

# Climate Change

## Litigation, Regulation and Risk

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EXPERT ANALYSIS

### Storm Clouds Ahead: Climate Change And the Insurance Industry

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Court decisions, federal and state regulatory initiatives, and actions by nongovernmental organizations continue to rapidly expand liability risks for industrial and commercial entities and their insurers.

The Intergovernmental Panel on Climate Change estimates that the global average temperature will increase between 4 to 11 degrees Fahrenheit this century if global reliance on fossil fuels accelerates. The IPCC concluded that human activity, largely in the form of carbon emissions, has “very likely” caused most of the rise in global average temperatures since 1950. The IPCC predicts that, without action to curb emissions of greenhouse gases, it is very likely that heat waves and heavy precipitation events will continue to become more frequent and that hurricanes will become more intense.

Studies indicate that the direct cost of climate change on business activity and the related costs of compliance with new regulatory regimes could eventually rise to the equivalent of between 5 percent and 20 percent of global gross domestic product *each year*.<sup>1</sup> No matter what the total costs prove to be, the insurance industry will be called upon to absorb significant amounts of those costs.

In 2005, for example, U.S. insurers paid \$62 billion of the \$80 billion paid out in weather-related catastrophic losses.<sup>2</sup> In contrast, those same total costs averaged \$4 billion a year in the 1950s and \$40 billion in the 1990s.<sup>3</sup> Weather-related losses accounted for 88 percent of all property losses paid by insurers from 1980 through 2005, costing more than \$320 billion.

#### Adapting the Insurance Business to a Changing Climate

These challenges present new opportunities for insurers. In response to changing conditions and evolving regulatory frameworks, insurers have begun to design and market products to manage, spread and transfer risks in carbon market transactions and greenhouse gas reduction projects and technologies.

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Indeed, the Lloyd's Market has developed its ClimateWise principles suggesting ways for insurers to build climate change concepts into their business models. Climate change is not simply a hurricane-induced concern. Rather, changing weather patterns touch virtually every line of insurance, including property liability, flood, crop, business interruption, vehicle, health, life and professional liability.

As some industry participants react, new and increased categories of risk continue to emerge. For example, transactional risks arising from emissions trading and carbon offset projects are creating concerns for businesses around the globe. These projects, which often are located in developing countries, may fail to deliver emission reduction credits because of physical, regulatory or geopolitical risks. The projects also may never receive certification or achieve the projected emission reductions.

Companies also may face specific performance risks associated with the success or failure of emission reduction technologies, such as carbon capture and storage projects. These businesses and individuals who claim injury due to the failure of such technologies will look to insurers for recourse.

Climate change has also spawned new insurance products, including energy savings insurance, which protects the installer or owner of an energy efficiency project from underachievement of predicted energy savings. Another product is the credit delivery guarantee, which provides coverage for the non-delivery of carbon emission credits due to a specified event. Coverage issues also may arise under first- and third-party liability policies, directors and officers policies, and errors and omissions policies.

Insurers face particular vulnerability with respect to claims under D&O policies arising from allegations of nondisclosure by companies facing material climate change costs and liabilities. Institutional investors, the financial community and individual shareholders are advocating that the Securities and Exchange Commission require increased disclosure of climate risk.

If the SEC were to take such action, or if investors were to commence private enforcement actions, such suits could pose substantial risks to D&O carriers. Some insurers are already seeking to deter such policyholder efforts and are suggesting that various policy exclusions preclude coverage for damages incurred as a result of climate change, but the likelihood of coverage disputes and litigation seems high.

Finally, the National Association of Insurance Commissioners, operating under the auspices of a national climate change task force, is attempting to develop a set of nationally accepted questions meant to reveal how one of the country's largest industries is coping with emerging hazards. According to the task force, the disclosures are designed to protect consumers from being charged excessive premiums as some forecasters project more severe weather and to ensure that insurers remain able to pay claims.

Industry representatives report that insurers oppose many of the questions in the proposed disclosures, such as disclosing the identity of geographic areas in which they intend to increase rates or withdraw policies, because such disclosure could cause them competitive harm.

## Steps the Insurance Industry Can Take

To achieve and maintain a competitive advantage in the global insurance marketplace, insurers should continually assess their climate change exposure and support policy actions to reduce carbon emissions. Insurers can prepare their customers for—and mitigate against—the effects of climate change in several ways:

- **Update risk models that account for the uncertainty of a changing climate.** Current underwriting decisions based on past events are incomplete models that obscure insurers' risk exposure.
- **Assess the exposure of different lines of insurance to climate change risks.** The availability of affordable insurance drives growth with large impacts on businesses, investors, and consumers, so it is important to assess and appropriately price policies to reflect the financial risks posed by climate change.
- **Develop risk management initiatives for insureds as incentive to control or reduce costs.** Develop programs for educating insureds and providing them with the tools to evaluate and manage their climate-related risks as a means of controlling premium costs.
- **Address climate change at its source.** Develop new insurance products and business practices that cover projects designed to reduce greenhouse gas emissions.
- **Encourage policymakers to adopt measures to reduce carbon emissions.** A cap-and-trade system combined with building-efficiency standards, increases in automobile fuel economy and renewable electricity production will help to reduce emissions of greenhouse gases and create the predictability necessary for insurers to offer and price their products.

### Opportunities for New Insurance Products: Carbon Offset Projects

Although the potential liabilities associated with the physical damages caused or exacerbated by climate change may strain traditional insurance companies, new regulatory regimes being created in response to climate change also create opportunities for new forms of insurance products. The Kyoto Protocol, the European Union Emissions Trading System and the programs currently being considered in Congress are all based on a so-called “cap-and-trade” system.

Cap-and-trade regulatory systems classify greenhouse gases in terms of carbon dioxide equivalents, which is a measure that quantifies the global warming potential of the emissions in standard units. A “cap” on the right to emit an amount of carbon dioxide equivalent is imposed on specified emissions sources. The right to emit a ton of carbon dioxide equivalent is represented by an “allowance,” which is a certificate that may be used, traded, banked for a future year or retired.

The owner or controller of a facility subject to the emissions cap will calculate and submit the facility's historical greenhouse gas emissions data, which would be used to determine the facility's “base year” emissions. The facility also will be allocated “free” credits and can purchase at auction a certain number of allowances to meet its obligations. Each regulated source will be required to

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hold an allowance for every ton of carbon dioxide equivalent it emits. Over time, the emissions cap applicable to a source and the number of allowances “distributed” and “auctioned” will decrease.

If a source does not have sufficient emissions “allowances” in a given compliance period, it may use “banked” allowances (unused allowances from previous years) or “borrowed” allowances (allowances to be available to the source in future compliance periods), or it may purchase allowances from the market.

One source of market allowances are “offset credits.” Common types of projects that will generate offset credits are renewable energy initiatives such as wind farms, biomass energy or hydroelectric dams. Other common project types include energy efficiency projects, the destruction of industrial pollutants or agricultural byproducts, destruction of landfill methane, and reforestation projects.

Carbon offset projects create a variety of risks, such as physical risks from changing climatic conditions, operational and financial risks, and risks from uncertain political changes. Insurance products for some of these types of risks will require simply an expansion of existing products, while others will call for the creation of entirely new products.

### **Confronting the Risks Presented by Offset Projects: Emerging Insurance Products**

Leading insurance companies have begun to create new products to alleviate many of the risks associated with carbon offset projects. For example, **RNK Capital LLC** and **Swiss Re** have jointly implemented a carbon offset insurance product for managing Kyoto Protocol-related risk in carbon credit transactions.

The policy provides coverage for entities that invest in “clean development mechanism” and “joint implementation” projects if losses arise from failure to deliver the agreed number of emission rights. This product also offers coverage for risks related to clean-development project registration or delay and the issuance of “certified emission reductions” to RNK under the Kyoto Protocol. Under this policy, for instance, if an investor contracted to receive 100 credits but the project only brought in 80, the insurer would provide the 20 credits necessary to make the policyholder whole.

Similarly, **Munich Re** has created the Kyoto multi-risk policy designed to cover losses that occur if carbon credits are not delivered according to plan and the investor is obliged to deliver those credits to a buyer in the secondary market or has to comply with reduction requirements itself.

**American International Global Inc.**’s carbon credit delivery insurance will cover monetary losses resulting from the risk of non-delivery or non-generation of carbon credits due to technological performance, credit or political risk. Coverage is intended for forward purchasers of carbon credits and investors in clean-development and joint implementation Kyoto Protocol projects. AIG also is developing:

- Carbon credit insurance endorsements for those on both sides of carbon emission offset instrument transactions.
- Renewable energy certificate insurance for buyers and sellers of the certificates.

- Forest carbon sequestration insurance for losses of anticipated carbon credits due to physical damage to a forest.

To manage these new products, AIG has formed the global alternative energy practice, which will service the insurance, risk management and loss control needs of U.S.-based alternative energy clients, including organizations engaged in biofuel, hydroelectric, geothermal, solar and wind operations.

Other companies have yet to create specific products for the carbon offset market but have developed products or services for the renewable energy sector in general.

**Allianz's** climate change strategy addresses the negative effects that climate change may have on its business and customers and the economic risks that accompany entering the low-carbon economy. Allianz offers certified carbon offsets for drivers using qualifying automobiles.

**AON's** natural-resource risk management practice group enables companies to maximize their returns by predicting and avoiding new or hidden risks. Specifically, its Web site mentions operational, legal, political, regulatory, human capital and financial risks. AON also created the new agri-fuels group to meet the risk management and insurance requirements for the rapidly expanding renewable fuels industry.

**Ascot Underwriting**, a **Lloyd's of London** insurer, has established a renewable energy operation, **Renewco**, that will offer onshore and offshore coverage for power generation facilities in the solar, wave, tidal, wind, biomass, geothermal and small hydroelectric fields.

**AXA** has built a comprehensive insurance offering for wind farms. It is the leading wind farm insurer in Germany. This product generated \$14 million in premium revenues in 2006.

**Chubb Group** created the "green energy team" to develop commercial insurance products and services geared toward customers that operate within the renewable energy sector. This new division will offer services related to power generation, renewable and clean fuels, alternative energy devices, and energy-efficient products.

London based **GCube**, formerly **WindPro**, provides property and liability insurance for wind, solar, biomass, hydroelectric, biofuels and ocean projects during construction and operation.

**HSBC Corp.** is creating the Climate Change Centre of Excellence to develop insurance products that facilitate the development of renewable energy projects and carbon markets. HSBC also has created several other programs:

- The Climate Confidence Index measures the public attitudes toward climate change.
- Its "global environmental efficiency program" is a \$90 million commitment to reduce HSBC's own direct environmental impacts.
- A "carbon finance strategy" helps clients respond to the challenges and opportunities of creating a low-carbon economy.

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- The HSBC Climate Partnership is a \$100 million program involving four environmental groups and HSBC's 315,000 employees in helping reduce the effects of climate change worldwide.

IMA's biofuels practice group specializes in biodiesel and ethanol plant insurance providing coverage tailored to the renewable fuels industry.

Royal & Sun Alliance claimed in May 2007 to be the first insurer to create a global renewable energy business. This venture will give renewable-energy producers access to energy underwriting specialists in loss prevention, to control engineers and to coverage for every stage of a project, from development and planning to site testing and construction, through to ongoing operation.

Travelers established its own climate change committee, which among other functions will create insurance products tailored to emerging clean energy technology such as wind power farms.

William Gallagher Associates has an insurance brokerage team focused on working with companies in green energy and green technology from startup through IPO, including project construction and operation.

Willis Holdings has launched a new product to cover potential underproduction of power from wind farms. Insurance broker HRH (recently acquired by Willis) has a unit specializing in brokering, underwriting, loss adjusting and risk engineering for the development, construction and operation of power generation assets, including wind power, biomass, landfill gas, hydropower, fossil fuels and ethanol.

Zurich Financial Services has recently announced the formation of an internal team to develop new products to address climate change and renewable energy, as well as a team for driving sustainable business practices internally.

Another area that needs attention is support for the new ideas that are entering the marketplace in response to climate change and the push for sustainability. There is now a constant stream of new technologies and business models entering the market in an effort to mitigate climate change. There are a limited number of insurers willing to consider providing even the traditional coverage for these new companies even when the risk profiles they present are similar to existing commercial activities.

## Conclusion

The multifaceted effects of changing climatic conditions and developing regulatory regimes to address those changes present both challenges and opportunities for the insurance industry. Many of the leading carriers are developing new products to take advantage of the coming changes. This process will continue for the foreseeable future as global responses to climate change proceed.

### ■ Notes

- <sup>1</sup> Associated Press, *U.K. Urged to Act Against Climate Change*, WASH. POST, Nov. 4, 2006, available at <http://www.washingtonpost.com/wp-dyn/content/article/2006/11/04/AR2006110401414.html>.
- <sup>2</sup> NATURAL RES. DEF. COUNCIL, *GLOBAL WARMING HEATS UP THE INSURANCE INDUSTRY* (October 2007), available at <http://www.nrdc.org/globalwarming/insurance.pdf>.
- <sup>3</sup> U.S. GOV'T ACCOUNTABILITY OFFICE, *CLIMATE CHANGE: FINANCIAL RISKS TO FEDERAL AND PRIVATE INSURERS IN COMING DECADES ARE POTENTIALLY SIGNIFICANT* (Apr. 19, 2007), available at <http://www.gao.gov/new.items/d07285.pdf>.

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