California climate policy: Showing the way for the world

By Frank A. Wolak Special to the Mercury News San Jose Mercury News
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The disappointing news from the November 2013 United Nations Climate Change Conference in Warsaw has overshadowed California's recent climate policy successes.

Since Jan. 1, 2013, the California Air Resources Board (ARB) has been operating a market for greenhouse gas emissions allowances. This market caps emissions by large industrial firms and from electricity consumption and will expand to include the consumption of transportation fuels and natural gas in 2015.

The ARB has sold more than 117 million allowances for almost $1.4 billion in five quarterly auctions between November 2012 and November 2013. Each allowance entitles the owner to emit 1 metric ton of carbon dioxide. Prices from the auction have fluctuated between $10 and $14 per allowance. There is an active secondary market for allowances and several financial markets for trading forward contracts for the future delivery of these allowances.

The ARB is not resting on its successes. California is on schedule to link its greenhouse gas allowance market with the one in Quebec on New Year's Day. Linkage means that emitters in California and Quebec can use allowances from either region to meet their compliance obligations.

The option to purchase allowances from either jurisdiction should reduce the total cost to California and Quebec of meeting their aggregate emissions cap. Other regions should build on California's efforts and implement their own emissions markets. Linking regional policies together is the most viable way to achieve the objective of effective global climate policy.

The Program on Energy and Sustainable Development that I direct at Stanford University held an international conference on regional carbon policies on Dec. 5. for policymakers from around the world. Two major themes emerged that support this recommendation.

The first identifies the most viable path to an effective global climate policy.

The United Nations-led top-down approach requires first reaching an international agreement to limit greenhouse gas emissions through the Framework Convention on Climate Change. The bottom-up approach involves individual regions implementing their own climate policies and then linking them with those in other jurisdictions. The California and Quebec linkage is one example.

Most conference participants felt that the bottom-up approach held significantly more promise.

The second is California's role in the design of regional carbon policies. Participants praised California for addressing shortcomings in existing policies such as the European Union Emissions Trading System. California has both a floor and ceiling on the price of allowances. The floor effectively eliminates extremely low prices (such as those currently in the EU), which dull the incentive for investments in emissions mitigation technologies. The ceiling prevents excessive allowance prices that may impose exorbitant costs on emitters or lead to suspension of the program.

California also constrains the number of allowances a participant can own. These limits ensure that no one can take such a large position in allowances that it has an incentive to withhold some of them from the market in order to artificially increase prices and profit from that price increase.

These safeguards are important to the efficient operation of a regional carbon market where a few participants are responsible for a significant share of the total emissions.

With the continued successful operation of its GHG emissions market, California can become a global leader in the design and implementation of regional carbon polices. Moreover, if more regions use the California market as their starting point, then linking these programs together will be more straightforward and the ultimate goal of an effective global climate policy the more likely end result.

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