

Environmental Justice Advisory
Committee on the
Implementation of the Global
Warming Solutions Act of 2006
(AB 32)

Recommendations on ARB's
Proposed Early Action
Measures



Early Action Measures

38560. The state board shall adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions from sources or categories of sources, subject to the criteria and schedules set forth in this part.

38560.5. (a) On or before June 30, 2007, the state board shall publish and make available to the public a list of discrete early action greenhouse gas emission reduction measures that can be implemented prior to the measures and limits adopted pursuant to Section 38562.

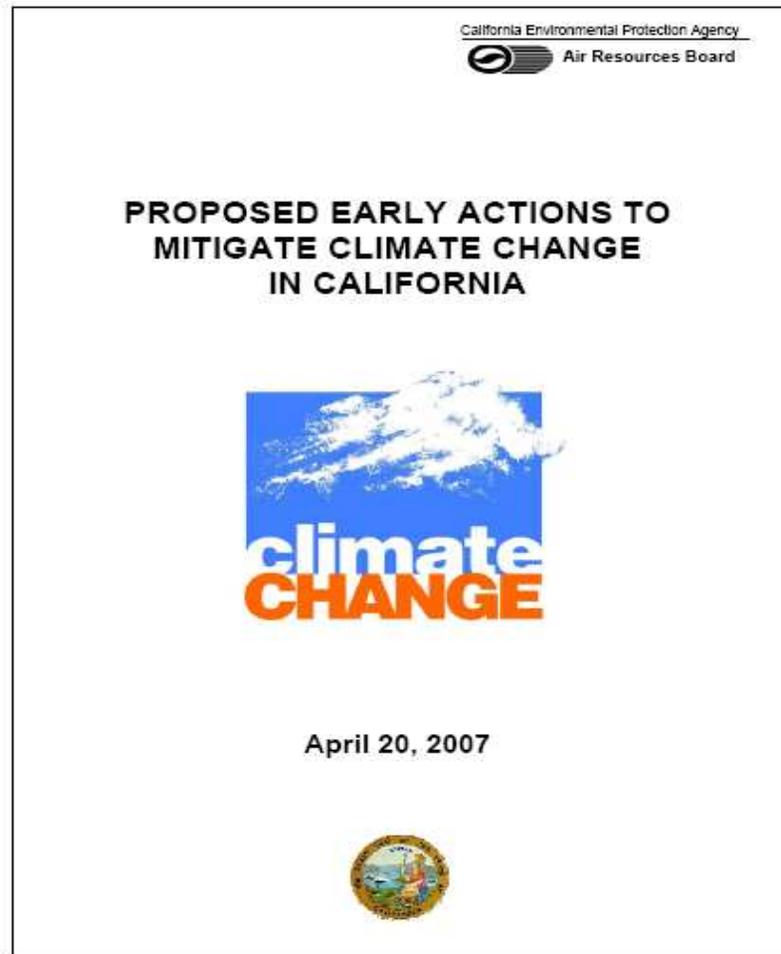
(b) On or before January 1, 2010, the state board shall adopt regulations to implement the measures identified on the list published pursuant to subdivision (a).

(c) The regulations adopted by the state board pursuant to this section shall achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions from those sources or categories of sources, in furtherance of achieving the statewide greenhouse gas emissions limit.

(d) The regulations adopted pursuant to this section shall be enforceable no later than January 1, 2010.



Background





Background

**EARLY ACTIONS TO REDUCE GHGS
CALENDAR YEARS 2007, 2008, 2009**

ARB MEASURES

GROUP 1

Discrete Early Action Measures

GROUP 2

Additional Greenhouse Gas
Reduction Strategies

GROUP 3

Criteria and Air Toxic
Control Measures

**CLIMATE ACTION TEAM
MEASURES**

(See separate Cal/EPA report)

- Group 1 –
3 Measures
- Group 2–
23 Measures
- Group 3–
10 Measures



Work Done by the Committee

- Formed Subcommittee during last meeting
- Reviewed ARB's report
- Reviewed materials received in response to the following request

You may recall that our Committee decided to form a sub-committee to review the proposed early action measures so that we could provide recommendations to ARB regarding this important decision.

We have heard from several stakeholders that they believe they submitted letters or suggestions through oral public comment that do not seem to be reflected in the document "Proposed Early Actions to Mitigate Climate Change in California" ("PEA Report") released by ARB. In order to address these comments, I would appreciate it if you could send to me copies of all of the letters and records of public comment that were used by ARB in developing the PEA Report. I would appreciate it if you would send them as PDF files if possible,



Committee Meetings

- *May 17, 2007* Subcommittee on Early Action Measures
- *May 23, 2007* Committee on Early Action Measures



Criteria for Evaluating Early Action Measures

- Is the measure technologically feasible?
- Does the measure cause increases in criteria or air toxics emissions (backsliding)?
- Are there co-pollutant reduction benefits from the measure?
- Does the measure have disproportionate (positive or negative) impacts on communities already facing unacceptably high environmental burdens?



Categories of Committee Recommendations

- Recommend for Early Action (25 Measures-20 from Group 1 and 2 plus 5 added by Committee based on letters submitted to ARB)
- ARB did not supply the Committee with sufficient information to formulate a recommendation on this measure (6 Measures)
- The Committee agrees with ARB that this is not an Early Action Measure, but should be proposed /developed (3 Measures)
- Remove from Early Action list (2 Measures)
- The Committee supports this non-regulatory action (2 Measures)
- Support for voluntary program (1 Measure -- Electrification of stationary agricultural engines)
- Concern about possible action (1 Measure – Forestry protocol)
- Uncategorized (1 Measure -- Specifications for commercial refrigeration)



**ARB Discrete Early Action Measures
as proposed by
the Environmental Justice Advisory Committee
on the Implementation of the Global Warming Solutions Act of 2006**

Number	Description
1	Improved landfill methane capture
2	Manure management ¹
3	Reduce venting/leaks from oil and gas systems
4	Heavy-duty vehicle emissions, efficiency improvements ²
5	Cool automobile paints ³
6	Port electrification
7	Transportation refrigeration, electric standby
8	Truck stop electrification with incentives for truckers
9	Tire inflation program
10	Require low GWP refrigerants for new MVACs ⁴
11	Add AC leak tightness test and repair to Smog Check
12	Wafflemat system for concrete slab foundations
13	Demonstrate use of shoreside generators as bridge to electrical hook-up
14	Green ship incentive program
15	Anti-idling requirement for cargo handling equipment at ports
16	Require the electrification of airport ground support equipment
17	Require the electrification of construction equipment at urban sites
18	Adopt a regulation and or incentive program to take advantage of emerging hybrid technology for medium duty delivery trucks
19	Relatively inexpensive energy savings measures with short pay back times for cement industry
20	Explore a greenhouse gas and mercury emission performance standard for cement facilities equivalent to the level achievable through conversion from coal to natural gas
21	Relatively inexpensive energy savings measures with short pay back times for fossil fuel power plants built prior to 1980 ⁵
22	Relatively inexpensive energy savings measures with short pay back times for refineries ⁶
23	Accelerate the replacement of cargo handling equipment at ports ⁷
24	Enclose dairy barns to capture methane ⁸
25	Adopt South Coast and San Joaquin rules on enclosed composting facilities statewide ⁹

New but
Capture
conversation





Remove from Early Action list (2 Measures)

- Low Carbon Fuel Standard
- Reduction of HFC 134a emissions from non-professional servicing of cars



Low Carbon Fuel Standard

The LCFS as an early action would establish a “carbon content” standard for transportation fuels linked to the fuel’s impact on GHG emissions. The goal is to reduce the “carbon intensity” of California’s vehicle fuel by at least 10 percent by 2020. Carbon intensity refers to GHG emissions per unit of energy, in units such as grams of CO₂E per British Thermal Unit, used to power a vehicle.

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What is the Low Carbon Fuel Standard?

-- DRAFT --

A Low-Carbon Fu
Part 1:

BOX 1: What if the LCFS were an absolute target instead of an intensity target?

Given BAU projections of increases in VMT of 1.76% per year in California between 2003 and 2025², California can expect an increase in VMT of approximately 25% between 2007 and 2020. Absent any change in average vehicle fuel efficiency, this increase in total driving would result in a 25% increase in fuel use. A 10% reduction in carbon intensity would result in an increase of 13% in absolute emissions³. Under the same assumptions, if the LCFS were defined as an absolute 10% emissions reduction, it would in effect require a reduction in carbon intensity of 31% by 2020⁴.

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What does that mean?

Table 1
Group 1 – ARB Discrete Early Action Measures
Per Health & Safety Code Section 38560.5

Number	Sector	Description	2020 Reductions (MMT CO₂E)
1-1	Transportation	Low Carbon Fuel Standard (LCFS)	10-20
1-2	Transportation	Reduction of HFC-134a emissions from non-professional servicing of motor vehicle air conditioning systems (MVACs)	1-2
1-3	Waste	Improved landfill methane capture	2-4
Group 1 Total Reductions			13-26

Not an reduction to below 1990 baseline



Possible Impacts of LCFS

Biofuels pose risks, U.N. reports

From the Associated Press

May 12, 2007

Biofuels like ethanol can help reduce global warming and create jobs for the rural poor, but the benefits may be undone by serious environmental problems and higher food prices, the U.N. has concluded in its first major report on bioenergy.

The report raised alarms about the potential negative effect of biofuels, just days after a climate conference in Bangkok said the world had the money and technology to stabilize global warming.

Biofuels, made from agricultural products such as corn, palm oil and sugar cane, have been seen by many as a cleaner, cheaper way to meet the world's soaring energy needs.

But environmentalists warn that biofuels may be as damaging as fossil fuels — a concern reflected throughout the report, released Tuesday in New York by U.N.-Energy, a consortium of 20 U.N. agencies and programs.

Although the report says bioenergy represents an "extraordinary opportunity" to reduce greenhouse gas emissions, it warns that "rapid growth in liquid biofuel production will make substantial demands on the world's land and water resources at a time when demand for both food and forest products is also rising rapidly."

Changes in the carbon content of soils and carbon stocks in forests might undercut some or all of the benefits of the greenhouse gas reductions, it said.



Possible Impacts of LCFS

A Culinary and Cultural Staple in Crisis

Mexico Grapples With Soaring Prices for Corn -- and Tortillas

By Manuel Roig-Franzia
Washington Post Foreign Service
Saturday, January 27, 2007; A01

NEZAHUALCOYOTL, [Mexico](#) -- Thick, doughy tortillas roll hot off the conveyor belt all day at Aurora Rosales's little shop in this congested city built on a dry lake bed east of Mexico City.

Using cooking techniques that date to the Mayan empire, Rosales has never altered her recipe. Nor did her father, grandfather or great-grandfather.

On good days, the neighbors line up for her tortillas.

But these are not good days, and sometimes hours pass without any customers.

Mexico is in the grip of the worst tortilla crisis in its modern history. Dramatically rising international corn prices, spurred by demand for the grain-based fuel ethanol, have led to expensive tortillas. That, in turn, has led to lower sales for vendors such as Rosales and angry protests by consumers.

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Advertise
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Possible Impacts of LCFS

Ethanol vehicles pose a significant risk to human health, study finds

Ethanol is widely touted as an eco-friendly, clean-burning fuel. But if every vehicle in the United States ran on fuel made primarily from ethanol instead of pure gasoline, the number of respiratory-related deaths and hospitalizations would likely increase, according to a new study by Stanford University atmospheric scientist Mark Z. Jacobson. His findings are published in the April 18 online edition of the journal *Environmental Science & Technology (ES&T)*.

"Ethanol is being promoted as a clean and renewable fuel that will reduce global warming and air pollution," said Jacobson, associate professor of civil and environmental engineering. "But our results show that a high blend of ethanol poses an equal or greater risk to public health than gasoline, which already causes significant health damage."



Reduction of HFC134a from Non-Professional Servicing of Cars

- We recommend instead that ARB undertake a broader review of possible HFC reductions and strongly encourage a focus on larger sources of HFCs such as refrigerants in de-commissioned cargo containers, commercial and residential HVAC system leakage, auto dismantling/crushing facilities (i.e., requiring HFCs be removed from cars prior to scrappage).



Reduction of HFC134a from Non-Professional Servicing of Cars

- Given that this proposed measure is so regressive and there seem to be other viable, higher reduction measures which ARB could undertake which would not be regressive, this measure should be replaced with one (or more) of the other HFC134a reduction approaches suggested to ARB by this Committee and others.
- Detection and repair of leaking auto air conditioning systems is a reasonable goal, however, this measure as proposed seems unlikely to achieve that goal. Instead, the measure seems to result in placing a large burden on low-income people and people of color who are likely to disproportionately rely upon home-based auto repair and stop-gap repair options such as using the small can of HFC134a to fill leaking air conditioning units.



Proposed Additions

21	Relatively inexpensive energy savings measures with short pay back times for fossil fuel power plants built prior to 1980 ⁵
22	Relatively inexpensive energy savings measures with short pay back times for refineries ⁶
23	Accelerate the replacement of cargo handling equipment at ports ⁷
24	Enclose dairy barns to capture methane ⁸
25	Adopt South Coast and San Joaquin rules on enclosed composting facilities statewide ⁹

These measures were not included in the CARB report on Early Action Measures, but was received by CARB and the Committee. The measures were evaluated and recommended as Early Action Measures because they met the criteria established by the Committee.



General Comments

38560. The state board shall adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions from sources or categories of sources, subject to the criteria and schedules set forth in this part.

The public and this Committee should have access to information so that we can make our own determinations about the reasonableness and completeness of the policies crafted to meet the requirements of AB 32.



General Comments

- Several people contacted us to report that comments submitted to ARB (either oral or written) were not reflected in the report
- No apparent method to track oral comments
- No information provided to the Committee on several of the measures
- Unclear why some measures in Attachment B of ARB Report were forwarded to CAT
- Serious lack of transparency in process