Union of Concerned Scientists
Citizens and Scientists for Environmental Solutions

June 16, 2008

The Honorable Arnold Schwarzenegger
Governor of California
State Capitol Building
Sacramento, CA 95814

Mary Nichols
Chairperson, California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

RE: AB 32 Scoping Plan

Dear Governor Schwarzenegger and Chairperson Nichols:

As the California Air Resources Board (CARB) grows closer to completing its monumental task of creating a Scoping Plan describing how the state will reach its goal of reducing global warming pollution nearly 30 percent by 2020, the Union of Concerned Scientists strongly encourages you to include three important elements in this plan. These elements are not only essential for enabling California to reach its 2020 climate goal, but also ensure that our state is on a path toward the much greater global warming emission reductions needed by 2050, as outlined in the governor's executive order of June 1, 2005. By incorporating these three critical items in its larger package of climate policies, CARB will ensure that significant clean technology advances and emission reductions are made in the state's highest-emitting sectors: transportation and electricity.

The Scoping Plan should include the following:

1) A compelling request to the California legislature to give CARB the authority and direction to implement a vehicle feebates, or clean car discount, program. Such an incentive program would create one-time rebates and surcharges on new passenger cars and trucks based upon their emissions of global warming pollution. The rebates and surcharges act as incentives for consumers to purchase, and for manufacturers to produce, cleaner, lower-emitting vehicles. Research by University of Michigan shows that, in conjunction with California's current vehicle global warming standards, a fully implemented feebates program can reduce global warming pollution from the tailpipe of new vehicles by an additional 21 percent.

2) A compelling request to the California legislature to increase the state's renewable portfolio standard (RPS) to 33 percent by the year 2020. UCS experts estimate that increasing the percentage of our electricity that comes from renewable sources to 33 percent by 2020 will cut

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approximately 13 million metric tons of global warming pollution. At the same time, the standard could reduce harmful NOx and particulate matter pollution by thousands of tons.

While a 33 percent RPS will reduce more global warming emissions from the electricity sector than any other policy, it also has many other vital benefits, including:

- Stimulating clean technology and investment and strengthening California's burgeoning clean tech industry
- Diversifying the state's energy supply and helping to protect consumers from natural gas price volatility
- Providing market certainty for renewables developers and promoting long-term planning in the infrastructure needed to support high levels of renewable energy development

3) A commitment to carefully and rigorously limit the use of compliance offsets. Offsets allow polluters to avoid making emission cuts themselves by paying for pollution-reducing projects elsewhere. Putting smart limits on the ability of California global warming emitters to "outsource" their efforts to reduce emissions through the purchase of offsets will lead to many benefits. It will help direct the flow of investment to green energy and other clean tech global warming solutions in California's high-emitting sectors (transportation and electricity). This will not only help make immediate reductions in California's global warming pollution, but also help reduce emissions worldwide as new and innovative technologies developed in California are exported globally. Carefully limiting offsets to focus on those that will simultaneously reduce global warming pollution and toxic and smog-forming air pollutants will allow Californians to benefit from cleaner air.

If offsets are used in a cap and trade system, they should be limited to a very small fraction of required reductions. Any offsets that may be allowed in California should occur within California's un-capped sectors, so that the reductions due to a cap are not counted twice. If the offsets used are from other regions, such as those states in the Western Climate Initiative, they should be in regions that have adopted strong global warming caps so that the offsets can be tracked and verified.

Thank you for the good work you do and for taking our ideas into serious consideration. We look forward to working with you throughout the AB 32 implementation process.

Sincerely,

Patricia Monahan
UCS California Office Director

Dan Kalb
California Policy Coordinator

Putting the Brakes on Global Warming

FEEBATES: Cutting Global Warming Pollution from Vehicles

California Climate Choices

A Fact Sheet of the Union of Concerned Scientists

Transportation is California's #1 Source of Global Warming Pollution

The cars and trucks that Californians drive emit more global warming pollution than any other source in the state, contributing roughly 40% of all emissions. If global warming continues at its current rate, California will face a sharp rise in extreme heat, a less reliable water supply, and decreased air quality—which would have a significant detrimental impact on public health and our economy. Fortunately, the most severe consequences of global warming can be avoided if emissions are reduced in time.

Now is the Time to Act

In 2008, the California Air Resources Board (CARB) will be considering sweeping changes as it develops the **Scoping Plan** of climate policies and regulations for **AB 32**—California's landmark Global Warming Solutions Act, and tackles important new rules to clean up the state's diesel trucks.

The U.S. EPA and the automobile industry are continuing their efforts to prevent California and 14 other states from reducing emissions of global warming pollution from cars and trucks sold in those states. We must continue to stand up to the auto industry as well as take all appropriate action to get the 'waiver' so California can finally implement the landmark vehicle emissions law passed in 2002. Additionally, we need to support complementary policies to gain further reductions and put ourselves on a pathway to solving the climate crisis.

Making Cleaner Cars More Affordable

California can significantly reduce global warming pollution by making cleaner cars and trucks more affordable. A Clean Car Discount program, often called a '**FEEBATES**' program, does that by providing one-time rebates on the purchase of new cars, trucks and SUVs that emit relatively low levels of global warming pollution. The rebates could be funded by automaker surcharges on high-polluting, gas-guzzling new vehicles.

UCS engineers calculate that a Clean Car Discount program, in conjunction with California's global warming standards for vehicles, can reduce global warming pollution from the tailpipe of new vehicles by an additional 21 percent.

How a Clean Car Discount Program Works

If CARB includes a '**FEEBATES**' program in the Scoping Plan for AB 32 and such a program is ultimately enacted, Californians could be able to receive rebates of as much as $2,500 on the purchase of clean cars, pickups, and SUVs. The amount of the rebate is based on how much global warming pollution the vehicle emits—the less pollution, the higher the rebate.

A well-designed feebates program would ensure that a significant portion of vehicles, including many family-oriented minivans and smaller SUVs, would continue to be available without a surcharge. Yet, new gas-guzzling vehicles that emit high levels of global warming pollution would likely have surcharges of up to $2,500 imposed on the auto manufacturer. The program would adjust each year and is designed to be self-financing.

The feebates program should also compliment the state's efforts to improve air quality and ensure that no loss of emissions benefits occurs for any criteria pollutant as the result of any particular program design option.

Clean Car Discounts Can Benefit Lower-Income Californians

Many lower and moderate income residents who buy new vehicles will benefit from a feebates program because the less expensive new cars and trucks, on average, receive the greatest rebates. And cleaner vehicles will help reduce our over-reliance on petroleum fuel while saving consumers money at the gas pump.

Median Retail Price of New Vehicles

Those earning rebates = $21,155
Those w/o rebate or surcharge = $30,805
Those assigned a surcharge = $35,754

Support Grows for Clean Car Discount

According to a 2006 poll, 60 percent of registered voters supported a feebates program, with an overwhelming majority from every region, income level, and political affiliation indicating support.[1] A 2008 poll saw support for feebates rise to 66 percent.[2]

1 Fairbanks, Maslin, Maullin, and Associates, 2006
2 Mineta Transportation Institute, 2008

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Clean Car Discount (Feebates) Endorsers (as of 05-16-2008)

Environmental

- African American Environmentalist Association
- American Council for an Energy-Efficient Economy
- Amigos de los Rios
- Audubon California
- California Coastal Coalition
- California League of Conservation Voters
- California Native Plant Society
- Central Valley Air Quality Coalition Legislative Committee
- Clean Air Now
- Clean Power Campaign
- Coalition for Clean Air
- Earth Day Los Angeles
- Earthjustice
- Energy Independence Now
- Environment California
- Environmental Defense Center
- Environmental Defense Fund
- Environmental Working Group
- Friends of the Earth / Bluewater Network
- KyotoUSA
- National Hispanic Environmental Council
- Natural Resources Defense Council (NRDC)
- Planning and Conservation League
- Sierra Club California
- San Diego Audubon Society
- San Diego Environmental Foundation
- Steven and Michele Kirsch Foundation
- Transportation and Land Use Coalition

Environmental Justice

- Communities for a Better Environment
- East Yard Communities for Environmental Justice
- Mujeres de la Tierra
- Pacoima Beautiful

Public Health and Science

- American Lung Association of California
- Breast Cancer Fund
- Breathe California
- California Medical Association
- California Science Teachers Association (CSTA)
- California Thoracic Society
- Long Beach Alliance for Children with Asthma
- Our Children's Earth
- Physicians for Social Responsibility – Los Angeles
- Physicians for Social Responsibility – SF Bay Area
- Regional Asthma Management/Prevention Initiative
- Union of Concerned Scientists

Faith-Based

- California Interfaith Power and Light
- Coalition on the Environment and Jewish Life (COEJL) of Southern California
- The Interfaith Environmental Council (Los Angeles)
- Orange County Interfaith Coalition for the Environment

Labor

- American Federation of State, County and Municipal Employees AFL-CIO (AFSCME)
- South Bay Labor Council, AFL-CIO

Consumer

- California Public Interest Research Group
- Consumer Action
- Consumer Federation of California
- Consumers for Auto Reliability and Safety
- Consumers Union
- Latino Issues Forum

Business

- Architects/Designers/Planners for Social Responsibility (ADPSR)
- Better World Club
- Better World Group
- California Climate Coalition
- CA Natural Gas Vehicle Coalition
- Conserv Fuel
- Environmental Entrepreneurs
- EV Rental Cars
- New Voice of Business
- Pacific Gas & Electric
- Sempra Energy (SoCal Gas Company/SDG&E)
- Silicon Valley Leadership Group
- Working Assets

Political

- Congresswoman Hilda Solis
- Democracy for America–Marin
- Democracy for America–Orange County
- Democratic Club of Claremont
- Democratic Club of the Pasadena Foothills
- Democratic Party of Orange County
- Democratic Party of the San Fernando Valley (DPSFV)
- Environmental Caucus of the CA Democratic Party
- Hubert H. Humphrey Democratic Club
- La Cañada Democratic Club
- Los Angeles County Democratic Party
- Julie Ruelas, Mayor of San Fernando, CA
- Mayor Antonio Villaraigosa
- Northeast Democratic Club
- Republicans for Environmental Protection
- Sacramento for Democracy
- San Bernardino County Democratic Central Committee
- San Fernando Valley Mexican American Political Association (SFVMAPA)
- San Fernando Valley Young Democrats
- USC College Democrats
- Valley Democrats United

Public Sector

- Bay Area Air Quality Management District
- Calif. Air Pollution Control Officers Assoc. (CAPCOA)
- City of Baldwin Park
- Santa Clara Valley Water District
- South Coast Air Quality Management District

33% Renewable Electricity Standard

Renewable Energy for California's Future

California Climate Choices

A Fact Sheet of the Union of Concerned Scientists

California needs to increase its use of clean, renewable sources of electricity. One vital tool to enable this to happen is increasing the state's Renewable Electricity Standard (RES) percentage requirement to at least 33% by 2020.

The current RES statute, often referred to as the Renewables Portfolio Standard, requires regulated electric utilities to increase their use of wind, solar and other eligible renewable electricity sources by at least one percent per year, reaching at least 20 percent by 2010.

While municipal utilities are required to adopt their own RES, they are not bound by the same statutory requirements and oversight as the investor-owned utilities.

A 33% Renewables Electricity Standard (RES) Will Provide Significant Benefits to Californians:

- Result in 13 million metric tons of global warming emission reductions in 2020—equivalent to removing almost three million cars from the road, or enough to avoid 10 new large fossil fuel power plants.
- Stimulate clean technology investment and innovation and grow the 'green jobs' economy by sending a clear market signal that new renewables will be developed in our state.
- Provide market certainty for developers, investors and planners of renewables projects and transmission.
- Diversify the state's energy supply and help protect consumers from natural gas price volatility.
- Help meet our GHG emissions cap under AB 32.
- Promote long-term planning in the infrastructure needed to support high levels of renewable energy development.
- Deliver air quality benefits in impacted communities by reducing future fossil fuel generation.

Clearing the Air

Roughly 22 percent of California's global warming emissions result from electricity used throughout the state. Increasing the amount of electricity from clean, renewable sources would help address global warming by reducing these heat-trapping greenhouse gas emissions. Moreover, a strong renewable energy standard will improve the air we breathe by shifting away from an over-reliance on fossil fuels toward cleaner sources that emit less air pollution.

California: A Leader in Renewables

A 33% RES, with appropriate reforms of the RES statute, would further expand California's renewable energy market and its booming clean tech industry. California clean tech companies received $1.8 billion in venture capital investments in 2007—almost half of total clean tech investments in the U.S. By 2020, a 33% RES will result in over 13,000 megawatts of new renewable power—enough to meet the electricity needs of 8 million typical homes.

The state legislature is considering the enactment of a 33% RES that would codify the state policy goal endorsed by the Governor and the California Energy Commission.

A 33% statutory RES is supported by dozens of organizations including:

- California League of Conservation Voters
- Clean Power Campaign
- Environment California
- Natural Resources Defense Council (NRDC)
- Sierra Club California
- Union of Concerned Scientists

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FACT SHEET

California Climate Choices

Less Is More: The Benefits of Limiting Global Warming Offsets

As individuals, businesses, and governments look for ways to reduce their global warming pollution, many are exploring the concept of "offsets," in which an emitter pays others to reduce their emissions and gets credit for the avoided emissions. Ideally, the purchase of a global warming offset results in a reduction or avoidance of global warming emissions somewhere else. Offset purchases fall into two categories:

Voluntary offsets—Individuals and businesses can voluntarily buy offsets from dozens of companies in the United States and around the world. Depending on the offset type, voluntary offsets may be a good way for individuals to contribute to lowering global warming emissions. There are currently no commonly accepted standards or regulations in place for assuring the veracity and permanence of these types of offsets, although independent reviews of voluntary offsets are available.[1]

Compliance offsets—Offsets can be built into mandatory emissions reduction programs, such as the Kyoto Protocol, the European Trading Scheme, and the Regional Greenhouse Gas Initiative (RGGI) in the northeastern United States. All of these programs require the participating countries or entities to meet mandatory global warming emissions limits. For example, electricity generators within RGGI states are obligated to reduce their global warming emissions to 10 percent below 2004 levels by 2020.

In order to reach their respective caps, entities covered under an emissions reduction program are allowed to purchase a certain amount of offsets from projects outside of their capped sectors. Under RGGI, for instance, electricity generators are allowed to purchase offsets from entities outside of the electricity sector to meet approximately 50 percent of their required reductions, or 3.3 percent of their total emissions. Only certain offsets qualify, and they must meet specific environmental criteria.

CARB should limit the level of offsets allowed in any future cap-and-trade system to a small fracton of required emissions reductions, and should ensure that offsets occur within uncapped sectors in California or other regions that have adopted strong global warming caps.

OFFSETS' ROLE IN STATE CLIMATE POLICY

Since the 2006 passage of AB 32, California's landmark Global Warming Solutions Act, the California Air Resources Board (CARB) has begun developing a package of regulations to reduce California's global warming emissions to 1990 levels by 2020 (about a 29 percent reduction from business as usual).

As part of this package, CARB is considering adopting a "cap-and-trade" system to reduce global warming pollution. A cap-and-trade system would establish a declining cap on global warming pollution in the state and then divide the remaining pollution into permits, or "allowances," each equivalent to one ton of pollution. The state would distribute the permits to emitters through an auction or other means; emitters would be free to buy and sell these permits.

CARB is considering whether to allow the capped emitters to buy offsets to meet all or some of their emissions reduction obligations, instead of requiring them to make emissions cuts directly or through trading allowances with other emitters in capped sectors.

Allowing some offsets into a California cap-and-trade system may provide several benefits. For example, sectors that are difficult to cap or regulate, such as private forestry or agriculture, could be allowed to participate in the state's emissions reduction program by producing global warming reductions that could be sold to capped sectors as offsets. Limited offsets may also allow CARB to "test-drive" the rules and procedures necessary for ensuring that offsets will truly be of high quality and generate emissions reductions that would not have occurred otherwise. Lessons learned from the California offsets experience may be applied to the international offsets market as it develops and matures.

However, there are many reasons to limit the level of offsets allowed in a California cap and trade system.

BENEFITS OF LIMITING OFFSETS

Clean technology development. Limited offsets may increase demand for carbon emission allowances, thus helping to maintain a robust carbon allowance price. This in turn should increase the profitability of currently available low-carbon energy technologies and encourage the development of new clean technologies.

Not only will California benefit from this increased investment in green technology for the state's highest-emitting sectors like electricity and transportation,

but the entire world can also benefit as this clean technology is exported. Limiting offsets can thus help enable California businesses to capture a larger share of the rapidly growing global market for clean technologies.

The increased investment in emissions reductions efforts in the electricity and transportation sectors should also help lower the future cost of global warming solutions.

Economic Growth. AB 32 instructs CARB to design global warming emissions reduction measures in such a way as to maximize environmental and economic co-benefits for California.[4] Recent economic models from the University of California at Berkeley suggest that allowing unlimited offsets in a California cap-and-trade program would have an economic cost because they would delay productive investments in more efficient state-based technologies that could save consumers and businesses money. The analysis also suggests that a cap-and-trade program that prohibits or limits the use of offsets *increases* economic growth in the state as compared with a program that allows unlimited offsets.[5]

Co-benefits. While reducing global warming pollution has valuable benefits for our future climate, it may also provide many other important environmental co-benefits. If electricity providers, oil and gas companies, and automakers are required to directly reduce the global warming pollution they produce, Californians will reap the benefits of related decreases in conventional smog-forming and toxic air pollutants. Improved air quality will in turn lead to improved public health, lower health care costs, and improved worker productivity and student performance.

Limiting offsets in California would lead to decreased global warming emissions and would allow Californians to reap the co-benefit of better air quality.

If California's global warming emitters are allowed to keep polluting and simply buy credits for emissions reductions happening elsewhere in the world—in effect outsourcing their reductions—Californians will lose out on local air quality and other co-benefits, including the improved energy security that will follow from less reliance on imported oil and gas.

The California Climate Action Team estimates that in the process of implementing a package of state-based global warming emissions reduction policies that nearly reach the state's 2020 target, California will save more than $6.5 billion by simultaneously reducing smog-forming and toxic air pollutants.[6] The more global warming reductions we can make directly in California, the more we benefit from cleaner air.

The challenge of monitoring and verifying offsets. Any regulations adopted as part of AB 32 must ensure that resulting global warming emissions reductions are real, permanent, quantifiable, verifiable, and enforceable by CARB.[2] The governor's AB 32 Market Advisory Committee, comprised of experts from across the United States and Europe, warned that, "depending on the size and scope of the [cap-and-trade] program, and the scope of potential offsets, the number of staff needed to implement an effective offset monitoring program could conceivably be larger than the staff needed to run the cap-and-trade program itself."[3]

A LONG-TERM CLIMATE SOLUTION

Reaching the 2020 climate goal is only an interim step toward the state's ultimate goal of reducing global warming pollution 80 percent below 1990 levels by 2050. In order to meet this longer-term goal, investments in clean energy and transportation infrastructure must be made as soon as possible. Limiting offsets will help keep California on the path toward realizing this long-term goal.

ENDNOTES

1 For example, see Trexler Climate and Energy Services. 2006. A consumer's guide to retail carbon offset providers. Prepared for Clean Air Cool Planet. December. Online at *www.cleanair-coolplanet.org/ConsumersGuidetoCarbonOffsets.pdf.*

2 State of California. California Global Warming Solutions Act of 2006: Greenhouse gas emissions reductions. In California Health and Safety Code. Division 25.5, Part 4, Section 38562(d)(1).

3 California Air Resources Board Market Advisory Committee. 2007. Recommendations for designing a greenhouse gas cap-and-trade system for California. June 30. Available online at *www.climatechange.ca.gov/documents/2007-06-29_MAC_FINAL_REPORT.PDF.*

4 State of California. California Global Warming Solutions Act of 2006: Findings and declarations. In California Health and Safety Code. Division 25.5, Part 1, Chapter 2, Section 38501(h).

5 California Climate Action Team Economics Subgroup. 2007. Updated Macroeconomic analysis of climate strategies presented in the March 2006 Climate Action Team Report. Final Draft. October 15.

6 Ibid.

An electronic version of this fact sheet is available on the UCS website at *www.climatechoices.org.*

The Union of Concerned Scientists is the leading science-based nonprofit organization working for a healthy environment and a safer world.

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