

**Climate Change  
“Alternative Compliance Strategies”  
Discussion Paper**

**1. BACKGROUND**

It is estimated that passenger vehicles and light-duty trucks are responsible for about 40 percent of the total climate change emissions in the state. The control and reduction of climate change emissions are critical to slow the effects of global warming, which is a matter of increasing concern for public health and the environment within the state.

Assembly Bill (AB) 1493 (Pavley, Chapter 200, Statutes of 2002) requires the Air Resources Board (ARB) to adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

The regulations prescribed by AB 1493 must be adopted by January 1, 2005, and may not take effect before January 1, 2006. The regulations would apply to 2009 and later model year vehicles. The bill also includes a requirement to “provide flexibility, to the maximum extent feasible consistent with this section, in the means by which a person subject to the regulations ... may comply with the regulations. That flexibility shall include, but is not limited to, authorization for a person to use alternative methods of compliance with the regulations.”

Staff believes that the criteria and guidelines for alternative compliance strategies should be structured in a manner that safeguards against any strategy being approved that does not meet the goals of the legislation.

These goals include:

- Achieving the maximum feasible reduction of climate change emissions from passenger vehicles and light-duty trucks and other vehicles used for noncommercial personal transportation in California.
- Providing flexibility, to the maximum extent feasible, in the means by which a manufacturer may comply with those regulations, including, but not limited to, authorization for a manufacturer to use alternative methods of compliance with the regulations.
- Ensuring that any alternative methods of compliance achieve equivalent or greater reductions in emissions of greenhouse gases as the regulations.

## 2. LEGAL REQUIREMENTS

As noted above, AB 1493 calls for the regulation to provide flexibility “to the maximum extent feasible consistent with this section” (emphasis added). Thus the use of alternative compliance strategies must not undercut the primary purpose of the regulation, which is to achieve greenhouse gas reductions from motor vehicles. Accordingly, the alternative compliance strategies will be evaluated to ensure that they do not:

- Dilute the technology-forcing nature of the standard/regulation--the goal is to change the vehicles themselves.
- Dilute the requirements or emission benefits of the California program.

AB 1493 also requires that the regulations be cost-effective, which is defined in part as "economical to the owner or operator of a vehicle, taking into account the full life-cycle cost of a vehicle." Many of the on-vehicle measures that could be implemented by manufacturers will increase cost but will also result in operating cost savings. This will not be the case with regard to off-vehicle alternatives, which will not provide any consumer savings. Staff invites comments as to how alternative compliance measures should be viewed in light of the cost-effectiveness test established in the bill.

AB 1493 stipulates that ARB provide maximum flexibility in the means by which a manufacturer may comply with the regulations. Consistent with the requirements of AB 1493, maximum flexibility could be achieved in the regulations through the possible incorporation of:

- Averaging - Averaging among various vehicle types within a manufacturer's fleet or between auto manufacturers.
- Banking - Allowing each vehicle manufacturer to “bank” excess reductions for use in future years.
- Trading mechanisms - Allowing “trading” of excess reductions between manufacturers that sell vehicles in California.
- Early credits - Allowing each manufacturer credit for reductions in climate change emissions achieved from new vehicles earlier than the regulation requires, measured from that manufacturer's 2000-model year baseline.
- Aggregating climate change emissions - Adopting standards that aggregate all climate change emissions, expressed as carbon dioxide-equivalent. These climate change pollutants include carbon dioxide, methane, nitrous oxide, and hydroflourocarbons.

Finally, AB 1493 specifically requires ARB to include “alternative methods of compliance” as one type of flexibility. Staff believes that “alternative methods of compliance” need to meet the criteria applied to all current emission credit trading programs. These include requirements that the emission benefits be real, quantifiable, surplus, enforceable, and permanent. Staff believes that motor vehicle projects within California have the highest degree of certainty with regard to their emissions benefits and therefore would set the benchmark for other projects to be considered.

The purpose of alternative compliance strategies is to provide auto manufacturers with additional flexibility in meeting the requirements of the climate change regulations. Alternative compliance strategies could thus be viewed as an emergency compliance strategy to be used when a manufacturer cannot meet the standards or timelines established under the climate change regulations. In addition, staff is considering allowing credits generated from alternative compliance strategies to be banked for use in later years when a company foresees a shortfall in meeting the regulation. Taken together these measures would allow the standards to be set at the maximum feasible level, recognizing that alternatives are available for manufacturers that are not as well positioned to comply.

### **3. ELIGIBILITY**

#### **Project Eligibility**

Staff is considering that projects may involve any source of emissions but must be located in California. In addition, staff is considering that the project must also meet the criteria described below to be eligible as an alternative compliance strategy for meeting the requirements of the climate change regulations.

#### **Applicant Eligibility**

Staff believes that companies that are not regulated may propose an alternative compliance strategy and may potentially sell the reductions to a regulated entity.

### **4. CRITERIA**

Consistent with the existing credit trading programs, staff is considering a requirement that any alternative compliance strategy meet the following criteria. Under such an approach, if any one criterion is not met, the project would not be approved.

Under existing trading programs, credits generated from projects must be:

### **Real**

Real emission reductions are those that have actually occurred, not emissions that could have been emitted but were not.

### **Quantifiable**

Quantifiable means that the amount of the emission reductions can be measured with reasonable certainty. This would involve determination of a baseline for each project. Quantification would then involve determining the emissions associated with the alternative compliance strategy project.

Also, to ensure that the reductions significantly contribute to progress toward reducing climate change emissions, staff is considering that reductions generated using an alternative compliance strategy be discounted by a certain percentage when applied towards a manufacturer's requirements under the climate change regulations. In addition, due to the fact that upstream emissions play a role in the climate change emissions from mobile sources, any alternative strategy project should use a baseline that accounts for upstream emissions before additional trade discounts are applied. For example, upstream emissions from gasoline can increase a baseline by as much as 22 percent. This value would be periodically reviewed in order to ensure it reflects changes in gasoline production and distribution.

### **Surplus**

Surplus reductions are those that are not required by any law or regulation or otherwise assumed to occur as part of a regional air quality plan or government commitment or agreement.

### **Enforceable**

Enforceable means that the reductions can be independently verified and are legally binding. Projects thus must be accessible to inspection by California staff. Alternative compliance strategies should be monitored and verified annually. An annual application, compliance plan, and assessment may be needed to ensure that the activities that produce credits occur as planned. In addition, record keeping may be an essential part of enforcement.

### **Permanent**

Permanent means that the life of the emission reductions is reasonably established and commensurate with the proposed use of the credits. Ideally, projects should

be “irreversible”; that is, the reductions achieved should not be subject to backsliding or vulnerable to changes in external conditions (e.g. forest fires or changes in land use patterns). At a minimum, projects should be capable of generating the claimed reductions without a need for tight management, oversight and control.

## **5. USING ALTERNATIVE COMPLIANCE STRATEGIES TO MEET CLIMATE CHANGE REGULATIONS**

### **Cap on Use of Alternative Compliance Strategy Credits**

In order to achieve the maximum feasible reduction of climate change emissions from passenger vehicles and light-duty trucks, manufacturers should not be able to meet their entire requirement with alternative compliance strategies. Therefore, staff is strongly considering a cap on the amount of alternative compliance strategy credits a manufacturer can use to meet its requirements. Staff has not yet determined the structure of the cap or how stringent the cap should be. One possible approach is to cap the allowable use of alternative strategy credits at a level related to the variation in greenhouse gas emissions across manufacturers. Under this approach alternative strategies could initially be used to assist manufacturers in the most difficult starting position.

### **Use of Alternative Compliance Strategy Credits**

Staff suggests that alternative compliance strategy credits would be determined, verified, and applied to a manufacturer’s obligation on an annual basis. A multi-year program could not use emission reductions anticipated in future years.

### **Ownership and Liability of Alternative Compliance Strategy Credits**

A procedure and contract process should be established to determine and ensure proper ownership and liability of any alternative compliance strategy credits earned, banked, and traded. Certificates, contracts, or a tracking system may be ways to address ownership and trading of credits. The California Climate Action Registry may also be a resource for tracking ownership of alternative compliance strategy credits.

### **California Climate Action Registry**

Senate Bill (SB) 1771 (Sher, Chapter 1018, Statutes of 2000) established the California Climate Action Registry (Registry) with technical changes being made to the statute in SB 527 (Sher, Chapter 769, Statutes of 2001). The Registry is a non-profit voluntary registry for greenhouse gas (GHG) emissions. The purpose of the Registry is to help companies and organizations with operations in the state to establish GHG emissions baselines against which any future GHG emission reduction requirements may be applied.

The Registry encourages voluntary actions to increase energy efficiency and decrease GHG emissions. Using any year from 1990 forward as a base year, participants can record their GHG emissions inventory. The State of California, in turn, will offer its best efforts to ensure that participants receive appropriate consideration for early actions in the event of any future state, federal or international GHG regulatory scheme. Registry participants include businesses, non-profit organizations, municipalities, state agencies, and other entities.

ARB is coordinating with the Registry and the California Energy Commission on our mobile source climate change regulations, in particular alternative compliance strategies. Since ARB must ensure the integrity of any alternative compliance strategy, projects certified by the Registry may not be eligible to receive alternative compliance strategy credits under ARB's mobile source climate change regulations. However, staff would like to explore ways to involve the Registry in the alternative compliance strategy criteria and implementation.