



SACOG Board of Directors

Item #06-5-8
Consent

May 11, 2006

Revised Fast-Track Cost Effectiveness Limit for Heavy-Duty Diesel Engines under the Sacramento Emergency Clean Air and Transportation Program

Issue: Staff is requesting a revision in the fast-track cost-effectiveness threshold of \$50,000 per one-year ton of NO_x emissions reduced under the Sacramento Emergency Clean Air and Transportation (SECAT) program to account for inflation and fewer available "low hanging fruit" projects and to make the SECAT program more comparable to the Carl Moyer heavy-duty vehicle incentive program.

Recommendation: The Air Quality Committee recommends that the SACOG Board of Directors approve an increase in the fast-track cost-effectiveness limit threshold from \$50,000 to \$70,000 per one-year ton of NO_x reduced for general projects, and from \$50,000 to \$100,000 per one-year ton of NO_x reduced for fleet modernization with Model Year (MY) 2007 replacement trucks or verified NO_x retrofit technologies coupled with Level 3 (85% or more reduction) PM controls.

Committee Action/Discussion: When the SECAT program was first set up in the year 2000, criteria were established that allowed staff to approve any project that came in under a cost-effectiveness of \$50,000 per one-year ton of NO_x reduced. Any application submitted that would cost more per ton than this cost-effectiveness limit threshold would require SACOG Board review and approval. Since its implementation in December 2000, the grant solicitations for SECAT have been successful and the program oversubscribed. To date, it has allocated about \$46 million in incentives for projects that have provided approximately 1.4 tons per day of NO_x emission reductions in the Sacramento ozone nonattainment area. While it has funded many very cost-effective "low hanging fruit" projects, mostly via the fast-track fleet modernization program, the SECAT program has also funded a few alternative fuel projects with higher cost-effectiveness values. Thus, the average cost-effectiveness value for projects funded to date has been slightly more than \$100,000 per one-year ton of NO_x reduced.

Recognizing that there is a need to review the fast-track cost-effectiveness limit threshold to account for inflation and fewer remaining "low hanging fruit" projects, as well as to make the program comparable and competitive with the Carl Moyer Program, staff and SACOG's consultants performed a cost-effectiveness analysis on the SECAT program using the latest emissions, cost, and technology information based on SECAT and Carl Moyer cost-effective calculation methodologies. The objective of the analysis was to determine the level at which to set the SECAT fast-track cost-effectiveness limit to adjust for inflation, as well as to compare with incentives provided by the Carl Moyer Program. Fleet modernization is the most cost effective option under the SECAT program. The analysis shows that the cost-effectiveness range of \$70,000 to \$100,000 per one-year ton of NO_x reduced would fall into the mid-range of the equivalent cost-effectiveness values of the Carl Moyer Program. For comparison, the \$50,000 per ton cost-effectiveness limit set in the year 2000 would be about \$65,000 per ton in 2006, if accounting only for a 4% inflation rate per year. However, staff feels that the proposed range of \$70,000 to \$100,000 per one-year ton of NO_x reduced would not only account for inflation but also for less availability of "low hanging fruit" projects, as well as comparability with the Carl Moyer Program. With an average cost-effectiveness value of \$85,000 per ton from the proposed range, the anticipated remaining \$23 million SECAT funding would further reduce NO_x emissions by approximately 0.7 tons per day.

Approved by:

Mike McKeever
Executive Director

MM:DHY:gg

Key Staff: Peter Hathaway, Director of Transportation Planning, (916) 340-6235
David H. Young, Senior Planner, (916) 340-6232