can be tackled, without harming economic growth. The cost of acting is likely to be lower than coping with climate change, so long as the action is international, economically efficient and done urgently, he said.

Healey said the EU ETS will be absolutely central to achieving the climate ambitions of the EU Parliament. It will be equally important in the broader goals of securing energy supply and the development of investment solutions for developing economies – which have to be stepped up.

Over the last 2–3 years, there has been a degree of inter-departmental co-operation and collaboration that has not been apparent in any other policy area, he noted. This has been brought together at the Commission on Environmental Markets and Economic Performance, which will look at the economic potential for environmental action.

He said it was well recognised that there needs to be greater certainty in the longer term. Over the next 20 years, the UK needs to generate investment to replace 25GW of generating capacity. The direction of investment will depend on a more certain and stronger carbon market, he said.

Healey added that the UK government is absolutely committed to carbon trading as the key mechanism for delivering carbon reductions, and sees the EU ETS as the foundation of a global carbon market. Later this year, the UK government is to hold an international conference on emerging global markets and international carbon trading.

But even if the ETS were working perfectly, there would still be serious competitive concerns and it's important to analyze these as carefully as possible and dispel some of the misconceptions around. Stern's analysis says that the competitiveness impacts are likely to be small. For some sectors they will be serious, but we should not allow competitiveness to be used as a catch-all argument against change or action, he said.

We need to think more internationally and to act more collaboratively, he added.

Ian Pearson MP, Minister of State for Climate Change and Environment

This is a time of opportunity, Pearson said. The last thing we want to do is transfer CO_2 from Berlin to Bangalore or Beijing, so we do need to take account of competitive distortions when putting climate change policy instruments in place. But these policies must be put in place, so the debate must focus on the mix of mechanisms, he said.

PCAs, while an interesting idea, are probably a medium- to long-term solution. One of the reasons the government is keen on this is to get over the point that we all need to do something in the battle on climate change.

Pearson suggested that we beat ourselves up too much over Phase I. The scheme has delivered extremely high compliance rates and was set up in relatively few years, covering a good proportion of EU emissions. But there's a lot more to be done.

He wants the review to be ambitious – and his department is working multilaterally with other states, industry, NGOs and the Commission. This has been shown in the manifesto that's been signed by 40 business/trade associations and NGOs.

On the post-2012 trajectory, the UK strongly supports setting out a future level of ambition – giving certainty to 2030, he said. That will strengthen the EU's leadership role. It wants to see clarity on the use of JI/CDM in the ETS beyond 2012 and a guarantee that JI/CDM credits will be valid for compliance post-2012. He hoped this could be sorted out quickly.

Pearson highlighted the need to minimise the potential for market distortions. Harmonisation is very much a focus – it's a complex area, he said, but significant improvements can be made in Phase III. The UK wants to see the EU ETS expanded – in particular, to aviation – and he welcomed the Commission's proposals. The UK also thinks there's a case for surface transport's inclusion, and is looking as well at agriculture, forestry and land management.

Linking the ETS to create a global carbon market is absolutely crucial, he said. Any linking must be restricted to credible schemes, based on a comparable set of rules, including long-term objectives.

Plenary discussion

Klaus Töpfer, former German environment minister and UNEP executive director

A lot of command and control policy remains in the environmental field, said Töpfer. He recalled that Germany made some attempts at introducing a trading scheme for sulphur dioxide, but realised that markets are 'not coming like manna from heaven'. They can only react when markets have limits and ownership, he said.

Carbon is a new paradigm here. But there still has to be an element of command and control; otherwise you cannot develop the market.

On competitiveness, Töpfer gave the example of German recycling rules, which has turned the country into a leader in 'urban mining' and given it a distinct advantage in this era of high metal prices.

Hence, it's not a competitive disadvantage to be a leader in a decarbonising energy structure. Forget about climate change, he said. For every 1% rise in GDP, there is 1% rise in electricity demand. Countries raising energy production through fossil fuels will lose out. US companies are realising this, ahead of their government, he noted.

When he was a minister, he said he made at least 10 decisions in which he was told 'this would be the end of industry'. And yet industry is still vibrant. What is needed is leadership, and Germany and the UK are leaders here, he said.

Töpfer said PCAs were a great idea, but with the pre-condition of transparency of information.

Finally, he said the market must be opened beyond its regional structure. A stick as well as a carrot is required – for instance, setting a limit on how much CO_2 could be emitted per tonne of steel produced in China. Anything above this limit would not be allowed to trade with Europe.

Jennifer Morgan, e3g

The Spring Council agreement was a great example of Anglo-German leadership, she said. The German government is now working to launch the next phase of the Kyoto Protocol at the UNFCCC meeting in Bali and conclude it by 2009.

Emissions trading must be thought about both in terms of post-2012 and for European targets, she said.

Morgan said she tries to focus on attempts to shift investment. When looking at deeper cuts from developed countries, and broader participation and quantified contributions from developing countries, it's necessary to look at the investment question and what the ETS can bring.

She said it's necessary to move beyond the CDM. The carbon market isn't going to be enough. How do you finance emerging technologies such as CCS and solar thermal power in EU and emerging economies, she asked?We need to make sure there are signals from the carbon market to developing countries, but not to give away too much too soon, she said.

The carbon market in emerging economies needs to move away from projects towards sectors. Forestry and deforestation need to be addressed, but some solid analysis is needed on whether those tonnes should be brought into the carbon market or whether other financial incentives are preferable.

On linking with the US, the EU needs to play carefully between states and the national system. Morgan urged engagement with the US, as detailed discussions are taking place right now in the Congress. If the EU wants to link a US scheme with the ETS, the system has to be credible. She also said to keep an eye on moves by the federal government.

On the European implementation of Council conclusions, she warned against going into an ETS discussion too narrowly. The EU needs to provide a road map that is coherent, she said – and that is also essential for public participation.

Morgan said she was not convinced about PCAs. The complexity of the system, and the cost of the political capital, concerns her.

Kate Hampton, Head of Policy, Climate Change Capital

Hampton said she had seen a real shift in business' attitude in the last few years. The view now is that the ETS is inevitable, and business is asking what signals they need from government.

Business is asking for a consistent message, she said. The financial community recently wrote to Barroso saying that, if the EU doesn't achieve Kyoto targets through the ETS, the financial community will never believe policy-makers again because investment in policy-driven markets is dependent upon strong compliance.

Long-term visibility has become a major issue, she said. She congratulated the Commission on turning Phase II cap setting into a formulaic process, and hoped this could be formalised for the ETS review – and get an EU-wide cap set as soon as possible for the 2020 target.

The Spring Council target has given post-2012 visibility, and there is some trading now in post-2012 credits, she noted.

As for the UK Climate Bill, it depoliticises target setting and the extension to other sectors, and, if this could be accepted across the EU, it would be a major step forward, she said. It's a lot more challenging in the international context, but this is where the G8 summit is going to be important. If it can set some direction, that will make investors more confident about these instruments, she noted.

To close the gap between political signalling and investment, the show needs to stay on the road following the Spring Council decision, she warned.

Hampton said the CDM has been an exciting instrument, encouraging surprising price discovery all over the world, and she noted the depoliticisation of this process as the CDM Executive Board gets more professional.

But she warned it will not get us to the tens to hundreds of billions of euros of investment that were set out as required in the Stern Review. It needs scaling up significantly and sectoral options should be on the table, she said.

We also have to realise that 100% offsetting can't last forever. In the medium and long term, we have to be thinking more ambitiously, she said, and move to energy demand reduction. That's where the biggest 'wedge' is going to come from between 2010 and 2020.

Franz-Josef Schafhausen, director of the climate change programme at the German Federal Ministry for the Environment

Discussions are taking place on a benchmark system, either around a two-benchmark system – coal/gas – or a three-benchmark system – coal/gas/lignite, said Schafhausen. There is no political decision yet, he said, but he hoped it would be decided by next week.

Germany's 453Mt cap is very ambitious, he said. The government is now deciding how to make reductions, such as via the benchmark system. All those who want more allowances are lobbying, as they did in the first allocation period.

The plan for the second period is less complex, he said. Specific provisions have been stripped out, such as the transfer and option rule, so there's more transparency. Nonetheless, there are a lot of people trying to get decisions that would provide more allowances.

For instance, the CDM/JI linking directive set a 20% cap for the use of such credits. Germany has only 3% of the world market for CDM/JI, but he was not sure Germany would be able to attract that many certificates from outside Germany or the EU.

The EU burden-sharing decision for the 2020 target will not be an easy task. Discussions on German energy policy up to 2020 will begin this year.

Comments and questions

How can we plan coherently for the 2020 target?

Most people are settling on 2009 as a critical year for deciding the pathway to the 2020 target – so there is a big policy job ahead. The hope is that it will become clear in 2009 which target we will be operating on.

The ETS review can work on options and the market will know what the minimum is and the maximum is – and that can help in planning decisions. A formulaic ETS cap is the obvious thing to do.

The UK is looking at a 26–32% reduction by 2020. UK legislation allows firm target setting to 2050, and it is flexible to take any international agreement into account.

Germany is working on a roadmap to be sure that a reduction of up to 40% by 2020 will be possible. The German cabinet will decide on a new climate change programme later this year. This could involve emissions trading, command-and-control measures, tax reform, subsidy programmes and how to treat the transport sector.

One hope was that discussions on the sectors' contributions could take place before the discussions on member states' burden sharing. There is a risk that the EU momentum will be lost in the 'black hole' of burden-sharing talks.

The 20–30% target has given businesses a range in which to plan. It is important that people don't delay making investment decisions. Business doesn't need complete certainty, it needs confidence.

To make the ETS credible, we need auctioning. How can we move on that?

There is a case for 100% auctioning, but there must be good evidence on how this affects international competition.

Auctioning is likely to be confined to power generators in the first instance, partly because there has been almost 100% pass-through of carbon costs and the justification for not auctioning in those sectors is a lot weaker. The UK is putting the legislation in place to do that. But it's important not to get theological about the extent of auctioning and the revenues from it in the early stages.

There is no auctioning in Germany's draft NAP, but this discussion will happen within parliament because a lot of members are in favour of it. Perhaps it will be 10%, or less, and it will depend on the burdens on the different sectors. It will mainly affect the energy sector.