CAP AND TRADE, AND MUCH MORE, IS STILL ON-TRACK IN CALIFORNIA[1]

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Cap and Trade – and Much More – is Still On-track in California

Barring unexpected delays, in January 2012 the California cap-and-trade program will be up and running after having survived a challenge on election day in early November. This brief answers the following questions about these and related developments: Why is California important in efforts to address climate change? What are the key provisions of its climate change and related energy programs? How are developments in California related to the Western Climate Initiative? What is the political context in which the programs are moving ahead?

The importance of California: its gross state product of nearly $2 trillion is about 14% of the U.S. national GNP - and larger than the GNPs of all but seven countries worldwide. A population of more than 37 million people not only makes California the largest U.S. state with 12% of the national total, its population is also larger than 35 other countries. Its greenhouse gas emissions of 478 million metric tonnes CO_2e in 2008 were the second largest among U.S. states – after Texas – and greater than all but twelve countries.

Its importance in the U.S., however, goes beyond these elementary demographic, economic and environmental statistics: it is a model whose policies are emulated by other states. For instance, 17 other states have indicated they will adopt similar motor vehicle tailpipe ghg emissions standards as those in California – which would extend the standards from California's one-tenth share of the national new car market to almost half the national market.[1] California has adopted – or attempted to adopt - other measures, such as emissions restrictions on ships entering its ports. These actions threaten traditional national government policymaking prerogatives and pose constitutional issues about the relationship between states and the national government in a federal political system that requires court actions for clarification. Furthermore, California has led the creation of the Western Climate Initiative(which includes four Canadian provinces as members, and three other Canadian provinces and five Mexican states as observers). Indeed, the Californian government has expanded its international linkages on climate change and related energy issues to cities, regional governments and national governments in Asia, South America, and Europe as well as North America, through a variety of agreements.[2]

California is often portrayed as an exemplar for paths to high-efficiency/low-carbon economies. This conclusion is arguable: as a result of a variety of energy efficiency, renewable energy and other measures, between 2000 and 2008 California's per capita ghg emissions on a CO2e basis declined from 13.4 to 12.5 tonnes (8.3%), and the ghg intensity of its economy declined from 355.8 tonnes per million dollars of state gross product to 258.7 tonnes per million dollars (27.3%). During the same period, its population increased 11.8%, and its gross state product increased 20.2% in real terms. Whatever the verdict may be on its efforts to date, the paths of such indicators will be tracked carefully over the forthcoming years as the new programs are fully implemented.

Program features*.* The state Global Warming Solutions Act of 2006 (which is also known as Assembly Bill 32 or simply AB32), as well as subsequent and pending administrative decisions, have established a series of programs whose goal is the reduction of ghg emissions to 1990 levels by 2020 – i.e. 427 million metric tons of carbon dioxide equivalent. The programs can be conveniently considered in two groups – those involving 'early action' beginning in 2010, and those concerning a cap-and-trade system beginning in 2012. The following summaries are based on the decisions and information provided by the Air Resources Board (ARB), which is part of the state Environmental Protection Agency. [3]

The wide range of 'early action' items include the following:

> Low Carbon Fuel Standard (LCFS)– The LCFS calls for a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. The affected fuels include: gasoline, E85 ethanol, diesel, biodiesel, liquefied natural gas, hydrogen, and electricity.

[1] State Assembly Bill 1493, which was adopted in 2002, mandates that ghg emissions of new vehicles are reduced by 30% by 2016.
[2] For further information on these international links, see Meera Fickling, 'US and Canadian Climate Legislation by State and Province', Peterson Institute for International Economics, 2010; available at www.piie.com.
[3] For additional information, see the website of the California Air Resources Board at www.arb.ca.gov.

Landfill methane capture – An ARB regulation 'requires owners and operators of certain…landfills to install gas collection and control systems, and requires existing and newly installed gas and control systems to operate in an optimal manner'.

Mobile air conditioning – A series of measures have been adopted to 'reduce hydrofluorocarbon (HFC) emissions associated with mobile air conditioning … and the recovery of refrigerant from decommissioned refrigerated shipping containers'.

Consumer products with high global warming potentials – Restrictions are placed on 'pressurized containers that utilize nitrous oxide (N_2O) including aerosol cheese and dessert toppings, as well as hydrofluorocarbon (HFC) propellant products such as boat horns, pressurized gas dusters, and tire inflators'.

Shore power for ocean going vessels – Operators are required to reduce 'emissions from diesel auxiliary engines on container ships, passenger ships, and refrigerated-cargo ships while berthing at any of six ports in California.

As for the cap-and-trade program: By a vote of 9-1 in December 2010, the ARB passed a series of regulations for the commencement of operations in January 2012. Though some regulations are still pending and subject to revision during 2011, the basic features of the program are established. The cap, beginning at a level to be determined in the year in 2012, will be reduced by 2% per annum during 2012-2014, and then by 3% per annum during 2015-2020. The program will eventually cover about 360 firms with 600 facilities responsible for 80% of the state's ghg emissions. Initially, major industrial sources and utilities will be covered; then, beginning in 2015, the program will cover distributors of transport fuels, natural gas and propane.
Also:

Free allowances will be provided during 2012-2014.

Auctions will be held quarterly by the ARB.

Offsets from agriculture and forestry projects (including in Brazil and Mexico and perhaps other countries to be determined) will be allowed for up to 8% of a firm's emissions.

Banking of allowances will be permitted.

An Allowance Price Containment Reserve equaling 4% of total allowances issued will enable firms to buy allowances from one-third tranches at \$40/\$45/\$50 per tonne in 2012 - prices which will increase by 5% plus inflation each year thereafter.

Linkages to other programs, including through the Western Climate Initiative, is anticipated.

The Western Climate Initiative*.* California, six other U.S. states and four Canadian provinces[4] agreed in 2007 that they would cooperate to create an international cap-and-trade program, which is scheduled to begin in 2012.
The target for emission reductions is 15 percent below 2005 levels by 2020. Greenhouse gases in following sectors are covered: electricity generation, including electricity imported into the WCI region; industrial fuel combustion; industrial processes; transportation fuel use; residential and commercial fuel use. These are projected to equal 90 percent of emissions in 2015. A wide range of 'complementary policies' are also envisioned[5]:

- Expanding energy efficiency programs that reduce customer utility bills;
- Encouraging additional renewable energy sources that diversify supply resources and reduce air and water pollution;
- Tackling transportation emissions through vehicle emissions standards, fuel standards, and incentives for improved community and transportation planning;
- Establishing performance benchmarks and standards for high-emitting industries to spur innovation and improve competitiveness; and

[4] The U.S. 'partners' are Arizona, California, New Mexico, Oregon, Utah, Montana, Washington. The Canadian 'partners' are British Columbia, Manitoba, Ontario and Quebec. In addition, there are 'observers': the US states of Colorado, Idaho, Kansas, Nevada and Wyoming; the Canadian provinces of New Brunswick, Saskatchewan and the Yukon; the *Mexican states* are Baja California [*sic*], Chihuahua, Coahuila, Nuevo Leon, Sonora and Tamaulipas.
[5] See www.westernclimateinitiative.org.

- Identifying best practices in workforce and community programs to help individuals transition to new jobs in the clean energy economy.

Political context*.* The entire program was the subject of a state wide vote known as Proposition 23 in the November 2010 election; the proposition would have suspended implementation of AB32 until the state's unemployment level was below 5.5 percent for four consecutive quarters. Because the unemployment rate was more than 12 percent at the time of the election and had been below 5.5 percent for four consecutive quarters only three times in several decades, the proposition represented a virtual nullification of the program or at least a deferral of it for many years. The proposal was defeated - and thus the program was supported - by a vote of 61 percent to 39 percent.[6] A broad-based coalition of supporters of AB32 was co-chaired by Republican, George Shultz (who was Director of the Office of Management and Budget, Secretary of Defense, and Secretary of State during the presidency of Ronald Reagan), and by San Francisco hedge fund manager Tom Steyer. Microsoft's Bill Gates, Silicon Valley venture capitalist John Doerr and others contributed millions of dollars to defeat Proposal 23 in support of AB32, outspending proponents by a margin of 3 to 1.

The election results for Governor and representatives in the State Assembly are similarly propitious for the future of climate change measures in California: The new Governor, Democrat Jerry Brown, has a long record of support for environmental protection – including while he was Governor previously in 1975-83; and the new Assembly has 52 Democrats and 28 Republicans, important statistics in a state where climate change is still in some respects a highly partisan issue.

Final caveat. As always in the U.S., litigation through court cases can delay, derail, refine, complicate or otherwise change government policies at all levels and in all policy domains.

[6] A state-wide survey in July, which had found that 61% of 'likely voters' favored 'the state law that requires California to reduce its greenhouse gas emissions back to 1990 levels by the year 2020', also found that while 80% of Democrats and 73% of Independents favored the measure only 39% of Republicans were so inclined. It also found that the percentages who believed that 'the effects of global warming would never happen' were as follows: Democrats, 5%; Independents, 14%; Republicans, 40% (an *increase* from 18% in 2007). See Public Policy Institute of California, 'Californians and the Environment,' July 2010; available at www.ppic.org.

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