USA

California and Climate Change

by Anna Frostic* and Stephen C. McCaffrey**

Note: *After submission of this article, Californian voters defeated Proposition 23's attempt to delay implementation of AB-32.* Managing Editor

California has long been a US leader in addressing air pollution, as evidenced by the state's unique authority under the federal Clean Air Act to set new motor vehicle emissions standards.[1] These standards have been followed by a number of other states, particularly in the northeastern part of the country.[2] California's authority to set automobile emission standards was first established by the Federal Air Quality Act of 1967, which granted California a waiver permitting it to set and enforce emission standards for new automobiles due to the state's need for controls that were more stringent than those adopted on the federal level.

California's experience with smog dates at least to 1943, when the first recognised episodes were recorded in Los Angeles, producing reduced visibility and such symptoms as "smarting eyes, respiratory discomfort, nausea, and vomiting".[3] The City of Los Angeles initiated its air pollution control programme in 1945, and in 1947 the Los Angeles County Air Pollution Control District was established, the first of its kind in the country.[4] In 1961 the State Bureau of Air Sanitation mandated use of the first motor vehicle emission control technology in the nation, Positive Crankcase Ventilation.[5] California's vehicle Smog Check Program became effective in 1984 and in 1988 the California Clean Air Act was signed into law by the governor. This legislation provided inspiration for the federal Clean Air Act Amendments of 1990. In 1999, the California Fuel Cell Partnership, a public-private partnership, was formed. Its purpose is to demonstrate fuel cell vehicles in California. In 2004, the California Air Resources Board adopted the first greenhouse gas (GHG) rule in the country, requiring that automobile manufacturers begin selling vehicles that emit reduced greenhouse gases by the 2009 model year.[6]

In September 2006, California bolstered its air pollution control legacy by enacting Assembly Bill 32, the Global Warming Solutions Act of 2006 ("AB 32" or "the Act"), which requires a reduction in GHG emissions to 1990 levels by 2020.[7] This note will provide a brief overview of that law and developments following its enactment, including similar actions taken by other states.

Overview of AB 32

Finding that "Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California", AB 32 charges the California Air Resources Board (ARB) with "monitoring and regulating sources of emissions of greenhouse gases that cause global warming . . ."[8]

In particular, AB 32 directs the ARB to: (1) set a GHG emissions limit that is equivalent to 1990 levels, to be achieved by 2020;[9] (2) adopt a list of discrete early action GHG emission reduction measures that can be implemented in the near term;[10] (3)adopt regulations to require the reporting and verification of statewide GHG emissions;[11] (4) adopt a scoping plan and regulations for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from major sources;[12] and (5) adopt regulations setting GHG emission limits and emission reduction measures, beginning on January 1, 2012 and including credit for voluntary early reductions and the use of market-based compliance mechanisms.[13]

As it pursues this lengthy agenda, the ARB is required to evaluate AB 32's potential impacts on California's economy, environment and public health, and to ensure that the adopted rules do not disproportionately impact low-income communities.[14]

Implementation of AB 32

Within a year of the passage of the Act, the ARB identified discrete GHG reduction methods that could be achieved in the near term, including adopting a low-carbon fuel standard, improving landfill methane capture, reducing hydrofluorocarbon emissions from mobile refrigeration containers, reducing sulphur hexafluoride emissions, reducing compounds with high global warming potential that are used in consumer products, improving fuel efficiency of heavy-duty tractor trailers, ensuring that proper tyre pressure in vehicles is maintained, and providing grid-based shore power to vessels in ports. Regulations are currently in place to address most of these matters.[15]

In December 2007, the ARB established a GHG emission limit to be achieved by 2020: 427 million metric tons of carbon dioxide equivalent.[16] That same month, the ARB promulgated a regulation that requires major industrial facilities to report and verify their GHG emissions annually, beginning in 2010.[17] These reporting and verification requirements apply to sources in multiple sectors, for example, all cement plants, petroleum refineries and hydrogen plants emitting at least 25,000 metric tonnes of CO_2 annually, and electricity generating and cogeneration facilities emitting at least 2,500 metric tonnes of CO_2 annually.[18]

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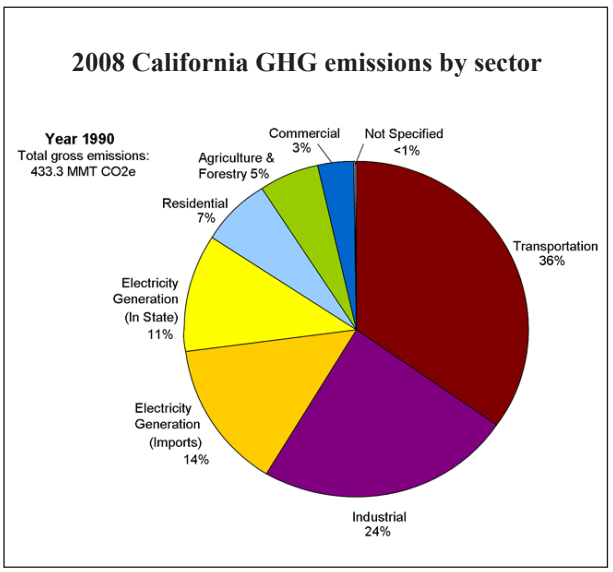
Guiding the long-term implementation of AB 32 is the ARB's scoping plan, adopted in December 2008.[19] The plan identifies three major initiatives to meet the goals of AB 32: (1) regulating mobile source emissions, (2) establishing a cap-and-trade programme for stationary sources, and (3) adopting energy efficiency standards and a renewable electricity standard.[20] The ARB is currently considering regulations for energy efficiency standards and a renewable electricity standard. California is working closely with six other states and four Canadian provinces through the Western Climate Initiative to develop a cap-and-trade programme, as discussed further below.

California's efforts to regulate GHG emissions from new motor vehicles are largely implemented through Assembly Bill 1493, which directs ARB to adopt regulations to achieve the maximum feasible reduction of exhaust emissions.[21] As mentioned above, California is the only state that is allowed to set such standards separately from the federal government; other states may adopt either the federal standards or the California standards.[22] Before California's standards can go into effect, the US Environmental Protection Agency (EPA) must grant a waiver of federal Clean Air Act preemption (federal laws would ordinarily preempt state laws on the same subject).[23] During the Bush administration, the EPA repeatedly denied California's request for a waiver to implement AB 1493, even in the face of a Supreme Court ruling that the EPA clearly has authority to regulate carbon dioxide emissions.[24] On 30 June 2009, the Obama administration overturned this decision and granted the waiver, paving the way for California (and other states) to implement the stringent clean car standards.[25]

In addition, the California Assembly passed SB 375, signed into law in 2008, which injects climate change considerations into regional transportation planning, with the goal of creating sustainable communities.[26] This is particularly important to achieving the goals of AB 32, as nearly 40 percent of California's GHG emissions come from the transportation sector.



Ballot Initiative Threatens AB 32

In June 2010, the California Secretary of State certified an initiative (Proposition 23, reproduced below) for the November 2010 ballot that would suspend the implementation of AB 32.[27] Specifically, the initiative asserts that California's landmark Global Warming Solutions Act should be put on hold until the state's unemployment rate decreases:

> Initiative Measure to be Submitted to Voters
> California Jobs Initiative
>
> SECTION 1. STATEMENT OF FINDINGS
>
> A. In 2006, the Legislature and Governor enacted a sweeping environmental law, AB 32. While protecting the environment is of utmost importance, we must balance such regulation with the ability to maintain jobs and protect our economy.
>
> B. At the time the bill was signed, the unemployment rate in California was 4.8%. California's unemployment rate has since skyrocketed to more than 12%.
>
> C. Numerous economic studies predict that complying with AB 32 will cost Californians billions of dollars with massive increases in the price of gasoline, electricity, food and water, further punishing California consumers and households.
>
> D. California businesses cannot drive our economic recovery and create the jobs we need when faced with billions of dollars in new regulations and added costs; and
>
> E. California families being hit with job losses, pay cuts and furloughs cannot afford to pay the increased prices that will be passed onto them as a result of this legislation right now.
>
> SECTION 2. STATEMENT OF PURPOSE
>
> A. The people desire to temporarily suspend the operation and implementation of AB 32 until the state's unemployment rate returns to the levels that existed at the time of its adoption.
>
> SECTION 3. SUSPENSION OF AB 32
>
> Division 25.6 (commencing with section 38600) of the Health and Safety Code is hereby added to read:
>
> §38600 (a) From and after the effective date of this measure, Division 25.5 (commencing with section 38500) of the Health and Safety Code is suspended until such time as the unemployment rate in California is 5.5% or less for four consecutive calendar quarters.
> (b) While suspended, no state agency shall propose, promulgate, or adopt any regulation implementing Division 25.5 (commencing with section 38500) and any regulation adopted prior to the effective date of this measure shall be void and unenforceable until such time as the suspension is lifted.[28]

Despite this proposition's "statement of findings", multiple studies have shown that the economic, health and environmental costs of inaction on climate change far exceed the cost of implementing AB 32. Also notwithstanding what the language of the initiative suggests, it did not grow organically from the population of California. Its sponsors are Texas oil companies Valero Energy, Inc. and Tesoro Corp., which have a vested interest in eliminating regulations on fossil fuel production and use.[29]

Action by other US States

Though AB 32 is the most comprehensive state law designed to mitigate climate change, other states have also enacted legislation to reduce GHG emissions. As mentioned above, California is coordinating its efforts with

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six other States and four Canadian provinces through the Western Climate Initiative. Two other regional accords, the Regional Greenhouse Gas Initiative and the Midwestern Greenhouse Gas Reduction Accord, commit another 16 states to take action. Further, Hawaii and Florida have adopted legislation directing those states to set a cap on emissions and adopt regulations to achieve emission reductions. Thus, nearly half of the states in the nation are currently in the process of implementing legislation to address climate change.

Western Climate Initiative

California, Arizona, New Mexico, Oregon, Utah, Montana and Washington, along with British Columbia, Manitoba, Ontario and Quebec, are collaborating to identify, evaluate and implement policies to address climate change on the regional level.[30] Each government has committed to reducing regional emissions to 15 percent below 2005 levels by 2020, and the coalition recently issued a roadmap to assist each jurisdiction as they implement a cap-and-trade programme. The regional cap-and-trade programme is set to begin in January 2012, and will cover sources from multiple sectors that total nearly 90 percent of the region's emissions.[31] The states and provinces are currently in the process of adopting legislation to implement the initiative.

Regional Greenhouse Gas Initiative

Even prior to the enactment of AB 32, in December 2005, the Governors of Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York and Vermont signed a Memorandum of Understanding that included a Model Rule for reducing regional GHG emissions.[32] Massachusetts, Rhode Island and Maryland signed the agreement in 2007, and these ten states collaborated to design a cap-and-trade programme to reduce carbon dioxide emissions from power plants by 10 percent (from a cap of 188 million short tons of CO_2) by 2018. Each state has completed its rule-making process to implement the cap-and-trade programme and developed plans to invest the proceeds from auctions of pollution allowances in programmes to encourage energy efficiency, renewable energy, and new clean energy technology. Trading of emissions permits, on the Chicago Climate Exchange, for example, began in 2008.

Midwestern Greenhouse Gas Reduction Accord

In 2007, the Governors of Illinois, Iowa, Kansas, Michigan, Minnesota, Wisconsin and the Canadian province of Manitoba, signed an agreement to establish GHG reduction targets and develop a multi-sector cap-and-trade programme to achieve those goals.[33] In May 2010, an advisory group recommended a target of reducing emissions to 20 percent below 2005 levels by 2020, and recommended achieving those reductions through a cap-and-trade programme that would address GHG emissions from multiple sectors, including electricity generation, industrial combustion, transportation and heating/cooling fuels.[34]

Hawaii

In 2007, Hawaii passed its own Global Warming Solutions Act ("Act 234"), with the aim of reducing statewide GHG emissions to 1990 levels by 2020.[35] The state is currently in the process of developing a cap on emissions and adopting regulations to achieve emissions limits.

Florida

In 2008, Florida enacted a Climate Protection Act (House Bill 7135), which authorises the state's Department of Environmental Protection to develop an electric-utility GHG cap-and-trade programme, and directs the Public Service Commission to adopt a renewable energy standard for public utilities.[36]

Conclusion

California, the United States' most populous state, has long been a leader in the control of air pollution – albeit owing largely to the fact that the state was also for many years a leader in the production of smog and other forms of air pollution. California's leadership has most recently taken the form of legislation to combat climate change. While uniform action on the federal level would of course be preferable to diverse state measures, no climate change legislation has yet emerged from Congress. In July 2010, US Senate Majority Leader Harry Reid announced that the Senate would not be voting on comprehensive climate change legislation, despite the fact that a robust package had already been approved by the House of Representatives in June 2009. While the EPA may be taking steps to address emissions in a piecemeal fashion, state and regional efforts are of even more importance in light of federal inaction on broad reform. California's Assembly Bill 32 provides a model that other states can and should adopt to mitigate and adapt to a changing climate.

Notes

1 42 U.S.C. § 7507.

2 For a map of states that have adopted California's "Clean Car" standards, see, *e.g.,* The Pew Center on Global Climate Change, "Vehicle Greenhouse Gas Emissions Standards", available online at: http://www.pewclimate.org/what_s_being_done/in_the_states/vehicle_ghg_standard.cfm.

3 California Air Resources Board, "Key Events in the History of Air Quality in California", available online at http://www.arb.ca.gov/html/brochure/history.htm.

4 *Ibid.*

5 *Ibid.*

6 In 2007, a federal judge ruled that California has authority to regulate greenhouse gas emissions from vehicles once it receives a waiver from the federal government (*Central Valley Chrysler-Jeep v. Goldstone*, 529 F.Supp. 2d 1151 (E.D. Cal. 2007) (as corrected), 563 F.Supp. 2d 1158 (E.D. Cal. 2008) (denying reconsideration)). For more information on the statutory authority for these regulations (Assembly Bill 1493) and California's difficulties in obtaining a waiver during the Bush administration, see section II.

7 Cal. Health & Safety Code §§ 38500 *et seq*.

8 *Ibid*., §§ 38501(a), 38510.

9 *Ibid.,* § 38550.

10 *Ibid.,* § 38560.5.

11 *Ibid.,* § 38530.

12 *Ibid.,* §§ 38560, 38561.

13 *Ibid.,* §§ 38562, 38570.

14 For further information on AB 32, see http://www.arb.ca.gov/cc/ab32/ab32.htm; Nichols, M.D. (ARB Chairman) 2009. "California's Climate Change Program: Lessons for the Nation". *UCLA J. Envtl. L. & Policy* 27: 185.

15 See http://www.arb.ca.gov/cc/ccea/ccea.htm.

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16 See http://www.arb.ca.gov/cc/inventory/1990level/arb_res07-55_1990_ghg_level.pdf.
17 Cal. Code Regs. tit. 17, §§ 95100 *et seq.*; http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm.
18 *Ibid.*, § 95101.
19 See http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.
20 See Nichols, *supra* note 14.
21 Cal. Health & Safety Code § 43018.5; Cal. Code Regs. tit. 13, § 1961.1; *see also* http://www.arb.ca.gov/cc/ccms/ccms.htm for the most recent developments.
22 42 U.S.C. § 7507.
23 *Ibid.,* § 7543.
24 *Massachusetts v. EPA*, 549 U.S. 497 (2007); see also http://epa.gov/omswww/climate/ca-waiver.htm.
25 74 Fed. Reg. 32744 (July 8, 2009), available at http://edocket.access.gpo.gov/2009/pdf/E9-15943.pdf.
26 See http://www.arb.ca.gov/cc/sb375/sb375.htm.
27 See http://www.sos.ca.gov/elections/ballot-measures/qualified-ballot-measures.htm.
28 See http://ag.ca.gov/cms_attachments/initiatives/pdfs/i902_initiative_09-0104.pdf.
29 See http://www.latimes.com/news/science/environment/la-me-climate-initiative-20100623,0,216211.story?track=rss .
30 See http://www.westernclimateinitiative.org.
31 See http://westernclimateinitiative.org/the-wci-cap-and-trade-program/program-design.
32 See http://www.rggi.org.
33 See http://www.midwesternaccord.org/.
34 See http://www.midwesternaccord.org/Accord_Final_Recommendations.pdf.
35 See http://hawaii.gov/dbedt/info/energy/planning/greenhouse; http://www.capitol.hawaii.gov/session2007/bills/HB226_cd1_.htm.
36 See http://www.dep.state.fl.us/ClimateChange/rulemaking.htm.

Australia

Climate Change Policy Evaluation
– Method and Criteria –

by Evgeny Guglyuvatyy*

Presently, most nations acknowledge the need to curb climate change. The question is how to accomplish this task best. Unfortunately, notwithstanding the encouraging growth in the number of international environmental treaties over the last 25 years, there are few climate-change-related treaties at the international level.[1]

In December 1997, the third Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) adopted the Kyoto Protocol. As of October 2009, 192 countries have signed and ratified the Kyoto Protocol.[2] The Kyoto Protocol aims for a 5.2 percent reduction by industrialised countries of six greenhouse gases (GHGs) below 1990 levels by the end of 2012.[3] The Protocol introduced flexible mechanisms aimed to support Annex I[4] countries in achieving their reduction targets, namely emissions trading, Joint Implementation (JI) and the Clean Development Mechanism (CDM).

However, even if signatory countries met reduction targets, further GHG emissions reduction to stabilise the atmosphere would still be needed.[5] Developing countries potentially might agree to at least stabilise their GHG emissions in the next commitment period while developed countries might commit to further reductions. Nonetheless, even if the world community could achieve agreement to stabilise GHG emissions further, such an international treaty would need considerable time to negotiate. For example, the 1997 Kyoto Protocol was negotiated in 1997, came into force in 2004 and the commitment period only started in 2008. Besides, countries would require effective domestic policies to achieve their reduction targets. Thus, although international environmental treaties are clearly a step in the right direction, effective national GHG reduction policies are highly important.

A range of policy options have been considered by various countries around the world to mitigate pollution. Some of the most important include policy measures based on regulatory standards, voluntary actions, taxing emissions, taxing polluting products, setting up an emissions trading scheme (ETS), paying polluters to abate, labelling products, educating consumers, and enforcing deposit-refund systems on polluting products. Different combinations of these approaches have been implemented by various States.

Economic incentive instruments were first suggested by economists and later supported by politicians. It is argued that economic incentive instruments provide price signals which can encourage consumers to use less of the polluting products, thus persuading producers to produce less of that product. Economic incentive instruments are favoured by most economists and some environmentalists.[6] In many jurisdictions, economic incentive instruments have become increasingly popular environmental policy tools. While there are many economic incentive alternatives, environmental taxes and emissions trading have emerged as the two main instruments of the economic incentive policy approach.

Many countries have implemented different forms of economic incentive instruments to address various environmental pollution problems including climate change. In particular, policy makers in several OECD States have adopted emissions trading schemes (ETS) to reduce GHG emissions. For example, in the European Union, an ETS has been in operation since 2005 while some other countries such as Australia, the US and Canada are considering its implementation. Environmental taxes, in turn, have been implemented in a number of countries to decrease various emissions. However, only a few nations have opted to introduce an explicit carbon tax. Several EU member countries, particularly Scandinavian nations, have implemented carbon and energy taxes to control GHG emissions.[7]

Policy makers often argue that an ETS could be linked to the Kyoto Protocol's flexible mechanisms which would provide additional GHG reduction options for industry.[8]

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