California Environmental Protection Agency

Air Resources Board

LOCATION:
Air Resources Board
Byron Sher Auditorium, Second Floor
1001 I Street
Sacramento, California 95814

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website: http://www.sacrt.com
(This facility is accessible to persons with disabilities.)

PUBLIC MEETING AGENDA

NOTICE OF POSTPONEMENT: THE PUBLIC MEETING TO CONSIDER APPROVAL OF THE PROPOSED STATE STRATEGY FOR THE CALIFORNIA STATE IMPLEMENTATION PLAN (SIP) FOR THE FEDERAL 8-HOUR OZONE AND PM2.5 STANDARDS (PROPOSED STATE STRATEGY) HAS BEEN POSTPONED UNTIL SEPTEMBER 27, 2007

At its June 22, 2007, public meeting the Board received comments on the proposed State Strategy. The Board then continued its consideration to allow staff to investigate whether a postponement until September 2007 would result in potential adverse impacts on transportation planning activities in the San Joaquin Valley Air Basin. Staff has completed its investigation and determined that this delay will not adversely impact these activities. Therefore, the proposed State Strategy has been postponed until the Board's September 27, 2007 meeting, at which the proposed SIP for the South Coast Air Basin is also scheduled to be considered.

July 26, 2007
9:00 a.m.

Item #

07-8-1: Health Update: Short-Term PM Exposure and Acute Heart Disease

Long-term exposure to ambient particulate matter (PM) has been linked with cardiovascular disease and mortality. Short-term particulate matter exposure also may play a role in triggering acute heart disease events. The publication highlighted in this health update will demonstrate how short-term particulate exposures may contribute to acute coronary events among patients with existing coronary artery disease. This study provides support for the need for increased public efforts to reduce ambient levels of PM for improved public health.

07-5-6: CONTINUED FROM MAY 25 – Public Hearing to Consider the Proposed Regulation for In-Use Off-Road Diesel Vehicles

The Board will conduct a continuation of a public hearing to consider adopting a regulation to reduce emissions of diesel particulate matter (diesel PM) and oxides of nitrogen (NOx) from in-use off-road diesel vehicles that operate in California.

July 27, 2007
8:30 a.m.

Item #

07-8-4: Public Meeting to Consider Appointment to the Research Screening Committee

Staff will recommend an appointment to the Board's Research Screening Committee. The committee reviews and recommends air pollution research projects to the Board.

07-8-2: Climate Change: Presentation of Recommendations from the Market Advisory Committee

The Market Advisory Committee (MAC) was created by Cal/EPA Secretary Linda Adams pursuant to Governor Arnold Schwarzenegger's Executive Order S-20-06. Committee members were appointed based on their experience in the development and implementation of market-based emission reduction programs. The Executive Order charged the Committee with developing recommendations by June 30, 2007 for ARB's consideration on the design of a market-based compliance program to reduce greenhouse gas emissions.

On June 30, the MAC released its report, "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California." This report reflects both areas of consensus and divergence among Committee members. Where consensus was not reached, the report describes the options available and the considerations for choosing among various approaches.

The recommendations of the MAC are not being presented to the Board for approval or disapproval at this time. Rather, the report provides information for consideration in the development of the scoping plan. ARB staff will present a schedule for the development of the scoping plan.

07-8-3: Update the Board on the 2005 ARB/Railroad Statewide Agreement

Staff will provide an update on the implementation efforts for the Statewide Rail Yard Agreement. The last update was presented at the January 25, 2007 Board meeting.

CLOSED SESSION – LITIGATION

The Board will hold a closed session as authorized by Government Code section 11126(e) to confer with, and receive advice from, its legal counsel regarding the following pending litigation:

Central Valley Chrysler-Jeep, Inc. et al. v. Witherspoon, U.S. District Court (E.D. Cal. – Fresno), No. CIV-F-04-6663 REC LJO.

Fresno Dodge, Inc. et al. v. California Air Resources Board and Witherspoon, Superior Court of California (Fresno County), Case No. 04CE CG03498.

General Motors Corp. et al. v. California Air Resources Board and Witherspoon, Superior Court of California (Fresno County), No. 05CE CG02787.

OPPORTUNITY FOR MEMBERS OF THE BOARD TO COMMENT ON MATTERS OF INTEREST.

Board members may identify matters they would like to have noticed for consideration at future meetings and comment on topics of interest; no formal action on these topics will be taken without further notice.

OPEN SESSION TO PROVIDE AN OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE BOARD ON SUBJECT MATTERS WITHIN THE JURISDICTION OF THE BOARD.

Although no formal Board action may be taken, the Board is allowing an opportunity to interested members of the public to address the Board on items of interest that are within the Board's jurisdiction, but that do not specifically appear on the agenda. Each person will be allowed a maximum of three minutes to ensure that everyone has a chance to speak.

TO SUBMIT WRITTEN COMMENTS ON AN AGENDA ITEM IN ADVANCE OF THE MEETING GO TO:
http://www.arb.ca.gov/lispub/comm/bclist.php

IF YOU HAVE ANY QUESTIONS,
PLEASE CONTACT THE CLERK OF THE BOARD
1001 I Street, 23rd Floor, Sacramento, CA 95814

(916) 322-5594
FAX: (916) 322-3928
ARB Homepage: www.arb.ca.gov

To request special accommodation or language needs, please contact the following:

- **For individuals with sensory disabilities, this document is available in Braille, large print, audiocassette or computer disk. Please contact ARB's Disability Coordinator at 916-323-4916 by voice or through the California Relay Services at 711, to place your request for disability services.**
- **If you are a person with limited English and would like to request interpreter services to be available at the Board meeting, please contact ARB's Bilingual Manager at 916-323-7053.**

THE AGENDA ITEMS LISTED ABOVE MAY BE CONSIDERED IN A DIFFERENT ORDER AT THE BOARD MEETING. THOSE ITEMS ABOVE THAT ARE NOT COMPLETED ON JULY 26 WILL BE HEARD BEGINNING AT 8:30 A.M. ON JULY 27.

SMOKING IS NOT PERMITTED AT MEETINGS OF THE CALIFORNIA AIR RESOURCES BOARD

California Environmental Protection Agency

Air Resources Board

PUBLIC MEETING AGENDA

LOCATION:
Air Resources Board
Byron Sher Auditorium, Second Floor
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&
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NOTICE OF CONTINUATION

TITLE 13. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER THE ADOPTION OF A PROPOSED REGULATION FOR IN-USE OFF-ROAD DIESEL VEHICLES

The Air Resources Board (the Board or ARB) will conduct a continuation of a public hearing at the time and place noted below to consider adopting a regulation to reduce emissions of diesel particulate matter (diesel PM) and oxides of nitrogen (NOx) from in-use off-road diesel vehicles that operate in California.

DATE: July 26, 2007

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium, Second Floor
1001 I Street
Sacramento, California 95814

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., July 26, 2007, and may continue at 8:30 a.m., July 27, 2007. This item may not be considered until July 27, 2007. Please consult the agenda for the meeting, which will be available at least 10 days before July 26, 2007, to determine the day on which this item will be considered.

For individuals with sensory disabilities, this document is available in Braille, large print, audiocassette or computer disk. Please contact ARB's Disability Coordinator at (916) 323-4916 by voice or through the California Relay Services at 711, to place your request for disability services. If you are a person with limited English and would like to request interpreter services, please contact ARB's Bilingual Manager at (916) 323-7053.

THE CONTINUED HEARING

The continued hearing will be conducted as described in the original notice, except that written submissions must be addressed to and received by the Clerk of the Board as described below. All comments submitted for the May 25, 2007, hearing will remain part of the rulemaking record.

At the hearing, the Board will again take testimony from the public. For those persons who testified at the hearing on May 25, 2007, testimony will be limited to commenting upon any modifications made to the originally noticed proposal since May 25, 2007, and any new information that staff may have relied upon in modifying the proposal. Persons

who did not testify on May 25, 2007, will be afforded an opportunity to comment on any matter related to the rulemaking.

The original notice, the ISOR, and all subsequent regulatory documents, including the FSOR, when completed, are available on the ARB Internet site for this rulemaking at http://www.arb.ca.gov/regact/2007/ordiesl07/ordiesl07.htm and are available as described in the original notice.

SUBMITTAL OF COMMENTS

The public may present comments relating to this matter orally or in writing at the hearing, and in writing or by email before the hearing. To allow for full consideration of comments received, the Board strongly encourages that all comments be submitted to the Clerk of the Board by June 29, 2007, but the Board will accept written submissions physically submitted at the July 26, 2007, hearing or received by other means by **no later than 12:00 noon, July 26, 2007,** and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal : http://www.arb.ca.gov/lispub/comm/bclist.php

Facsimile submittal: (916) 322-3928

The Board requests, but does not require, that 30 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the hearing so that ARB staff and Board Members have time to fully consider each comment. The board encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.

Please note that under the California Public Records Act (Government Code section 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request. Additionally, this information may become available via Google, Yahoo, and any other search engines.

Inquiries concerning the substance of the proposed regulation may be directed to the designated agency contact persons: Tony Brasil, Manager of the In-Use Control Measures Section, at (916) 323-2927, or by email at abrasil@arb.ca.gov, or Kim Heroy-Rogalski, Staff Air Pollution Specialist, at (916) 327-2200, or by email at kheroyro@arb.ca.gov.

CALIFORNIA AIR RESOURCES BOARD

Catherine Witherspoon
Executive Officer

Date: June 7, 2007

CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC MEETING TO RECEIVE CLIMATE CHANGE MITIGATION RECOMMENDATIONS FROM THE MARKET ADVISORY COMMITTEE

The Air Resources Board (ARB or Board) will conduct a public meeting at the time and place noted below to receive the Market Advisory Committee's recommendations on the design of a market-based compliance program to reduce California's greenhouse gas emissions.

DATE: July 26, 2007

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency
Air Resources Board
Byron Sher Auditorium
1001 I Street
Sacramento, CA 95814

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., July 26, 2007, and may continue at 8:30 a.m., Friday, July 27, 2007. This item may not be considered until July 27, 2007. Please consult the agenda for the meeting, which will be available at least 10 days before July 26, 2007, to determine the day on which this item will be considered.

For individuals with sensory disabilities, this document is available in Braille, large print, audiocassette or computer disk. Please contact the ARB's Disability Coordinator at (916) 323-4916 by voice or through the California Relay Services at 711, to place your request for disability services. If you are a person with limited English and would like to request interpreter services, please contact the ARB's Bilingual Manager at (916) 323-7053.

BACKGROUND

The Market Advisory Committee (MAC) was created by Cal/EPA Secretary Linda Adams pursuant to Governor Arnold Schwarzenegger's Executive Order S-20-06. The Executive Order charged the Committee with developing recommendations by June 30, 2007 for ARB's consideration on the design of a market-based compliance program to reduce greenhouse gas emissions.

The MAC's recommendations are designed to achieve the maximum feasible cost-effective reductions that are real, permanent, measurable, verifiable, and enforceable, consistent with the mandate of the Global Warming Solutions Act. These recommendations also reflect both areas of consensus and divergence among

Committee members. Where consensus was not reached, the MAC describes available options and considerations for choosing among various approaches.

The recommendations of the MAC are not being presented to the Board for approval or disapproval at this time. Rather, the report will serve as a reference for informing specific design decisions. Any cap and trade program would be just one part of ARB's larger effort to reduce the risk of human-induced climate change. The complete strategy will be described in the Scoping Plan which the Board must adopt before January 2009. At the July Board meeting, ARB staff will also present a schedule for the development of the AB32 Scoping Plan.

The MAC's recommendations are described in the report titled "Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California" and can be downloaded from the following internet site:
http://www.climatechange.ca.gov/policies/market_advisory.html

Copies of this notice may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, 1st Floor, Sacramento, CA 95814, (916) 322-2990, or on the ARB Internet site at:
http://www.arb.ca.gov/cc/cc.htm

SUBMITTAL OF COMMENTS

The public may present comments relating to this matter orally or in writing at the meeting, and in writing or by E-mail before the meeting. To be considered by the Board, written submissions not physically submitted at the meeting must be received **no later than 12:00 noon, July 25, 2007**, and addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: http://www.arb.ca.gov/lispub/comm/bclist.php

Facsimile submittal: (916) 322-3928

The Board requests but does not require that 30 copies of any written statement be submitted and that all written statements be filed at least 10 days prior to the meeting so that ARB staff and Board Members have time to fully consider each comment.

CALIFORNIA AIR RESOURCES BOARD

Tom Cackette
Acting Executive Officer

Executive Summary and Conclusions

Excerpts from
"Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California"

Market Advisory Committee
to the California Air Resources Board

June 30, 2007

California Environmental Protection Agency
Air Resources Board
1001 I Street, P.O. Box 95812
Sacramento, CA 95812

Market Advisory Committee Members

Dale Bryk
Senior Attorney, Natural Resources Defense Council

Dallas Burtraw
Senior Fellow, Resources for the Future.

Daniel J. Dudek
Chief Economist, Environmental Defense

Paul Ezekiel
Managing Director, Credit Suisse

Lawrence H. Goulder, Vice Chair
Shuzo Nishihara Professor of Environmental and Resource Economics, Stanford University.

Judi Greenwald
Director of Innovative Solutions, Pew Center on Global Climate Change.

Winston Hickox, Chair
Former Secretary of the California Environmental Protection Agency.

Steven E. Koonin
Chief Scientist, BP

Franz T. Litz
Former Climate Change Policy Coordinator, New York State Department of Environmental Conservation.

Brian McLean (Ex-Officio)
Director, Office of Atmospheric Programs, Office of Air and Radiation, U.S. Environmental Protection Agency

Joe Nation
Former California State Assemblymember and Adjunct Professor of Economics, University of San Francisco

Martin Nesbit
Director of the National Climate Change Policy Division, United Kingdom Department of Environment, Food and Rural Affairs.

Jonathan Pershing
Director of the Climate, Energy and Pollution Program, World Resources Institute

Nancy Sutley
Deputy Mayor for Energy and Environment, City of Los Angeles

Peter Zapfel
European Union Emission Trading System Coordinator, European Commission

Executive Summary

The California Global Warming Solutions Act of 2006 (Act) requires the State of California to dramatically reduce greenhouse gas emissions by 2020. Specifically, this forward-looking statute charges the California Air Resources Board with responsibility for overseeing the development and implementation of a plan that will reduce California's aggregate greenhouse gas emissions to 1990 levels by 2020. This challenging emissions-reduction target will need to be achieved during a period of significant population growth and continued expansion of the state's economy. Successfully implementing the Act's requirements will again signal California's leadership in environmental protection and demonstrate that meaningful steps to address climate change are compatible with promoting balanced and sustainable economic growth and development.

In support of the Act, Governor Arnold Schwarzenegger directed the Secretary for Environmental Protection to create a ***Market Advisory Committee*** (Committee) to advise the Air Resources Board regarding the development of a greenhouse gas-reduction plan for California. The Committee is composed of national and international experts who have backgrounds in economics, environmental policy, regulatory affairs, and energy technologies.

The Act recognizes that a market-based system can be used in conjunction with regulatory and other strategies to meet an economy-wide emissions reduction target. Therefore, the Secretary for Environmental Protection charged the Market Advisory Committee with providing recommendations to the Air Resources Board regarding the design of an appropriate ***cap-and-trade program*** for reducing the state's greenhouse gas emissions.

The objective of the Committee was to design a cap-and-trade program to achieve cost-effective emissions reductions within and across all sectors of the State's economy. To achieve this objective, the Committee used a ***systems approach***, one that considers connections among all sectors of the economy and that examines how a cap-and-trade program interacts with existing and proposed emission reduction measures including regulations, performance-based standards, price subsidies, tax credits, and other technology-promoting initiatives. The Committee concluded that a well-designed cap-and-trade program is fully compatible with and complementary to these other regulatory programs and could contribute significantly to achieving the goals of the Act.

Early on, the Committee agreed to a ***set of principles*** that would guide its work in developing an efficient, equitable, and effective program design. These principles included:

- avoiding localized effects or disproportionate impacts on low-income communities or communities already adversely affected by air pollution;
- rejecting approaches that might weaken existing environmental regulations;

- encouraging practical, cost-effective emission reductions;
- minimizing transaction costs associated with compliance; and
- providing a leadership example for other states and countries.

The Committee's hope is that these recommendations will prove useful to the Air Resources Board as it works to implement the Act in a manner that achieves both the environmental and economic goals envisioned by the Governor and the Legislature.

Key Recommendations

Should the Air Resources Board determine that a cap-and-trade program will be used to contribute to the overall goal of reducing California's 2020 greenhouse gas emissions to 1990 levels, the Committee encourages the Air Resources Board to incorporate the following program design features:

The program should eventually include all major greenhouse gas-emitting sectors of the economy in the cap-and-trade program. Special attention must be given to the electricity, industry, buildings, and transportation sectors as key contributors to statewide emissions. Especially at the outset, however, the Air Resources Board should evaluate the practical constraints imposed by data availability, management capacity, administrative complexity, and transaction costs.

California faces special challenges in ***reducing emissions from the electricity sector*** because of the quantity of imported electricity generated from coal. The Committee recognizes and appreciates the leadership already shown by the California Public Utilities Commission and the California Energy Commission in seeking appropriate means of regulating these out-of-state emissions. ***To address emissions associated with imported electricity within a state-based cap-and-trade program, the Committee recommends a "first-seller approach."*** Under this approach, the entity that first sells electricity in the state is responsible to meet the compliance obligation established under the greenhouse gas cap-and-trade program. For electricity generated within California, the owner or operator of the in-state power plant is the first seller and would be required to surrender emissions allowances. For power imported from outside the state, the first seller is most often an investor-owned or municipal utility or a wholesale power marketer who sells the electricity to an in-state, load-serving entity, another power marketer, or a large end-user.

The method by which emission allowances are distributed under a cap-and-trade program does not affect total greenhouse gas emissions under the program, but will affect the distribution of economic costs associated with meeting California's greenhouse gas emission targets. ***The Committee recommends a combined approach in which some share of allowances is allocated free of charge initially, while the remaining allowances are auctioned. The percentage of allowances auctioned should then increase over time.*** Allowance value can be used to fund innovative emission reduction technologies and to focus pollution-reduction efforts in low-income and minority communities. Allowance value can also be utilized to provide transition assistance for

workers and industries subject to strong market pressures from competitors operating in jurisdictions that lack similar caps on greenhouse gas emissions.

The Committee recommends that the state initially retain flexibility to allocate some of the allowances free of charge as a means of managing competitiveness and economic transition issues. In addition, the Committee recommends that any free allocation of allowances be based on environmental performance benchmarks, and that the auction process be designed to encourage voluntary early reductions by firms, municipalities, and individual consumers.

Emission reductions by sources not included in the cap-and-trade program (called "offsets") can be used to reduce costs, increase flexibility, and assist in meeting the 2020 emissions-reduction requirement. ***The Committee recommends that California's cap-and-trade program recognize offsets generated both within and outside the state's borders***. Because of the administrative complexity associated with tracking and verifying offsets, however, the Committee recommends the use of very stringent criteria for determining whether activities qualify as offsets. Specifically, the Committee recommends that the state set standards for an initial group of offset categories that will ensure a high degree of confidence in the environmental integrity of approved offsets. In addition, the Committee recommends that the program introduce such offsets in a phased fashion, adding additional categories over time, as data and monitoring techniques for offset projects improve. Following this approach, California would only accept offsets from other states or countries if those other jurisdictions have an agreement with California to adequately ensure a similar level of environmental integrity and accountability in their emissions control programs.

Lower costs and significantly greater emissions reductions may be achieved over time by linking the California cap-and-trade program with similar policy initiatives in other jurisdictions. To promote a global greenhouse gas market, ***California should encourage linkages with other mandatory greenhouse gas cap–and- trade systems***. The Committee believes the benefits of linking to other programs can and should be achieved without sacrificing environmental integrity or giving less weight to equity and environmental justice considerations. In determining whether California should link its program to that of another jurisdiction, the Air Resources Board should consider the scope, stringency, integrity, and rigor of the other program, as well as its compliance requirements and enforcement strategies for assuring real, measurable, and lasting environmental benefits.

The California Legislature and the Governor have been and continue to be recognized globally for their leadership in adopting the Global Warming Solutions Act of 2006. The members of the Committee wish to express their sincere appreciation to the Secretary for Environmental Protection for the opportunity to contribute to the implementation of this landmark statute, which will likely come to be viewed as among the most significant in California's long history of environmental leadership.

8 Conclusions

8.1 Summary of Recommendations

Chapter 4 -- Program Scope and Contribution to California Reduction Targets:

- ***In 2020, the emissions cap in a California GHG trading program should be set equal to total allowable emissions under the Global Warming Solutions Act minus projected emissions from sources and sectors not covered by the cap-and-trade program.***
- ***CARB should start with a higher cap and reduce the cap level gradually such that the cap level by 2020 is consistent with meeting the overall emissions target of the Act.***
- ***In general, CARB should seek to expand the cap-and-trade program over time so that it covers as many sectors, sources, and gases as practicable***
- ***As soon as possible, CARB should adopt mandatory reporting requirements for all sources likely to be covered by an GHG emissions cap.***
- ***For non-combustion CO_2 emissions and for the non-CO_2 greenhouse gases, an emissions-based approach should be adopted where possible, with an upstream approach used for certain high-GWP gases.***
- ***For CO_2 emissions from combustion, the sense of the Committee is to prefer a cap-and-trade program design in which (1) the program initially covers first sellers of electricity and large industrial emitters, and (2) the transportation and buildings sectors are added in subsequent phases as soon as CARB determines that emissions in those sectors can be monitored, and that the administrative costs of extending coverage to those sectors are not prohibitive. However, a few members of the Committee prefer an upstream approach that imposes the compliance obligation on fuel suppliers upstream and thereby provides broad coverage from the outset.***
- ***As a general matter, fugitive emissions and emissions from biological processes are too difficult to monitor and therefore should not be covered under the cap-and-trade program. The Committee encourages CARB to examine ways to improve monitoring of fugitive and biological process emissions, as a first step toward incorporating certain emissions of those types in a cap-and-trade system.***

Chapter 5 -- Issues Specific to the Electricity Sector:

- *The Committee recommends a first-seller approach to regulating emissions associated with all electricity delivered in the state.*
- *The cap-and-trade program should be separate from and complement, not replace, other regulatory efforts aimed at developing an efficient and less carbon-intensive electricity system.*
- *State agencies should continue to develop policies that reward and, to the extent possible, require emissions accounting for out-of-state generation.*
- *A portion of the allowance value created under a cap-and-trade program (either from auctioned allowances or through allocation to LSEs) should be directed to investments in end-use efficiency improvements and technology R&D.*
- *A portion of the allowance value created under a cap-and-trade program should be used to keep the net cost of electricity to consumers from rising too far in the early stages of the program. This could be done by allocating allowances to regulated LSEs or through direct consumer rebates.*

Chapter 6 – Other Design Issues:

Section 6.1 – Allowance Distribution:

- *The Committee believes that over time auctioning should be a key part of allowance allocation under the cap-and-trade program. In the near term, however, the state should retain flexibility to allocate a share of allowances for free to certain sectors.*
- *Some Committee members favor a 100 percent auction from the outset. Other Committee members favor a mixed approach with some free allocation initially, transitioning to a full auction over time.*
- *We recommend that California use a portion of the allowance value created under a cap-and-trade program to promote investment in low-GHG technologies and fuels (including energy efficiency), to finance pollution reductions in communities that bear disproportionate environmental and public-health burdens, and to provide transition assistance to workers and firms subject to strong market pressures from competitors located in un-capped jurisdictions.*

Section 6.2 – Recognition for Early Action:

- *The cap-and-trade program should be designed to promote early action.*
- *The case for auctioning emissions allowances gains additional support because of the incentives it provides for early action.*
- *To the extent that free allocation is employed, the basis for such allocation should be benchmarking, which provides early action incentives.*
- *Offset credits should not be granted for early action, except in the special case where those credits can be removed from the stock of allowances available to other*

entities. Rather, the design of the allowance distribution method, direct regulation, and financial incentives should be used to promote early action.

Section 6.3 – Offsets:

- *Offsets should be allowed as part of the overall cap-and-trade program.*
- *Offsets should be real, additional, independently verifiable, permanent, enforceable, and transparent.*
- *California should use a standards-based approach rather than case-by-case review to assign offset credits. The state should identify specific types of eligible projects, while taking a conservative approach to maximize the environmental benefits of using offsets.*
- *The sense of the Committee is that California should reject geographic or quantitative limitations on offset credits so as to maximize the opportunity to reduce GHG emissions at the lowest cost. However, some members feel that this and other legitimate policy considerations (for example, social equity, air quality, predictability of prices for participants) warrant quantitative or geographic limitations or both, in which case such limitations could be introduced in initial phases of the program with a view to gradual relaxation or removal once other policy considerations have been adequately addressed. California should only accept offsets from other jurisdictions if they assure a similar level of accountability and project rigor; this may require formal MOUs for implementation.*
- *Periodic reviews should be conducted to ensure that offsets do not result in local pollution "hot spots" or backsliding on emissions of non-GHG pollutants.*

Section 6.4 – Cost-Containment Mechanisms:

- *California should issue allowances under the cap-and-trade program that do not expire and may be banked for use in any subsequent compliance period.*
- *A compliance period of approximately three years in length might offer a reasonable balance between the goals of promoting compliance flexibility and assuring environmental integrity.*
- *Borrowing of allowances from future compliance periods should not be permitted.*
- *A safety valve should not be included.*

Section 6.5 – Potential Linkages with Other Cap-and-Trade Programs:

- *Linkages with other mandatory GHG trading systems should be encouraged. Linkages can increase market liquidity and cost-effectiveness and improve the functioning of the cap-and-trade program without sacrificing environmental integrity or equity and without violating institutional constraints.*
- *To actively promote a global carbon market, California should encourage linkage only with other mandatory systems, including the existing EU ETS and the*

Northeast RGGI, which is due to launch in 2009. In deciding whether to link with these and other systems, CARB should consider:

- ***the scope and stringency of the other system;***
- ***the integrity of the cap in the other system, including whether that system contains a "safety-valve" mechanism that suspends or otherwise undermines the cap;***
- ***the rigor of emissions monitoring, reporting, and verification requirements in the other system;***
- ***the integrity of allowed carbon offsets; and***
- ***the record of compliance and enforcement in the other system.***

8.2 Key Attributes of the Recommended Cap-and-Trade Program

8.2.1 Assuring environmental integrity

The proposed California cap-and-trade program establishes a clear limit on permissible GHG emissions from facilities covered by the program. To assure environmental integrity, the program must incorporate a rigorous system of mandatory emissions monitoring, reporting, and verification. The recommended program design also contains several elements designed to minimize the likelihood that efforts to lower GHG emissions in California will lead to "emissions leakage"—that is, increased emissions in other states or regions. If and when emissions-reducing activities outside the program boundaries are credited within California's cap-and-trade system, the recommended program design requires that strict rules are followed to ensure that claimed reductions are real, credible, and lasting.

8.2.2 Achieving cost-effectiveness

A key virtue of the cap-and-trade approach is its ability to bring about reductions in GHG emissions at lower cost than would otherwise be possible by harnessing market forces to promote reductions from those sources that face the lowest marginal abatement costs. Trading of emissions allowances among firms, institutions, and municipalities lowers the overall cost of the GHG program to California businesses and in doing so reduces costs faced by consumers and taxpayers.

The recommended cap-and-trade program design accounts for early action—emissions reductions achieved by regulated entities before the program goes into effect. Incentives will be provided to capture "low-hanging fruit"—that is, relatively low-cost near-term opportunities for emissions reductions—sooner rather than later.

8.2.3 Reinforcing direct regulation

The recommended cap-and-trade program does not undermine other regulatory programs. Firms with regulatory responsibility under other policies don't escape these responsibilities by participating in the cap-and-trade program. To the contrary, the cap-and-trade program can reinforce other programs by creating incentives for affected firms to go beyond otherwise required reductions: Firms will reap the financial benefits of avoiding the need to purchase allowances or of selling any excess allowances in the emissions trading market.

8.2.4 Encouraging technological innovation

The recommended cap-and-trade program provides a price signal (through the cost of allowances) that contributes toward internalizing the social cost of current and future environmental damages associated with GHG emissions. This price signal makes lower-carbon technology options more competitive in the market. The recommended program thus complements and reinforces the efforts of California's Economic and Technology Advancement Advisory Committee to promote investment in alternative technologies that offer the best long-term potential for de-carbonizing the California economy.

8.2.5 Addressing environmental justice concerns

The Market Advisory Committee believes that the cap-and-trade program must address important environmental justice concerns that have been raised by the Environmental Justice Advisory Committee and in stakeholder comments received during our public workshops. We note especially the concern about potential increases in non-GHG pollutant emissions in disadvantaged communities. We have taken these concerns into account in developing our recommendations.

The recommended cap-and-trade program design encourages in-state emissions reductions and in-state investments in low-emissions technologies. Our recommendations help assure no increases in local pollutant emissions. The cap-and-trade program could produce multiple benefits in affected communities by promoting actions and technology investments that simultaneously reduce emissions of GHGs and conventional air pollutants.

Some have argued that all GHG reductions stimulated by The Global Warming Solutions Act should occur in California so as to maximize co-benefits within the state. Although some Committee members favor specific limitations that would maximize direct benefits within the State, all Committee members agree that the flexibility offered by the cap-and-trade program will allow California to reduce global warming pollution at the lowest total cost.

8.2.6 Allowing for mid-course refinements

Periodic evaluation and review should be built into the program in recognition of its innovative character and to promote a process of "learning-by-doing." To take advantage of learning-by-doing, the recommended cap-and-trade program creates the opportunity for periodic refinements.

8.2.7 Building a bridge to the future

The recommended cap-and-trade program is just one of many efforts to reduce the risk of human-induced climate change. To achieve maximum benefits, California's efforts must be coordinated with—and reinforce the effect of—similar programs at the regional, national, and international levels. Our recommendations for a California cap-and-trade program have been developed with this objective in mind. The proposed cap-and-trade program design is intended to facilitate relatively easy linkages with other programs. Such linkages can help reduce costs to producers and consumers in and outside the state by expanding choices and thereby promoting emissions reductions where they can be achieved at the lowest cost.