

The Carl Moyer Memorial Air Quality Standards Attainment Program

Improved Practices in Applicant Selection, Contracting, and Marketing Could Lead to More Cost-Effective Emission Reductions and Enhanced Operations

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State Air Resources Board and local air districts' responses as of December 2007

The Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer Program) is an incentive program offered by the State Air Resources Board (state board) in conjunction with participating air pollution control districts and air quality management districts (collectively, local air districts). The Moyer Program provides funds to help private companies, public agencies, and individuals undertake projects to retrofit, repower, or replace existing engines to reduce pollution emissions beyond what is required by law or regulations. A local air district can fund a project that provides cost-effective emission reductions. Emission reductions are considered cost-effective when the cost to reduce 1 ton of emissions is at or below the cost ceiling imposed by the state board.

The Joint Legislative Audit Committee asked the Bureau of State Audits to review how the state board and key local air districts manage the Moyer Program. We limited our review to the four largest districts in terms of the Moyer Program funds they received—the Bay Area Air Quality Management District (Bay Area air district), Sacramento Metropolitan Air Quality Management District (Sacramento Metropolitan air district), San Joaquin Valley Unified Air Pollution Control District (San Joaquin Valley air district), and South Coast Air Quality Management District (South Coast air district). In addition to the findings and recommendations discussed below, we also examined the policies and procedures of the state board and the local air districts; the state board's use of liaisons to the local air districts and desk audits of reports from the local air districts to monitor their Moyer Programs; the high cancellation rate at one entity relative to others; the availability of Moyer Program funds to projects operating in multiple air districts; the project inspections local air districts conduct; monitoring of projects after they have been implemented; and the length of time it takes local air districts to move projects through the Moyer Program process. We found the following:

Finding #1: State law impedes maximum emission reductions.

California law impedes emission reductions by allowing the state board to set aside only 10 percent of Moyer Program funds for projects that operate in more than one local air district. A higher cap could lead to emission reductions with lower costs per ton. For example, if the cap for multidistrict projects were increased to 15 percent for funds appropriated in fiscal year 2004–05, the state board could have selected three additional projects with intended emission reductions costing an average of \$2,600 per ton. Shifting this funding would have reduced

Audit Highlights . . .

Our review of the Carl Moyer Memorial Air Quality Standards Attainment Program (Moyer Program) revealed the following:

- » *California law impedes emission reductions by allowing the State Air Resources Board (state board) to set aside only 10 percent of Moyer Program funds for projects that operate in more than one local air district.*
- » *The methodology the state board used to select projects for the multidistrict component undervalues the cost per ton of intended emission reductions.*
- » *For fiscal year 2003–04, 14 of the 16 projects the Bay Area Air Quality Management District designated as matching projects exceeded the Moyer Program's ceiling for cost per ton of intended emission reductions.*
- » *The South Coast Air Quality Management District did not spend \$24.1 million in Moyer Program funds within the required two years and the state board is monitoring the district to ensure these funds are spent by July 1, 2007.*
- » *We identified several best practices that, among other things, can help local air districts select projects with lower costs per ton of intended emission reductions.*

the money available to districts, thus preventing the four districts we visited from selecting 13 projects. However, the average cost of the intended emission reductions from those projects was nearly \$11,000 per ton, clearly not as good a value as the multidistrict projects.

We recommended the state board seek legislation to revise state law to increase the 10 percent maximum proportion it can allocate for multidistrict projects. If the state board opts not to seek this revision, the Legislature may wish to consider it.

Legislative Action: Legislation proposed.

Senate Bill 895, which would increase to 20 percent the maximum proportion the state board can allocate for multidistrict projects, was in the Senate Committee on Rules as of December 2007.

Finding #2: The methodology the state board uses to select projects has undervalued the cost-effectiveness of emission reductions.

Three of the six categories the state board uses to assign points when scoring applications for multidistrict projects are neither required nor encouraged by state law. Of the 100 possible points, these three categories accounted for 35 and 55 points, respectively, in the two fiscal years we reviewed. An applicant who received no points for any one of the three categories likely had limited ability to compete with other applicants under consideration. As a result, the state board selected some projects with higher costs per ton of intended emission reductions than it would have if the point values for the three optional categories were lower.

We recommended the state board, when evaluating applications for multidistrict projects, assign more points to scoring categories that help the state board achieve the lowest cost per ton of emission reductions.

State Board's Action: Pending.

According to the state board, it will increase the weight of the cost per ton of emission reductions when assessing projects in 2008. It told us that as of December 2007, it was still in the process of developing the scoring criteria. The state board plans to solicit project applications in early 2008 and select projects in spring 2008.

Finding #3: Some projects the Bay Area air district funded for matching purposes do not meet the Moyer Program requirements for cost-effective emission reductions.

State law requires local air districts to provide their own funds to match Moyer Program funds provided by the state board. Further, projects funded with these matching funds must meet all Moyer Program criteria. Our review revealed that projects funded by one local air district did not meet the Moyer Program requirements for cost per ton of intended emission reductions. As allowed by state law, the Bay Area air district designated 16 projects funded by other programs it administered as matching projects for the Moyer Program for fiscal year 2003–04. However, 14 of the 16 projects it identified exceeded the state board's cost ceiling of \$13,600 per ton. The Bay Area air district knew the costs per ton for the projects it selected for matching exceeded the cost ceiling. Instead of selecting other eligible projects, the district attempted to make the 14 projects qualify as match under the Moyer Program by counting only a portion of the projects' total costs when it calculated the projects' costs per ton. Specifically, the district counted as the matching fund portion for the Moyer Program only \$740,000 of the \$2.5 million it awarded to these 14 projects. This approach is contrary to state law and Moyer Program guidelines because the district did not include all funds under its budgetary control when it calculated the costs per ton of intended emission reductions.

We recommended that local air districts include all funds under their budgetary authority as part of the calculations when determining the cost per ton of a project's intended emission reductions. Further, districts should develop and implement policies and procedures that enable them to meet the requirements in the Moyer Program guidelines regarding matching funds.

Bay Area Air District's Action: Partial corrective action taken.

The Bay Area air district stated that work is underway to recalculate the cost per ton of emission reductions for Moyer projects it has approved. It also stated that this recalculation will allow the district to reallocate matching funds if necessary. The district also plans to assess the cost-effectiveness of those projects designated as match beginning in January 2008. The Bay Area air district also states that it is in the process of reviewing and updating its procedures manual for the Moyer Program.

Finding #4: Unspent Moyer Program funds remained at local air districts after availability had expired.

State law requires that local air districts expend Moyer Program funds allocated by the state board by June 30 of the second year following the allocation; otherwise, the unexpended funds revert to the state board. As of December 2006 the South Coast air district had \$24.1 million in Moyer Program funds it had not spent within the two-year time frame established by law. Unspent Moyer Program allocations are a strong indicator that intended emission reductions likely are not occurring. When allocating its fiscal year 2004–05 Moyer Program funds, the South Coast air district selected projects intended to reduce 1 ton of emissions for every \$4,256 it spent, on average. Had the South Coast air district spent the \$24.1 million on similarly cost-effective projects by the statutory deadline of June 30, 2006, 5,600 tons of pollutants would have been removed.

The South Coast air district interprets the word “expended,” as it appears in state law, to mean obligated. Under that interpretation, as long as a local air district had obligated a specific amount of Moyer Program funds to pay for a project that will be completed in the future, unspent funds would not revert to the state board. However, both the state board and the Department of Finance (Finance) have criticized the South Coast air district for its lack of spending in audit reports issued in October 2006 and April 2007, respectively. It is clear that, within the context of their reports, both the state board and Finance expected the district to spend Moyer Program funds within the two-year availability period, not merely obligate them for projects.

The state board is withholding future Moyer Program allocations to the South Coast air district until it spends its expired funds. The state board noted that it has the district's assurance that it will fully expend all applicable Moyer Program funds by July 1, 2007. The state board is monitoring the district to ensure that this happens.

We recommended that the South Coast air district ensure that it spends by July 1, 2007, all remaining Moyer Program funds that are beyond the two-year availability period.

Also, to help ensure that the South Coast air district spends the allocations, the state board should continue monitoring the district's efforts and take appropriate action should its efforts falter. If the South Coast air district does not spend the funds by July 1, 2007, the state board should initiate appropriate administrative action, up to or including recovering all remaining unspent funds.

State Board's Action: Corrective action taken.

The state board reported that it continues to monitor the South Coast air district's expenditures through quarterly progress reports; the October 2007 progress report shows that the district is on track with the timely expenditure of funds. Further, the state board determined that, based on a June 2007 site visit, the South Coast air district had met its expenditure requirements. In addition to implementing these recommendations, the state board stated that it will update the Moyer

Program guidelines regarding consequences for local air districts should they fail to meet the two-year expenditure requirement. It plans to present the proposed revisions to board members at the March 2008 meeting.

South Coast Air District's Action: Corrective action taken.

See 'State Board's Action' above.

Finding #5: Infrequent on-site audits are a concern.

The state board may not be performing on-site audits of local air districts with sufficient frequency. It conducted four on-site audits in 2006 and plans to complete four more in 2007. If it maintains the rate of four audits per year, the state board will audit districts participating in the Moyer Program, on average, once every seven years. Audits released in 2006 demonstrate that some local air districts improperly administer the Moyer Program. More frequent audits would address identified problems earlier.

The state board is updating the procedures it uses to conduct on-site audits of local air districts, according to a program manager. These changes are based on findings from a 2006 review by Finance of the Moyer Program guidelines as well as feedback from the audited districts and from the state board's audit staff about the on-site audits it had already completed. In its report in December 2006, Finance made eight observations with recommendations for ways the state board could improve the Moyer Program guidelines and procedures, including a recommendation that the state board adopt a systematic, risk-based approach to selecting local air districts to audit. Finance also recommended 12 revisions to the guidelines to make the language clearer, define terms, and provide more detail.

We recommended that, to ensure that it monitors local air districts' implementation of the Moyer Program effectively, the state board continue to implement its planned changes to audit procedures and address the recommendations in Finance's 2006 audit report, including the development of a risk-based approach to selecting districts to audit. As part of this effort, the state board should consider how frequently it will audit districts.

State Board's Action: Partial corrective action taken.

According to the state board, it has taken several steps to improve its evaluation and audit procedures for local air districts; it has created a new oversight section, received approval to hire six new positions, and is close to fully staffing the new section. Also, the state board plans to audit seven local air districts in 2008, three more than it audited in 2007. To select the local air districts to be audited, the state board stated that it used a risk-based methodology developed in cooperation with Finance. Finally, the state board affirms that it has updated its policies and procedures for auditing the Moyer Program, in part to incorporate recommendations from Finance's report.

Finding #6: Although local air districts market the Moyer Program in various ways, they could do more to evaluate the results of their efforts.

Local air districts use various methods to market the Moyer Program, such as brochures, mailing lists, Web pages, and workshops, but they do not adequately evaluate their efforts to determine whether they are reaching the business sectors that might be able to provide more cost-effective emission reductions. The districts rely primarily on one measure—whether they receive enough applications to distribute all Moyer Program funds—to evaluate their marketing efforts. Thus, they cannot ensure that their marketing efforts are resulting in applications that help maximize cost-effective emission reductions.

We recommended that the local air districts develop and implement techniques to measure the effectiveness of their marketing methods. Specifically, local air districts should identify business sectors from which they will obtain applications for more cost-effective projects, evaluate whether their

current marketing efforts are reaching those sectors, implement marketing efforts to target sectors not being reached, and assess whether their marketing efforts enable them to select projects with more cost-effective emission reductions.

Local Air Districts' Actions: Partial corrective action taken.

Two of the four local air districts included in our review are taking steps regarding this finding. The Bay Area air district states that it is starting a marketing study and will use cost per ton of emission reductions across various industries, business sectors, and locations to optimize its marketing, develop a marketing plan, and follow up with measures of success. The South Coast air district stated that it has entered into a contract with a company to complete this task and that the final report will include cost-effective marketing techniques that will generate desirable projects. On the other hand, the San Joaquin Valley air district acknowledged that as emission reductions become more expensive, it may be necessary to perform more targeted outreach while the Sacramento Metropolitan air district stated that, based on the results of a survey it conducted, it believes the best way to reach participants is to continue to provide a high level of customer support to applicants.

Finding #7: Timing requirements for preinspections can be overly restrictive.

Timing requirements for conducting preinspections—inspecting the engine to be retrofit, repowered, or replaced to ensure that it is still operational—are overly restrictive. The Moyer Program guidelines generally require local air districts to perform preinspections after the districts have awarded funds but before they execute the related contracts. One district chose not to follow this requirement because delaying the execution of the contract would have delayed project implementation.

We recommended that, to help streamline the process for performing preinspections, the state board revise its requirement that local air districts must perform preinspections before executing contracts.

State Board's Action: Partial corrective action taken.

The state board is proposing to amend its guidelines that require preinspections before executing contracts. Revisions to the guidelines are under development and the state board expects to present the proposed revisions to board members at a March 2008 meeting. The state board also stated that in the interim it is providing local air districts with flexibility regarding the timing of preinspections.

Finding #8: Local air districts use some best practices for contracting and administering Moyer Program funds.

During our visits to the state board and the four local air districts, we observed best practices that we believe can help districts select projects with lower costs per ton of intended emission reductions, reduce district workloads, and allow more time for project completion. Given the differences that exist among the districts, these practices may not be applicable in all cases. However, we believe they deserve serious consideration by the districts.

The Bay Area and South Coast air districts included a measure of pollution or the effects of pollution in their approaches for identifying disproportionately impacted communities—those communities with the most significant exposure to air contaminants, including communities of minority or low-income populations or both.

The state board included a measure of the cost per ton of emission reductions when selecting projects from disproportionately impacted communities for the multidistrict component of the Moyer Program, which increases the state board's ability to maximize emission reductions from multidistrict projects.

The Bay Area and Sacramento Metropolitan air districts include requirements in their contracts that projects selected from disproportionately impacted communities must continue to operate at least a specified percentage of their time in those communities after the project is completed and operational, which helps ensure that completed projects reduce emissions in disproportionately impacted communities.

The Sacramento Metropolitan air district uses only one application form for all its incentive programs, including the Moyer Program, which streamlines the application process for potential projects.

All but one of the four local air districts we visited had, by December 31, 2006, already allocated to projects their Moyer Program funds appropriated in fiscal year 2005–06, well ahead of the June 30, 2007, deadline. By making allocations before the deadline, these three districts allow more time for completing projects before the end of the two-year availability period.

Three local air districts issue one contract per project owner, as opposed to one contract per vehicle, which reduces the administrative burden on the districts.

The Bay Area and South Coast air districts included more detailed project milestones in their contracts, which allows the districts to more easily track the progress of their Moyer Program projects and take appropriate action if the projects veer off track.

The local air districts required projects to be completed before the statutory limit for expending funds, which helps districts ensure that they have sufficient time to perform required inspections and pay project owners before the two-year availability period for Moyer Program funds expires.

The Sacramento Metropolitan and San Joaquin Valley air districts delegated limited project approval and contract execution authority to staff of the local air districts, which may enable local air districts to issue contracts more quickly, thereby allowing more time for implementing projects before the end of the availability period.

The South Coast air district performed multiple inspections at the same time when possible. The district's staff found that this practice allowed them to save time and allowed the affected projects to move forward without unnecessary delay.

The South Coast and San Joaquin Valley air districts imposed stricter funding requirements on some projects, such as requiring certain types of projects to meet a lower threshold for cost per ton of emission reductions, or requiring project owners to pay a greater share of the costs. These practices could enable the districts to fund more projects with their Moyer Program dollars.

We recommended that, to improve their administration of the Moyer Program, local air districts consider implementing the following best practices:

- Include measures of pollution or the effects of pollution in their approaches for identifying disproportionately impacted communities.
- Include a measure for comparing the cost per ton of intended emission reductions when selecting projects from disproportionately impacted communities.
- Include in their contracts the requirement that projects selected from disproportionately impacted communities continue to provide benefits from reduced emissions to those communities after implementation.
- Use a single application for their Moyer Program application process.

- Allocate Moyer Program funds to applicants as soon as possible.
- Implement a system of one contract per project owner.
- Include in their contracts specific milestones against which the project owners and local air district staff can measure the progress of their projects.
- Include in their contracts the requirement that project owners complete projects and submit invoices a specific number of days or weeks before the June 30 deadline.
- Obtain delegated authority from their governing boards to approve Moyer Program projects and execute contracts. If their governing boards are not comfortable in providing delegated authority to approve all Moyer Program projects, obtain delegated authority to approve the more routine projects or projects costing less than a specified amount.
- Conduct consolidated preinspections to the extent practicable.
- Impose stricter standards (for example, caps on individual contract amounts or lower costs per ton of intended emission reductions) on project categories to the extent that such action does not reduce involvement in the Moyer Program.

Local Air Districts' Actions: Partial corrective action taken.

The four local air districts we reviewed have considered the best practices we identified. In many instances, the air districts have implemented or are implementing many of the best practices we identified. For instance, three of the four air districts report they have implemented the best practice of using one contract per project owner while the fourth is exploring whether to implement it. However, the air districts also indicate that some best practices are not practicable for them. Regarding our best practice that districts include in their contracts requirements that projects selected from disproportionately impacted communities continue to provide benefits to those communities after implementation, the South Coast air district states that upon review by its legal counsel, it does not believe it is possible to incorporate language in its contracts that requires continued use of equipment in a specific location.