MILLER CANFIELD

Carbon Cap and Trade Made Simple

A Primer

May 2009

I have been practicing environmental law for over 16 years and I have never felt as motivated and energized as I have lately. Not a day goes by where there is not some discussion, headline, editorial, blog, etc. talking about climate change in some capacity or another and how the world is going to address man's effect on our climate. Old words with new meanings are being thrown out on a daily basis—allowances, auctioning, offsets, additionality, protocols, baselines, command and control, sustainability and on and on. To make it more complicated, many of the goals and concepts of various initiatives to address climate change overlap. Further, there are different perspectives and worldwide approaches to tackling climate change and they are growing and changing every day. Frankly, all that greenhouse gas talk is making me (and probably many of you) dizzy. My goal here is to clear some of the fog and explain, in basic terms, one concept that has the potential for reducing a significant amount of manmade greenhouse gases in a relatively short amount of time. That concept is carbon cap and trade.

Let's start with a fundamental question—what are greenhouse gases and why do we care? Greenhouse gases (GHGs) are heat trapping gases that slow the release of heat into space. The most commonly discussed are methane, nitrous oxide, carbon dioxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Scientists generally believe that the more of these gases that are emitted, the warmer the earth becomes thereby melting glaciers, increasing ocean temperatures, causing droughts and threatening species. The key to reducing global warming is to reduce the amount of manmade greenhouse gases released into the atmosphere. Because carbon is a major component of greenhouse gases, the cap and trade program is referred to as "carbon" cap and trade. This program is being considered and implemented in many areas around the globe.

Presently, there are various sources of GHGs that are being emitted in unlimited quantities into the atmosphere. These sources include both natural sources—the decomposition of forests/wastes and manmade sources—the burning of fossil fuels in industry furnaces and automobiles. Both consumers and industries emit for free, even though there are environmental costs as a result of these activities. Consequently, fossil fuel prices do not reflect their full cost. Cap and trade puts a price on those emissions to address some of their environmental costs and internalizes them into the fully loaded cost of the good or service being sold to the consumer.

Here's how it works. A governmental authority will determine how much of a reduction of a specific GHG is required within a specific timeframe. The governmental authority establishes a **cap** that limits the total amount of a particular GHG that can be emitted into the atmosphere in a given year. It then distributes permits (a.k.a. allowances) to emit and allows emitters to buy, sell and **trade** the permits. The permits are distributed either by free allocation or auctioned. The amount of permits issued declines each year creating demand for a new commodity called carbon emission reduction permits (or allowances). When the market price for the allowance rises many emitters will have an incentive to reduce emissions and sell the extra allowances. These trades will establish the market price. The ever increasing high prices will cause other emitters to invest in projects (e.g. wind, solar, biomass, pollution control equipment, etc.) to reduce emissions because they do not want to pay the market price. Emitters can decide when and in what way they will address their emissions needs. Theoretically, emissions will eventually be reduced to the goal level that the governmental authority originally set.

Continued

For example, Plant A has been allocated 4 emission allowances. By investing in a renewable energy technology, Plant A has reduced its emissions and now only needs 2 emission allowances. Plant A now has 2 extra emission allowances. Plant B is in need of 2 emission allowances. Plant B can purchase the 2 extra emission allowances from Plant A to meet its requirements. Eventually, the cost of obtaining allowances may exceed the cost of investing in new technologies to reduce the emissions. Meanwhile, Plant A has obtained funds that have defrayed the costs of investing in the new technology or perhaps increased its bottom line profit.

The concept of cap and trade is not new. In 1990, a portion of the Clean Air Act Amendments established a program to address acid rain. Sulfur dioxide and nitrous oxide were the primary drivers. These pollutants have decreased 50% from 1990 levels. The program is acclaimed by many as a huge success.

Presently, the U.S. does not have a national cap and trade program. However, 3 regional markets have emerged and 1 carbon commodities exchange. Ten northeast and Mid-Atlantic States participate in the Regional Greenhouse Gas Initiative (RGGI) for fossil fuel burning power plants. RGGI has conducted 3 auctions raising $200 million which has been distributed to the states for energy efficiency projects to be implemented in the commercial sector. Several western states and 2 Canadian provinces comprise the Western Climate Initiative. Six mid-west states (including Michigan) and Manitoba most recently signed the Midwest Greenhouse Gas Reduction Accord. In addition, the Chicago Climate Exchange exists as a carbon credit commodities exchange not tied to any geographic area (projects may be global) based on voluntarily accepted contractual commitments of the participants.

EPA's April 17, 2009 issuance of its proposed finding that GHGs are "an endangerment to public health and welfare," may accelerate establishment of a federally mandated cap and trade market. Meanwhile, the American Clean Energy & Security Act of 2009 (a.k.a. Waxman-Markey Cap and Trade bill) is being actively debated in Congress. One thing is certain, we will all be hearing more about carbon cap and trade programs in the months and years to come.

Anna M. Maiuri is Deputy Group Leader of the Environmental and Regulatory Group at Miller Canfield and a member of the Firm's Climate Change practice. Contact her at (248) 267-3260 or maiuri@millercanfield.com.