KYOTO AND CARBON CREDITS:
NEW MITIGATION AND NEW LIABILITIES
PROPERTY INSURANCE UPDATE

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Notwithstanding the political wrangles in the U.S. over the Kyoto Protocol, it now forms an ongoing consideration for commercial interests concerned with carbon producing facilities in Kyoto signatory states. This includes their business interruption insurers.

Kyoto is an environmental treaty signed by a number of countries in 1997. The US, Australia and a few other notable exceptions have opted to avoid adopting the compulsory measures of the Kyoto Protocol.

Kyoto's purpose is to reduce global warming via a reduction of green house gases. Green house gases are formed primarily by carbon emissions. Carbon is emitted by automobiles, refineries, power plants and even cows. Kyoto has two phases. Phase 1 is from 2005-2007 and requires that each signatory state reduce carbon emissions to pre-1990 levels. Phase 2 is from 2008-2012 and envisages further reductions. This update concerns Kyoto's Phase 1 obligations.

The underlying purpose of Kyoto is to create commercial incentives to reduce carbon emissions. It does this by limiting carbon emissions but also by creating financial rewards for those who actively reduce carbon levels in the atmosphere. This has been done in most signatory states by capping the amount of carbon that commercial carbon producers are able to produce and giving carbon credits for carbon reduction schemes. The relationship between carbon burning and renewable energy projects creates a market which links financial incentives and environmental policy. The scheme invites comparisons with the noxious gas market in the US.

US carbon producers with subsidiaries in Kyoto signatory states will already be familiar with the treaty. For property insurers, the issues surrounding the allocated amounts of carbon in Kyoto signatory states are critical. The importance of Kyoto is not altered in any way by the governing law of the insurance policy.

The capping of carbon production has introduced national allocation plans ('NAPs'), carbon measuring standards and a market for surplus carbon. Each signatory state has a NAP which is a transparent method of allocating the amount of carbon that can be produced by carbon producers. NAPs have been implemented differently in each participating country but follow the same broad principles. Each carbon producer is required to account for carbon emissions on an annual basis. A carbon producer must surrender credits which have been used at the end of every year. Surplus carbon credits can, in some states, be rolled over to later years of Phase 1. This is discussed further below.

The standard carbon measurement system equates one tonne of carbon to a single carbon credit. National registries have been created in signatory states to enable credits to be freely transferred and so create a commercial market in which rights to emit carbon can be traded in the same way as commodities.

In the states of the European Union, Kyoto is implemented by the Emissions Trading Scheme 'ETS' which came into force on 1 January 2005. Each Member State is provided an annual allocation of carbon credits to distribute first between relevant industries and then to specific carbon producers within each industry. The UK's now revised allocation plan for Phase 1 allows the emission of 792 million tonnes of carbon between 2005 and 2007.

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Phase 1 and Annual Limits

In the UK each carbon producing installation's annual allocation of carbon during Phase 1 is a third of their total Phase 1 entitlement. Unused carbon credits during the first two years of Phase 1 can be rolled over into the second and third years. It is not yet clear what will happen to unused credits at the end of Phase 1 and the beginning of Phase 2. As already mentioned, credits which have been used must be surrendered at the end of the year of their use.

Sophisticated New Financial Market

The requirements of carbon producers fluctuate as does the demand for carbon credits. This new demand is catered for through a burgeoning industry led by specialist, mainly London-based, carbon traders. Carbon trades are relatively new, trading only began in January 2005.

Credits were valued at €6 per credit at the onset of trading in January 2005. A surge in global natural gas prices and drought in southern Europe (which depleted hydroelectric capacity) resulted in a June 2005 peak of €29 per credit. In July 2005 2m tonnes of carbon were traded and there were more than €55m worth of transactions. Using the UK's national allocation plan and the fluctuating carbon prices to date, the annual UK carbon market alone ranges between €1.6b and €7.9b.

Insurers' Carbon Strategy for 2005

Property insurers need to develop the same levels of sophistication as their assureds in respect of Kyoto and carbon credits. Because there is a new financial market for carbon credits rather than mere statutory prohibitions insurers should take note. Outages for carbon burning installations may result in an opportunity to mitigate a loss following outages. Outages for renewable energy installations may result in a new kind of loss.

Carbon producers' insurers should, as the first calendar year of carbon credit accounting closes, review mitigation strategies for BI losses. Policy wording may not incorporate sufficient wording for carbon credits. As we suggest later, carbon credits should be used to mitigate time element losses for carbon burning installations. It is possible that adjustments may not have included the impact of carbon credits on BI losses.

Carbon Credits and Mitigation

The nature of a carbon credit as an asset is, structurally, a difficult concept. There is uncertainty as to the accounting treatment of carbon credits.

Credits are a valuable commodity, sometimes represented as an asset on the balance sheet and assureds would not normally expect to dispose of capital assets to mitigate a time element loss. However, carbon credits are uniquely wasting assets. The value of a credit can be eroded or extinguished during the indemnity period; it can only be realised by production or transfer.

Different Kyoto signatory states treat temporary outages differently. Some states suspend carbon allocation to installations during temporary outages while others, such as the UK, continue carbon allocations save for the permanent cessation of an installation's operation. In the UK, therefore, during an outage, the assured retains the benefits of the credits which it can realise for value.

If an assured ceases production during an outage, we suggest the insurer, not the assured, should benefit from the value realised by the transfer of credits because the value has only been realised because of the outage. Suggesting that an assured should mitigate a BI loss in this way ought not be controversial and in fact should be expected.

By the same reasoning, we suggest that a carbon allowance ought not to be treated as a production cost in computing a BI loss. Only where an installation requires the purchase of additional credits should these costs be deducted in computing the assured's loss.

What's at Stake

To understand how important a carbon credit strategy is for mitigation purposes it's useful to apply some concrete numbers to the issue. We can look at a power station in the English midlands that has an annual allocation of 5,930,225 carbon credits and a total Phase 1 allocation of 17,790,675 carbon credits. If it suffers an outage that is indemnified by a relevant BI policy for 30 days how could mitigation work? A pro rata formula assists in determining that, on average, 16,247 tonnes of carbon are burned every day at the installation. During a 30 day indemnity this results in a theoretical surplus of 487,410 carbon credits. Where carbon is valued at €5 the installation has a surplus asset of €2,437,050, where carbon is valued at €30 the installation has a surplus asset of €14,622,300.

The table below uses randomly selected UK installations with varying carbon emissions and an average carbon credit value of €20. The numbers illustrate the possible value of carbon credits during an outage are significant.

Windfall Profit

Particularly where large carbon producers are concerned, the effect of carbon mitigation introduces a major new factor in a time element loss. Without appropriate wording this may create a windfall profit for the assured. With appropriate wording, the values insured could be significantly reduced. These implications need to be considered carefully by underwriters and policy draftsmen.

Carbon Strategy Going Forward

As policy renewals approach, insurers should consider formalising carbon mitigation strategies in BI policy wordings. Endorsements may be required for multi-year policies already in operation. Carbon credit wording should be welcomed by both insurers and assureds as it can provide clarity in an area of potential uncertainty. However, the detailed expression of the mitigation formula presents interesting problems.

For example, an assured may argue that it should be entitled to roll over credits unused because of an outage. This may have particular relevance in signatory states where credits are allocated over the three years of Phase 1 rather than annually. A possible solution to this problem will be to require a pro rata allocation of the assured's carbon allowance over the mitigation period.

Without such a requirement a carbon producer's outage may not result in any surplus credits which equitably should be used to mitigate temporal BI losses. It is foreseeable that assureds may wish to use credits to supplement production capability by transferring credits to another installation during an outage or 'burning dirty' or otherwise increasing capacity after an outage. A pro rata formula would address this.

A pro rata system would also deal equitably with assureds who regularly exceed their carbon allowances and are forced to buy excess carbon credits on the carbon market. The point is debatable but, in our view, carbon credits which are purchased rather than awarded under the NAP should be excluded from mitigation calculations.

The valuation of the surplus credits created by an outage is another major issue. The market value of credits fluctuates. Outages of major installations will themselves impact the market value of credits. There may be good business reasons to delay the sale of credits. Potential dispute over the correct valuation of surplus credits is enormous.

One solution is to have a specified basis of valuation of surplus credits in the policy wording. A possibly controversial alternative to a fixed basis of valuation is for the assured to receive full indemnity for an outage without allowance for mitigation for carbon credits while assigning the benefit of the credits to the insurers. This will of course require new financial capacities for insurers but with effective outsourcing to the emerging carbon financial market insurers should be able to maximise recoveries.

New Liabilities – Renewable Energy

Equally important under Kyoto is the generation of incentives for the producers of renewable energy. Renewable installations such as wind farms, solar, waste-to-energy and hybrid systems all work in the Kyoto framework to acquire carbon credits. While the volume of the renewable market is smaller than the carbon burning market, there remains a potential for large claims where the renewable market generates carbon credits.

Many renewable projects are funded by capitalising the value of the carbon credit allowance. Alternatively, renewable installations supplement carbon allowances for traditional carbon burning installations and can be run by the same operator. An outage on such an installation will involve not only the loss of a 'primary' income stream from the energy produced but also from the 'secondary' carbon income stream.

This could result in substantial, perhaps unexpected claims. Underwriters will have to decide whether the scope of indemnity will extend to the secondary carbon income stream. The problem may not be obvious for master policies where there is a mix of carbon burning and renewable installations. The implications for outages for these operators need to be reviewed with particular care.

Conclusion

Keeping up with EU Commission and DEFRA output on the subject of carbon emissions is a full time job. Insurers need not keep abreast of extremely detailed and expanding environmental legislation concerning carbon credits to operate an effective mitigation strategy and manage liabilities. However, the stakes are high and it is critical for insurers to ask if and how carbon credits may impact a loss on every policy.

Ideally, insurers can build carbon credits into their policies so that carbon is on the adjustment checklist. Raising the issue with an assured, particularly in the policy wording, should result in a sufficient accounting for the sale of surplus credits following an outage. Forethought will also prevent the presentation of unanticipated BI claims. Loss adjusters, brokers and lawyers must be alive to carbon credit issues in handling referrals, queries and claims.

More importantly perhaps is the immediate threat which carbon credits may pose to the existing business of property insurers. Property insurers need to consider relevant wordings which will assist in preserving elements of their lower excess lines of cover.

With effective wording business can be preserved, mitigation can be managed and unexpected liability avoided. Vigilance in respect of new forms of mitigation such as carbon credits will ultimately reduce the quantum of losses for insurers. Appropriate wording can construct a commercial and legal framework for carbon credit mitigation – there should be an effort for certainty in this developing area. Carbon credit policy wording and general awareness of the area will, at the very minimum, satisfy reinsurers that an insurer has effectively limited losses.