

Barbara Baird

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Climate Change

June 15, 2007

Via email

Ms. Eileen Wenger Tutt
Office of the Secretary
California Air Resources Board
1001 I Street
Sacramento CA 95812

Re: Comments on the June 1, 2007 Market Advisory Committee Report –
“Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for
California”

Dear Ms. Tutt:

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the June 1, 2007 Market Advisory Committee recommendations to the California Air Resources Board (CARB). The document “Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California” is very comprehensive and does an excellent job articulating the complex nature of this topic.

The SCAQMD staff has comments for the committee’s consideration, which are based on extensive experience in developing and implementing RECLAIM, the Regional Clean Air Incentives Market. RECLAIM was California’s first air pollution cap-and-trade program and includes hundreds of stationary sources from a wide variety of industries. Many of these facilities will also likely be included in the state’s greenhouse gas cap-and-trade program. Four years of development and over a dozen years of implementation have provided valuable lessons learned that can help inform this committee’s recommendations and the state’s greenhouse gas programs. A copy of the report, “Over a Dozen Years of RECLAIM Implementation: Key Lessons Learned in California’s First Air Pollution Cap-and-Trade Program,” is attached to these summary comments to provide more detailed and specific information.

The SCAQMD staff concurs with the recommendations that the California Air Pollution Control Officers Association (CAPCOA) has submitted, and this letter references many of those comments. SCAQMD staff offers comments in the following areas regarding the Market Advisory Committee report: areas where we concur with the recommendations in the Report, additional comments on topics in the CAPCOA letter, areas where we suggest a different approach than what was recommended in the report, corrections to some of the statements about RECLAIM, and additional ideas for the committee’s consideration.

Areas that SCAMD Staff Concurs with the Report Recommendations

Program Scope

SCAQMD staff agrees with the committee's recommendation of starting with the medium and large stationary sources, and then adding transportation and some upstream elements once the permitting, monitoring, and other operational aspects can be adequately addressed. SCAQMD staff suggests that the discussion in the report on the transportation sector and the upstream elements be expanded to provide additional information on how this could work.

Program Linkage

SCAQMD staff also concurs with the recommendations regarding linkages to other programs but only if those programs are robust and meet certain criteria. Ongoing verification that criteria are being met is necessary for programs outside of California linked to AB32 emissions reduction efforts. We also believe it would be prudent to state that the program is a California-only program in its initial stage.

Quarterly Reporting

The recommendation for quarterly reporting of emissions seems appropriate as the maximum interval for stationary combustion sources using fuel meters. The transportation sector may require monthly reporting, depending on the nature of the operations.

Additional Information to Supplement CAPCOA Comments

Allowances Should Not be Property Rights

SCAQMD staff concurs with the CAPCOA recommendation that allowances should not be given the status of a property right. Under RECLAIM Rule 2007, the SCAQMD reserves the right to amend the rules, and specifically states that nothing in the rules limits the SCAQMD's right to condition, limit, suspend, or terminate RTCs, or the authorization to emit represented by the facility permit. Rule 2007 expressly disclaims any intent to create a property right. The rule specifies that an RTC shall not "constitute a security or any other form of property," but it may be used as collateral or security for indebtedness. Similar provisions should be included in the rules for a greenhouse gas cap-and-trade program to protect the government's right to amend the program in the future.

Periodic Program Reviews

RECLAIM Rule 2015 contains a list of areas that are the subject of annual and other required program audits. They include evaluation and reporting on: emission reductions, per capita exposure to air pollution, facilities permanently ceasing operation of all sources, job impacts, average annual price of credits, credit availability, toxic risk reductions, new source review permitting activity, compliance issues, emission trends/seasonal fluctuations and emission control requirement impacts on sources in the program compared to their counterparts that are not in RECLAIM. Many of these elements would be beneficial for the state's program and the committee should consider adding this to their recommendations.

Length of Compliance Period

SCAQMD staff concurs with CAPCOA recommendations regarding a one-year compliance period to encourage both timely market signals regarding allowance price, as well as active emissions planning and allowance management by participating facilities. In addition, our experience with RECLAIM field enforcement underlines the need for timely and detailed auditing of reported emissions, which can only be accomplished once the compliance period for reporting and emissions allowance true-up is completed. Compliance auditing provides a critical feedback loop to on-going facility reporting. Facility operators can make errors in properly implementing monitoring, recordkeeping, and/or calculation protocols. These errors usually go undetected until the end of the compliance period. The recommended three-year period would greatly compound problems that should have been detected and corrected much earlier.

The report also suggests that the three-year compliance period would be especially appropriate in the early years of the program (when an allowance bank has not been developed). SCAQMD staff respectfully suggests that this is the least appropriate time for extended compliance periods as facilities will be least familiar with the program, can be expected to make the most mistakes in monitoring and reporting, and require more assistance during this time. In addition, our observations and experience with RECLAIM indicates that it should be expected that staff turnover and assignment changes at facilities will continue to necessitate ongoing training and assistance to facilities as we regularly encounter inadequate company transition of RECLAIM reporting responsibilities during staffing changes. Consequently, we do not recommend elongating compliance periods as program experience increases.

Program Linkage

If the program includes linkages to any other programs, it will be important to assure that program requirements are both practically and legally enforceable. The report recommends that environmental integrity be considered when deciding whether to allow linking with other programs. We would go further and recommend that linkage not be allowed with programs that do not have a high degree of environmental integrity. This includes adequate monitoring, recordkeeping, and reporting of emissions.

Practical enforceability requires that the linked program assures that any credits or allowances traded out of the system be accurately quantified. For example, the program might require that the administrator of the linked program have already certified the credits or allowances, rather than allowing individual parties to create an offset transaction for which they seek California approval. As a safeguard, the program should consider making users of credits that are brought in from linked programs ultimately responsible for the legitimacy of the linked program credit. In other words, if the linked program credit turns out to be invalid, the user will have to make up the reductions through a valid credit. In addition, the program needs to consider legal enforceability. If a seller in the linked program defrauds a program purchaser, it seems California would want to be able to prosecute that person. Consideration should be given regarding how to get personal jurisdiction over participants in linked systems, as well as assurance that they may be prosecuted in California courts, under California laws. In addition, there may be ways to structure agreements so that the administrators of the linked program actually take enforcement action against that person.

Interaction with the Electricity Market

The report mentions the concern regarding possible interaction between the potential volatility of allowance prices and the reliability of electricity supply. Possible impacts on the costs of electricity are a similar concern. Our experience has been that these are very real concerns. During the California power crisis, increased operation of power plants caused skyrocketing prices for both RECLAIM program credits and for electricity. The electricity industry tried to blame RECLAIM for the high electricity costs incurred by southern California consumers. One method of reducing this risk is to design the program to make sure, to the extent possible, that electricity producers take concrete steps to reduce their need for allowances early on in the program. As discussed elsewhere, we do not concur that allowing banking would have this effect; quite to the contrary. We recommend requiring compliance plans to assure that electricity producers plan ahead to meet their needs by obtaining real, on-site reductions as early as possible.

Areas where SCAQMD Staff has a Different View

Market Behavior

One of the basic economic principles assumed for market-based programs is that participants will behave rationally. Fourteen years of RECLAIM experience has repeatedly shown that this is frequently not the case. This assumption affects recommendations on early actions, banking, and most other major program elements. The program design should carefully consider that rational behavior is not always going to occur and that repeated, frequent training is needed to encourage advance planning by program participants.

Banking

SCAQMD staff agrees with the CAPCOA comment that unlimited banking may result in the failure to meet 2020 or 2050 targets. Banking is only an incentive for early reductions if the initial allocations are very tight. If there are any excess allocations in the system in the early years of the program, those excesses, not reductions, would be banked. This can exacerbate problems later in the program.

There is a high likelihood that allowing banking would have the exact opposite effect from what the committee intended. Unless initial allocations are set at below actual emissions, which would be politically very difficult, there is a good chance that there will be at least some excess allocations. If banking is allowed, these excess allocations will be banked. There will be no incentive for anyone to install controls early in order to have excess credits to bank. These banked excess allocations could then discourage, rather than encourage, the installation of controls.

It should also be noted that the proposition that allowing banking will encourage early installation of controls is dependent on the assumption that market participants will be planning ahead and always be behaving in their own best rational economic interest. As discussed in other comments, this has not been our experience.

If banking is allowed, there needs to be a mechanism to avoid having excess credits in the years immediately preceding the 2020 or 2050 deadlines. Perhaps banked credits could retain full value until five years before those critical deadlines, when they would begin to be decreased by twenty percent per year in the last five year period.

Safety Valves

The report recommends that no safety valves be allowed. We think this issue needs to be considered more closely. The SCAQMD designed RECLAIM with a price level that required program reevaluation as the only safety valve, for the same reason the report recommends against them, to assure the integrity of the cap. However, during the power crisis some facilities (not power plants) were forced into desperate straits when they either could not afford credits or could not find them at any price. These facilities were threatened with economic ruin. The SCAQMD was forced to create an ad hoc safety valve through a combination of enforcement discretion and allowing facilities to “pay back” their exceedances over a period of years, which was not what the program originally contemplated. Under sufficiently severe circumstances, it may be politically unrealistic to maintain the program with no safety valve. It may be preferable to design in carefully circumscribed safety valves, rather than being forced to devise them ad-hoc during a crisis. The report recognizes this to some extent by pointing out that offsets can serve as a safety valve as well as encouraging obtaining reductions from sources that are otherwise difficult to regulate. SCAQMD staff agrees with these observations; the pilot mobile source credit programs designed to augment RECLAIM during the power crisis are an example. One way to create a safety valve might be to withhold a small percentage of allowances from either an auction or free distribution, which may be accessed only by facilities that make a showing that noncompliance is otherwise beyond their reasonable control, and that prices have increased beyond a specified level.

Market Imperfections

Any market has the potential for hoarding and price increase due to speculation. An auction could result in some parties purchasing far more allowances than they need and then selling them for substantial profit. The committee may wish to consider a recommendation that facilities be limited in how many allocations they can purchase initially that are above their recent actual emissions.

Investors and speculators have become more prominent in the RECLAIM credit trading profile in recent years. It has been observed that credits are being traded back and forth between these types of parties at incrementally increased prices. This can potentially lead to a shortage in available credits or substantially higher prices for facilities that may need them to cover their emissions. The committee may wish to address this issue and recommend monitoring of this situation.

Facility Emission Fluctuation

The report provides theoretical examples of how facility emissions can fluctuate and how participants might react in a greenhouse gas cap-and-trade program. RECLAIM provides some actual examples. The power plants, during the California energy crisis, are a prime example how unanticipated events can cause large increases in facility emissions from year-to-year. Staff also

pulled emissions data from six large NO_x RECLAIM facilities from the cement, metal melting, and battery manufacturing industries. In the period 2000 to 2005, emissions fluctuated from year to year. Three of the companies reduced emissions (ranging from four to almost 100 percent), and three of the companies increased emissions (ranging from less than one to over five percent).

Corrections to the Report regarding RECLAIM

The report contains some minor technical errors. Both the RECLAIM NO_x and SO_x programs were adopted in October 1993. It is a SO_x program, not SO₂.

SCAQMD staff does not agree with the statement that “had banking been allowed in the RECLAIM program, it is likely that post-combustion NO_x controls would have been put in place earlier.” There is little evidence to support this statement. Take the case of power plants - prior to the 2000 electricity crisis, in-Basin power plants were mainly idle and had not seen any shortage of emission allowances. There were no signs or predictions that operation levels would have skyrocketed the way they did in 2000 and 2001. Banking would have resulted in ample supply of allowances just by the fact that these power plants were under utilized in the initial years. The availability of the banked allowances, if they were allowed, would have been a source of allowances that could have been used to avert the crisis. However, more importantly, these allowances would have caused exactly the opposite result of what actually occurred after the electric crisis, that is, instead of controls being installed, there would have been further complacency. Because there was no shortage of allowances, there would have been even less incentive for further control. Actual experience has shown that an allowance market does not behave anywhere near efficiency. Emission control equipment does not necessarily get installed just because market prices for allowances exceed the control cost.

RECLAIM, like the Global Warming Solutions Act of 2006, had very clear emission end points which were set for 2000 and 2003. While the program was over-allocated in the initial years to avoid locking in recessionary activity levels, RECLAIM matched the goals sets for 2000 and 2003 both in terms of time and mass emissions under the 1991 Air Quality Management Plan. It did not allow for any additional time for actual reductions as implied in the statement “RECLAIM bought five more years of not installing control technologies.”

Additional Ideas for the Committee’s Consideration

Allocations

The report suggests a hybrid approach for initial allowances, which would have some portion of the allocations issued to facilities without cost and the balance being auctioned. SCAQMD staff suggests that the “free” portion of the allocations be based on assigning current activity levels to the emission rate that would be achieved if the equipment or process was operating with Best Available Control Technology (BACT). Any other allocations needed to cover emissions could be purchased through an auction.

This method recognizes early actions and also rewards facilities that have undergone modernization or have low emitting operations. Such a schema would also give facilities the

incentive to do advance planning and consider reducing their operations to have a favorable economic outcome with respect to allowances.

Incentive for Projects in Environmental Justice Areas and Non-Attainment Areas

To help target reduction projects in Environmental Justice areas and non-attainment areas, SCAQMD staff recommends that a portion of the allowances be held aside from the general auction and used to provide an incentive for projects in these areas. Reductions from such projects could be rewarded at a higher than one-to-one ratio until the allowance pool was exhausted. This could help secure co-benefits such as reductions in criteria and toxic pollutants in areas where they are needed the most.

Consider Limiting Trading to California

To focus investments, jobs, and co-benefits in California, and to gain experience in program implementation and enforcement, SCAQMD staff recommends that trading be limited initially to this state. A safety valve could be established so that if a certain price was exceeded over a given time frame, trades with other states could then be allowed.

Offsets

SCAQMD staff agrees with CAPCOA that landfills should be directly regulated rather than be under an offset program. The SCAQMD has required methane capture at active and inactive landfills since the 1980s. In addition, offsets should be issued only if they are additional to what would occur under other regulatory programs. Fugitive emissions were also listed as an area for potential offsets because of monitoring difficulties that would need to be addressed before putting such emissions in a cap-and-trade program. In South Coast, refinery fugitive emissions have been inventoried and monitored under command-and-control rules. This type of accounting is in use today. Any offset credits should only be given for reductions beyond existing requirements.

Discounts for out-of-state offsets could also provide more incentive for these projects and overall program reductions to occur in California. This will assist in meeting local air quality and toxic reductions and would help address potential environmental justice issues.

Information to Substantiate Compliance

SCAQMD staff recommends that adequate monitoring authority be specified so that supplier records can easily be obtained to verify reported fuel use and other parameters used to establish emissions.

Advanced Planning

The assumption that participants will behave rationally, as described in a previous section, underscores the need to ensure that program participants will do adequate planning. In RECLAIM, staff provided multiple compliance advisories and meetings where one third of the facilities in the program were represented to bring attention to the anticipated cross-over point in 2000. Facilities were given repeated warnings that actual emissions were approaching the level of allocations and that there were not a substantial number of pending permit projects for NOx emission reductions.

Despite ample notice that the cross-over point was approaching, a number of facilities (not just power plants) did not take action to either secure a stream of future credits, or install controls to keep their emissions below allocations. Some have argued that early over-allocation caused lower credit prices that lulled sources into complacency. However, any such effect should have been offset by the warnings that were given to RECLAIM facilities. Staff concludes that a mechanism to require advance planning should be included in the program.

SCAQMD staff suggests that participants be required to submit compliance plans that demonstrate how they plan to match allocations with their projected emissions. Plans that rely solely on credit purchases should not be considered to be adequate unless there are arrangements documented that the credits will be delivered. Compliance plans help ensure that facilities take a long-range planning view and carefully consider their options under a cap-and-trade program.

Lag Time between Price Signal and Installation of Controls

Even with planning and good market signals, there is an inherent lag time before facilities can implement changes or add controls to reduce emissions. There is a very real need to ensure that facilities can respond to market signals and other changes in time to meet their compliance obligations.

Under market program theory, sources will react to price signals that tell them that the cost of credits has now approached or exceeded the cost of controls. However, due to the necessary time to install controls before actual emission reductions can occur, the point at which the price signal occurs may be too late to respond in time to comply. The existing supply of credits may be exhausted, causing large price spikes and economic hardship. This phenomenon presents an additional reason why requiring advance planning is desirable.

Market Administration

Depending on the system that is set up for trades, it may be necessary to have a joint registration before a trade can be recognized. Having both the buyer and seller confirm the details of a trade minimizes any miscommunications or potential fraud with transactions.

The report recommends that allowances be given unique serial numbers. This can have some benefits for tracking, but adds complexity to the administrative and information management needs. The SCAQMD staff would like to emphasize that the decision whether or not to issue serial numbers needs to be made before the program is started. This will allow lead time to get systems in place to accommodate the data. Once a program is started, it is not possible to add serialization later.

Mid-Course Corrections

In addition to periodic program assessments, it is important that a market-based cap-and-trade program build in mechanisms to facilitate mid-course corrections. This is closely related to the recommendation that credits are not given the status of a property right. Unforeseen circumstances may require adjustments to allowances or require layering specific command-and-control on some operations. The SCAQMD staff will work with CARB as they develop their regulatory structure to help in this area.

Thank you for the excellent work of the committee and the opportunity to provide comments. The SCAQMD staff is committed to helping CARB and others develop and implement a successful program that meets greenhouse reduction objectives while complementing efforts to reduce criteria and toxic air pollutants. If you have any additional questions or if SCAQMD staff can be of further assistance, please contact Jill Whynot, Planning and Rules Manager at (909) 396-3104 or me at (909) 396-2100.

Sincerely,

Barry R. Wallerstein, D.Env.
Executive Officer

Attachment
White Paper on RECLAIM Lessons Learned

cc: Catherine Witherspoon
Winston Hickox
Nancy Sutley