

# Climate Change – What is Really Happening That Will Affect Your Business

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Regardless of whether you believe that anthropogenic emissions of carbon dioxide (“CO<sub>2</sub>”), and other gases, such as methane, are causing global climate change, the march toward comprehensive regulation of greenhouse gas (“GHG”) emissions has begun, and is likely to proliferate. Regional and state regulatory efforts have resulted in varying degrees of regulation of GHG emissions. Politicians talk about reduction percentages and deadlines for attaining them. Nationally, GHG legislation is being debated. Even many anthropogenic climate change skeptics now agree that some type of regulation is forthcoming, even if they disagree that such regulation is warranted. Simply put, climate change regulation in the United States is here.

Climate change regulation presents challenges for both businesses that are traditionally regulated under the existing federal Clean Air Act (“CAA”) and state equivalents, as well as those that currently are not. In the absence of a national regulatory framework, the present diversity of approaches to regulation of GHGs at the state and regional levels presents a patchwork of programs that are intended to address a global issue, leaving the regulated business community to reconcile the various requirements. A national or multi-national approach is best suited to address a global issue.

Climate change is a different regulatory animal and presents unique regulatory questions. This is principally due to the fact that GHGs, the purported drivers behind climate change, are global in nature such that a ton of CO<sub>2</sub> generated from a factory in China or India contributes to the global warming concern as much as a ton of CO<sub>2</sub> emitted from a motor vehicle driving on a Pennsylvania highway. The impacts from GHGs are not limited to the state, region, or country in which they are emitted, as is generally true with traditionally regulated air pollutants, such as sulfur dioxide (“SO<sub>2</sub>”).

The existing federal CAA was designed by Congress to primarily address traditional air pollutants, like SO<sub>2</sub>. The basic mechanism of the CAA to address these pollutants was to designate every area of the country as either in compliance with or not in compliance with an established ambient air quality standard. The CAA required those areas not in compliance with the standard to develop a strategy to attain compliance. This responsibility was assigned to state governments, which could then make policy determinations regarding which industrial or transportation sectors within their state will bear the burden of reducing emissions to achieve compliance with the standard. However, this traditional CAA model seems ill-equipped to address GHG emissions that

may have originated thousands of miles away, in a place where the state developing the plan has no jurisdiction to regulate emission sources. The question of whether GHG regulation can be shoehorned in to the existing CAA was brought to the forefront by the U.S. Supreme Court's landmark April 2007 decision in Massachusetts et al. v. EPA et al., 127 S.Ct. 1438 (2007).

In Massachusetts v. EPA, the Supreme Court concluded GHGs are "air pollutants," as defined under the existing CAA, and therefore U.S. EPA currently has sufficient statutory authority to regulate such emissions. The case arose in the context of the regulation of GHG emissions from motor vehicles, but the precedent has economy-wide implications for all sources of GHG emissions, including manufacturing facilities and power plants. Prior to the Supreme Court's decision, U.S. EPA had argued it lacked statutory authority to regulate GHG emissions without a statutory amendment to the CAA. After the Supreme Court's decision, it became clear to most that the existing CAA was not the preferred regulatory vehicle for GHG regulation. This has led to re-invigorated debate in Harrisburg and in Washington D.C. about the need for and form of comprehensive climate change legislation.

America's Climate Security Act of 2007 (S. 2191), commonly referred to as the Lieberman-Warner bill, is considered by many to be the leading national climate change legislative proposal. The bill, which was introduced on October 16, 2007, was the first to be reported out of committee for consideration before the full U.S. Senate. As with other bills, Lieberman-Warner relies upon an emissions cap and trade system to achieve reductions in GHG emissions. Under the current Lieberman-Warner proposal, the emissions cap would begin in 2012, with a projected reduction in GHG emissions of 63% below a 2005 baseline by 2050. The bill is not economy-wide in terms of emissions sources, but instead focuses on the electric generation, refinery, and chemical plant sectors to achieve the desired reductions. Other commonly referenced national climate change bills include the Climate Stewardship and Innovation Act (S. 280), co-sponsored by Sen. John McCain, which seeks similar reductions as Lieberman-Warner, the Low Carbon Economy Act of 2007, co-sponsored by Sen. Arlen Specter, which seeks more modest GHG reductions of 15% by 2030, and the Global Warming Reduction Act (S. 485), co-sponsored by Sen. John Kerry, which seeks a 67% reduction in GHG emissions by 2050 from sources with the greatest global warming pollution potential. Numerous other bills have either already been submitted or are planned.

The vast majority of the legislative proposals rely upon a GHG cap and trade system to achieve the desired reductions in emissions. Similar approaches are used by the various regional GHG initiatives that have emerged in recent years in response to the lack of national regulation. An example of a regional cap and trade system is the Regional Greenhouse Gas Initiative ("RGGI") covering the northeastern states (excluding Pennsylvania), which applies to the electric generation sector. Other regional cap and trade initiatives are under development among consortiums of mid-western and western states.

Cap and trade systems fundamentally operate by establishing an overall cap on GHG emissions as determined by an emissions base year, such as 1990 or 2005, as

defined in the applicable regional initiative or legislative proposal. This overall cap is then translated into a source-specific or sector-specific GHG emissions limit. Sources unable to stay within their emissions cap through either through reductions or the application of control technologies must turn to the emission credit trading system to make up the difference. The overall annual cap then tightens over time, based on a prescribed schedule in the applicable program, until the desired percentage of reduction from the emissions base year is achieved. The schedules typically have an implementation timeline running through 2050, with gradual tightening of the cap in the early years, followed by more steep reductions in the later years. These protracted schedules are intended to afford businesses time to adapt to a GHG constrained world.

Although the mechanics of a GHG cap and trade system may seem relatively straightforward, many challenges exist for both the regulators and the regulated community. First and foremost is where the GHG emissions reductions will come from. Policymakers have seemingly focused only on setting goals for reductions, but have not considered the means for achieving such lofty reductions. Most discussions regarding the various programs focus on the deadline for achieving a set percentage of reductions (e.g., a 40% reduction by the year 2025). The means and feasibility of achieving the necessary reductions is less clear. Moreover, the accounting and verification mechanism for GHG reductions is likely to be fertile ground for dispute. Increases in energy efficiency at one facility will decrease the energy consumption and therefore the amount of fossil fuel combustion needed at the power plant providing the energy. The means of allocating the responsibility or ownership for these reduction attributes is critical in a GHG constrained world.

Various types of GHG regulation is anticipated for industrial emitters regardless of whether Congress passes a comprehensive national climate change bill. In the wake of the Supreme Court's Massachusetts v. EPA decision, U.S. EPA has undertaken several new rulemaking efforts of relevance to the business community. The first of these is a planned Advanced Notice of Proposed Rulemaking ("ANPR") that will solicit comments from interested parties on a variety of issues regarding how U.S. EPA should regulate GHGs. U.S. EPA has indicated it is issuing the ANPR to prompt discussion regarding how or if the existing CAA can be used to regulate GHGs. The ANPR is slated for release sometime in the first half of 2008.

U.S. EPA is also working on the development of a GHG inventory rule. The rulemaking was mandated by recent Congressional legislation and is currently slated for issuance sometime in 2009. The inventory rule will require applicable businesses to calculate and report their annual emissions of GHGs to the government. The methodology to be used by the inventory rule is presently unclear. An inventory rule is seen as a necessary base-lining step prior to implementation of any proposal to cap and reduce GHG emissions.

Rulemaking activity is also on-going within U.S. EPA's underground injection control regulations. U.S. EPA is in the process of developing new regulations for the application of carbon capture and sequestration technologies, primarily at electric power

plants, which may involve deep-well injection of CO<sub>2</sub> and other GHGs into underground geologic formations. Carbon sequestration is one of the newer technologies being explored as a means of reducing the emissions of CO<sub>2</sub> to the atmosphere. Unanswered questions remain about the long-term liabilities associated with such injection wells. U.S. EPA has stated it plans to issue a proposed rule on this issue sometime in 2008.

The business community should also be mindful of developments regarding mandatory reporting of GHG emissions in financial reports. The Securities and Exchange Commission has been petitioned to require such reporting by several large institutional investor groups, such as pension funds. Such petitions seek to require companies to quantify and disclose the GHG emissions resulting from their operations. Publicly traded companies are also increasingly receiving shareholder petitions requesting the disclosure of GHG-related information. Finally, the investment community is increasingly demanding additional information regarding the GHG implications associated with the projects they are being asked to finance.

The train has left the station on whether to regulate GHG emissions in the United States. Companies must become more sophisticated in the way in which they track and report GHGs resulting from their business operations. It now appears all but inevitable that comprehensive national climate change legislation will be enacted. The only question now is when and by what mechanism GHGs will be regulated. Business leaders are and must adapt to this new paradigm. Those that can do so successfully are likely to have an advantage in the marketplace.

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