



Oxford Energy Comment

November 2010

California climate policy survives Republican tsunami

By David Buchan

Swimming against the tide in the US mid-term elections, Californians rejected an attempt to prevent their state from launching in early 2012 the first comprehensive cap and trade scheme in north America with the probable participation of three of Canada's biggest provinces.

The November 2 defeat of Proposition 23, which would have effectively stopped California's cap and trade plans, and the return as governor of the septuagenarian Democrat Jerry Brown, who started California's clean energy drive in the 1970s, run counter to the tide of Republican gains east of the Sierra Nevada that virtually guarantee no climate policy initiatives will emerge from Washington for the next two years. However, in this land of plebiscite politics, Californians did pass another measure, Proposition 26, that could complicate making companies pay for carbon allowances as distinct from being allocated them for free.

Therefore the next national electoral test of US sentiment on climate policy, in two years time, will come after California has already set a cap on all greenhouse gas emissions of all large industrial facilities as well as electricity generators. Its scheme is broader than the existing Regional Greenhouse Gas Initiative (RGGI) of 10 New England states that applies only to utilities and targets only their Co2 emissions, not other greenhouse gases. California's first stage of cap and trade will cover just under 40% of all Californian GHG emissions (from the utilities and large industrial plants), but the second stage due to start in 2015 will rise to 85% of total emissions.

As the richest and most populous US state with a gdp equal to Britain's, California could run an emissions trading system on its own, and if necessary will do so. But California is poised to join some of its neighbours in the Western Climate Initiative (WCI) cap and trade scheme in 2012 as well.



California has six US west coast and Rocky mountain states, plus four Canadian provinces which are formally speaking its partners in WCI. But all of its US partners, except for small New Mexico, had some time ago made clear that while they subscribed to the general idea of a regional emissions trading scheme at some point in the future, they would not take any practical steps to join California in realizing WCI in 2012. The exception was New Mexico. In theory, it took another step on the November 2 election day when its environment board, appointed by the outgoing Democratic governor, Bill Richardson (one-time secretary of energy for Bill Clinton), approved the design of a state cap and trade system. But on the very same day the state elected a new Republican governor skeptical about cap and trade. However, support for WCI is more solid from the main three Canadian participants - British Columbia, Ontario and Quebec – which have declared their readiness to link their emissions with California in January 2012.

Since California is the biggest emitter in WCI, with total 2008 GHG emissions of 480m tonnes compared to 190m tonnes for Ontario, the next biggest polluter, it will be the lynchpin of this regional scheme. However, California also needs a regional scheme (and a national scheme would be even better) in its own self-interest. All its energy efficiency regulations and decarbonizing efforts over the past 30 years have left California in a situation where it would find it easier and cheaper to reduce carbon among its dirtier and less efficient neighbours than back home in California.

Indeed, because of its regulations promoting efficiency and renewables, California, in the short term at least, barely needs a cap and trade scheme to achieve its legislated goal of returning the state's emissions by 2020 to their 1990 level of 433m tonnes. In north American terms and factoring in much faster growth in the US than in Europe since 1990, this is an ambitious goal. It requires a 15% cut on 2009 levels and an estimated 30% cut reduction from what California's emissions would be projected to be by 2020 without carbon constraints.

But California already has an extraordinary array of regulations.¹ These regulations range from restrictions on the carbon intensity of energy inputs, through tight energy efficiency standards for all sorts of appliances including cars and buildings, to energy demand management including long term planning measures to curb urban sprawl. These specific regulations are reckoned to be enough to achieve 80% of the 2020 emission reduction, leaving only 20% of the emission reduction to be achieved through the market in the form of a cap and trade system. (Europe, in contrast, is relying more on its Emission Trading Scheme (ETS) to reduce emissions.)

¹ *The regulations will be examined in more detail in a forthcoming OIES paper on California energy and climate policy.*



The regulation/market mix.

The California authorities see synergy, not conflict, in this mix of regulation and market forces. Michael Peevey, chairman of the California Public Utilities Commission, believes that “by taking the best aspects of both regulation and market forces, we can create a mutually reinforcing network, where regulatory strategies provide the foundation and the market provides a backstop, should the programs fail to deliver sufficient reductions”. Anthony Eggert, one of the five-member California Energy Commission, believes cap and trade will serve as more than just a back stop. “It is the grease that could help all the regulations to work together...partly because it ensures an element of cost effectiveness, and you cannot have regulation without profitability”. Cap and trade, as a market mechanism, can also “work on both energy producers and consumers’ whereas regulations tend to target supply or demand, but rarely both.

Yet, the politics of cap and trade are dangerous throughout the US, even in California, because it has become a lightning rod for the anti-climate hostility of the American right. Proposition 23 would have suspended the implementation of California’s 2006 Global Warming Solutions Act (known as Assembly Bill 32, or AB 32), until or unless the state’s unemployment rate, currently over 12%, were to drop to 5.5% and stay at or below that level for a year. Since this low jobless rate has only been reached a couple of times in the past 30 years, suspension might have been indefinite. While many of the regulations required to reach the emission reduction goals set out in AB 32 have separate legislative authority (for instance, vehicle emission standards), two of them do not, and would therefore have died with passage of Prop 23. These two regulations are the raising of the state’s Renewable Portfolio Standard from 20% in 2010 to 33 % by 2020, and the introduction of a Low Carbon Fuel Standard to reduce the carbon intensity of transport fuel by 10% by 2020. Both measures are the result of executive orders by the outgoing governor, Arnold Schwarzenegger, the Republican actor-turned-green who has reached the constitutional limit of two consecutive terms. They never passed the state legislature.

So, while the fate of California’s cap and trade scheme was the headline issue in the vote on AB 32, the political survival of the renewable and low carbon fuel standards may be equally significant in emission reduction terms.

- California is just one of 30 U.S. states now with renewable portfolio standards which oblige utilities to draw a minimum percentage of their electricity from renewable sources. But California’s 33%-by-2020 standard is about the most ambitious, and (in contrast to Britain which happens to have a renewable energy obligation of roughly the same stringency) has every chance of being met. California has missed its 20%-by-2010 target, but only by a couple of percentage points. It is at present building a huge amount of new solar in particular.
- California’s Low Carbon Fuel Standard (LCFS) was the first of its kind in the world when signed by Governor Schwarzenegger in 2007, though it has now been followed by



the European Union with a similar fuel-decarbonising measure over the same timescale, and for the same reason. This reason is that cap and trade schemes cannot produce a high enough carbon price to seriously impact demand for oil-based transport fuels which are very insensitive to price changes. In contrast to Europe which is leaving transport emissions out of its ETS, California will put transport emissions into the 2nd stage of its cap and trade scheme starting in 2015, but this is projected only to add 20 cents to a gallon of gasoline by 2020. This is too small an increase to reduce emissions, and tiny in comparison with Europe's high petrol taxes (which no longer have much deterrent effect either). So, like Europe, California is relying on direct regulation to get emissions down in transport – via the LCFS (though it comes with its own mini cap and trade scheme to provide some flexibility in compliance) and on vehicle emission standards.

Soft Start to Cap and Trade.

California's lead agency in designing and administering cap and trade - the California Air Resources Board (CARB) – estimates that the scheme will produce a carbon price in the range of \$15-30 by 2020. The net impact of this, CARB forecasts, will be to reduce the average annual growth rate in gross state product from 2007 to 2020 by one tenth of a percentage point - from an average of 2.4% a year to 2.3%. Yet such is the general political demonizing of cap and trade across the US – the successful Democrat Senatorial candidate in the coal state of West Virginia actually ran a TV advertisement

showing him firing a rifle into a target marked 'cap and trade bill' – that CARB is deliberately planning a soft start to emissions trading in order to keep costs down. The rules that CARB published on October 29 for consultation ² and for decision in mid-December allow for:

- **A phased- in cap.** This starts in January 2012 with for electric utilities and industrial facilities producing 25,000 tonnes of Co2 equivalent, accounting for some 37% of total state GHG emissions. Coverage rises to 85% of state emissions in 2015 when all fuel distributors are brought in.
- **Allocation.** As in Europe, in order to promote initial support for the scheme, most allowances will be distributed free at the start, especially for companies claiming to be at risk of losing market share to rivals outside the carbon trading scheme. To give liquidity to the market, financial institutions will be permitted to hold and trade allowances, up to some as yet unspecified limit to prevent market manipulation. Auctioning will only be phased in gradually. But utilities will be obliged to sell all their free allowances into the

² <http://www.arb.ca.gov/regact/2010/capandtrade10/capandtrade10.htm>



market and to hand the proceeds to their ratepaying customers, in order to remove suspicion of them reaping windfall profits and to keep retail power prices down.

- **Banking of allowances.** Learning the lesson from Europe's ETS (in which the price crashed partly because allowances could not be carried over or 'banked' from the 1st to the 2nd phase), CARB is proposing to allow unlimited carry-over of allowances. This is designed to reward early emission reducers (by giving them confidence in keeping the fruits of their early labour) and is expected to give a modest upward boost to the price of allowances in the early years of cap and trade, and possibly a corresponding downward price pressure later as early achievers cash in.
- **Offsets** up to 8% of an emitter's obligation. In contrast to the Kyoto provisions adopted by the EU which did not allow for offsets in forestry and agriculture, California will allow offsets to be earned in forestry and agriculture in the rest of the US, possibly Canada and Mexico and perhaps eventually developing countries.
- **A reserve of allowances.** Emitters can buy extra allowances from this reserve if the carbon price starts getting high. At the same time, there will be a floor price, starting at \$10 per tonne, below which allowances will not be sold. This is lower than the current European ETS price, but substantially higher than the current price prevailing in the Regional Greenhouse Gas Initiative scheme in the north east states.

Questions for the future.

1. **California.** Technically, California will enter a cap and trade scheme next year better prepared than Europe was when it had to base the start of its Emission Trading Scheme in 2005 on information from often duplicitous or ignorant member states. By contrast, the California Air Resources Board has longer emissions expertise than any other body in the world, having collected precise emission data for 30 years. But the politics of cap and trade remain difficult, even inside the state. Proposition 26 rebrands certain fees, such as environmental fees designed to benefit society as distinct from individuals, as taxes and therefore subject to two-thirds approval in the state legislature, not just a simple majority. So Republican opponents of cap and trade will undoubtedly use Prop 26 to make it politically harder to charge companies for allowances. But, like the Light Brigade, California's cap and traders will also have guns to the left of them. In the wake of the Wall Street banking bust, many Democrats turned against the 'trade' part of a national cap and trade scheme out of suspicion that bankers would pervert carbon derivatives as they did credit derivatives. So there will be some suspicion about California letting financial institutions trade its carbon allowances. Many Americans, and Californians among them, have also been more skeptical – often with good reason – than Europeans about the real additional benefit, or 'additionality', of offset credits under Kyoto's Clean Development Mechanism. So California's offsets can expect critical scrutiny. In view of these factors, it is not surprising politically that CARB is planning a soft start to cap and



trade. Too soft technically, one would say, if Californian climate policy did not already have a solid foundation of regulations.

2. **The region.** In the absence of a US national cap and trade scheme, the WCI will be important for California in order to increase opportunities for emission reduction, to reduce the risk of Californian companies losing market share/jobs to rivals without carbon constraints, to increase liquidity and reduce volatility in carbon trading, and to share administrative costs. There will be inevitable difficulty and delay in getting WCI off the ground. But climate inaction by the US at a national level probably means climate inaction for Canada at a national level too. So, for the Canadian provinces as much as for California, WCI will be a way of gaining economies of scale in carbon trading.
3. **The wider world.** Both California and the European Union are converging towards a more even mix of market and regulatory instruments in their climate policies. They come from different directions. California pioneered energy efficiency and vehicle emission regulations, and is only now trying cap and trade. The European Union, first off with cap and trade, is beginning to match California in regulation; the European Commission is, for instance, carrying out an internal study on the effects of imposing a California-style emissions performance standard on electricity generators (partly to compensate weakness of the carbon price on the ETS). These two climate pathfinders, California and the EU, can learn from each other on the best policy mix to tackle climate change.