UKERC

IMPLEMENTING KYOTO – DOES IT ALL ADD UP?

EXECUTIVE SUMMARY

30th – 31st March 2006, Lady Margaret Hall, University of Oxford

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UKERC The meeting place

CHATHAM HOUSE

Climate Strategies
International Network for Climate Policy Analysis

UK Energy Research Centre

THE UK ENERGY RESEARCH CENTRE MEETING PLACE

The UK Energy Research Centre's mission is to be the UK's pre-eminent centre of research, and source of authoritative information and leadership, on sustainable energy systems. UKERC undertakes world-class research addressing whole-systems aspects of energy supply and use, while developing and maintaining the means to enable cohesive UK research in energy.

A key supporting function of UKERC is the Meeting Place, based in Oxford, which aims to bring together members of the UK energy community and overseas experts from different disciplines, to learn, identify problems, develop solutions and further the energy debate.

CLIMATE STRATEGIES

Climate Strategies is an independent, not-for-profit company set up to facilitate research that assists international policy-making with a European focus. Climate Strategies aims to provide rigorous and fact-based independent assessment of important questions that bear upon climate change policy internationally and to effectively communicate insights into climate change policy to its target constituencies. Climate Strategies is currently focusing its efforts on the issues surrounding implementation of the Kyoto Protocol and the delivery of industrialised country commitments.

CORE ORGANISING TEAM

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Executive Summary

Introduction and aims of the workshop

UKERC hosted an international workshop in Oxford on 30-31 March to discuss the implementation of the Kyoto Protocol. The objective of the workshop was to determine whether and how Kyoto countries intend to deliver their Kyoto targets.

40 participants from Government, business, academia, think-tanks and non-governmental organisations attended the workshop from 16 countries including several European Member States, Russia, Japan, Canada and Ukraine.

Plenary: Findings of Climate Strategies Research on EU Emissions Trading Scheme (EU ETS) allocation, *Karsten Neuhoff, Cambridge University*
The workshop presented and debated findings from the first and flagship Climate Strategies project on EU ETS allocation. Research had shown that the relative exposure of sectors to the costs of emissions trading depended on two critical factors – their ability to pass on costs to consumers and the value at stake. It was also noted that "pass through" was a feature in liberalised markets. Modelling identified the type of allocation to be a significant factor affecting the overall effectiveness of the EU ETS. The scheme also had implications for investment decision-making and competitiveness. Three possible solutions to this might be: (a) to ensure that carbon was constrained globally or agree constraints on a sectoral basis to restrict the cost differential between specific products globally; (b) to shift to an output based and/or "downstream" allocation; or (c) to implement border tax adjustments. Finally, the research showed that the pursuit of long-term objectives under the EU ETS required greater institutional independence.

Plenary: The EU, The Target and the Mechanisms, *Madeleine Infeldt, European Commission*
Evidence from projections showed that EU emissions fell up to 2002 in line with the EU's Kyoto target path, but started to rise again between 2002-6. The EU is expected to meet its reduction target of 8% by reducing emissions to 9.3% below 1990 levels by 2010. However there were significant differences between Member States. Delegates debated whether the additional policies proposed since 2002 amounted to a "paper tiger" – was the Commission able to penalise those countries unable to meet their targets? The need for an independent assessment of both the projections and allocations plans was identified. 10 Member States were already preparing to purchase clean development mechanism (CDM) and joint implementation (JI) credits. Planned purchases amounted to 540 million tonnes of CO2 equivalent (2008-2012) and 2.7 billion euros had been allocated. Nevertheless, the uncertainties over costs and the willingness of Member States to meet them remained.

Plenary: Canada, *John Drexhage, IISD*
Canada has one of highest level of emissions in the world, both in tonnes of carbon per person and energy consumption despite the fact that 80% of electricity comes from non-carbon sources. After Saudi Ariabia, Canada now has the second largest reserves of oil – 179 billion barrels. Canada is already producing approximately 1 billion barrels/year with expected production of 2 – 2.5 billion barrels/year by 2015. A minority, conservative Government was elected in January 2006. There was a shift in power – both politically and economically – towards the wealthier, energy rich regions of the West. Climate change and energy issues were not seen as priority issues for the Government. Domestically, the status of the national plan, the domestic emissions trading scheme and the status of the funds that had been set up for Government purchases were uncertain. The governing party was not supportive of international trading. Support from other political parties would make it near to impossible for the governing party to withdraw Canada from Kyoto. Therefore, a greater focus on long-term technology solutions seemed likely, including carbon capture and storage. However, there was almost no

prospect of Canada reaching its 6% reduction Kyoto target on present projections and planned actions.

Plenary: Japan, *Masayo Wakabayashi and Taishi Sugiyama, Climate Research Institute of Electric Power Industry*
Long-term shutdown of nuclear power plants left a sizeable "gap" that needed to be addressed if Japan was to achieve its target. New and existing policy measures are expected to deliver reductions of 6.5% from the domestic sector, 3.9% through carbon "sinks" and 1.6% through use of the Kyoto mechanisms. The overall impact of Japan's policies and measures is uncertain despite some ambitious programmes. The recent JETRO survey showed strong interest among Japanese firms in participating in CDM and JI. The Government was also starting to make full-scale use of the mechanisms and had set aside 12.2 billion Japanese Yen from its oil account for acquisition of carbon credits until the end of the first commitment period. Nevertheless, uncertainties on the supply side remained and the policies Japan had put in place, overall, could only ever reduce not eliminate the possibility of non-compliance.

Plenary Discussion: The size of the Kyoto "gap"

Delegates thought that the credibility of projections needed to be considered before conducting an analysis on the size of the Kyoto gap. Obtaining independent data on emissions projections was considered very difficult – all projections were "political" and scenarios could be wrong. Some delegates thought the examples of the EU, Canada and Japan showed that, while the level of difficulty varied, it would be possible for the EU and Japan to make up any short-falls (if of the scale of 100 million tonnes). However it would be much harder for Canada to make up a shortfall of the order of 1 billion tonnes, particularly if the current political system showed little willingness to comply. Others thought we shouldn't bank on the EU remaining behind Kyoto. Broader political processes over the next five years needed to be considered.

EU Emissions trading breakout group – summary of findings

Participants in the EU ETS group concluded that the EU ETS had worked. The group discussed the Commission's review of the system. In response to the modelling work by CIRED on the cement industry, the group considered whether the revision of national caps under Phase 2 might lead to translocation of companies outside the EU. The CIRED model showed that under output based allocation a similar level of emissions reductions could be made with less leakage, compared with grandfathering, and that this methodology could favour innovation and new product development.

Delegates considered whether allocations under the EU ETS might constitute state aid. The group also considered how to move from free allocation to less distorting approaches e.g. auctioning. Participants agreed that getting buy-in from governments and business was difficult but recycling revenue might offer a solution.

Delegates discussed investment uncertainty for companies wishing to invest in new technologies. Uncertainties could affect decisions over location, project development and banking. Delegates highlighted that the scale of money involved would be a significant factor and in this regard it was the sellers who would have a large influence. Participants agreed that while the EU ETS would continue, legally, beyond 2012, the content of the National Allocation Plans submitted by Member States would be essential in proving that a market exists in reality. A key feature would be the principles of contraction that were agreed by EU Member States post 2012.

The Clean Development Mechanism break-out group – summary of findings

The CDM group analysed the barriers that exist for the first generation of certified

emissions reductions credits[1] (CERs). The group also identified a number of options for increasing the number of approved methodologies and agreed that these could be explored through future research programmes. Delegates considered the drivers for raising the "quality" of CDM projects, particularly with respect to achieving sustainable development outcomes. Delegates agreed that projects that incorporated sustainable development benefits were often complex, needed a lot of involvement from local communities and were generally small-scale. To develop these projects on a larger scale would require a workable methodology and framework.

The group estimated the CER volumes up until 2012. There were some 150 CDM projects (243Mt) registered and near to 550 projects submitted for validation in March 2006. It is assumed that some 65% of the 550 (542Mt) submitted projects will achieve registration. Given that the afore-mentioned steep decline in projects submitted for validation for a post 2007 start, the figures suggested that demand would be greater than supply. Other factors would also need to be considered. The group concluded that improvement of project lead times should be prioritised.

East-West Investment breakout group – summary of main findings

This group looked at the market drivers and barriers to JI and Green Investment Schemes (GIS). For JI, the market drivers included the demand from Governments and private companies, the desire to promote new technologies and willingness to establish new markets. The group identified a number of barriers to both JI and GIS. In addition, countries such as Bulgaria and Romania faced significant capacity barriers. In Russia and Ukraine, there were political constraints. In Russia there was no high level discussion about the potential sale of credits at present. The fact that assigned amount units[2] (AAUs) could not be sold through the EU ETS had reduced demand – the possibility still existed of changing this through the Linking Directive although it was recognised that the likelihood of this being agreed was low.

The group assessed the amount of credits likely to be generated through JI in emissions reduction units[3] (ERUs) under three different scenarios: lower (120Mt); mid-range (330Mt) and highest (600-980Mt). While demand would be in the region of 1.2 Gt, the group decided that it was not possible to agree on statistics for AAU supply and that further discussions were needed to determine politically adjusted scenarios.

Bringing it all together – does Kyoto add up?

Delegates from the EU ETS estimated the delivery of emissions reductions through the EU ETS participants, Japan and Canada in relation to the overall Kyoto target. These estimates show that the Kyoto system has a supply of project-based credits already in the pipeline (officially or unofficially) that is likely to substantially exceed non-EU demand, plus a large buffer of surplus Kyoto allowances are potentially available in the form of AAUs. This will tend to limit EU ETS prices during the Kyoto period.

As a result of the uncertainties over whether and how Kyoto countries intend to deliver their Kyoto targets, there are a number of areas for future research. Climate Strategies' research for 2006 and beyond will focus principally on the future of the EU Emissions Trading Scheme, but additional work-streams on the international components affecting

[1] CERs are permits generated through the CDM.

[2] The assigned amount is the total amount of greenhouse gas that each Annex B country is allowed to emit during the first commitment period (see explanation below) of the Kyoto Protocol. An Assigned Amount Unit (AAU) is a tradable unit of 1 tCO_2e.

[3] Permits achieved through a Joint Implementation project.

the operation of the EU ETS, carbon prices and investment flows will also be covered. The package of research will cover the following: the future of the EU ETS; CDM; East-West investment; national implementation.

The purpose of this work will be to influence policy and inform wider stakeholders about future policy directions and will therefore be of interest to the wider research community. Further details about the Climate Strategies research can be found on the website www.climate-strategies.org.