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**CLIMATE CHANGE ADVISORY COMMITTEE**

**FINAL STATEMENT OF THE CROSS-CUTTING SUBCOMMITTEE**

**These recommendations represent the views of the Cross-Cutting Subcommittee of the Energy Commission's Climate Change Advisory Committee. The statement does not necessarily represent the views of the full Advisory Committee or the Energy Commission. The results of this work will be closely coordinated with the recently formed cap-and-trade working group which is being led by Cal EPA.**

Background: In June 2004, the Climate Change Advisory Committee was asked by the Energy Commission to identify policies and measures to reduce greenhouse gas emissions in California. Recognizing that aggressive strategies already underway in California, such as the greenhouse gas vehicle standards and an accelerated renewable portfolio standard, together achieve less than half of the reductions needed to meet the target, the solution for California will require marshalling resources and innovations from a variety of sectors.<sup>1</sup>

Given the diverse nature of the greenhouse gas problem, California should implement greenhouse reduction programs that address multiple sectors of the economy. The selection criteria for including any given sector in a greenhouse gas reduction effort should include such factors as the sector's relative contribution to state greenhouse gas emissions, the cost-effectiveness of mitigation measures available to the sector, the nature of economic competition faced by the sector (and the economic viability of the sector should mitigation measures be imposed), the ability to develop accurate estimates of emissions and reductions for the sector, the size and distribution of sources within the sector, and existing barriers to the implementation of technical control measures.

Inversely excluding a sector should be done only after concluding that the sector's greenhouse gas emissions are minimal, too costly to achieve (as compared to other sectors that are included in control measures), and that to meet a statewide greenhouse gas reduction target it is fair and equitable to require other sectors (that are included in control measures) to take on additional greenhouse gas reduction obligations over and above what would otherwise be imposed upon such targeted sectors.

Possible Approaches: The cross-cutting work group briefly considered a range of policy approaches for reducing greenhouse gas emissions, including

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<sup>1</sup> Governor Schwarzenegger announced greenhouse gas reduction (GHG) targets for California on June 1, 2005, which would by 2010 reduce statewide GHG emissions to 2000 levels; by 2020 reduce statewide GHG emissions to 1990 emission levels; and by 2050 reduce statewide GHG emissions to 80 % below 1990 levels. See Cal EPA's fact sheet on "California's Greenhouse Gas Emission Reduction Leadership Policy," June 1, 2005, [www.climatechange.ca.gov](http://www.climatechange.ca.gov)

technology-based approaches, standards and benchmarks, cap-and-trade programs, pollution fees, monitoring and reporting requirements, negotiated agreements, incentive programs, voluntary programs, education and assistance, policy changes, and research and development. While each of these approaches has merit and there are instances where each will be effective in reducing emissions, either alone or in combination with other programs, this cross-cutting work group focused on the elements of a well designed, fair, and equitable cap-and-trade program which have proven effective for reducing emissions from stationary sources.

To be clear, this subcommittee supports a well designed, fair, and equitable cap and trade program **if** the State has accepted a mandatory greenhouse gas reduction requirement and the cap and trade program represents the best alternative to achieve cost-effective greenhouse gas reductions; and that no other option will achieve more cost effective (as measured on a statewide basis) and certain emission reductions. This subcommittee does **NOT** support a cap and trade program if the State has **NOT** accepted a mandatory greenhouse gas requirement or if the program is **NOT** well designed, fair, and equitable; or does **NOT** represent the best alternative to achieve cost-effective greenhouse gas reductions.

Benefits of a Cap-and-Trade Program: A well-designed, fair, and equitable cap-and-trade program was deemed by the subcommittee to be an option that merits investigation for several reasons. First, cap-and-trade programs provide a high level of certainty that a specific emissions limit will be achieved during the course of the program.<sup>2</sup> Second, cap-and-trade programs can be designed to require broad-based participation. Unlike voluntary approaches which capture just those companies or sectors that elect to participate, cap-and-trade programs can be designed to include multiple sectors and affect the majority of emissions in the covered sectors. Third, in providing flexibility in how emissions are reduced and in making use of markets, cap-and-trade programs encourage the lowest cost compliance strategies, thereby minimizing overall program costs and generating more cost effective reductions.

The degree of cost savings resulting from a well designed, fair, and equitable, cap-and-trade program (cost savings as compared to mandatory, source specific measures) is related to, among other factors, the differences in marginal cost of control among the various participants (the greater the differences in control cost, the greater the potential cost savings) and the total reductions needed from capped sectors to meet the overall state target relative to the total reductions that can be achieved from those sectors.

If California determines that a cap and trade program is the best solution, to the extent feasible, California should require participation by a sufficient number of

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<sup>2</sup> This is true of all cap-and-trade programs that have been implemented in the U.S. and have allowed emissions banking as a compliance flexibility mechanism.

emitting sectors to capture a large fraction of the greenhouse gas emissions. The more sectors embraced by the cap-and-trade program, the greater the program-wide cost savings and probability that the state will meet its emissions targets.

However, some sectors may not be well suited to emissions trading for various reasons. For example, inclusion of sectors with a large total number of sources each having a relatively small emissions contribution would likely result in high transaction and administrative costs. In other instances, emissions inventories may not be precise enough to allow for participation. In other instances, the need to keep an economically challenged industry sector viable may result in a choice to exclude such sector from the program and impose additional burdens on other included sectors.

In sectors that may be excluded from a cap-and-trade program, alternative policies and command and control measures may be developed to reduce emissions. It is possible to link such policies and measures to the core trading system (e.g., sources within excluded sectors that over comply with command and control measures can deliver [and be paid for] "surplus" reductions into the cap-and-trade program).

Bottom line: generally, whether it is through the inclusion in a cap-and-trade or alternative command and control program, each sector should be evaluated to determine if it should have a greenhouse gas reduction obligation. The exclusion of sectors from such obligation should be done only after policy-makers decide that it is appropriate to saddle the other sectors (i.e., those subject to a cap-and-trade or command and control program) with a proportionately larger obligation necessary to make up for the shortfall caused by excluding the sector from such obligation.

**While this subcommittee supports California's efforts to independently pursue reductions in greenhouse gas emissions, we acknowledge that such independent action is not optimal from the standpoints of program efficiency, effectiveness, and certainty. The establishment of a broader regional, national or international program would reduce the potential for emissions "leakage" and expand the available set of cost-effective control measures. Moreover, the creation of a heterogeneous landscape of state and international programs adds compliance challenges for companies with facilities in multiple states and countries.**

In light of the limitations associated with development of a state program, the committee supports development of cap and trade program designs that can be readily adopted by neighboring western states, would enable linking with other trading programs in the U.S. and abroad, and would potentially serve as a model for the development of a national policy. The state should undertake the needed

effort and coordination to build a program that meets California's needs yet is consistent with these broader goals.

Some fundamental principles for the design of a multi-sector greenhouse gas emissions trading program are provided below.

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### **Recommended Principles for a Cap-and-Trade Program**

*If* California has imposed upon itself a mandatory greenhouse gas reduction requirements, which includes a specific reduction requirement (e.g., X tons/%) and a deadline of sufficient longevity to be factored into planning, budgeting and financing cycles, then this subcommittee recommends the consideration of a well designed, fair, and equitable cap and trade program. The program will not be nearly as effective or useful if California's greenhouse gas reduction requirement is voluntary, short-term, and with insufficient economic consequences of failing to achieve the specified target.

Further, a cap and trade program is deemed by policy makers to be a part of the State's climate change mitigation strategy, it is recommended that such a program be well-designed, fair and equitable, and include these general principles (which are not listed in any particular order). Moreover, some of the principles may lead to conflicting outcomes and may need to be weighed according to state priorities.

1. A broader, regional, national or international program is preferred to a state-only program. Such a program can encourage broader participation, reduce the potential for "leakage," improve economic efficiency of emission reductions, and encourage technology innovation and cost-effective control measures.
2. The program should be able to be replicated, adopted by, and/or linked with other Western states, the U.S. as a whole and with programs in other states and countries.
3. The program should be multi-sector cap-and-trade program to help lower costs and distribute the opportunity and responsibility of reducing greenhouse gas emissions more broadly so that no one sector is unfairly burdened.
4. The cap-and-trade program should be compatible with other existing and future policies and operate simultaneously with both market-based and command-and-control programs (e.g., appliance and building efficiency standards, motor vehicle emission regulations, renewable portfolio standard).

5. The program should be based upon a high quality emissions inventory, include mandatory reporting and data collection, and utilize an effective and efficient compliance and monitoring system. The program should explicitly define both the value of participation and the consequences of non-compliance.
  6. The program should be efficiently administered by a single regulatory agency, with coordination among the relevant state, regional, and local agencies.
  7. Baselines and allocation formulas should recognize the benefits of low carbon technology, efficiencies in energy use and production and the benefits of non-emitting renewable energy. Further, allocation of emissions allowances should be fair, efficient, and consistent with the goals of the program (i.e., achieve higher levels of emission reductions at lower costs).
  8. The program should impute costs of greenhouse gas emissions and value of greenhouse gas reductions to participants. In other words, the program should encourage participants to make and sell excess reductions where they can do so for less than the allowance price.
  9. The program design should recognize the need to maximize the economic utility of the flexible mechanisms by giving consideration of sufficient time duration to the cap and trade program to enable the incentives and penalties to mirror and thus be factored into long-term capital planning, financing and budgeting cycles.
  10. The program should provide a high level of regulatory certainty and compliance flexibility with a sustainable market for the trading of emissions.
  11. The program should seek to align incentives with the actions of emitters. In other words, the program should encourage changes in behavior that lead to emissions reductions.
  12. Input from a diverse set of stakeholders, including public and private entities should be sought.
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