Walter McGuire
CHAIRMAN
Chuck Mack
VICE-CHAIRMAN
Gerald D. Secundy
PRESIDENT
William J. Quinn
VICE PRESIDENT
Jack Coffey
TREASURER
Manuel G. Grace
SECRETARY

BOARD OF DIRECTORS
William T. Bagley
Robert Balgenorth
Michael Barr
Judy Brown
Arthur Carter
Ken Casarez
Jack Coffey
Thomas Cook
Michele Corash
Tim Cremins
Katherine Dunkip
Greg Fabre
Randy Fischbeck
Manuel G. Grace
Steve Gross
Jay Hanson
Robert Harris
Tim Hemig
Michael Hertel
Werner Hirsch
Michael G. Jackson
Fred John
James (J.P.) Jones
Dean Kato
Kenneth L. Khachigian
Robert C. Kirkwood
John T. Knox
William Luddy
Chuck Mack
Walter McGuire
Jose Mejia
Richard Morrison
Mike Murray
Cressey Nakagawa
Joe Nunez
Mark Posson
Art Pulaski
Ted Reed
Mike Roos
Robert Rozanski
Stuart F. Rupp
Lanny Schmid
Gerald D. Secundy
Angelo J. Siracusa
Don Solom
Katherine Stahl
Dean Tippe
Steve Toth
Minnie Tsuneizumi
Scott Welch
Perry Zimmerman

CONSULTANTS
Jackson R. Gualco
THE GUALCO GROUP, INC.

Allan Lind
ALLAN LIND & ASSOCIATES

Robert W. Lucas
LUCAS ADVOCATES

Gov. Edmund G. 'Pat' Brown
FOUNDING CHAIRMAN 1973

www.ceeeb.org

California Council for Environmental and Economic Balance

100 Spear Street, Suite 805, San Francisco, CA 94105 • (415) 512-7890 • FAX (415) 512-7897

May 17, 2007

Mr. Bart Croes, Chief, Research Division
California Air Resources Board
1001 I Street
Sacramento, CA 95812-2815

RE: Comments on Proposed Early Actions To Mitigate Climate Change in California

Dear Mr. Croes:

The California Council for Environmental and Economic Balance (CCEEB) is pleased to provide its comments on the current California Air Resources Board (CARB) staff Proposed Early Actions to Mitigate Climate Change in California including the Discrete Early Actions greenhouse gas (GHG) reduction measures that will be subject to immediate rulemaking. CCEEB is a non-partisan, non-profit organization of business, labor and community leaders that seeks to achieve the State's environmental goals in a manner consistent with a sound economy. As such, we are pleased that CARB staff is moving quickly to implement AB 32, the California Global Warming Solutions Act of 2006, in accordance with its requirements. In general we support the current efforts, but urge caution and prudence as the recommendations of the staff proposal are implemented.

AB 32 requires the CARB to develop and implement discrete early action measures in order to achieve immediate GHG emission reductions prior to the more long-range implementation of the program. CARB staff has recommended three items for immediate regulatory action by the board: adoption of the Low Carbon Fuel Standard (LCFS), a prohibition on sales of the refrigerant H-134a for home maintenance of motor vehicle air conditioning, and increased capture of methane gas from uncontrolled landfills. While CCEEB supports identification and development of discrete early actions in accordance with the law we are concerned that these measures be carefully analyzed and implemented through regulation in a manner that complies with the law's requirement that these measures be "technologically feasible and cost-effective".

CCEEB believes market approaches will identify cost effective GHG reductions more rapidly and more efficiently than would lengthy rule makings. The economic literature on market-based systems generally supports this conclusion.

RECEIVED
MAY 22 2007
OLA

We therefore urge that care be taken in pursuing the actions listed in Group 2 so that CARB's exploration of the measures listed there for possible future rules does not affect the availability of emission reductions that can be developed as offsets as part of a potential future market program.

Background

On Friday, April 20, 2007, the CARB released its draft report entitled "Proposed Early Actions to Mitigate Climate Change in California."[1] The CARB draft report was issued concurrently with a draft report on proposed early actions by the California Climate Action Team (CAT), which is chaired by the California Environmental Protection Agency (CalEPA).[2] The CAT report is a supplement to the CARB report and provides a status report on climate change early actions being undertaken by other branches of the state government.

The early actions to mitigate climate change that CARB proposed on April 20 are divided into three groups:

- Group 1: The three measures in Group 1 are those proposed by CARB staff to meet AB 32's "discrete early action" requirement. CARB proposes to bring these measures to hearing in the next 12 to 18 months and adopt regulations that will take legal effect by January 1, 2010. CARB estimates that adoption of these measures will reduce GHG emissions a total of 13-26 MMT CO2E by 2020. These measures include:

  (1) a low carbon fuel standard, which will require fuel providers to ensure that the mix of fuels they sell in California meets, on average, a declining standard for GHG emissions;
  (2) restrictions on non-professionals' use of high-global-warming-potential refrigerants for vehicle air conditioner recharge; and,
  (3) increase capture of methane from uncontrolled landfills.

- Group 2: CARB staff is initiating work on the 23 other measures in Group 2, and may develop rulemaking, as appropriate, in the 2007-2009 timeframe. The CARB Report states, "Some may begin implementation as rules prior to January 2010 but many will not." These measures are not included in Group 1 because they "require additional analysis of emissions control technologies or costs." For this reason, CARB does not provide an estimate for the GHG reductions that could be achieved by most of these measures. They include a

[1] "Proposed Early Actions to mitigate Climate Change in California", April 20, 2007, located at: http://www.climatechange.ca.gov/climate_action_team/reports/2007-04-20_CARB_early_action_report.pdf
[2] "Climate Action Team Proposed Early Actions to mitigate Climate Change in California", April 20, 2007, located at: http://www.climatechange.ca.gov/climate_action_team/reports/2007-04-20_CAT_REPORT.PDF

wide variety of reduction measures.

- Group 3: CARB staff has identified 10 conventional air pollution control measures that are scheduled for rulemaking in 2007-2009; these measures are aimed at criteria or toxic air pollutants but CARB staff believes that they will have concurrent climate change benefits.

Group 1 – Discrete Early Action Measures

CARB staff used a number of screening criteria to determine which of the many early action measures it considered would be included in Group 1's early action implementation process. Chief amongst these was whether it was feasible to adopt them by 2009 and make them legally effective by 2010, as required by AB 32. Other factors included technological feasibility, cost effectiveness and sufficiently significant GHG emission reductions. Those in Group 2 mainly failed the first of these criteria (feasibility of adoption by 2009).

CCEEB supports the listing of discrete early action measures to achieve an immediate reduction in GHG emissions, but believes that these measures must be subject to further analyses, evaluation and refinement in order to meet the mandated criteria of being "technologically feasible and cost-effective" (Health and Safety Code Sect. 38560.5 (c)). To date CARB staff has proceeded with the proposed discrete early action items on a "presumption" that, based on currently best-available information, all of the measures it is proposing to pursue will meet all the legal requirements of AB 32. CCEEB recommends that CARB develop a more comprehensive staff report, not based upon "presumption", but upon a careful analysis and evaluation of the science and reasoning to support a measure's listing and careful implementation to maintain cost effectiveness and technological feasibility.

Low Carbon Fuel Standard

CCEEB supports the low carbon fuel standard as a discrete early action to the extent that it is developed carefully. It is important because it addresses the transportation sector, which is otherwise largely not addressed. In general, the aggressive goals of a LCFS are workable as long as implementation requirements are technologically feasible and cost effective within the established timeframes, the impacts are proportional across sectors and the program proceeds cautiously so that it does not harm the economy. We believe that to achieve this standard that new technology is needed. Thus, the LCFS implementation requirements need to be phased in to allow technology development. The LCFS has the potential to impact energy supplies if it is not approached properly. With that in mind, it is of threshold importance that the program be designed to not harm the economy. In this regard, the program development must include an economic review that establishes criteria for program milestones as well as contingency planning and early warning indicators.

wide variety of reduction measures.

- Group 3: CARB staff has identified 10 conventional air pollution control measures that are scheduled for rulemaking in 2007-2009; these measures are aimed at criteria or toxic air pollutants but CARB staff believes that they will have concurrent climate change benefits.

Group 1 – Discrete Early Action Measures

CARB staff used a number of screening criteria to determine which of the many early action measures it considered would be included in Group 1's early action implementation process. Chief amongst these was whether it was feasible to adopt them by 2009 and make them legally effective by 2010, as required by AB 32. Other factors included technological feasibility, cost effectiveness and sufficiently significant GHG emission reductions. Those in Group 2 mainly failed the first of these criteria (feasibility of adoption by 2009).

CCEEB supports the listing of discrete early action measures to achieve an immediate reduction in GHG emissions, but believes that these measures must be subject to further analyses, evaluation and refinement in order to meet the mandated criteria of being "technologically feasible and cost-effective" (Health and Safety Code Sect. 38560.5 (c)). To date CARB staff has proceeded with the proposed discrete early action items on a "presumption" that, based on currently best-available information, all of the measures it is proposing to pursue will meet all the legal requirements of AB 32. CCEEB recommends that CARB develop a more comprehensive staff report, not based upon "presumption", but upon a careful analysis and evaluation of the science and reasoning to support a measure's listing and careful implementation to maintain cost effectiveness and technological feasibility.

Low Carbon Fuel Standard

CCEEB supports the low carbon fuel standard as a discrete early action to the extent that it is developed carefully. It is important because it addresses the transportation sector, which is otherwise largely not addressed. In general, the aggressive goals of a LCFS are workable as long as implementation requirements are technologically feasible and cost effective within the established timeframes, the impacts are proportional across sectors and the program proceeds cautiously so that it does not harm the economy. We believe that to achieve this standard that new technology is needed. Thus, the LCFS implementation requirements need to be phased in to allow technology development. The LCFS has the potential to impact energy supplies if it is not approached properly. With that in mind, it is of threshold importance that the program be designed to not harm the economy. In this regard, the program development must include an economic review that establishes criteria for program milestones as well as contingency planning and early warning indicators.

Proportionality of impact between sectors is an important consideration. For example, the LCFS and other early actions that may involve increased use of electricity or gas in the utility sector, such as port and truck stop electrification, must be designed in a way that does not penalize any sector for the increased emissions associated with providing the increased power needed to implement those early actions. In this case, the LCFS and other electrification initiatives provide an opportunity for significant GHG reductions in the transportation sector, but they also require activity in the utility sector that may increase emissions. If the costs of the increased emissions caused solely by activities undertaken to allow an entity to meet early action requirements were borne directly by the beneficiary of those activities, this would not be an issue. However, in the example cited above, that is not the case. CCEEB believes that an equitable mechanism must be devised to avoid penalizing the increase of emissions in one sector that allow emission reductions to be achieved by a different sector.

Vehicle Refrigerant Recharge

Cost-effectiveness is a mandatory ingredient in any emissions reduction scheme that is specified in statute. In the realm of CO2 emission reductions, the cost-effectiveness mandate can be determined by a careful calculation of the relative cost per ton of CO2 emissions reductions resulting from the mandated reduction strategy. In the particular case of the prohibition on the sale for home use of the refrigerant R-134a the issue of cost-effectiveness has already been raised. Given a current market price of CO2 in the $10 per ton range (according to Inter Press Services News Agency – May 2, 2007), a regulatory action that results in a cost of between $400 - $4,000 per ton (based on commercial refrigerant industry figures of a resultant CO2E savings of .04 MMT) cannot be considered cost-effective. CARB's own revised CO2E reduction figures of 1-2 MMT on the prohibition on sales of R-134a computes to a cost of $85-$170 per ton. This value is still high in comparison to the current world cost of CO2.

CARB staff has not, to date, specified a standardized methodology for measuring cost-effectiveness. The CARB staff report does state however "staff considered.... the estimated cost per avoided ton of CO2 equivalent emissions." This statement suggests that CARB staff already possess cost estimates on a cost per ton basis for some or all of the selected reduction measures. Such cost data, once validated, could provide a potentially useful metric against which to measure the overall cost of the proposed mandates. CCEEB requests CARB to make such data publicly available before the development of Rules.

Uncontrolled Landfills

According to data supplied by the California Integrated Waste Management Board, 94% of the waste deposited in California's landfills is presently subject to collection and control with the remaining 6% of California's waste is deposited in uncontrolled landfills. These landfills are apparently the subject of one of the early action measures proposed by CARB. In general, these sites are much older and smaller than the current landfills in operation. It appears that CARB is "presuming" that since a site is uncontrolled, simply

installing a gas system will result in significant methane capture. This presumption also assumes that such an action is technologically feasible and cost effective.

CCEEB urges CARB staff to examine the science associated with this selection and assure that it has been carefully developed. In fact, CCEEB believes that pursuing significant methane reduction from old landfills may not be fruitful. Older, smaller sites tend to be very aerobic which inhibits methane production. Placing additional vacuum on these sites to capture methane will draw in more air and potentially cause composting that could give rise to a dangerous situation.

Also, since the landfill industry is very much market driven, if landfill gas could have been economically developed at one of these older, smaller sites, the market would have pursued a project that would have led to energy recovery. By comparison, the landfill gas (methane) generated from controlled landfills, currently generates approximately 264 MW from 64 independent projects. Clearly, the fact that uncontrolled sites have not been developed to capture landfill gas is another indication that the capture of landfill gas at these locations may not be technologically feasible or cost effective.

Group 2 GHG Emission Reduction Measures

Included within this group are 23 potential early action measures that are expected to yield 20 MMTCO2E of reductions by 2020. The report says that work on some of these measures is already underway and that the CARB staff will initiate work on the remaining measures between 2007 and 2009, with rulemaking to occur as soon as possible where applicable. A review of these proposals indicate that they impact many different economic sectors ranging from agriculture, forestry, oil and gas, transportation to local government.

CCEEB believes that a market program will do a better job of finding the most cost effective and technologically feasible ways of accomplishing GHG emission reductions than government through extended rulemaking. Nevertheless, if CARB is going to proceed to develop groups 2 measures as rules, it is in everyone's interest to first establish "cost effectiveness and technology feasibility" criteria, and to do so as soon as possible. Otherwise, potential voluntary GHG emission project developers will be in an uncertain position and will not likely go forward with investments that would be at risk of being invalidated if their measure were to be adopted as a regulation. As a result, there is a substantial likelihood that the state will miss potential early reductions of GHG. Additionally, the absence of clear criteria for cost effectiveness and technological feasibility could lead to the adoption of requirements that lead to leakage.

CCEEB urges CARB to provide expedited approval of offset protocols or other procedural mechanisms, long in advance of the start of regulatory standards, so that regulated entities have an incentive to begin the planning and investment to get projects on line given the long lead time for project development. Offset and trading markets in regulated commodities do not develop overnight; they require long ramp-ups and systems development and investment to gain the necessary interest and liquidity.

In none of the workshops has CARB staff designated a timeline for development of offset project protocols. Nor has CARB specified staff that it has assigned to developing such protocols. The offsets market should not be an afterthought. It will take time to develop and is very important to the success of California's market based approach to achieving GHG reductions. The availability of a regulatory offsets market in California could help facilitate interstate linkage of GHG markets across capped regions within the US. It is possible that a significant number of the Group 2 measures should be considered as candidates for offset programs rather than mandated programs.

Group 3 Criteria Pollutant and ATCM Rules

This group includes 10 measures that are currently being considered as rules for criteria pollutant including particulate reductions. The CARB staff report states on page 10, "Ozone and its precursors (oxides of nitrogen and volatile hydrocarbons) are also considered to be climate changing gases." These assertions may ultimately be established through good science to be true however, it is important to recognize that as stated in the notes to table 3, the science to characterize the net climate effects of particulate matter and ozone precursors is still developing. Thus it may be productive for CARB to commit to further evaluate whether criteria pollutants, including diesel PM should be part of the program in the future, once the science has developed to support such determinations. However, at present AB 32 does not authorize the CARB to regulate climate change gases other than the six Kyoto gases. Perhaps it would be best if CARB were to limit its focus today to measures that will help achieve the statutory target.

Voluntary Early Emission Reductions

AB 32 requires that CARB give credit for voluntary early emission reduction actions and provides that the agency develop a methodology for granting credit without a lengthy rulemaking pursuant to the Administrative Procedure Act. The Legislature clearly intended that rapid innovation to reduce GHG be an integral part of the implementation of AB 32. We encourage CARB to work with business and entrepreneurs to define a process by which credit for voluntary early emission reduction actions is as efficient as possible. Such a process will give business the certainty to make investment decisions in GHG reduction projects now. This may be the most important step the state can make in reaching our goal because these early measures will reduce GHG many years before regulations can be promulgated. The voluntary early action process should be used by CARB to encourage real and rapid reductions in GHG emissions and as a means to gather experience upon which to build incentives for such reduction projects into its final rules.

Many industries in the state for a variety of reasons, some economic, some practical and some out of a desire to reduce greenhouse gas emissions have already begun the process of converting to lower GHG emission equipment and stationary plants. Examples of these actions are plentiful and range from converting from diesel generators to electrical, utilization of solar irrigation pumps and technologies, switching from current high emission fuels to new Biofuels, to replacing older equipment and buildings with more

energy efficient units to name a few. These efforts need and deserve to be given credit for the reduction in GHG emissions they deliver prior to any baseline being calculated and established as a reference point for any future reduction mandates.

According to the CARB report, the CARB staff is working on methods to recognize voluntary early actions by industry. CCEEB is encouraged by this section in your April 20th Early Actions report recognizing the need for a programmatic element to quantify and document sector-specific and project-specific protocols for voluntary actions that reduce GHG emissions. This program will be absolutely essential in providing for equitable treatment of all sectors involved in any successful GHG emission reduction effort.

The CARB report further states that CARB will begin rulemaking in mid-2007, but the report does not specify when this rulemaking is expected to culminate in a final rule or over what timeframe such a rule might be implemented. CARB did not specify which staff is assigned to this rulemaking. These are important details that still need to be addressed.

Until this is determined CCEEB suggests CARB consider a process that would allow early consideration by CARB on a case-by-case basis of a wide array of projects that companies might want to voluntarily undertake. This would encourage companies to take early voluntary actions and would provide the opportunities for CARB and other stakeholders to learn from these projects prior to the formality of a final rule stage.

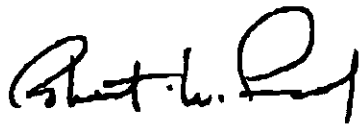
In any regard, any rule developed to implement a discrete early action should have a voluntary early action credit component.

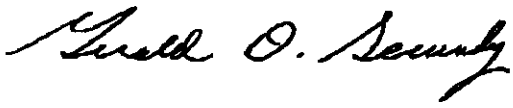
Our concluding comment is that CCEEB believes that it is important to consider AB 32 as a bridge to future regional, national and international efforts to affect climate change. For that reason actions taken to implement this program need to look beyond California-specific nuances and address issues in a manner that prevents leakage through cost effective and technologically feasible implementation requirements as well as through a robust market and offset program that is attractive and functional to entities in California, other states and the nation.

CCEEB commends your efforts and progress in implementing the many challenges posed in AB 32. We trust you will find these comments informative and constructive as they were intended. We look forward to continuing a dialogue that will result in a strong and effective GHG emissions reduction program.

If you have any questions please contact Robert Lucas at 916-444-7337 or Jerry Secundy at 415-512-7890.

Sincerely,





Robert Lucas
Climate Change Project Manager

Gerald Secundy
President

Cc: Dan Dunmoyer, Office of the Governor
Linda Adams, Secretary, CA Environmental Protection Agency
Dan Skopec, Undersecretary, CA Environmental Protection Agency
Eileen Tutt, Deputy Secretary, CA Environmental Protection Agency
Winston Hickox, Chair, Market Advisory Committee
Robert Sawyer, Chair and Members of Air Resources Board
Catherine Witherspoon, Executive Officer, Air Resources Board
Chuck Shulock, Air Resources Board
Michael R. Peevey, President and Members of CA Public Utilities Commission
Steven Larson, Executive Director, Public Utilities Commission
Michael Chrisman, Secretary, Resources Agency
Jackalyne Pfannenstiel, Chair and Members of CA Energy Commission
B. B. Blevins, Executive Director, CA Energy Commission
Cynthia Tuck, Asst. Secretary for Policy, CA Environmental Protection Agency
Richard Corey, Chief, Research and Economic Studies, Air Resources Board
Jackson Gualco, The Gualco Group