



GUEST JUICE

Getting Cap & Trade Right

By Jason Patrick

California's Global Warming Solutions Act, AB 32, is a landmark achievement. It mandates the most aggressive approach in the nation to the problem of global climate change. The law does not specifically direct the California Air Resources Board on how to achieve its ambitious target of reducing greenhouse gas emissions by 25 percent by 2020. It does, however, authorize the use of market mechanisms, such as cap and trade, to help achieve compliance.

Trading is the most cost-effective tool for achieving reductions of greenhouse gases from stationary sources. Energy conservation, transportation initiatives, and the like cannot alone achieve the levels of reductions necessary to meet reduction goals. Under a cap-and-trade program, major emitters would have their greenhouse gases capped, but they would be permitted to buy and sell emissions allowances on the open market to meet their compliance targets.

So if cap and trade is a must—and we believe it is—the debate should center on market design for such a program.

Fortunately, California is not the first to undertake emissions trading. There is plenty of history to guide the formulation of a program here. From the federal acid rain and NOx budget programs to the European Union Emissions Trading Scheme (EU ETS), the concept of cap and trade has been fine tuned. Some of the key components of a successful cap-and-trade program are laid out below.

Long-Term Program

Cap-and-trade programs work best when the participants have a clear view of the future and can make long-term strategic decisions that affect their emissions profiles. The U.S. program for trading SO₂ got this right.

Under the U.S. acid rain program, regulated entities are provided 30 years of allowances. The companies can sell blocks of future allowances to finance the installation of control technologies or other major emissions reduction measures.

The length of the term is one of the legitimate concerns with the EU ETS. Designed to correspond to the term of the Kyoto Protocol, the carbon-trad-

ing program extends only to 2012. That is far short of the planning horizons for major stationary sources regulated under the program. Unlike under the 30-year time line of the SO₂ market, covered entities under a short-term cap-and-trade system will have far less certainty of allowance supply, liquidity, and price. Consequently, they will be less likely to make potentially valuable internal abatement investments.

California should issue allowances out 30 years to ensure that utilities are able to take into consideration major capital investments in emissions reductions.

Maximum Liquidity

The California cap-and-trade program should also be designed to promote the maximum amount of trading volume or liquidity. Liquidity provides the linchpin to properly functioning markets.

As a rule, programs that are simple, transparent, and broad tend to be more liquid.

The greater the number of participants and the more greenhouse gases included, the greater the pool of potential emissions reductions. A broad cap-and-trade program will bring in sources with varying cost profiles for making emissions reductions, which translates into lower-cost reductions. By expanding the pool of participants, you bring in sources that will make extra reductions at a low cost and sell their carbon allowances to those whose cost to reduce is high.

The EU carbon trading scheme, for example, is a relatively simple program that covers more than 5,000 companies. The market averaged more than 70 million tons of carbon traded per month in 2006. Importantly, it has delivered real reductions—more than 100 million tons so far, according to a Massachusetts Institute of Technology study published in November 2006. Benefits should be even greater during the EU ETS phase two (2008-12), as the allocation gets considerably tighter and the program is expanded to cover additional greenhouse gases, such as new methane sources and N₂O—not just CO₂—and additional industry sectors, such as chemicals and airlines.

SO₂ got it right.

GUEST JUICE . . . continued from page 3

California regulators would do well to mirror the approach of the EU ETS's phase two—appropriately tight caps, several greenhouse gases, and as close to economy-wide as possible.

Robust Offset Program

The ability of companies to invest in carbon reductions elsewhere and at a lower cost than internal reductions provides a powerful method to reduce atmospheric concentrations of greenhouse gases. These so-called offsets will also be the key to keeping down the costs to California's businesses and citizens in the early years of the program by permitting companies to invest in the lowest-cost reductions—no matter where they occur.

In order to maximize the cost-effectiveness of the program, California should accept real and verifiable credits without limit to the type or location of the source. For instance, a project that generates electricity from a landfill gas project in California, Ohio, or even Africa, for that matter, should qualify under the California program without prejudice.

The United Nations administers a very stringent system for carbon offsets under the Kyoto Protocol's Clean Development Mechanism, which formalizes investment in emissions reduction projects in the developing world. The Europeans are leveraging this system for their offsets, thereby benefiting the environment while keeping down costs.

California should take a similarly broad view of offsets, allowing offsets around the country and around the world where reductions are real and verifiable.

Auctioning Best in Moderation

Policy makers crafting the U.S. acid rain program, the EU ETS, and the Northeast's Regional Greenhouse Gas Initiative (RGGI) have all grappled with how to distribute allowances under emissions cap-and-trade programs. In an overwhelming number of emissions

trading programs, allowances equal to the cap are granted to covered entities. Some allowances have been set aside for auctioning to the market—the U.S. SO₂ program currently has the largest share with 2.5 percent—but excessive auctioning should be avoided.

Under full auctioning, there is surely no incentive to overcomply. Cap-and-trade systems are designed to benefit from disparities in the cost of abatement versus the market price of allowance commodities. These programs encourage entities with a lower cost of abatement to “overcomply,” so that they can sell their extra allowances to entities with a higher cost of abatement.

Faced with purchasing allowances to meet their caps, companies will buy only allowances they need. Funds that must be committed to an initial auction compete with, rather than complement, funds for any potential emissions reduction processes or equipment.

The reason the U.S. SO₂ trading program is widely touted as a success is because it achieved its environmental goals much faster and more cheaply than expected through trading. If implemented with full auctioning, RGGI cannot and *will not* match this success.

California should avoid a similar path.

As California regulators move forward with implementing AB 32, they should remain aware that they are setting the example for the nation on how to approach climate change. This approach should include a cap-and-trade program extending out at least 30 years, one that covers a wide swath of the economy, includes all greenhouse gases, provides for real and verifiable offsets, and shows restraint on auctioning.

That should be just about right.

—Jason Patrick is greenhouse gas broker with Evolution Markets Inc.; phone 1-914-323-0265, e-mail jpatrick@evomarkets.com.