



THE °CLIMATE GROUP

Business Views on International Climate and Energy Policy

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The UK Business Council for Sustainable Energy was launched in 2002 bringing together the key players in the UK energy sector, to enable a high level policy dialogue with Government on climate change, and the transition to the wider use of sustainable energy.

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The Climate Group is an independent, non-profit organization dedicated to advancing business and government leadership on climate change. We are based in the UK, the USA and Australia and we operate internationally.

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Contents

Executive summary	1
Introduction	3
1. Business response to current climate policy	5
1.1 How has your company been affected by and responded to climate change?	5
1.2 Is current policy driving emissions reductions and business investment?	12
1.3 What are the key elements of the EU ETS?	15
2. The international regime – today and post-2012	17
2.1 How important is the Kyoto Protocol?	17
2.2 Post 2012 – where is it on the company radar screen?	19
2.3 How ‘post-2012’ impacts business strategy	20
2.4 The importance of carbon market continuity	22
2.5 What is a ‘collapse’ of Kyoto and how does it affect EU ETS?	23
2.6 The relationship between the EU ETS and the Kyoto Protocol	24
2.7 Essential elements of the post-2012 international regime	26
2.8 A sectoral approach post 2012?	29
2.9 Competitiveness and tradeoffs	32
2.10 Other policy issues	35
3. The clean development mechanism	37
3.1 Company engagement in the CDM	37
3.2 Strengths and weaknesses of the CDM	39
3.3 Critical issues	41
3.4 CDM – investment driver for clean energy technology?	42
4. Other issues	45
4.1 Options for supporting the growth of renewable energy	45
Appendix I: Did Montreal make a difference?	47
Appendix II: Questionnaire	49
Appendix III: Original starting points – pre-interview discussion with business	51

Executive summary

- > There are a set of important, near-term, international carbon market continuity issues that depend on the linkage between the Kyoto Protocol and the EU Emissions Trading Scheme (EU ETS), and CDM investment. These are all important for the early-movers driving carbon market development. They also pose particular business risks for those players looking for carbon price visibility through the second round of National Allocation Plans (NAPs) and beyond i.e. NAP2 to NAP3+.
- > Carbon price and carbon markets are not currently central to the commercial deployment of technologies, such as renewable energy (RE), that will arguably play an important role, at scale, in 10–15 years. One reason is that the emerging carbon price is not seen to be long-term enough to influence strategic decision-making, for example, over investments into new plant. This is compounded by the high level and volatility of gas prices.
- > National energy policy, responding both to climate change and energy security, and in particular incentive frameworks for clean energy technologies, are currently seen as the key drivers of low carbon investment. Clear long-term climate policies are likely to reinforce this.
- > Different sensitivities to policy change exist between multinationals & early movers in carbon and RE. The latter are responding to new commercial opportunities, and may be considerably more sensitive to the detail of modifications to the international climate policy regime. Multinationals are more likely to take a longer-term strategic approach, based on market positioning, compliance and new product development. These much larger companies are less sensitive to short-term policies, such as NAPs, or changes in the international arena. To use an analogy – multinationals arguably have the capital to power forward ‘the ship’ once it is going in a new direction, but it is many of the smaller companies (or small units in large companies), in the carbon and clean energy area, that are doing the market development, and turning the ship around.
- > The outcomes of COP11 in Montreal, generally, are seen to have provided a reasonable step forward. Comments included ‘broadly in line with expectations’, and ‘a step in the right direction’. However, the decisions seem to have had less impact on business than on those inside the process, with other commentary suggesting that it has not changed the perspective on the longer-term outlook. Less positively, one business stated that they were not sure to what extent Montreal provided more ‘courage’ to make investments where the return is

dependent on there being a carbon price in 2013. Some of the detail of Clean Development Mechanism (CDM) decisions was seen positively by the emissions traders attending the talks.

Montreal: *“The next priority? Knowing the timing of negotiations would help. It’s not just the question of the ‘gap’ between first and subsequent commitment periods, we need to know what the second period will contain.”*

- > Many, but not all, of the businesses are keen for positive engagement in the process of policy development, and at an early stage of design rather than once a detailed framework has already been determined. However, one implication of this analysis is the importance of properly understanding the policy sensitivities of early movers, and not seek to ‘balance’ views across larger business players.

Introduction

Given the central role of business and industry in achieving the greenhouse gas (GHG) emissions reductions necessary to mitigate global climate change and as international negotiations over the 'post-2012' climate policy regime begin in earnest, it is vital that negotiators and policymakers fully understand how businesses respond to climate and energy policy. Since much of energy and climate policy is designed to shift investment decisions in favour of lower carbon outcomes, how such policy feeds through into business strategy and the effects that different incentives have on investment decisions is a key part of 'good' policymaking.

This document presents the results of a survey, commissioned by the UK Government, undertaken by the UK Business Council for Sustainable Energy and The Climate Group. The survey aims to provide greater insight from different branches of the business community into the development of domestic and international climate policy. This is designed to feed into UK Government preparations as the international community begins negotiations on the 'post-2012' regime – the follow up to the Kyoto Protocol (2008–2012). In particular, there is broad recognition among policymakers that 'market continuity' is important; this survey aims to bring forward a greater understanding of what this means in practice.

The terms of reference for this survey were to create an 'evidence-base' to provide business insight into:

- Transmission between Kyoto, national and EU climate policy and business investment;
- Issues around carbon market continuity, including the impacts of modifying the international regime;
- The importance of decision-making timeframes, including key points in the lead up to 2012 that might lead to reassessment of business strategy;
- Longer term market transformation – the elements of climate and energy policy that will produce near-term changes in investment patterns.

To compile the report, structured interviews, based on the questionnaire in Appendix I, were carried out with a total of thirteen 13 UK-based companies from the following sectors, all of which are directly or indirectly impacted by climate change policy:

- Utilities (different portfolio mixes) and a renewables developer (mainly wind)
- Financial services (major international bank, renewables equity, specialised merchant bank, carbon/renewable energy broker)
- Oil & gas
- Energy intensive users and aviation.

The interviews were conducted under Chatham House rules so the names of these companies are not referenced in this report; indeed the text presented is entirely the responsibility of the authors.

1. Business response to current climate policy

1.1 How has your company been affected by and responded to climate change?

In the first set of questions, interviewees were asked how importantly they rated the impact of current climate and energy policy on their companies' business, what the main impacts have been, companies' responses and any effects they have seen on their clients/suppliers and their relationships with them.

- **All companies see climate change and climate policy as a major challenge and, in many cases, an opportunity. As a result, most consider climate change a strategic priority with board-level engagement.**
- **Responses vary according to market-positioning: some are directly affected by current incentives (e.g. renewable policy, carbon constraints) while others take a longer-term strategic view.**
- **These differences are also reflected in the type of action taken: while most companies are seeking out carbon efficiency improvements to meet compliance targets, only a few are making long-term investment decisions, either as a result of direct incentives to invest in renewables or a strategic view of the transition to a low carbon economy.**
- **Therefore, at present, energy policy and energy markets are having a greater effect on strategic decision-making than climate policy per se and climate and energy policies are often seen as only being loosely 'joined up'.**

All the companies see climate change as a major challenge or opportunity (see Responses to the question on page 6), although their own businesses and their relationship with suppliers and customers are affected in different ways. While the businesses were selected because they are already engaged in activities stimulated, or potentially affected, by the Kyoto Protocol, there was still a surprisingly strong consensus on the importance of policy in this area.

Although the majority of companies see climate change and climate and energy policy as of being of major importance, there are differences in companies' motivation for acting in response to climate. One group is responding strategically to climate change, taking into account the longer term implications for their core business, clients and assessing new business opportunities. The other group of companies is responding directly to compliance-related business obligations and opportunities.

The response of companies at the forefront of carbon market development is driven primarily by the new policy environment spurred by countries' Kyoto Protocol obligations, and therefore will likely be most affected by 'signals' from the international climate regime and changes made to it. Many of these companies may be smaller entities, or units within larger companies, but are important because they may be taking much of the early-mover risk and are therefore central to carbon market development. They reflect the kind of business activity that the Kyoto Protocol was intended to stimulate.

In general it appears that, while the multinationals and larger national companies have the capital to fund emissions reductions, new technologies and energy systems changes at scale, it is the many smaller companies, responding to the new policy environment, that are creating the conditions for this to take place. Such companies are particularly sensitive to policy uncertainty.

For obvious reasons, power plant developers, renewable energy equity investors and equipment manufacturers are more directly affected by national energy policy issues, such as legal regimes related to renewable energy use, the EU's Large Combustion Plant Directive, and UK energy efficiency regulation, as well as more general energy prices and their volatility.

Responses to the question: "How important do you rate the impact of current climate and energy policy on your company's business?"

Utilities/electricity providers

"everything to do with our business"

"very very very important"

"deemed a major risk at Executive level – in top band of risks facing company"

Financial Services

"greatest environmental challenge... no government policy directly affects us... [but] need to understand regional impacts on customers, and parts of portfolio e.g. real estate."

"90%"

"100% important – the business is dealing in the financial effects of policy"

"couldn't have a business without climate change policy"

Major energy users

"extremely important, fundamental"

Oil & Gas

"current policy impact is modest, but this is clearly differentiated from how we see policy developing in the next 5–10 years, out to 2020,this will have quite a major impact on our business"

"profound – we don't do anything without understanding the long term impact on any business decision – the default is include it"

Climate change is now being dealt with at Executive and Board level: in businesses with extensive fossil fuel assets or energy use – including those companies facing policy-driven obligations such as the EU ETS – it is currently seen as a business risk and rather less as an opportunity.

As one company, with significant fossil fuel assets stated:

“The impact [of climate policy] has been profound – no decision is currently taken without considering the long-term impacts of carbon/climate on any business decision or investment. The issue is dealt with at the highest level and across a range of business units.”

Companies without direct fossil fuel assets are also considering the implications of the issue in terms of understanding the impacts of climate change itself, as well as policy, on existing clients and assets.

One multi-national company stated:

“Climate Change affects or is likely to affect:

- Corporate real estate, especially at sea level/coastal areas*
- Insurance portfolio, for example Hurricane Katrina*
- 110 million retail clients, their repayment ability and banking/loan needs; and*
- Corporate clients facing climate impacts on business/property and carbon constraints.*

Therefore, while the direct impact of climate policy on the company has been minimal and it doesn't lobby on these issues, indirect impacts and the need to respond are significant.”

For another multinational, the impact of current climate policy (EU ETS) and energy policy is also rather small, mostly affecting UK domestic operations. However the impact is expected to increase and, in common with some other major companies, it wants to be at the forefront of shaping policy to best suit its own needs.

Below, some of the significant impacts on companies, by sector, including client relations are covered in greater detail. Renewables-specific companies have been separated from the financial services and power sectors as their positioning is somewhat different. An important point is that ‘climate policy’ is generally interpreted as being directly emissions-related e.g. the European Emissions Trading Scheme (EU ETS) and it is widely viewed that there is not yet convergence between emissions and energy policies. Renewable energy does not result in ‘least cost emissions reductions’ at present; however, securing growth and increased competitiveness of this sector will be a key component of delivering emissions reductions at scale in the medium term.

1.1.1 Financial Services

This sector included a large multinational bank, a carbon finance brokerage and a new firm offering a wide range of climate and carbon specific financial products and services.

Climate change models indicate that many of the bank's customers will be affected, and that there is significant risk to a number of businesses; however the action there is within the bank has mainly been in response to the broader policy environment rather than perceived commercial risk.

Very few of the bank's clients were reported as asking for carbon-related banking services, suggesting that policy isn't yet making a strategic difference to many, although a number are interested in opportunities arising from the carbon market, in some respects behaving like hedge funds.

The bank noted that its extensive client base falls into three general categories:

- i) A minority which understands the issue and policy and accepts the need to manage risk and grasp opportunities. The more sophisticated accept that risks and opportunities exist with or without policy, while others see only regulatory risk;
- ii) A larger group which hopes regulation will disappear but is aware of competitiveness issues;
- iii) A fairly large group which has little or no idea about climate policy (principally those not under the EU ETS).

This bank regards a major communications exercise on risks and opportunities, within the wider business community, as a necessity. The financial services sector also needs to understand better the impacts of climate change and policies on their clients and how to reduce the negative impacts of both. Understanding policy drivers is currently seen as very difficult due to the lack of certainty and inconsistency of the current policy frameworks (for example, inconsistencies between RECs, feed-in tariffs, Renewables Obligation (RO), Climate Change Levy (CCL), Energy Efficiency Commitment (EEC), etc.)

At the smaller end of the financial services sector, however, specialised firms (e.g. emissions brokerages, renewable energy financiers, etc.) are starting to appear (as well as specialised funds within larger institutions) directly in response to perceived commercial opportunities emerging as a result of climate and energy policies. Indeed, *“as [climate] policy becomes more solidified, there is more activity in the marketplace”*.

A number of factors have contributed to the emergence of these new firms: the new scale of opportunities (transactions that may be too small for larger commercial players); differentiated risk appetites between players in the financial services sector; and the lack of understanding noted above by many 'clients'.

The Kyoto Protocol and associated climate and energy policies are of considerable importance to these businesses.

1.1.2 Power Sector

In the utility sector, energy and emissions policy development is directly affecting company strategies and business models, with a 'significant impact' on investment programmes and the companies' relationships with their customers.

The EU ETS will affect new-build (both whether and what plant is built), with particular attention being paid to the detail of key forthcoming decisions. The most important of these are how new entrants are dealt with in future National Allocation Plans (i.e. whether allowances are provided free or have to be bought) and whether and how much auctioning is used as an allocation method (the latter also being of interest to major energy users that have obligations under ETS).

To date there is only clarity around major policy until 2007 – too short a time horizon to guide investment decisions or change the technology mix – and this is contributing to investment delays, particularly (covered below) as companies look ahead to 2013+ for visibility on how carbon market supply and demand and carbon price could affect options.

Utilities with large customer bases are strongly aware of the impact of pricing issues on customer relations and new product development. Some noted that customers are starting to get more interested in evolving energy services and/or an improved ability to access energy efficiency products.

Others, however, point to the fact that while obligations under the UK's Energy Efficiency Commitment (EEC) can add value to customer relations, most customers are not particularly interested. A view was advanced that a better model than EEC is required to drive energy efficiency, or carbon savings, that can enable benefits to be more readily recouped or shared.

1.1.3 Renewable Energy – focused companies

For those specifically engaged in renewable energy (RE), it is UK energy policy that is the key driver of investment and development; consistent renewables policy is seen as crucial for the technology – and companies – to become competitive. As one company stated:

“The business would not exist with out top down policies – for both carbon and renewables... the market alone would not create enough incentives”.

Additionally, while climate change concerns, generally, have been the main driver of renewables policy and development over the last 10–15 years, now security of energy supply is seen as the top political driver.

Renewable energy policies are central to creating the incentives on which renewable energy-specific businesses are based. However, this is a double-edged sword as investors are wary of businesses that are viable purely due to policy, given the perception that governments may change the policy regime (impacting commercial viability and returns). So while investors now see, and are actively looking for, opportunities for good returns from renewable energy investments, perceived regulatory risk in some markets raises the hurdle rate.

In terms of client relations, at present the renewable energy market has shifted from oversupply to over-demand, with a shortage of wind turbines (and solar panels) constraining renewables supply (and raising costs). However, there are unlikely to be many new wind equipment suppliers entering the market; instead, consolidation within the sector, at it matures, is more likely, and this will help drive down cost.

1.1.4 Major Energy Users

This is the least homogeneous of the sectors covered in this report, with different subsectors and companies facing very different market conditions (on both the supply and demand sides) and regulatory constraints. However, for major electricity users, the cost pass-through of rises in electricity prices has resulted in higher energy costs and higher commodity prices (depending on different National Allocation Plans). According to the firms interviewed, this has led to distortions within the European market, leading the UK to be relatively uncompetitive. For example, it was claimed that there has been a 50% increase in electricity costs for industrial users (leading to UK firms paying up to 40% more than their German counterparts) with 15–20% of the price increase attributed to EU ETS.

One company argued that this meant that the UK now had to address the more fundamental question of whether the country – or Europe – wants steel and other energy-intensive commodities to continue to be manufactured domestically. Some companies within this broad sector already have long-term plans to invest increasingly in developing country markets, as both access to cheaper inputs as well as business opportunities in expanding markets come into play.

Whether carbon policy is likely to lead companies to shift the geographical location of these companies' production depends on more than climate policy alone. In particular, the nature of the markets in which they operate (global, regional or national), associated transportation constraints and the size of long-term sunk costs are crucial for understanding the likely long-term impacts. In general, while carbon costs, on top of the current high energy prices, may make the marginal difference to new plant location, in the near term strategic location decisions will depend on longer-term market trends, of which carbon is only one component.

Rising energy prices also affect the supply chains, and especially raw materials costs, of these producers. However, many – car manufacturers, engineering companies, food producers, construction and packaging – have sourcing options outside Western Europe and therefore can change supplier.

Oil price rises have stimulated greater attention to fuel efficiency in the aviation sector and this, in conjunction with a likely high and rising cost of carbon, is leading to the assessment of alternatives, such as low carbon fuels. However, in the short and medium terms, gains in both this area and fleet efficiency are not expected to make a significant dent in GHG emissions. Therefore, in a carbon constrained world airlines are faced with two choices: fly less or buy allowances or carbon credits under an emissions trading scheme. For this reason, whether and how airlines are included in the EU ETS and, in particular, on what basis allowances are allocated, are the key issues facing the sector.

Within the airline interviewed, those responsible for business strategy are now interested in understanding policy and its future evolution, as this is likely to affect aviation fleet purchasing decisions and forward business planning. Differentiation between the two major aircraft engine suppliers, in terms of fuel efficiency, is not significant, though engine suppliers are beginning to look at alternative technologies/fuels. In terms of the sector's engagement in the broader international debate over aviation emissions, aircraft manufacturers have not been involved in policy discussions because of sensitive relations with clients (in the US).

1.1.5 Oil and Gas

This is a sector characterised by a high degree of competition, in both upstream and downstream markets, with small differences in margins leading to potentially significant differences in market share and profitability. The main direct impact of climate policy at present is the EU ETS. As for other companies and sectors, this means the management of a new asset and the development of new internal capacity: *“people, systems and business processes”*. Like companies in other sectors, how it will impact in terms of capital requirements and long-term investments is still being understood.

The oil and gas sector is used to covering commodity exposures and climate policy means that this also now includes trading and hedging emissions. Multinationals are likely to consolidate their group's position using opportunities in the EU and internationally. Over the longer term, both the companies interviewed are developing new businesses around CO₂ management, and one has a strong emphasis on CO₂-reducing technologies as part of its R&D budget. As the companies operate in countries with different emissions obligations, rather than facing the complexity of dealing with these on a case by case basis, they have developed group-wide policies on emissions on the basis that the same internal goals should apply across all jurisdictions/businesses, for example, through an internal target and trading scheme. At the same time, however, they recognise that

different countries/regions (will) apply different policies, and that the company must retain the flexibility to be able to deal with this, even if such a 'patchwork' approach is sub-optimal.

In the recent past, how far the companies go beyond any regulatory requirement was determined in part by the balance between risks associated with doing too much or too little: being sued for lack of action on emissions (given the contribution of the companies' product to global emissions) on the one hand, and risk of investor unease at potential loss of short-term earnings (e.g. by putting the equivalent of a tax on its own profits by setting corporate goals for carbon) together with criticism from sector peers, on the other. One company pointed out that investors (and some internal management) have tended to divide into two groups: those who see opportunities from leadership and reputational enhancement and those who believe a company should follow when competitors face the same restrictions (i.e. make money now to invest in solutions later).

The perception of the issue has now clearly shifted from a Health, Safety and Environment matter to an opportunity to add value to operations by reducing costs: it is now well-known that BP found significant cost savings – with a present value of \$650 million – while achieving an 18% cut in emissions, despite the fact it was not in sole control over 60% of those emissions.

At the downstream end, both companies have strong customer focused engagement and advertising strategies aimed at end use energy-related emissions, despite not having formal responsibility. However, all the companies in the sector are aware that, were there to be regulation over the use of their products (those of the two companies covered in this report are responsible for around 7% of global CO₂ emissions) this would have a profound effect on their business models.

1.2 Is current policy driving emissions reductions and business investment?

As business will be at the centre of delivering emissions reductions and providing the capital for the provision of energy, infrastructure and other services with significant impacts on future emissions trajectories, it is crucial to understand how business is responding to the current international climate policy regime. Therefore, following on from the discussion of companies' general response to international climate policy, questions were raised about the specific current drivers of emissions reductions. In particular, interviewees were asked to focus on the elements that are most important in terms of:

- i)** driving emissions reductions within the company/sector;
- ii)** driving the business to seek lower carbon options for energy use and achieving this cost-effectively.

- **As with the general response to climate change and climate policy, the drivers of emissions reductions and low carbon investments vary between sectors and companies.**
- **The existence of a price for carbon has driven companies to develop carbon management strategies but as yet – given the uncertainty over what will happen post 2012 – is not driving investment decisions.**
- **Instead companies with compliance obligations under the EU ETS are looking at short-term carbon efficiency gains and, in some cases, hedging strategies involving the use of Certified Emissions Reductions (CERs).**
- **Greater clarity about the existence of long-term carbon price is needed to drive investments into low carbon alternatives.**
- **At the same time, a number of specialised companies – and departments within larger entities – have emerged in response to the carbon market and/or clean energy incentives. These companies’ investment decisions are almost entirely shaped by their policy environment.**
- **The existence of consistent policy is vital but governments must avoid tinkering every few years – in the UK, cross-party commitment to consistent long-term policy is needed.**
- **Renewable energy investment is driven by renewables support policies, high price of oil, carbon pricing and climate change concern.**

Three broad conclusions can be drawn here. Firstly, those businesses – particularly in the financial services sector – that are specialising in carbon-linked, or related, finance products and services are explicit about the importance of the Kyoto Protocol and its implementation mechanisms (including EU ETS). These are firms responding to business opportunities created by the binding nature of the regime, for whom:

“First, second and third is price of carbon.”

And:

“The most important elements ... in terms of driving the business are... The Kyoto Protocol and anticipation of policy beyond the Protocol, the fact there will be absolute emissions targets and the existence of the flexibility mechanisms. In other words, Kyoto round two, plus some incentives on developing countries to reduce emissions, e.g. through the flexmex. Other national schemes are not really of relevance, other than a bit of voluntary market stuff.”

These companies are also well equipped to cope with a certain degree of uncertainty, for example over future carbon and energy prices, provided there is an indication that policy will continue. However, given the longer term uncertainty (which is touched on in more detail in Section 2), there is widespread recognition that policy is not driving investments to reduce emissions:

“The long-term policy is uncertain, but emitters and more sophisticated players understand how to respond; the less sophisticated don’t. At present we’re seeing short term trading, rather than actual emissions reductions.”

The company quoted above went on to state that even if the international system shifted from using the flexibility mechanisms to a carbon tax – the business would survive as it also deals with technology and business strategy.

Secondly, the EU ETS is a critical element in driving direct business engagement, particularly for those companies with EU ETS obligations or whose core business activities are highly sensitised to carbon price. These companies are very concerned to have carbon price visibility into the future. This is now a key issue in business investment strategy. This category of companies – utilities and major users – might be seen as those responding to compliance obligations.

“ETS, but also EEC [Energy Efficiency Commitment], fuel poverty [and], the Renewables Obligation are as important as ETS. One could argue that ETS is a shuffling of monies rather than a change in what we do – emissions have not actually reduced. Our belief in being a sustainable business means we have got to take a view on what it’ll look like in the future, not just current policies. Business always tries to achieve things cost effectively.”

For major energy users with energy responsible for up to 25% of costs, increases in energy prices are being felt quite significantly, even though there is recognition that these are not entirely due to the pricing of carbon. In one sector the company stated it had already reduced per-unit energy consumption by 40%, but that a pan-sectoral initiative to develop fundamentally different, very low carbon, technology, had an expected 10–15 year timeframe to reach piloting and therefore is unlikely to have a significant impact globally until 2050.

The larger multinationals (oil and gas) are less sensitised to near-term carbon price, and the need to meet EU ETS compliance obligations (in refineries) is not having a substantial impact. Nevertheless the existence of carbon pricing has made carbon management an important new element of the business and is helping frame longer term strategies.

“The main impact is ETS, even our own efforts [to look at carbon issues] within Group pre-ETS were not as effective. Anticipation and reality of carbon management, is now starting to have real secondary impacts in terms of seeking CO₂ opportunities and projects. We’ve still not reached first true up though.”

“However, getting our own businesses involved outside Europe and other parts of the industrialised world is still at ‘precursor phase’ – they have other priorities, so it is still difficult.”

Another company stated:

“Carbon price is currently not a major driver of business decisions because we expect to meet ETS targets anyway.”

1.3 What are the key elements of the EU ETS?

Although carbon prices to date may have had little impact on longer-term investment decisions, all the companies interviewed saw the emergence of carbon markets – or at least a price for emissions – as likely to be a central determinant of their business strategies. In this context, the EU ETS currently has a central role and is likely to do so for the foreseeable future. Therefore, the interviewees were asked which elements of the EU ETS were likely to be most important as investment drivers and, hence, which are the key elements in terms of maintaining market continuity.

- **In order to drive investment, almost all companies agree that mandatory absolute targets, with demand exceeding supply, are essential.**
- **In addition, these targets need to be set over a timeframe that is consistent with business cycles – opinions on this timeframe ranged from 10 to 25 years – and with an assurance that these will be stable.**
- **The stringency of targets is of less concern than the way in which allowances are allocated for some. Allocation is a key determinant of intra-EU competitiveness and of overall cost.**

“Carbon markets are an order of magnitude more unpredictable than oil, in terms of supply and demand. There is no ‘natural demand’ for CO₂ certificates.”

The overriding message is that EU ETS mandatory targets and the level of the cap – or ‘shortness’ in the market – are the key determinants driving carbon price, and value to companies. The requirement for regulation, to create a ‘safe market place’ like stock or currency markets was one analogy used from the financial services sector.

“Clarity and stability of policy are very important – and the beauty of the ETS is that it is so clear and simple. The weaknesses are well known – the 5 year target setting is so much shorter than the average investment cycle – so it doesn’t help investment.”

On carbon price and allocation – *“we think mandatory, absolute caps are the best solution, other approaches may work as long as they are robust i.e. able to be enforced, real, have bite, and are visible on bottom line.”*

The National Allocation Plans (NAPs) are therefore of central interest, and companies are looking beyond the current five year allocation phase (ie to NAP3+) to anticipate the market over the next 10–15 years, i.e. a more commercially

relevant timeframe. Post-2012 issues being dealt with at international level are entering the radar screen for this reason, even for companies that typically have had little direct interest in UN-level discussions.

“What drives value? Tight targets and clear policy – its shortness.”

“The key is to create a price of carbon, with visibility as to what is driving price over the time horizon of investment decisions. As to the question of how is the price of carbon going to be set in 2012 – got no clue”.

Those smaller companies directly involved in the carbon and financial services side of the market also highlight more specific points, relating to future supply and demand and the assessment of carbon price. One key area is the future evolution of the Linking Directive, with the most important question concerning; the range of CERs that will be accepted – count (all gases) or a restricted-origin – i.e. CO₂ only.

“The link to the Kyoto Protocol for trading is not a restriction, but what is important is the level of demand in ETS.”

More generally, even in the multinationals for which trading is not an overriding business issue, it *“shines a light on the issue and gives value to carbon even if not currently a driver of investment.”*

Additionally, it provides a stronger backdrop to the development of new business group activities, product and technology development. One company noted that these were driven within the last year from analysis of energy growth drivers, anticipating that *“in years to come, emissions will not be acceptable without mitigation.”* In this company this resulted in the need for a much more vigorous look at big CO₂ generating projects. Now the company has an Executive level person responsible for this.

However, the message from renewables specific companies was rather different. They stated that carbon policies, including EU ETS, *“have little or no impact on renewables investment: the cost differential between different energy sources caused by carbon pricing makes renewable energy a more attractive option, but is not sufficient alone.”* The average price of conventional power at €2/MWh versus wind power at 80/MWh, was given as an example.

2. The international regime: today and post-2012

2.1 How important is the Kyoto Protocol?

In terms of their response to climate policy, many of the firms indicated, perhaps unsurprisingly, that the international policy framework was less important as a direct driver of corporate activity than domestic and regional policies. However, they also recognised that these domestic policies were – to a greater or lesser extent – contingent on the existence of an international agreement. Therefore, the interviewees were asked how important they felt the Kyoto Protocol was as:

- i) an indicator of government seriousness on the issue;
 - ii) a driver for national climate and energy policy;
 - iii) a driver of business investment decisions.
- **Perceptions of the importance of the Kyoto Protocol vary between companies, though all recognise the significance of international policy as a signal of international commitment to take action on GHG emissions.**
 - **As such, the imperfections of the current regime are less important than its existence.**
 - **The most important aspects of the Kyoto Protocol to these businesses at present are the flexible mechanisms.**

The majority of the companies are clear about the importance of the Kyoto Protocol. The bulk of comments demonstrate a view of the Protocol as an important, or “*extremely important*” sign of collective political action, “*that brings countries together around the climate problem*” and is useful “*to avoid completely disjointed approaches*”.

In general, ‘imperfection’ in the Protocol is less important to companies than the fact of its existence. One comment was:

“It could be KP plus other measures – but it’s important that it is the global community acting. If not the Kyoto Protocol, the question is what would be the replacement regime?”

The role of the Protocol as a driver for national and regional policy, and providing the structure for international action is also emphasised, including the framework for emissions trading:

“The Kyoto Protocol is important: A, it spawned regional carbon markets through CDM semi-globally that can trade. Is it a success? – well the Brent [oil] trading market failed at least twice – getting going as a recognised commodity is extremely difficult. B, the Protocol is a recognition of the issue, its complexities and dilemmas.”

“The Kyoto Protocol is very important for setting up the architecture for emissions reductions, although currently it does not affect the company directly.”

This latter comment reflects the perception that while the Protocol is seen as important international architecture, companies do not see its targets directly driving their investment decisions. One company notes that: *“In the EU, the Protocol targets are not as important as legislative targets for domestic compliance, but it [the KP] is important for encouraging governments to set challenging caps on industry.”*

Another company stated: *“It’s not a great driver of investment decisions, in other words it’s not an active constraint over BAU.”*

The important reference point here is that while a business may say that the Kyoto Protocol does not directly drive investment decisions, they are of the view that the Protocol is important for ensuring collective action, and providing the international architecture for doing so.

A further point is that if the government is taking the Protocol seriously, such as appears to be the case in the UK, the company will have to take it seriously, particularly in terms of current and future compliance obligations.

Two companies did have more mixed or critical perceptions, one stating that: *“The Kyoto Protocol is not a great sign of current government engagement – it is for those governments that signed it, but that’s several years ago.”* However it was perceived as helping people *“understand what the world looks like with agreed caps”*.

Another comment was that the Kyoto Protocol per se *“is the least of our interests”*. This company committed to reducing emissions before the Protocol was agreed. After 1997 it took KP targets and doubled them to set its own target and sees the Protocol *“as a tool not an objective”*. In other words, for companies that already see responding to climate change as a key strategic objective, short-term international targets as such are not an important driver. Rather, it is the mechanisms that international policy establishes – such as emissions trading and the Clean Development Mechanism – that are of greater interest as they define the business context and create opportunities.

2.2 Post 2012 – where is it on the company radar screen?

As negotiations begin over the post-2012 climate regime, the companies' current view of this future framework and, in particular, their assumptions about its existence and likely shape is an important context for policy. This provides insight into which policy drivers (international/regional) are currently most relevant to business, prior to examining carbon market continuity, and implications of changes to the international regime. Interviewees were asked:

- i) Is 'post 2012' climate policy on your radar screen? If so, how does it affect current business strategies, in the long and short terms?
 - ii) If not, what are you assuming will happen after 2012?
- **Almost all the companies see the post-2012 climate regime as being of crucial importance and are already considering how it will affect their investments.**
 - **In particular, the lack of certainty over what will happen after 2012 – the 'cliff-edge' – is making it difficult for companies to plan their longer-term strategies.**

All of the companies, with only one exception, have 'post-2012' clearly on their radar screen, with some being particularly emphatic. Comments focused on the connection between the international framework and national or EU regional policy, particularly the ETS:

"2013 is important as the international framework and targets will drive the ETS and domestic policy. An international framework, or series of linked regional agreements, is needed to achieve a global carbon market that drives domestic reductions."

There were also more general comments focused on the broad infrastructure and economic changes driven by climate change policy:

"2013? There is considerable expectation on climate change within the company – that there will be very real change by 2030."

"Post-2012 is definitely on the company's radar screen but the 'cliff-edge' is very negative in terms of the company's response... purchases have long-term payback so we need to have greater certainty over likely future policies. Given the current 'gap' there is no evidence that future-looking investment decisions have been affected by carbon policy."

The company for which post-2012 is *"not a direct concern"* was focused on the greater relative importance of RE policies, and issues like high fossil fuel price drivers. Even in this case, it was acknowledged that the wide acceptance of climate science meant clear action would be needed over the long-term, but that: *"general commitment to collective action is less important than specific short-term policies"*.

The other renewables-specific business made more of a linkage, stating that it was looking for the post-2012 framework *“to lead to firmer policies on clean energy”*. This company also raised a prevalent theme: the need for more clarity over a 20 year time-horizon, through the post-2012 regime, reflecting the commercial interest of businesses with assets with a 20+ year lifetime.

2.3 How ‘post-2012’ impacts business strategy

Given the importance attached by the majority of companies to international agreement on a post 2012 framework, the interviewees were asked to comment on the extent to which the current absence of a post-2012 framework and their assumptions about what this might look like are already affecting business strategy. In particular, discussion focused on the expectations – or lack of them – companies have about continuity in the emerging carbon markets.

- **Uncertainty over the post-2012 international framework is delaying investment decisions.**
- **For most companies, most important was the lack of carbon price visibility beyond 2012 and the shape and tightness of the EU ETS market, though most saw that this was unlikely to be resolved until there had been some progress internationally.**
- **In some sectors, there is a clear risk that this lack of certainty may lead to investment decisions that lock companies into higher carbon options as it is impossible to factor carbon prices into financial analysis. This situation was particularly acute for those companies replacing or upgrading plant in the short-term.**

Forward strategy is being affected by post-2012 uncertainties, particularly for the utilities sector and energy intensive users even if they are not changing investment practices at the present time. The key issue is carbon price visibility, in particular the development of EU ETS between NAP 2 and NAP 3+, which also will start in 2013, and which is seen to be driven by, or inter-linked with targets or carbon caps, in the international arena.

Post-2012 is *“absolutely critical to what we do now in terms of investment; in a capital intensive industry this is very very important.”*

“In the next 5 years we need to decide on replacing around 15GW of plant which will shut in the next 10 years. That means a five or six year timeframe to make those investments, so we need to know the impact of 2013 prior to 2012.”

The impact of carbon price uncertainty is outlined by one utility: *“We don’t know how to price carbon post-2012. If an investment decision now depends on knowing the price of carbon would it be done...? We would wait if possible. If it’s gas versus coal – the price of carbon is not enough to make the difference – but between offshore wind and gas?”*

For one energy intensive company, it was the specific EU ETS details that made it “*very worried*”. In this same case, this was price-related largely due to the company’s stated difficulty in passing on costs: the concern was not directly linked to the level of a carbon cap, but rather to whether there would be auctioning in post-2012 EU ETS. The company separated out the carbon impact from the business impact of the policy, indicating that there was not significant differentiation between production efficiency (and therefore carbon emissions) in one part of the world over the other, even if the business impact of policy was, it was suggested, to push the business to shift some production overseas.

In addition to the specifics on carbon price visibility post-2012, business strategy based on positioning for longer-term market leadership was emphasised, in other words acting on the assumption that climate policy is not going to go away, even with detail absent. As one stated:

“Smart investors/businesses realise that dealing with climate change is a long-term game and that taking early action (as BP and GE have done) will create market leadership later, when competition is more intense, plus provide greater ability to respond when policies are tougher. Policy certainty is key for those without vision, or for specific technologies.”

The matter of assumptions about EU ETS continuation beyond 2012 is dealt with below, in the section on the international regime, however, one company laid out its roadmap for post-2012, saying it is important to:

- ensure EU ETS survives;
- create a global matrix based on some kind of target (ppm or long-term emissions)
- determine an EU trajectory e.g. 1% pa reduction in emissions, and anyone else [country] doing that can join;
- set up World Carbon Organisation – to hold countries to account on what they are doing to meet global cap – equivalent to IMF country critique – and encourage countries to adopt policies and measures.

There was a general feeling that while companies might want ‘more rather than less’ on the carbon market front, the international UNFCCC process may not be able to reach agreements on country targets, or country allocations within a more general target.

In this context it is important to understand how communications about the international process are being picked up. While there needs to be expectation management of individual COP/MOP meetings, the absence of clear national policy positions on the Kyoto Protocol or other frameworks, for diplomatic reasons, is arguably contributing to a sense of the inability of the international process to deliver robust results within a commercially relevant timeframe. This contrasts with

the needs of 'market continuity', creating the perception of an impending 'cliff-edge' rather than a smooth transition.

Despite the one or two quite emphatically expressed views on what intergovernmental agreement may not be possible, the detail is rather less useful from a policy perspective given that business knowledge of international diplomatic 'currency' and negotiating strategy is very unlikely to have the depth of their business knowledge.

2.4 The importance of carbon market continuity

In addition to the key elements of the EU ETS (see above: mandatory caps, shortness in the market, enforcement regime), more generally, the question of carbon market continuity was raised.

- **Carbon market continuity is key to driving medium and long-term low carbon investment decisions – uncertainty over the rules and whether these are likely to change will lead to an overly short-term focus.**
- **Most companies do not expect certainty about the price of carbon itself but rather that a price will continue to exist.**
- **Market expansion – to new sectors and new countries and regions – is seen in many cases as key to reducing emissions and keeping costs at a reasonable level.**

“Don't change the rules of the Kyoto Protocol or the ETS. Billions of dollars are going into CDM. Without mandatory emissions targets, there will be no trading.”

Many of the responses focused on the longevity and stability of the regime – knowing that carbon will have a value over material timeframes.

For example, one utility stated: *“You need to keep the price of carbon to within a reasonable band, e.g. 15–30 euros per tonne, and on an upward trend – its important not to have step changes or discontinuity. The EU, at Heads of Government level, needs to say that ETS will continue beyond 2012.”*

A similar theme was voiced by one of the large multinationals on carbon price: the need for a clear signal that there will be a strong carbon currency *“and that the trading system is likely to expand, either through an international framework, or through the linking of different systems”*.

Longer-term stability was strongly emphasised by several businesses:

“Going forward, phase duration needs to reflect ‘the longer the better’, and banking, to enhance the value during current phase. Ten to fifteen years duration is much better; if 15, you would need a transparent system, with clear triggers for government intervention to keep things on track.”

“Longevity. You need the answer to the question: ‘is this going to be here tomorrow?’. Currently, trading is on the basis of compliance ‘got 6, need 7, buy 1’. All players know is 2 years + 5 years then blank. [In the lead up to] COP11 governments should pass some sort of resolution that CERs will have a value beyond 2012.”

Longevity was also seen as an important element in shifting the current market activity from being predominantly about trading to investment: *“Longevity helps a lot in terms of the shift towards an investment strategy.”*

Another large financial services company emphasises this point: *“Businesses need to know that carbon will have a value through to at least 2025 to allow strategic investment decisions to be affected, though it’s not necessary to know what this price will be. In particular, we need to have a policy framework in place by 2008–9 so that carbon does not become irrelevant.”*

The latter point was seen as particularly important for project financing which has investment horizons of around 25 years. *“7–10 years is not enough and reduces the monetary signal offered by carbon markets, which is currently only \$2–5/tCO₂.”*

One company, however, pointed out that all regulatory change creates, or increases, the perception of regulatory risk, not a phenomenon specific to carbon markets. The contention is that while governments should act to minimise the perception of policy risk, market players need to accept a certain amount of risk compared to that which would occur in a centrally-planned market where governments take that risk. *“Stopping governments creating new risks should be avoided.”* This company also emphasised the need to know what the costs attached to mandatory caps are.

2.5 What is a ‘collapse’ of Kyoto and how does it affect EU ETS?

What constitutes a ‘collapse’ of the KP, from a business perspective, is another important matter to understand, given the potential consequences for investment strategy and market positioning. Although, as discussed above, only a few companies feel the direct impact of Kyoto, all recognise that most national and regional climate policy is driven by Kyoto obligations. Therefore, companies were asked what they would regard as a ‘collapse’, what would trigger it and what the major consequences would be.

- **A collapse of Kyoto is seen to mean either failure to agree on a post 2012 framework consistent with absolute mandatory caps, trading and a compliance regime and/or failure to meet current targets and enforce penalties.**
- **This collective failure to enforce and comply would also be a cause of collapse of the Protocol as a domino effect of non-compliance would be likely to occur.**

- **Kyoto collapse might lead to the unravelling of the EU ETS as there would be no Assigned Amount Unit (AAU) penalty to force compliance by EU member states.**

The Kyoto Protocol (KP), or a similar international agreement with mandatory targets and penalties for non-compliance, clearly provides the necessary framework for international emissions trading. Uppermost in responses here were those concerning the robustness of commercial drivers, such as enforcement, rather than cosmetic issues such as a name change.

One simple, but profound, comment was: *“The Kyoto Protocol collapse might not be dramatic, but due to a lack of enforcement.”* Another view was that collapse would have occurred *“if there isn’t a price of carbon”*, which itself re-raises the complexities of the relationship between EU ETS and the KP for creating the structures and market dynamics leading to price.

The politics of KP collapse were also raised: the view that collapse is likely to occur if the current regime and/or regulations are seen not to be working, resulting in the US pulling out altogether (‘and claiming victory’) and countries/regions going separate ways. While this view saw collapse as fundamental international fragmentation into regional or domestic responses, at the same time it was stated: *“this may not be a disaster as long as international commitment to action is maintained and it does not take too long to come up with successor framework”*.

The latter is obviously a central question, but appeared, in this comment, somewhat de-linked from assessment of how the political process leading to such a dramatic fragmentation, would affect EU ETS cap setting, international emissions trading/CDM investment, and market confidence.

One way of summarising this issue of EU ETS survival in the context of a collapse of the Kyoto Protocol would be that EU ETS is assumed by many businesses to continue, but that it may be fundamentally weakened and may wither away. Even those businesses that do believe EU ETS will continue are looking for stronger political reassurance on this point. However, the impact on long-term low carbon investments is less clear and would depend on what, if any, international or regional agreements were put in its place, and the expectations of how carbon constraints might be applied over time.

2.6 The relationship between the EU ETS and the Kyoto Protocol

A critical issue for both international policymakers and business is whether the EU ETS system is perceived to survive a ‘collapse’ of the KP. Although EU ETS is set in EU legislation, business holds mixed views on whether it would continue without the Kyoto framework.

- **Views on whether the EU ETS would survive a collapse of the Kyoto Protocol are mixed.**
- **Those whose business depends on EU ETS continuity are more pessimistic, believing adverse lobbying, lack of commitment by some Member States and the loss of the Assigned Amount Unit (AAU) penalty would lead to its abandonment or withering away.**
- **Larger firms saw the EU ETS – the only operational climate policy in existence – as the driver of international policy and so likely to expand through linking with other countries and regions with or without successful international agreement.**
- **Collapse of the Kyoto Protocol can mean different things – lack of agreement on a post 2012 regime, an agreement without mandatory targets, or a failure to enforce an agreement.**

This matter is very much on the business agenda now as companies seek carbon price visibility across the NAP2 – NAP3+ period, post-2012. In the event of the KP and EU ETS collapsing, a theoretical carbon price of zero would arise and need to be included in business models. This means that some businesses now are trying to reach assumptions about the robustness of the EU ETS.

A few businesses, including but not only, the smaller financial services companies directly involved in the market, are of the view that the EU ETS may not survive. The reasons given are both factual and based on judgement of political probabilities. The need for KP-recognised credits from outside the EU ETS for compliance purposes is one argument raised, as well as the judgement that the disappearance of the AAU penalty, under the KP, will remove the incentive on governments to meet their EU ETS targets. The role of anti-EU ETS lobbying from within some industrial sectors in Europe was also raised as a problem, again leading to the sense that there would be pressure brought on governments to weaken or end the regime. The reason why a collapse of the KP might occur and what it was replaced with, was also seen as having a direct bearing on the EU ETS.

The Kyoto targets are seen by some as a key driver for governments to set challenging caps on industry, under the EU ETS: in other words the existence of the KP is a key part of a robust carbon price in terms of the national compliance driver.

Other businesses, in contrast, did not see that EU ETS would end with a demise of the KP. These views tended to focus on the potential to have an international system based on linkage between different national or regional and did not tend to comment on the politics of change or the nature of the existing EU ETS-KP linkage.

“Various emissions trading schemes can happen at national level – UK could go nationally – though the extent to which significant costs could arise would be limited by competitiveness.”

“The issue will be the ‘equitability’ of maintaining an onerous system if EU retains ETS and is left as an ‘island of virtue’. One logical way is import tariffs to the EU in a world not recognising climate change in the same way.”

One company which does assume that EU ETS will continue, noted that the EU is considering 15–30% emissions cuts for 2020, but focused on internal pressures: *“The question is – is there an appetite for an ambitious target given current and expected member state situations?”* More generally: *“What is required is for government policy to look durable – clear mechanisms that show it is robust to events that could knock it off track.”*

Sector specific comments

Aviation: the company interviewed assumed that the EU ETS will continue after 2012, and will include aviation (possibly from 2008), with the system gradually being broadened and deepened, starting with intra-EU flights in 2008. The general sense is that the US will rejoin an international regime.

“The big issue for us is what allocation in future phases of the EU ETS is given to the sector given that there is no new technology coming soon.” The company stated that there is scant potential for efficiency gains, and little emissions reduction capacity i.e. the only options are to buy allowances and/or fly less. It also emphasised the importance of allocation methodology – questions such as point of origin, nationality of airline, the split between departure and arrival, would have to be resolved.

Major energy user: this company stated that it’s essentially an issue for the EU to decide – do they want to maintain this industry within their borders, and what is the pathway forward if they do. A ‘technology route’ is seen to be a good one (the sector already has a corporate technology partnership) but noted that this is likely to be effective only over a medium time-frame.

2.7 Essential elements of the post-2012 international regime

Putting aside the issue of complete Kyoto collapse, it is still likely, or at least possible, that the post-2012 international climate policy regime will show some differences from the current Kyoto architecture. Companies were asked, therefore, what they saw as the key elements to retain from the Kyoto regime in future climate policy. Allied to this, firms were asked whether a single overarching international agreement is necessary at all, in particular for carbon market continuity and large-scale low-carbon investment.

- **An international framework post-2012 is crucial for all, but for different reasons.**
- **Most, but especially firms that are working at the centre of carbon markets, see changes in the trading and enforcement architecture**

established by Kyoto as being damaging to market confidence and continuity.

- Similarly, most see the expansion of the international emissions trading system – including trading per se, JI and CDM as being of central importance.**
- Larger firms with more diversified geographical operations focus more on the expansion of the system’s coverage than on specific details. To do so, the system must contain built-in incentives for other major emitters to participate and for developing countries this means a direct focus on sustainable growth.**

These questions sought to elicit guidance on the ‘international architecture’ debate going forward and the views expressed were quite divergent. This appeared to stem from whether companies had significant commercial engagement with Kyoto-driven markets or were driven by broader strategic and political issues.

What came out clearly in the responses was the strong view from the smaller ‘carbon’ or financial services players, working with the detail of the architecture, that altering the current Kyoto framework could be very damaging. These companies work with businesses that are already investing on the basis of the Kyoto regime and their interest is to expand forward from this base. This is seen as key to ensuring liquidity in international carbon markets and bringing down abatement costs. The importance of retaining the Kyoto system was underlined by one of the companies working directly in the carbon business:

“If it ain’t bust don’t fix it’ or, in other words, “the KP hasn’t actually started working yet so the idea that somehow it’s not working is wrong... governments should do what they agreed.”

“The concern is that if you start mucking about with the KP, you could lose it forever – or ‘until corporate memories fade’. Lots of time, money and resources have gone in and business won’t do that a second time in a hurry.”

Other companies focused on the enabling framework for international carbon trading as the central part of the post-2012 regime:

“[we need to]... consolidate a framework that enables the commoditisation of verified, fungible, legally owned carbon credits held in a centralised, transparent registry.”

The compliance factor was also strongly emphasised by another of the financial services companies:

“A mixed approach could be successful based on expanded ETS with streamlined trading processes, and longer targets, alongside a carbon tax. But a mandatory cap with penalties for non-compliance is crucial as this gives carbon a value – otherwise [there is] no incentive to invest.”

The latter raises an important matter for policymakers, that the perception that governments are taking this issue seriously, including through the setting of real caps and other strong instruments – whether market-based or more regulatory, is an important source of market confidence.

At the same time, however, compliance cost was also raised:

“The setting of caps (by the nation state) is very important – it must be clear that these caps can be met at affordable cost to the economy and there are various ways to do that e.g. CDM or buy-out price (i.e. price cap).”

Other companies raised the question of how inflation of compliance costs could be managed, while retaining significant policy stability to reduce investment risk. Carbon (reduction) contracts and carbon floor prices – along with price caps – were raised in this context. Firms assessing investment decisions are looking for price stability, while those facing higher costs due to pass-through of compliance costs are looking for guarantees that prices will not go too high. In general terms, the former might favour price floors and the latter, price caps. However there was no uniform message that these additional instruments were necessary.

The larger companies focused on the longer-term or higher tier ‘strategic’ matters that any international regime needs to bring forward. This may reflect the kind of issues they are grappling with internally but somewhat de-linked from the constituent elements of the Kyoto Protocol that are already providing building blocks for both climate politics and current commercial engagement (as described above). For example, one company placed considerably less importance on the need for a mandatory system and the shift to a single global carbon currency, putting greater emphasis on getting trading happening more widely:

“...it is crucial that there is a mechanism that allows trading to take place – at the moment ETS is seen as the basis for global system.”

For the larger firms with global operations and a more strategic vision, for climate policy to be successful – regardless of its exact configuration – it needs to be embedded in a framework that allows economic development to continue, particularly in developing countries. Without this, there is unlikely to be appetite for anything that can be perceived as a constraint on the abilities of governments to satisfy the needs and demands of their populations.

“[The] system must be based on the idea of promoting sustainable growth – any system based on the idea of restraint of trade/growth will not work, especially if is not seen clearly to achieve environmental targets, while imposing a cost. It is hard to imagine how setting a target alone will achieve the required environmental outcome. Therefore the system must send clear signals about increasing the efficiency of existing infrastructure and selection of low carbon, but efficient, infrastructure in the future i.e. an alternative world combining growth, development and low carbon.”

“The focus on caps has not been very successful – we need to learn from other international agreements to see what works. E.g. we could look at target bands (like inflation targets) to take economic growth into account. There also needs to be more facilitation.”

The political issue of the engagement of the US (and variously China, India, Australia) within the international regime was raised by three or four companies. This area would benefit from further analysis on the fundamental business issues underlying these kinds of ‘political’ observations. In other words, to what extent is it a matter of perceived political ‘fairness’ based on the absolute share of global emissions (with businesses speculating on political solutions); a matter of direct business competitiveness (the question of how competitiveness should be assessed by policymakers is raised below); or simply that greater breadth and liquidity in the carbon markets is required.

“An agreement must cover US, Australia, China, India and Latin America to allow the formation of a global market – this may be more important initially than the emissions targets themselves. Therefore a differentiated approach may be desirable with different groups on different tracks e.g. early adopters (EU+), technologists (US+), aid needers, etc.”

“The KP is key as a point of coalition for countries on the need for action and to avoid completely disjointed approaches. However, this does not mean that a Kyoto-style approach is crucial – bringing the US, or Australia on board may be more important.”

The aviation company also raised the issue of US involvement, stating that the US is responsible for 60% of global aviation, emphasizing that the international regime should include caps and technology approaches:

“The major challenge is to avoid leakage and competitive distortions.”

Beyond the comments in earlier sections concerning certainty over longer time horizons, almost no company commented specifically on what could be done to make the Protocol function better for investment. One company, however, expressed a view that agreement on science and long term goals (e.g. a concentration target) were needed:

“An international agreement is important as a long-term market signal. As important as emissions targets, are i) agreement on scenarios for climate impacts and policies ii) agreement on a concentration target and the necessary speed of action. The latter is key to injecting urgency.”

2.8 A sectoral approach post-2012?

The rather non-specific ‘sectoral approach’ has been broached in various carbon and policymaking fora as an alternative or complement to existing

policy approaches. Companies were asked whether they had considered such approaches and, if so, what their favoured configurations might look like.

- **There is no great support for sectoral approaches, and understanding of what this might mean varies widely.**

The majority of companies, rather surprisingly, were lukewarm or opposed to the general concept. In most cases this seemed to be due to scepticism about policymakers' ability to define the correct benchmarks or technology solutions and/or enforce agreements.

“Not sure what it means; policies should be seeking the most effective things to do, in general.”

“Sectoral targets mean ‘technocrats deciding what costs are’ – at least the market will adapt quicker to getting it wrong. With ETS, as many sectors should be brought in as possible e.g. aviation – who knows if it’s good or bad for business – it’s a better economic solution.”

“Sectoral bias [i.e. the compliance cost differential between sectors] will diminish with time: you don’t want to keep funding non-commercial options.”

There were only limited exceptions identified, and these were qualified depending on how a sectoral approach is defined: CDM-based, international renewable energy trading, and for major user sectors.

2.8.1 Sectoral approach: CDM

A CDM sectoral approach, while having several possible variations, was understood to comprise CERs awarded for emissions reductions made across a sector, e.g. electricity generation or transport, at a regional or national level rather than on a project-by-project basis, probably using a sectoral benchmark as the baseline for crediting. If linked to sectoral caps in investor countries, this might lead to a sectoral trading regime. However, enthusiasm for the latter was weak:

“Unless it is defined what this means, it could be meaningless. There are two basic trading systems – cap and trade (AAUs) and baseline and credit (CERs etc): you can’t trade between sectors, it would have to be done country by country. Even within India there are very different regions so if it was done region by region it may be better. You could overhaul the CDM – set a standard for a sector within a country or within a geographic area – you could have a different approach to baselines for CERs – if that’s what ‘sectoral approach’ means then that’s a good thing if it’s done properly.”

In other words, some potential is seen in a sectoral CDM that has the potential to drive strategic investment into reducing the carbon intensity of key host country

sectors (and reduces the transaction costs associated with the current CDM model). However, this would have to remain compatible with a wider emissions trading system, rather than supplant it, if abatement costs are to be kept down.

2.8.2 Sectoral approach: Renewables

Companies engaged specifically in renewable energy development, in recognising that continued state support will be necessary for the medium-term, identified benefits associated with a regional or international approach. This could involve support and/or targets. While not as relevant to concerns over national energy security, broadening the scope for renewable investments through an international (almost by definition sector-based) approach was seen as being beneficial for increasing market opportunities, scaling up deployment and bringing costs down. One company stated:

“In terms of broadening renewables investment and markets, investment in developing countries would be helped if Annex I commitments e.g. the Renewables Obligation or equivalent could be offset or traded. Hence an international REC market would be beneficial alongside a carbon market.”

2.8.3 Sectoral approach: Major Energy Users

Major energy-using companies were perhaps the one group that saw significant value in sectoral approaches, largely ones that bound their competitors into a global sectoral agreement that would assuage concerns about the competitive distortions brought on by partial carbon pricing. There was, however, little concrete discussion about what such a framework should look like.

“The OECD is looking at sector-based benchmarking approaches, this could be more equitable. You need to start with the definition – process-oriented, energy intensive industries. Allocation related to output design is quite difficult, essentially you would have to ring-fence across the EU cement, lime, maybe glass, aluminium, in exchange for a sector-based benchmark, alongside agreement on a pathway for new, low carbon, technically feasible step change. It would need 15–20 year phases.”

The challenge in shifting to such an approach, however, is acknowledged to be within the sector characteristics: for example, even where there is an industry partnership for technological development, the ‘end-date’ for commercial delivery that allows a step change in production remains unknown. Long capital cycle and the global demand for the commodity (and hence emissions) would arguably have to be reflected.

2.9 Competitiveness and tradeoffs

The impact of climate policy and, in particular, mandatory carbon constraints on energy prices and, hence, on the international competitiveness of UK (and EU) business has been an oft-heard “cri de guerre” from those companies and sectors seeking to resist the imposition of absolute carbon regulations. However, it is not always clear whether these impacts on competitiveness and jobs are as material as is often portrayed or the extent to which different companies and sectors feel exposed. Participants were therefore asked for their views on this issue and how competitiveness concerns should be dealt with in climate change policy-making.

- **Concerns about competitiveness depend on market positioning – energy intensive industries producing fungible, internationally traded goods feel most vulnerable.**
- **A distinction is drawn between intra and extra-EU competitiveness: the former depends on the “fairness” of National Allocation Plans; the latter on the reach of an international regime and the ability to make border tax adjustments with those trading partners without carbon constraints**
- **For most firms, however, the price of carbon is not a major determinant of competitiveness – energy security, energy prices and their volatility, political stability, protectionism and ‘red-tape’ are all more important.**
- **There is a widespread belief that since market-based approaches to policy tend to keep costs down, their continued use is important for minimising competitiveness distortions.**

The question of competitiveness draws very different responses, but overall, was not seen as a core issue in the way it is often perceived. Views tended to reflect either a belief the market was the right place to solve such matters (particularly players already engaged in EU ETS) or that it is a political and economic issue about relative wealth between nations, particularly the EU and the US. The one exception to this was the group of companies with high energy costs, operating in global markets and in direct competition with firms producing in countries with no carbon constraints.

There is another issue over what is regarded as ‘climate policy’: companies here often referred to EU ETS as a proxy (as it creates a carbon price signal), but clearly energy policy and energy security issues impact more generally. In this area it is important to delineate the weight that carbon policy plays in impacting the business model, and how businesses are planning for this at a corporate strategy level.

Generally, companies felt that competitiveness issues were being overplayed and that governments and other parties should be more proactive about the potential benefits of the shift to a low carbon economy. As one utility put it:

“Government should go on the front foot – focus on winning the argument that low carbon does not mean low growth. For example, by pricing carbon you may be

able to manufacture more PV – changing economic growth. It might harm individual companies or industry, but economies evolve.”

The views expressed are covered in more detail in the subsections that follow.

2.9.1 “Markets work”

Many of the firms interviewed were of the opinion that, while differentiated national climate policies may cause some competitive distortions, these were likely to be minimised when market-based instruments are used. Over the longer-term, in particular, new investment in energy efficient plant and processes and changes in product specifications are seen as likely to diminish these impacts.

“Government should hold on to the belief that the market actually does minimise costs but should recognise short and long term impacts on economy. Shocks can be severe on the economy, but won’t make much difference to the climate. They should logically go for a carbon tax, but [this would be] sub-optimal for the economy.”

The policy process rather than policy itself was emphasised as the source of greater concern, with one utility stating:

“There are not necessarily intrinsic competitiveness problems with climate policy, but too often inputs from business are ignored leading to sub-optimal decisions – for example the EEC review [Energy Efficiency Commitment, UK].”

This view was echoed by another large multinational:

“International competitiveness arguments are an issue for governments but more to do with differing visions of wealth creation and distribution than climate change or carbon per se. However, the company does worry about competitiveness impacts of poorly conceived and inconsistent policies, for example the NAP1 process, and cost arising from facing different rules and regimes in different countries.”

This was subsequently qualified by stating that it was not assumed that there would be a single unified market, given different national priorities, energy regimes, currency fluctuations etc. Within Europe the company noted that the:

“ETS carbon price affects competitors equally, so competitiveness is not a major issue.”

A somewhat different perspective, however, was shown by companies with greater exposure to competitive international markets. These focused on the importance of having an international regime to minimise competitiveness impacts, particularly for global sectors such as aviation:

“If the UK government ‘goes it alone’ it does nothing for the environment, but penalises British-based businesses, so an international framework is essential.”

While all were of the view that market-led approaches would minimise distortions and over time reduce costs, in the short-term firms from energy-intensive sectors exposed to international competition may be disadvantaged vis-a-vis their competitors in countries without carbon constraints.

2.9.2 Energy security

The greater importance of energy security and energy supply issues for the competitiveness of the economy was also emphasised. Energy options such as renewables are seen as a hedge against future fuel price rises, not just as providing carbon reductions. While energy price volatility and concerns over stability of supply are certainly a key source of risks for businesses, only a small part of this derives from the carbon constraint.

“There is a lot of rubbish spoken about competitiveness. While carbon policy may affect a few unprepared businesses, it is clear that a secure, reasonably priced and diversified energy supply is much more important for competitiveness.”

In renewables policy, the ‘hotchpotch’ of divergent EU regimes was also singled out as creating competitiveness issues in the sector across the EU. Commentary on the differing renewables policy regimes and their impact on attracting investment into the sector is picked up briefly in the final sections below.

2.9.3 Trade-offs?

‘Business’ is now quite widely quoted as expressing a preference for governments to set longer-term policy frameworks, and let the market work. As a different take on the competitiveness question, participants were asked what the main trade-offs they thought governments would face, and how these should be tackled.

There were limited responses in this area and these companies reflected a view that there is greater trust in the market than in the ability of policymakers to provide certainty in any long-term framework. In addition, recognition of the procedural difficulties in setting and reviewing the long-term framework in the first place was highlighted.

“I don’t know what main trade-offs would be – the market system is flexible.”

“Claiming false certainty is worse than stating zero certainty. With genuine risks the market will find the right place to manage those, if it’s allowed to do so. You cannot achieve long term certainty – there is great value to ‘optionality’ – there is a huge amount to be done on ‘options creation’ at present before certainty is created.”

2.10 Other policy issues

A key issue for policymakers, raised by one of the specialised financial services companies, in response to a further question about confidence-building across a medium-term policy framework, is how policy would be changed if it is seen not to be working. One solution suggested is to establish a clear and transparent set of conditions that would trigger a policy review (rather than one defined on a regular basis by time). The government and all market players would know when a review would occur.

“ETS could set a 20 year goal, then if the price became very low, an increase in the level of abatement would be required. It needs clarity and conditions set out for government intervention.”

Several companies also emphasised the importance of government talking to individual companies on these matters and:

“...not only sector associations that present lowest common denominator view, and are not innovative.”

Alongside this approach, policymakers need tools to identify what information they require from companies and how they will translate that information into policy, including process-wise. Simply seeking to ‘balance’ differing views from different sectors is likely to undermine the efficacy of the final outcome. In particular, there is a risk of under-representation of the smaller companies (which may be the entrepreneurs) as they have fewer resources to divert to a lengthy policy development process.

3. The Clean Development Mechanism

One aspect of the current international policy framework that is seen by many players as a central part of any post-2012 agreement is the Clean Development Mechanism (CDM). There may be some evolution of the current system to address concerns about both its efficiency and its effectiveness as a driver of investment into long-term solutions, but it seems likely, from current discussions, that it will have an important role to play. As with the other issues covered in the survey, since it is the private sector that will continue to be the principal investors in the mechanism, insight into their engagement and experience with the CDM is useful. Specifically, companies were asked questions covering:

- i) Company engagement in the CDM;
- ii) Perspectives on its strengths and weaknesses, and what areas need improvement;
- iii) Perspectives on critical issues for CDM at present, including implications of the current 'cliff-face' in 2012, and timeframes for resolving this;
- iv) The role of CDM as a driver for clean energy technology;

3.1 Company engagement in the CDM

- **Companies have very different needs from and approaches to the CDM, depending on their positioning vis-à-vis current and expected carbon constraints.**
- **Many see that as it becomes more robust, the CDM will play an increasingly important part in corporate carbon management strategies, if only as a hedge against non-compliance.**
- **For many of those planning to invest, engagement with the CDM has often been frustrating.**

Almost all the companies had interest in the CDM and, to a greater or lesser extent, some involvement in investing in projects, buying CERs or making the CER market. However, both the motivations for this engagement and the form that it has taken, vary widely.

Amongst the larger companies that have not grown up specifically to service the carbon markets, several different approaches can be identified:

- i) Direct involvement in market activities – through CDM investment in projects; Emission Reduction Purchase Agreements (ERPAs), EU Allowances (EUAs) and CER generation/trading.
- ii) Hedging strategies – buying credits to ensure compliance: *“The company is looking at CDM/JI as a hedge against uncertainty over future policy especially NAP2 and beyond – we’re buying for compliance, not offsetting, and only up to 2012.”*
- iii) Trading within commodity trading departments (e.g. oil & gas).

In addition, a number of firms are acting as market makers – as brokers, financiers and/or traders.

As with the approaches taken, experiences to date have been mixed. Some early-mover companies have already tried and then failed to take an early portfolio of CDM projects forward. One large multinational stated:

“The challenge in the company is to get group projects to generate CERs – we’ve not succeeded in the fourth attempt. Scale, technical problems, transaction costs are issues, we’ve twice taken an energy efficiency project to the Executive Board, but there were too many sticking points.”

For these companies, the CDM will continue to be important but they are likely to be more circumspect about relying on direct investment in the CDM for compliance. Rather, they are likely to buy into *“guaranteed”* CER funds, or acquire options, until the market becomes more stable and the policy outlook – both the management of the CDM and the long-term framework – more certain.

Two other companies are currently not involved, but considering CDM as an option for future emissions strategy. One, however, expressed caution that the UK should:

“put its own house in order... the flexibility mechanisms shouldn’t be a cop-out – we do need to de-carbonise the economy [in the UK], but this could buy some time as the ship turns round.”

The other is already purchasing voluntary offsets *“to engage customers, demonstrate action, and raise awareness.”*

Only the renewables company expressed little interest: the price of carbon and short-term value horizon (i.e. up to 2012), mean the CDM is not a major driver for investment. This latter point was also picked up by one of the utilities.

There was general agreement that the CDM has a role in the post-2012 regime, although this ranged across *“a central role”*, *“a bigger role”* and *“a developing, rather than central role.”*

These comments allude to differing assumptions about what scale CDM can achieve. One company commented that given the additionality requirement,

at present it is difficult to make it work for CO₂ – *“the carbon bang for your buck is too small”* – so project attention is currently focused on nitrous oxide, methane and HFC-reducing projects.

3.2 Strengths and weaknesses of the CDM

- **The overall impression of the CDM is positive: as a carbon management strategy, a means for reducing compliance costs and a tool for engaging developing countries in action to reduce emissions.** *“It’s an essential part of carbon management – it’s cheap and puts investment into developing countries.”*
- **Despite early teething troubles and some outstanding issues, it appears to most that the CDM’s institutional infrastructure is now beginning to function reasonably well.**
- **The critical factor is the 2012 cut-off point which is starting to seriously affect the carbon returns for companies investing in projects. (See section 3.3 below).**

The majority of companies see the CDM in a positive light, with many of the basics now in place. Almost all support the provision of increased funding for the Executive Board (EB) but with a clearly articulated need for improving and streamlining its administration activities. A number of specific issues were identified, but by far the most important was the 2012 cliff-face – identified earlier – that is creating major uncertainty over the longevity and, hence, “bankability” of carbon returns.

3.2.1 Strengths

The main strengths of the CDM identified by companies are its ability to reduce the cost of meeting global (industrialised country) GHG targets and to draw developing countries into actions to reduce emissions. As confidence in the mechanism grows, for some the CDM is seen as having a potentially significant role in driving widespread adoption of lower carbon technologies.

“The system is very strong, the ‘what else’ is inferior, it’s a very strong business to business policy instrument, but badly administered.”

The CDM was strongly emphasised by one company as providing a vehicle for facilitating and linking an international ‘joined-up’ market place on carbon – i.e. through a series of cap & trade systems with CER linkage between countries. In other words, *“it’s a driver for convergence”* [of carbon trading].

3.2.2 Weaknesses & key elements for resolution

As already referred to above, the significant current weakness of the CDM is external – the lack of policy certainty beyond 2012. As this cut-off date approaches, companies are looking for a very strong signal that there is either an international framework agreement in place or a firm indication that the EU ETS will continue to use the CDM from 2013 such that they can buy or sell something that has a real value in 2013. Allied to this is the continuing uncertainty over whether CO₂ only projects or those reducing all the six GHGs will be allowed under the EU ETS.

However, there are also a number of internal weaknesses that need to be resolved, as pointed out by one of the interviewees:

“What needs improved? Infrastructure of CDM Board, proper funding, ITL [International Transaction Log] ready ‘on time’, and the need to design CDM methodology approval for greater procedural ease.”

CDM administration by the EB, including speed of the project approval process, was raised by several firms, with the most pointed stating: *“It’s a UNFCCC administered, complicated lawyer invented scheme – a lot of money going to lawyers and consultants.”* Aligned to this – and picked up by almost all participants – is the continuing absence of the International Transaction Log (which registers and monitors all transactions), something that most felt could have been implemented very quickly if responsibility had been handed over to the private sector, which already has experience in this area, particularly in the financial services industry.

Others stated that while procedural issues are ‘burdensome’ these are really start-up problems, and several businesses advocated a more business-like approach by the EB as a solution: *“it should function such that it is environmentally pure, but business-like and able to fulfil its agenda.”*

Another asserted that the EB could have a structure *“more like business: a Board rather like a company, with authority for decision making delegated down – a governance structure establishing a ‘lower level’ auditing process for daily business.”*

One weakness identified is that the system can be exploited on additionality. This is an interesting point, coming from one of the specialised financial companies, as additionality is commonly presented as a business hurdle in the CDM (although not picked out as such in this survey). In this case, exploiting additionality was seen as weakening the system.

The current government CER buying programmes are also viewed as failing (ERUPT, CERUPT in NL for example):

“[They are] run by bureaucrats not with real business disciplines – CDM becomes foreign policy or aid – but governments are not fit for running purchase programmes. The reason it [CDM] can be sustainable is because it’s a business, with proper commercial terms.”

3.3 Critical issues

- **The most important issue for the ongoing development of the CDM is generating greater confidence that the mechanism will continue beyond 2012 and so investments made now will generate CER returns beyond the next six years. All other issues are secondary.**

The single most critical CDM issue is the need to create confidence around the value of CERs, and CER credit validity post-2012. For those businesses engaged in CDM, directly or in trading, this is the fundamental issue at present, leading to a concern that project development and investment will start to dry up in the next couple of years, other than in very low cost projects.

With an 18 month lead time to produce CERs, there are effectively only five CER-generating years until 2012. This may be sufficient to make a return now, but *“in 18 months time probably not. There’s a double uncertainty – CER value, and the ability to claim or use it, i.e. there is a question over its viability as cheap carbon,”* and, therefore, as part of a compliance strategy. Put another way: *“the time constraint is already biting in terms of motivation to come up with new CDM project methodologies now.”*

Another business stated it more emphatically: although the Executive Board is registering projects with a lifetime of 21 years:

“in the current policy environment you’d be a lunatic to invest in anything that requires CERs. Selling forward to 2012 provides 6 years of revenue, no bank in the world will lend against CERs full stop, speaking broadly, it’s not mainstream so they won’t be able to guarantee the revenue stream.”

In other words, while equity investors (e.g. those investing in carbon funds) may be more comfortable with uncertainty, banks may already be asking why they should lend against the risk that in 2012 the system will change. *“In terms of ETS there is sufficient uncertainty over ETS target setting that people are reluctant to price beyond 2012.”*

Another business directly involved in the market explained:

“At present, the way CDM works is: [do] revenue stream assessment, [then] apply discount rate, which is much higher post-2012; therefore number of projects passing hurdle much smaller. Governments need to say that KP will continue

beyond 2012, aiming to continue [the downwards] emissions reduction trajectory, and next phase covering a longer period.”

“If lots of people are generating allowances – there’s a risk of oversupply. Government has to have some method of keeping the market short (i.e. increase in demand for reductions). It’s a particularly ‘nasty market’ in terms of dealing with shortage – if no shortage then price collapses to zero.”

What is required, therefore, is early agreement that CERs will be awarded after 2012, particularly over a longer timeframe, such as 2012 – 2020. This would reduce the risks caused by these uncertainties. One suggestion is that the EU could recognize CERs post-2012, for example by providing a ‘CER 2017’ piece of paper.

In terms of timeframe for achieving some resolution: a business from the financial services sector stated that there needs to be certainty by 2008 that CDM will continue.

3.4 CDM – investment driver for clean energy technology?

- The CDM is not, and was never designed to be a sole/or main driver of low carbon investments in developing countries.**
- However, it is seen by many as part of a package of market-based and government promoted approaches to “technology transfer” and widening markets for the technologies that will be part of the long-term solution.**
- It is also a good way of capturing some of the inefficiencies that exist in many parts of developing country industry and energy sectors.**
- In order to be a real investment driver, there would need to be medium to long-term certainty over both caps and non-compliance penalties for buyers/investors and the ongoing validity of the CDM.**

There were a range of views on whether CDM can be ‘a primary means’ for driving investment into low carbon technologies in developing countries. For CDM investment, the real driver is demand, in particular created by EU ETS targets, as the buyers at present are mostly in Europe. To a lesser extent, the evolution of other compliance-driven systems e.g. in Japan and Canada will also be important.

“The element that will create value for CERs is the long-term demand i.e. ETS long-term target setting. Europeans in next year could set indicative targets for the next 20 years – [this would ensure] the success of the CDM (aside from administration issues).”

A more general, ‘market based’ view was that it can drive investment into developing countries as *“there are some technologies that make sense when you price things [and] why make developing countries price things before we do?”*

However, one financial services business stated that CDM is “*probably not a primary means for driving investment.*” An example provided was Mitsui Babcock which is investing in high efficiency coal plant in China now, without CDM. In other words, ‘technology transfer’, if described as such, is happening already: ‘people are investing anyhow’, without the carbon incentive. In this case, the broader investment driver is seen as energy policy and, especially, the desire for energy security – not carbon and CDM policy.

“More generally, government has to recognize the difference between economics and finance – CO₂ economics doesn’t mean anyone will finance it.”

Its also worth noting that CDM currently drives investment towards lower cost projects in geographically lower risk countries, meaning that it is not structured to provide a uniform ‘solution’ to energy technology diffusion.

4. Other issues

Throughout the interviews a number of other issues were raised by participants. One theme, given participation of companies with a direct interest in renewable energy (RE), was the different policy mechanisms for stimulating greater RE deployment. Energy efficiency and demand reduction regularly came up during the interviews, but this was not pursued in policy terms in as much detail as renewable energy deployment.

4.1 Options for supporting the growth of renewable energy

- **Carbon markets do not provide sufficient incentive for renewable energy development; separate support policies will continue to be needed for some time.**
- **Government policies vis-à-vis renewable energy need to be stable across jurisdictions e.g. for planning consent between national and sub-national levels, and through time.**
- **These policies also need to be set within a clear framework, reflecting the timeframe of the projects, and the stage of technological development and uptake.**
- **As RE [and new technologies such as carbon capture and storage (CCS)] is not the least cost option for reducing emissions, but is important for enabling future emission reductions at scale, governments need to pay attention to energy policies that accelerate deployment. There is the potential for strong overlap with policies designed to enhance energy security.**

Although this was not a primary area for the analysis – a number of opinions were voiced about the most appropriate ways of supporting the development and implementation of renewable energy given that a renewable energy developer and financier were interviewed. Their observations would also be relevant for other new technologies/systems still requiring support in competitive energy markets.

Generally, it was agreed that, at least at present, separate policies are needed for emission reductions and clean energy development. The price of carbon is not yet high enough or the market developed enough to drive renewable energy investment: in other words it adds risk and does not secure necessary returns, so continued direct support mechanisms or policies will be necessary for the foreseeable future in most regions.

Several views were also expressed on the effectiveness of the different support mechanisms currently being employed around the world, although there was no clear consensus about which were working best.

In addition a number of other issues were highlighted as being central to a successful renewable energy policy:

- Clean energy obligations and support mechanisms should be predictable and, ideally, harmonised across regions; however if there were to be a shift to a harmonised system from disparate systems e.g. in Europe, this should not negatively impact on existing investments, and would require a very transparent transition period – this is a key to building market confidence.
- The planning system (e.g. in the UK) needs to be reformed to speed up planning consent and enable grid access for intermittent supply.
- The electricity grid should be better planned with and EU grid being a key strategic objective.

Appendix I – Did Montreal make a difference?

Montreal: *“The next priority? Knowing the timing of negotiations would help. It’s not just the question of the ‘gap’ between first and subsequent commitment periods, we need to know what the second period will contain.”*

The outcomes of COP11 in Montreal, generally, are seen to have provided a reasonable step forward. Comments included ‘broadly in line with expectations’, and ‘a step in the right direction’.

However, the decisions seem to have had less impact on business than on those inside the process, with additional comments suggesting that it has not changed perspectives on the longer-term outlook: and *“Not really overly impressed from the outside.”*

More specifically, one business stated that they were not sure to what extent Montreal provided *“more courage to make investments where the return is dependent on there being a carbon price in 2013 – a little bit but not much more. Still means that they are investing in projects that give return by 2012 – makes it difficult to do energy-related projects.”*

Some of the detail of CDM decisions was seen positively by the emissions traders attending the talks.

Other players started to raise the prospect that the UNFCCC may not continue as the main driving force, but rather ‘something like voluntary linked trading relations starting, rather like GATT/WTO, which is not UN based... probably not, but Montreal didn’t make that clearer. Does this matter? – Yes, if you are assessing issues around questions of post-2012.’

Another major energy using company said there appears to be a sort of ‘institutional blindness’ that emissions trading is the ‘right’ path, and there is no alternative.

He noted the emergence of sector agreements on the international agenda, albeit in relation to developing countries, ‘at least it’s something that can be debated.’

A further view on the post-2012 framework

One utility, not formally part of this survey, indicated its views of issues for post-2012, submitted elsewhere, could be used here. It stated that *“the sooner binding*

targets are set by international agreement the better, since this will be the best basis for predicting long term carbon prices and reducing uncertainty for investment.”

The consequence of this is that for Kyoto signatories there should not be undue delay in agreeing the parameters for those targets, regardless of progress under the Convention, including agreed reforms to CDM/JI to speed up bringing forward projects. This company supports agreement on the science and economics of climate change, interpreting this as a limit on carbon concentrations and what costs of mitigation are acceptable.

This company echoed other comments that there should be agreement that targets will be set for ‘significantly longer periods’, correspond to the lifetimes of major low GHG emitting investment projects, and that the development of international permit trading mechanisms such as the EU ETS are important to the success of longer-term targets, including the linkage, ultimate merging of different international schemes.

This company also stated that in the context of the Convention dialogues: *“it must be recognised that, although climate change is global, action on climate change does not have to happen uniformly around the globe. Those that are well placed to act should do so and not wait until everyone has accepted targets.”*

Appendix II – Questionnaire

This survey is being undertaken by the UK Business Council for Sustainable Energy and The Climate Group, in order to provide greater insight from different branches of the business communities into the development of domestic and international climate policy. This is designed to feed into the UK government's preparations as the international community begins negotiations on the 'post-2012' regime – the follow up to the Kyoto Protocol (2008–2012).

There is an understanding among policymakers that 'market continuity' is important, and this survey is aimed at bringing forward a greater understanding of what this means in practice.

The discussion will occur under Chatham House rules, meaning that all comments may be reflected (unless otherwise stated) but no attribution to company or persons concerned.

Interviews

The research will be based on a series of structured interviews with business sector representatives from a range of sectors directly impacted by climate change policy. The following questions will form the basis for these interviews:

1. Response to current policy

- a) How important do you rate the impact of current climate and energy policy on your company's business?
- b) What have been the main impacts on your company and how has it responded?
- c) How is it affecting your clients/suppliers and your relationship with them?
- d) Which elements are most important in terms of i) driving emissions reductions within your company/sector, ii) driving your business to seek lower carbon options either for energy use or iii) achieving this cost-effectively.
- e) If relevant, what are the elements of the EU ETS that are or will drive value in the carbon markets?

2. Post 2012 policy

- a) How important do you think the existence of the Kyoto Protocol is as:
i) an indicator of government seriousness on the issue; ii) a driver for national climate and energy policy; iii) business investment decisions?
- b) Is 'post 2012' climate policy on your radar screen?

- c) If so, how does it affect current business strategies? In the long and short terms?
- d) If not, what are you assuming will happen after 2012?
- e) Which are the important 'carbon market continuity' issues as far as you are concerned?
- f) If relevant, do you assume that EU ETS will develop effectively if the Kyoto Protocol 'collapses' [what do you see as a sign of 'collapse']?
- g) What elements are central to a successful post 2012 regime? Which elements of the Kyoto Protocol/EU ETS need to be retained/modified?
- h) If the current Kyoto framework were abandoned, how will this affect your carbon strategy?
- i) In policy circles the idea of a sectoral approach to emission reductions has been broached, what do you think of this?

3. Policy development

- a) Are you engaged at all in the policy development process in the international arena?
- b) How do you view the process of policy development?
- c) How do you think governments should tackle competitiveness arguments put forward by different sectors or companies or countries?
- d) 'Business' is now quite widely quoted as expressing a preference for governments to set long-term policy frameworks, and let the market work: what are the key main trade offs that will have to be made if deep cuts in emissions are to be achieved, how should governments tackle those?
- e) How should government 'engage' with business to have a useful discussion about these things
- f) Is business engaged in the right way by government in the design and discussion of policy?

4. CDM

- a) Are you engaged in CDM at all? Is it a useful part of the carbon management toolkit?
- b) What are its strengths and weaknesses?
- c) Is it important to a post 2012 policy regime?
- d) What are the implications for CDM investment of the current 'cliff-face' in 2012; do you have a sense of how soon the international community needs to provide clarity on the post-2012 regime, before investors and project developers will start to withdraw investment.
- e) Is, or can, CDM be a primary means to drive investment into low carbon technologies or energy systems in developing countries. If not, what are the most important means;
- f) What aspects of the CDM could/should be improved and how to i) help business ii) to maximise the capacity of CDM to deliver carbon reductions in developing countries?

Appendix III – Original starting points

Identified in pre-interview discussion with business

Business will be most interested in continuity of the elements of the system that affect their commercial activities, particularly with reference to carbon value and carbon value estimates across the 2012 deadline.

Businesses will try and quantify various policy scenarios – including the likelihood of the EU ETS and Kyoto Protocol continuing or failing. In particular those businesses considering longer life-time investments (eg in the power sector) will have to make an assessment of the value of carbon to feed in to business models, especially when seeking to differentiate between low or higher carbon options in a situation of policy uncertainty.

At present companies in Europe face a number of uncertainties concerning both the EU ETS phase II and post-2012 arrangements. It is likely that some businesses will assume that the current policy direction continues ie. with a ratcheting down of EU ETS quota. Others, however, for which the post-2012 political deadline is more clearly on the radar screen, may assume if Kyoto ‘fails’ then the market could collapse and the price fall to zero. Waiting for more clarity or greater confidence on the matter may delay investment and signs that the treaty is stagnating or likely to collapse could halt investment in projects aimed at gaining a low carbon premium.

While equity investors may be more comfortable with uncertainty, banks may already be asking why they should lend against a risk that in 2012 the system will change. This is important as the underlying requirement is to stimulate investment into the technologies and energy systems that produce short and longer term reductions, not just in the trading of credits.

The political assumption that EU ETS, because it is set in legislation, will outlast changes in the international framework, is not a given for business. At least some assume that with a crumbling international regime, the EU ETS will be allowed to quietly fold, given that EU legislation is subject to national politics (the NAP process illustrating the tensions in the system).

Those already engaged in carbon market activities are likely to look for signs that:

- the system (international/regional) will continue broadly as it is for a material period ie. 20+ years (ie mandatory cap and trade)

- targets will tighten progressively
- CERS/ERUs can be used for compliance
- a clear legal basis, clear compliance rules, and clear conditions for future linkage between domestic ETSs.

These final issues (legal/compliance) are likely to be seen as a necessary foundation for a system in which companies can plan and generate business advantage. Without binding and clearly understood targets, shareholders may ask what the real benefit is to a company of investing in carbon credits, or carbon reducing projects or technologies.

Understanding the extent to which the overall Kyoto Protocol regime is seen as a business driver in terms of reflecting a broader political commitment to act (even if businesses have expressed frustration with the slow start of CDM), is important.