

Climate Change and the Proposed Scoping Plan: There is a Better Way



**COMMENTS AND RECOMMENDATIONS OF THE
ENVIRONMENTAL JUSTICE ADVISORY COMMITTEE ON
THE IMPLEMENTATION OF THE GLOBAL WARMING
SOLUTIONS ACT OF 2006 (AB 32)**

**ANGELA JOHNSON MESZAROS
CO-CHAIR**

NOVEMBER 20, 2008

Why We Care



- Our Communities will be most impacted by climate change
- We recognize that climate change is occurring much more quickly than was understood even 2 years ago.



Global Warming's Unequal Impacts

<http://ag.ca.gov/globalwarming/unequal.php>



Global warming will not affect everyone equally. As the Chair of the Intergovernmental Panel on Climate Change for the United Nations has stated, “[i]t is the poorest of the poor in the world, and this includes poor people even in prosperous societies, who are going to be the worst hit.” 1 The adverse impacts often will fall hardest on people of color and poor people because they are concentrated in areas that will bear the brunt of climate change, and because they are often the least able financially to deal with its impacts. They are also the ones who are least responsible for climate change.

Predictions overtaken by events



David Adam, environment correspondent

The Guardian

Tuesday October 23 2007

The Stern review last October was portrayed as the last word on climate change and the final push needed to get the world to act. It warned that action was needed within 10 to 20 years. But Stern was based on obsolete science, and the UN's Intergovernmental Panel on Climate Change raised the stakes this year, when it said steps to curb emissions were needed by 2015 if the worst effects of global warming were to be avoided. Now, even those worrying predictions look optimistic.

Since the IPCC report was published, a number of polar experts have warned that the Arctic and Antarctic are losing ice much faster than thought, and that sea level rise could be more severe than the IPCC suggested. A number of reports, yesterday's included, have suggested scientists have underestimated the speed and strength with which serious climate change will strike.

California Acts



- Takes leadership on greenhouse gas reductions by deciding to adopt a cap and a plan for how to achieve it

September 27, 2006



- AB 32 (Fabian Nunez and Fran Pavely)
- The California Global Warming Solutions Act of 2006
- Ending Global Warming

Scoping Plan



38561. (a) On or before January 1, 2009, the state board shall prepare and approve a scoping plan, as that term is understood by the state board, for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions from sources or categories of sources of greenhouse gases by 2020 under this division.

AB 32 says



- H & S Code § 38501

(h) It is the intent of the Legislature that the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases established pursuant to this division in a manner that minimizes costs and maximizes benefits for California's economy, improves and modernizes California's energy infrastructure and maintains electric system reliability, maximizes additional environmental and economic co-benefits for California, and complements the state's efforts to improve air quality.

Table 2: Recommended Greenhouse Gas Reduction Measures

Recommended Reduction Measures	Reductions Counted Towards 2020 Target (MMTCO ₂ E)
ESTIMATED REDUCTIONS RESULTING FROM THE COMBINATION OF CAP-AND-TRADE PROGRAM AND COMPLEMENTARY MEASURES	146.7
California Light-Duty Vehicle Greenhouse Gas Standards <ul style="list-style-type: none"> • Implement Pavley standards • Develop Pavley II light-duty vehicle standards 	31.7
Energy Efficiency <ul style="list-style-type: none"> • Building/appliance efficiency, new programs, etc. • Increase CHP generation by 30,000 GWh • Solar Water Heating (AB 1470 goal) 	26.3
Renewables Portfolio Standard (33% by 2020)	21.3
Low Carbon Fuel Standard	15
Regional Transportation-Related GHG Targets ¹⁶	5
Vehicle Efficiency Measures	4.5
Goods Movement <ul style="list-style-type: none"> • Ship Electrification at Ports • System-Wide Efficiency Improvements 	3.7
Million Solar Roofs	2.1
Medium/Heavy Duty Vehicles <ul style="list-style-type: none"> • Heavy-Duty Vehicle Greenhouse Gas Emission Reduction (Aerodynamic Efficiency) • Medium- and Heavy-Duty Vehicle Hybridization 	1.4
High Speed Rail	1.0
Industrial Measures (for sources covered under cap-and-trade program) <ul style="list-style-type: none"> • Refinery Measures • Energy Efficiency & Co-Benefits Audits 	0.3
Additional Reductions Necessary to Achieve the Cap	34.4
ESTIMATED REDUCTIONS FROM UNCAPPED SOURCES/SECTORS	27.3
High Global Warming Potential Gas Measures	20.2
Sustainable Forests	5.0
Industrial Measures (for sources not covered under cap and trade program) <ul style="list-style-type: none"> • Oil and Gas Extraction and Transmission 	1.1
Recycling and Waste (landfill methane capture)	1.0
TOTAL REDUCTIONS COUNTED TOWARDS 2020 TARGET	174

International Trading Scheme



Executive Summary

Proposed Scoping Plan

Working with the Western Climate Initiative

California is working closely with six other states and four Canadian provinces in the Western Climate Initiative (WCI) to design a regional greenhouse gas emissions reduction program that includes a cap-and-trade approach. California's participation in WCI creates an opportunity to provide substantially greater reductions in greenhouse gas emissions from throughout the region than could be achieved by California alone. The larger scope of the program also expands the market for clean technologies and helps avoid leakage, that is, the shifting of emissions from sources within California to sources outside the state.

With World Wide Offsets



Sector Overview and Emission Reduction Strategies

Cap and Trade

C-22

economy, it is important that meaningful emission reductions are achieved from actions taken at capped facilities throughout the program. The WCI program design states that no more than 49 percent of each Partner jurisdiction's total emission reductions come from offsets or other trading systems (see Figure 2). This requirement ensures that a majority (at least 51 percent) of emissions reduction come from within capped sectors. Furthermore each Partner jurisdiction has the opportunity to establish a tighter limit within its jurisdiction. ARB will establish a limit of at most 49 percent and apply this limit to each of the compliance period and will work with our WCI Partner jurisdictions to do the same to ensure real reductions from capped sectors within the first compliance period.

C-23

California unilaterally. Because California is part of the global economy, our demand for manufactured goods create greenhouse gas emissions outside the boundaries of our State. California is committed to working at the international level to reduce greenhouse gas emissions globally and finding ways to support the adoption of low-carbon technologies and sustainable development in the developing world. Therefore, ARB would work in the rulemaking with our WCI Partner jurisdictions to establish an offsets program without geographic restrictions that includes sufficiently stringent criteria for creating offset credits to ensure the overall environmental integrity of the program.

EJAC Comments and Recommendations

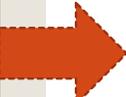


- Committee met 4 times to discuss Scoping Plan
- Heard testimony regarding the past failures of trading programs
- Adopted in August
 - 3 comments
 - 4 recommendations
- The Committee will be updating its Comments and Recommendations to address the Proposed Scoping Plan

EJAC Comments



1. California should establish a three-pronged approach for addressing greenhouse gases: 1) adopting standards and regulations; 2) providing incentives; and 3) putting a price on carbon via a carbon fee. The three pieces support one another and no single prong can work without equally robust support from the others;



2. The Committee supports, some with modification, all but three of the measures outlined by staff (Cap-and-Trade Program linked to the Western Climate Initiative, Low Carbon Fuel Standard, and the Sustainable Forest Target);



3. The Committee continues to be concerned that the public health and non-economic benefits and impacts of the Plan have not been adequately presented, analyzed, or incorporated into the Scoping Plan.

EJAC Recommendations

August 2008



1. To ensure that the overall GHG reduction targets are met in 2020, ARB should identify emissions reductions that total a significant number more than the minimum necessary reductions to allow for inevitable losses during rule-making and implementation phases.
2. ARB should require all emissions reductions and clean renewable energy infrastructure be achieved in-state or provide a clear analysis of how encouraging California's capital to be exported to other states benefits or harms California's residents.
3. To ensure the Air Resources Board can truly understand the policy choices that lay before California, staff should provide a path for reaching the 427 MMTCO₂E 2020 target which does not rely on using trading to achieve the goal.
4. ARB should add as proposed measures many of the measures currently labeled as "under consideration" in the Draft Scoping Plan including:
 - a. Feebates for light duty vehicles
 - b. Additional Electricity Energy Efficiency
 - c. Additional Natural Gas Energy Efficiency
 - d. Expansion of Million Solar Roofs
 - e. Refinery Energy Efficiency Process Improvement
 - f. Removal of Methane Exemption from Existing Refinery Regulations
 - g. Oil & Gas Extraction GHG Emission Reduction
 - h. GHG Leak Reduction from Oil & Gas Transmission
 - i. Industrial Boiler Efficiency
 - j. Stationary Internal Combustion Engine Electrification
 - k. Off-Road Equipment

The Environmental Justice Advisory Committee (EJAC) also supports an approach that includes a price on carbon along with complementary measures. Although the EJAC recommends that the carbon price be established through a carbon fee rather than through a cap-and-trade program, they recognize the importance of mutually supportive policies:

Trading and Offsets: The Fiction of Progress



- Trading Schemes Don't Work and Crowds Out Things that Could Work
- Trading Stifles Innovation
- Offsets Just Makes it Worse

38561.

(c) In making the determinations required by subdivision (b), the state board shall consider all relevant information pertaining to greenhouse gas emissions reduction programs in other states, localities, and nations, including the northeastern states of the United States, Canada, and the European Union.

Los Angeles Times

A WARMING WORLD

Time to tax carbon

A carbon tax is the best, cheapest and most efficient way to combat cataclysmic climate change.

May 28, 2007

IF YOU HAVE KIDS, take them to the beach. They should enjoy it while it lasts, because there's a chance that within their lifetimes California's beaches will vanish under the waves.



And yet for all its benefits, cap-and-trade still isn't the most effective or efficient approach. That distinction goes to Method No. 3: a carbon tax. While cap-and-trade creates opportunities for cheating, leads to unpredictable fluctuations in energy prices and does nothing to offset high power costs for consumers, carbon taxes can be structured to sidestep all those problems while providing a more reliable market incentive to produce clean-energy technology.

THE WALL STREET JOURNAL.

Cap and Charade

The political and business self-interest behind carbon limits.

Saturday, March 3, 2007 12:01 a.m.

The emerging alliance of business and environmental special interests may well prove powerful enough to give us cap-and-trade in CO₂. It would make Hollywood elites feel virtuous, and it would make money for some very large corporations. But don't believe for a minute that this charade would do much about global warming.

Los Angeles Times

Kyoto's failure haunts new U.N. talks

Negotiations begin today in Bali for another treaty to curb global warming. This one will have to be more than a well-intended symbol.

By Alan Zarembo

Los Angeles Times Staff Writer

December 3, 2007

In the Kyoto Protocol's accounting of greenhouse gases, the former Eastern bloc is a smashing success.

Russia: Down 29% in carbon dioxide emissions since 1990.

Romania: A 43% reduction.

Latvia: A resounding 60% drop.

Reductions such as those across Eastern Europe were the main reason the United Nations was recently able to report a 12% drop in emissions from the accord's industrialized countries over the 1990-2005 period.

It was an illusion.

The progress wasn't due to a global embrace of green power, but rather to the 1991 collapse of the Soviet Union, which shut down smoke-belching factories across the region.

"Their emissions dropped before Kyoto even existed," said Michael Gillenwater, a climate policy researcher at Princeton University.



RECLAIM means

- **A new way of doing things**

RECLAIM is a revolutionary new approach to air quality regulation. This program has the potential to clean up our air more effectively than traditional regulations by harnessing the power of the marketplace. For businesses, RECLAIM means greater flexibility and a financial incentive to reduce air pollution beyond what clean air laws and traditional command-and-control rules require. For the public, RECLAIM means guaranteed annual reductions in air pollution until public health standards are achieved.

- **Clean air**

This region, the smoggiest in the nation, is required to achieve federal clean air health standards by 2010. Because RECLAIM offers financial incentives to reduce emissions, it is expected to reach that goal at a lower cost with increased flexibility. It requires industries and businesses to cut their emissions by a specific amount each year, resulting in a 70% reduction for nitrogen oxides (NO_x) and a 60% reduction for sulfur oxides (SO_x)” by 2003.”

Final 2007 AQMP

Through the 2007 AQMP and accompanying Resolution of the Governing Board adopting the 2007 AQMP, the District is formally requesting CARB to submit a request to EPA for a voluntary reclassification of the South Coast Air Basin from “Severe-17” to “Extreme” nonattainment for ozone and that the EPA Administrator grant such request upon receipt.. Through this request, the District is also seeking an extension of the ozone attainment date from June 15, 2021 to June 15, 2024.

RGGI Inc.



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For Immediate Release
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RGGI States' First CO₂ Auction Off to a Strong Start
*First-in-the Nation Auction a Success as all Allowances Sold
at a Clearing Price of \$3.07*

(NEW YORK, NY) – The states participating in the Regional Greenhouse Gas Initiative (RGGI) today announced that the auctioning of carbon dioxide (CO₂) emissions allowances in North America is off to a strong start. All of the 12,565,387 allowances offered for sale on September 25, 2008 were sold at a clearing price of \$ 3.07 per allowance.

September 16, 2008

THE ENERGY CHALLENGE

States Aim to Cut Gases by Making Polluters Pay

By [FELICITY BARRINGER](#) and KATE GALBRAITH

The concept has been praised by environmentalists and state officials. But the emissions cap was based on overestimates of carbon dioxide output, which has dropped sharply from 2005 to 2006 and is on a lower trajectory than anticipated.

“The supply of allowances is more than what the market needs,” said Milo Sjardin, head of the North America division of New Carbon Finance, a research and analysis firm. “Prices are not going to be high, not for the foreseeable future.” He also noted that the market was also “not going to produce a lot of emission reductions” as long as the supply of allowances outstrips utilities’ need.

November 2, 2007, 8:00 am

Bloomberg Calls for Tax on Carbon Emissions

To raise the cost of carbon, we can take either an indirect approach — creating a cap-and-trade system of pollution credits — or a direct approach: charging a fee for greenhouse gas pollutants. The question is: Which approach would be more effective? I've talked to a number of economists on this issue, people like [Gilbert Metcalf](#) at the [National Bureau of Economic Research](#), and every one of them says the same thing: A direct fee is the better approach — but for the politics. There's that phrase again: "But for the politics!"

Cap-and-trade is an easier political sell because the costs are hidden — but they're still there. And the payoff is more uncertain. Because even though cap-and-trade is intended to incentivize investments that reduce pollution, the price volatility for carbon credits can discourage investment, since an investment that might make sense if carbon credits are trading at \$50 a ton may not make sense at \$30 a ton. This price volatility can also lead to real economic pain. For instance, if 100 companies release higher emissions than they had planned for, they all have to buy more credits, which can create a very expensive bidding war. That's exactly what's happening in parts of Europe right now, and it's going to cost companies there billions of dollars.

II. Recommended Actions

Proposed Scoping Plan

The development of a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system is a central feature of the overall recommendation. This program will lead to prices on greenhouse gas emissions, prices that will spur reductions in greenhouse gas emissions throughout the California economy, through application of existing technologies and through the creation of new technological and organizational options. The rationale for combining a cap-and-trade program with complementary measures was outlined by the Market Advisory Committee, which noted the following in its recommendations to the ARB:

Before setting out the key design elements of a cap-and-trade program it is important to explain how the proposed emissions trading approach relates to other policy measures. The following considerations seem especially relevant:

- The emissions trading program puts a cap on the total emissions generated by facilities covered under the system. Because a certain number of emissions allowances are put in circulation in each compliance period, this approach provides a measure of certainty about the total quantity of emissions that will be released from entities covered under the program.
- The market price of emissions allowances yields a meaningful price signal for GHG emissions across the economy. This price signal provides incentives for the market to find new ways to reduce emissions.
- By itself, a cap-and-trade program alone will not deliver the most efficient mitigation outcome for the state. The price of the economic and public policy basis for other policies that can accompany an emissions trading system.¹⁷

Acid Rain/Sox Trading Program



- Pointed to as the model of success for trading
- Program fundamentally different from what is proposed here:
 - Allocation for cap based upon a standard established in the Clean Air Act
 - There was a clear path to compliance—essentially facilities converted to low-sulfur coal or added already available scrubbers
 - There were no international offsets
 - Cost was lower than the wild-eyed claims of industry's worst case predictions



CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

A

CBO STUDY

FEBRUARY 2008

Policy Options for Reducing CO₂ Emissions

Results of CBO's Analysis

The policy options described above differ in their potential to reduce emissions efficiently, to be implemented with relatively low administrative costs, and to create incentives for emission reductions that are consistent with incentives in other countries. CBO draws the following conclusions:

- A tax on emissions would be the most efficient incentive-based option for reducing emissions and could be relatively easy to implement. If it was coordinated among major emitting countries, it would help minimize the cost of achieving a global target for emissions by providing consistent incentives for reducing emissions around the world. If other major nations used cap-and-trade programs rather than taxes on emissions, a U.S. tax could still provide roughly comparable incentives for emission reductions if the tax rate each year was set to equal the expected price of allowances under those programs. (See Summary Table 1 for a qualitative comparison of selected policies.)

Crowding out things that would work



Proposed Scoping Plan

Two measures would be developed for oil refineries. The first would limit the greenhouse gas emissions from refinery flares while preserving flaring as needed for safety reasons. The second would remove the current fugitive methane exemption in most refinery Volatile Organic Compounds (VOC) regulations. This exemption was established because methane does not appreciably contribute to urban smog, but is inappropriate given the role that methane plays in global warming. ARB believes these measures would provide cost-effective greenhouse gas, criteria pollutants and air toxics emissions reductions. Most combustion and other process emissions at refineries would be governed by the cap-and-trade program. As with the oil and gas production measures above, the need for these measures would be evaluated if fugitive methane is included in the WCI cap-and-trade program.

II. Recommended Actions

I think they left off the “re-” part

II. Recommended Actions

Proposed Scoping Plan

Once California links with the other WCI Partner jurisdictions, allowances could be traded across state and provincial boundaries. As a result of trading, emissions in a state may vary from its allowance budget, although total regional emissions will not exceed the regional cap.



Markets Are Not Magic

The idea that government should serve a public interest largely distinct from private interests has suffered a decline in prestige in the face of an assault from the law and economics movement. We need to pay less attention to hypothetical concepts of "efficiency" and more attention to the question of how to make environmental law a source of demand for environmental innovation. Regulators must see themselves not as balancers of costs and benefits, but as catalysts for change

DAVID M. DRIESEN

Trading thin air

May 31st 2007

From The Economist print edition

The carbon market is working, but not bringing forth as much innovation as had been hoped

That helped raise the carbon price. So did the commission's decision to slash national governments' planned allocations to industry for the period 2008-12. The price of phase two allowances has risen to a level high enough to get some power generators to switch from coal to gas at the margin when the gas price is moderate; but not high enough to get them to replace coal-fired power stations with gas-fired ones—nor to encourage much of the innovation that carbon trading had been expected to spawn.

South Coast Air Basin NSR Offsets

The recent cost for PM10 ERCs range as high as

\$247,000 per pound per day.

DECLARATION OF MOHSEN NAZEMI

A Realistic Policy on International Carbon Offsets

Michael W. Wara and David G. Victor

A working paper from two senior Stanford University academics examined more than 3,000 projects applying for or already granted up to \$10bn of credits from the UN's CDM funds over the next four years, and concluded that the majority should not be considered for assistance. "They would be built anyway," says David Victor, law professor at the Californian university. "It looks like between one and two thirds of all the total CDM offsets do not represent actual emission cuts."

Working Paper #74

April 2008

June 9, 2008

Kyoto's Great Carbon Offset Swindle

by Patrick McCully, Executive Director, International Rivers

The world's biggest carbon offset market, the Kyoto Protocol's Clean Development Mechanism (CDM), is a global shell game that is increasing greenhouse gas emissions behind the guise of promoting sustainable development. The misguided mechanism is handing out billions of dollars to chemical, coal and oil corporations and the developers of destructive dams -- in many cases for projects they would have built anyway.

What Do We Want?



A program that works.

This plan reflects the input of Californians at every level. Our partners at other State agencies, in the legislature, and at the local government level have provided key input. We've met with members of community groups to address environmental justice issues, with representatives of California's labor force to ensure that good jobs accompany our transition to a clean energy future, and with representatives of California's small businesses to ensure that this vital part of our state's economic engine flourishes under this plan. We've heeded the advice of public health and environmental experts throughout the state to design the plan so that it provides valuable co-benefits in addition to cutting greenhouse gases. We've also worked with representatives from many of California's leading businesses and industries to craft a plan that works in tandem with the State's efforts to continue strong economic growth.

There is a Better Way



- Adopt the Plan in December without the cap-and-trade program connected to the Western Climate Initiative
- Ask staff to undertake further analysis of the trading proposal and provide a more robust presentation of the trading measure, the alternatives, and the impacts of those approaches as outlined in our Committee's recommendations



“Just doing anything
is not the same thing
as doing something”

Nettie Johnson
Aka “Momma”