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How Cap-and-Trade Is Working in California

Carbon Program May Hold Lesson for Other States

California's program will expand to gasoline wholesalers next year. *GETTY IMAGES*

By **ALEJANDRO LAZO**
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When it comes to tackling global warming, "cap and trade" are words often heard but seldom put into practice. That may be about to change.

Experts thought the U.S. might adopt its own cap-and-trade system for carbon-dioxide emissions during President Barack Obama's first term, before partisan divisions made that goal impossible. Now with the Obama administration's announcement, earlier this year, that states must develop their own policies to reduce carbon emissions from power sources, the concept is getting a second look.

California, the first state with a comprehensive cap-and-trade system, started its program two years ago. A look at how that program is working, and at some of the basics of cap-and-trade, may hold lessons for other states as they consider their options.

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What is a cap-and-trade system?

It's a way of putting a price on carbon emissions, which are considered contributors to global warming. Governments employ a cap-and-trade system by imposing a limit on the amount of CO2 released by industry and then issuing a finite number of permits for emissions. Those permits are then auctioned or given away by governments. Businesses are also free to sell excess permits that they don't need, allowing market forces to distribute and price these allowances.

In California, regulators capped allowed emissions for the industries covered in 2014 at 160 million metric tons. Next year, that goal will jump to 395 million metric tons, when it is expanded to include gasoline wholesalers—a move that many believe could cause an increase in gas prices in the state. The program will cap emissions at 334 million metric tons by 2020 to help satisfy a mandate by the state legislature that emissions in the state that year equal 1990 levels.

The European Union since 2005 has operated by far the largest cap-and-trade program. But that program has struggled as the auction prices of its permits have crashed on more than one occasion, leading to an oversupply of permits and few incentives for companies to alter their behavior. In the Northeastern U.S., the Regional Greenhouse Gas Initiative, covering nine states, is a more limited cap-and-trade program covering the power sector.

Why did California adopt cap-and-trade?

California has long seen itself as an environmental leader, so in 2006 the state adopted legislation that required a massive reduction in greenhouse-gas emissions. It chose a cap-and-trade system in part because the alternative, a carbon tax, would have required a two-thirds vote in the legislature. The state also saw cap-and-trade as a more effective way of reducing emissions.

How does it work?

The largest businesses in the state—defined as those that emit more than 25,000 tons of carbon dioxide a year—have to get permits from the state government for those emissions. Businesses under nearly every industry are covered, including refineries, food processors, manufacturers and utilities.

The state gives out the majority of these permits free, and has developed an auction system to distribute the rest. Since November 2012, there have been eight quarterly auctions; at the latest, in August, businesses paid $11.50 a ton for the permits. To ensure the price of these permits doesn't collapse, the state sets a minimum price.

Two pools of allowances are sold at each auction: one controlled by the utilities, which get all of their allowances free, and another controlled directly by the state. Investor-owned utilities are required to sell all of their allowances and then buy back what they need to cover their own emissions. (It's complicated.) The allowances in the state-controlled pool are sold directly to businesses that need them. About 90% of the state-issued permits are still given away.

How much money has been raised from auctions so far?

The state has sold $2.27 billion of CO2 allowances—$1.4 billion from the utility-controlled pool and the balance from the state pool.

That is a lot of money. How is it being used?

The utilities have to spend their proceeds on things like alternative or renewable fuels, or by giving relief to customers.

The state's share goes toward its Greenhouse Gas Reduction Fund, which, among other goals, supports projects that reduce pollution. This year, Gov. Jerry Brown reached a deal with the state legislature to spend $250 million from the fund to help build a $68 billion bullet-train system; a quarter of all future revenue from the fund will go toward the project. The rest of the money in the greenhouse fund will go toward a variety of legislative priorities that include affordable housing and transit projects, as well as infrastructure and water conservation projects. In 2013, the state drew criticism for borrowing $500 million of cap-and-trade dollars to balance the state's general fund budget.

Does the program work?

It's too early to tell whether it will have a big impact on climate change. But many experts say that it has at least proved the state can set up a working cap-and-trade system.

In the coming weeks, the state's Air Resources Board will release a report covering emissions by companies covered by the program. If the program is functioning correctly, the report should show a 2% reduction in greenhouse gases from 2012. The board does say so far the auctions have functioned smoothly. But critics warn that the market for carbon permits might be subject to the whims of traders looking to make a profit once the program expands to include fuel suppliers next year. The state says safeguards are in place to insure speculators can't manipulate the market.

Have the auctions affected businesses in California?

Critics such as the California Chamber of Commerce and the Pacific Legal Foundation—which are suing the state to block the program—say it increases the cost of doing business, though no measurable estimate exists. Severin Borenstein, co-director at the Energy Institute at the University of California, Berkeley's Haas School of Business, says costs so far have been marginal, as most allowances were given away and remain relatively inexpensive.

What's next?

Next year, the law will expand to include gasoline wholesalers. This is expected to have a much more direct effect on consumers. The state's legislative analyst's office predicts the inclusion of wholesalers most likely will increase gasoline prices by 13 cents to 20 cents a gallon by 2020, and possibly by more than 50 cents. This prompted a legislative effort to delay that part of the program. The measure failed when the leader of the state Senate refused to bring the measure to a vote.

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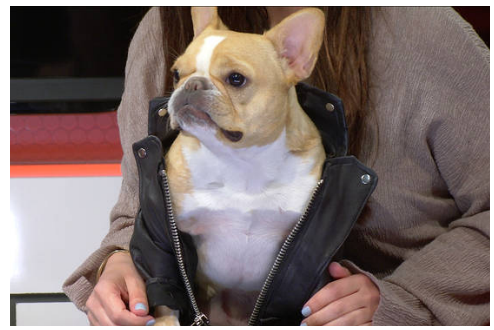

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