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Adapting Private Business To Climate Change

Law360, New York (April 09, 2009) -- "The times they are a changin" goes the famous line from a 1963 Bob Dylan song. Today, that also goes for the climate, at least according to many scientists.

Public authorities both in the U.S. and abroad now have underway programs to figure out how climate change may affect them and to undertake measures to reduce their vulnerability.

Not surprisingly, California has been a leader in assessing the anticipated effects of climate change.

Cities as diverse as Seattle, Phoenix, Miami, Los Angeles, San Francisco, Boston, New York, London, Capetown and Toronto now all have major efforts in progress to figure out how climate change may affect them and to plan actions to reduce their vulnerability in the future.

One example: Boston built the new Deer Island Wastewater Treatment Plant at a higher elevation and at higher cost than originally planned to accommodate anticipated sealevel rise.

The Rockefeller Foundation is supporting a major initiative to help American cities plan to adapt to climate change through the Center for Clean Air Policy (on whose board I serve), and the United Nations Environment Programme and several other groups have published handbooks and methodologies designed to assist municipalities in planning how to adapt to climate change.

My impression is that many private companies are generally not as far along in their planning for adapting to climate change.

I base this not only on my own observations of the clients and companies that I counsel, but also on a comprehensive review of the U.S. Securities and Exchange Commission's

Disclosures of publicly traded companies on climate change that was recently completed by the Environmental Defense Fund.

In the foreword to that review, which should be released shortly, former SEC-Chairman Harvey Pitt and I wrote: "Regulating the temperature of the planet by adjusting the mix of gases in our atmosphere is the most ambitious undertaking yet attempted by human beings. For many companies, the changes that will ensue in their businesses and operations will be profound. And yet, as the report documents, some companies that loudly trumpet their commitment to protecting the environment and to clean energy in their institutional advertising and sustainability reports have nonetheless been slow to discuss the business implications for their investors."

Increasing numbers of companies do at least mention climate change in passing in their SEC disclosures, but very few discuss the topic in any real depth or with any real insight as to what climate change might mean for their businesses.

I have become convinced that the superficiality of these discussions of climate change is not because companies are recalcitrant or unwilling to share their perceptions of how climate change may affect them with their investors, but because many companies do not yet themselves thoroughly understand how climate change will affect their business, in both positive and negative ways.

A few years ago an article appeared with a great title: "The Internet Changes Everything." That is probably true for climate change as well.

This is not to say that the leading private companies are doing nothing about climate change.

On the contrary, many of them, such as the members of the U.S. Climate Action Partnership (USCAP) have been leaders in urging government to take action to mitigate the effects of climate change by adopting regulatory programs to reduce emissions of carbon dioxide and other greenhouse gases (GHGs).

And many of them have also taken direct action to reduce their own use of fossil fuels and to become more energy efficient, thereby reducing their own emissions of GHGs.

For example, IBM cut its energy use by an average of 5.7 percent from 1998 to 2004, thereby also reducing emissions of greenhouse gases, as well as saving \$115 million.

Other leading companies such as Coca-Cola, Fairmont Hotels, HP, Johnson & Johnson, LaFarge, Nokia, Sony and others that are members of the "Climate Savers" program of the World Wildlife Fund have also pledged to stabilize or reduce their emissions of GHGs, generally by becoming more energy-efficient.

And many other companies that are not part of the WWF program have also undertaken similar efforts to reduce GHGs on a voluntary basis.

While these efforts are laudable, and other companies should be encouraged to emulate them, they are NOT what is meant by the term "adaptation" in the climate change field.

In the field of climate change, a strong distinction is made between "mitigation," by which is meant reducing emissions of GHGs to try to reduce the severity of climate change, and "adaptation," by which is meant adjustments to reduce vulnerability to the climate change that is already likely to occur despite our best efforts at mitigation.

(And a third term, "geo-engineering" may possibly also be relevant in the future, by which is meant direct interventions to try to regulate the temperature of the planet).

See Watson, R.; Zinyowera, M. C.; Moss, R. H.; and Dokken, D., eds. (1996). "Climate Change 1995. Impacts, Adaptations, and Mitigation of Climate Change: Scientific and Technical Analyses." Second Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press.

Under the definition officially adopted by the 2007 United Nations Framework Convention "Climate Change: Impacts, Vulnerabilities and Adaptation in Developing Countries," "adaptation" is a process by which societies make themselves better able to cope with an uncertain future.

Adapting to climate change entails taking the right measures to reduce the negative effects of climate change and to exploit the positive ones by making appropriate adjustments and changes.

While some progressive companies have certainly been leaders in mitigation by increasing energy efficiency, reducing fossil fuel use and stabilizing or reducing their own emissions of GHGs, relatively few private companies have as yet undertaken adaptation planning on how climate change may affect them and how to reduce their vulnerability to the climate change that is already likely to occur.

One clear exception is the insurance and reinsurance industry, which is generally convinced that climate change is increasing the severity of hurricanes, and possibly also their frequency (although that is not as clear).

Since a mere 10 percent increase in hurricane intensity can result in a 50 percent increase in the damages against which they provide coverage, this aspect of climate change really got the attention of the insurance and reinsurance industries.

According to Clement Booth, a member of the Board of Management of Allianz, a large international insurer, his company became a "believer" after \$87 billion in hurricane losses were sustained in a single year, versus an average in the \$10-20 billion range.

Different parts of the insurance industry are adapting to the risks that climate change poses for their business in two different ways: some are joining with environmental groups to urge restrictions on building in shoreline areas that are particularly vulnerable to hurricanes and storm surges, and to harden existing buildings through improvements in design and construction, while what appears to be a smaller number of companies in the industry are seeking a "bail-out" by asking the taxpayers to shoulder the increased risks of hurricanes and floods.

But both groups of insurance companies do perceive the risks to their business from climate change as real and are proposing to adapt to that risk, although in different ways.

Most private companies are not in the business of estimating and managing long-term risks as are insurance companies, so many of them have done relatively little to assess how climate change may affect their business over the next few decades.

Some businesses may have been slow to prepare to adapt to climate change because of political controversy and the personal skepticism of certain business leaders about the science of climate change.

The physicist Neils Bohr once wrote, "Prediction is always difficult, particularly when it is about the future." That certainly applies to a topic as complex and controversial as climate change.

Some business leaders I know are personally quite skeptical that human beings are contributing significantly to global warming, or even that warming is actually occurring.

However, one's personal views should not interfere with business decisions of this magnitude. As the Supreme Court famously stated in the opening words of the climate change case, Massachusetts v. EPA, 549 U.S. 497 (2007), "A well-documented rise in global temperatures has coincided with a significant increase in the concentration of carbon dioxide in the atmosphere. Respected scientists believe the two trends are related."

For example, in 2005, the presidents of the national science academies in 11 leading scientific nations (Brazil, Canada, China, France, Germany, India, Italy, Japan, Russia, UK and U.S.) issued an extraordinary joint statement stating unequivocally that, "Climate change is real. ... [T]here is now strong evidence that significant global warming is occurring." Joint Science Academies' Statement: Global Response To Climate Change (2005).

More recently, our own National Academy of Sciences issued a synthesis of its many committee reports on climate change that states:

"The scientific understanding of climate change is now sufficiently clear to begin taking steps to prepare for climate change and to slow it." National Academy of Sciences,

Understanding and Responding to Climate Change: Highlights of National Academies Reports 2008 edition.

Whatever one's personal views, a responsible business leader should put them aside and develop contingency plans on a reasonable worst-case basis for what many respected scientists believe may be the likely changes in climate over the next few decades.

It is important to keep in mind that, like all change, climate change may present strategic opportunities as well as challenges for businesses. And even where a business may be vulnerable as a result of climate change, it can generally act to reduce its vulnerability through strategic planning and targeted actions to reduce its risks.

A climate change adaptation plan for a business usually consists of three phases:

- 1) assessing the likely effects on the business from climate changes predicted over the relevant time horizon;
- 2) identifying the strategic risks and opportunities for the business; and
- 3) developing strategies to capitalize on the opportunities and ameliorate the risks.

The plan is going to be different for every business. Climate change is inherently a regional phenomenon, and it affects different business sectors differently. It is also important to bear in mind that there will be winners as well as losers, opportunities as well as challenges.

For example, the demand for wind and other renewable power sources is likely to increase, and in some geographic areas, the growing season is likely to lengthen and heating costs are likely to decrease.

According to a 2007 survey by the World Business Council for Sustainable Development (WBCSD), 19 percent of its member businesses perceived themselves to be more vulnerable to extreme weather events, 13 percent to raw materials supply disruptions, and 12 percent to supply chain and infrastructure disruptions as a result of climate change.

On the other hand, over 50 percent of WBCSD members saw climate change as presenting opportunities for new products and services, and almost 40 percent saw climate change as opening up new markets for their products.

Several major trends are common to most of the predictions about climate change:

1) energy is going to become more expensive (often as a result of government policy), so increasing energy efficiency will be more attractive for most business;

- 2) water is going to become scarcer in many regions due to decreases in snow melt and other factors; and
- 3) adverse weather events such as droughts, storm surges and coastal flooding are likely to become both more frequent and more intense, or in the case of hurricanes, at a minimum more intense.

Businesses with critical facilities located in low-lying coastal areas, like homeowners and cities, need to be developing contingency plans, as well as asking themselves whether it may be cost-effective to harden existing sites to make them less vulnerable or even to re-locate facilities or to site new ones in less vulnerable areas.

For example, after sustaining nearly \$2 billion in losses from hurricanes Katrina and Rita, the energy company Entergy took a number of adaptation steps to make itself less vulnerable in the future, including relocating business centers, creating redundant data storage and moving a transmission center to a less vulnerable location.

Similarly, the mining company Rio Tinto reports that it has commissioned an engineering study of all its mining facilities to determine how to reduce their vulnerability in light of climate change.

Fortunately, there are several excellent resources that businesses can call upon in developing their climate change adaptation plans.

In 2008, both the Pew Center and the World Business Council for Sustainable Development published excellent handbooks for businesses to use in planning for adaptation to climate change. Pew Center on Global Climate Change, Adapting to Climate Change: A Business Approach (April 2008) and World Business Council for Sustainable Development, Adaptation: An Issue Brief for Business (May 2008).

In addition, several environmental consulting firms with expertise in environmental risk assessment are now offering services to help businesses plan and adapt to climate change.

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