



SACOG Board of Directors

Item #07-3-5
Consent

March 8, 2007

Funding for SMUD Low-Emission Vehicle

Issue: The Sacramento Emergency Clean Air and Transportation (SECAT) program (see attachment) has received a funding request from the Sacramento Municipal Utility District (SMUD) for the purchase of a hybrid-electric heavy-duty diesel vehicle. This project exceeds the SECAT Executive Committee approved level and, therefore, must be approved by the SACOG Board of Directors in order to receive funding.

Recommendation: The Land Use, Housing & Air Quality Committee recommends that the Board approve up to \$11,000 of SECAT funding towards the purchase of a hybrid-electric heavy-duty diesel vehicle for the Sacramento Municipal Utility District.

Committee Action/Discussion: The Committee met on March 5 and recommended this item for Board approval (4 ayes/1 abstain). While many people are familiar with hybrid-electric light-duty vehicles, such as the Toyota Prius or Ford Escape Hybrid, this concept is now being applied to heavy-duty vehicles. The Sacramento Municipal Utility District (SMUD) would like to purchase a demonstration vehicle featuring a hybrid-electric system that will reduce NOx and PM emissions by at least 25%.

The hybrid system reduces emissions by eliminating idle and creep emissions by shutting off the engine and also provides extra power during acceleration reducing the load on the engine. The SMUD truck will be used as a line utility vehicle that is a good fit with the hybrid technology. Additionally, the vehicle will use a 2007-compliant diesel engine, which has 50% less NOx and 90% less PM emissions compared to a 2006 engine.

Using a hybrid vehicle will also reduce diesel fuel consumption. This will provide significant reductions in global climate change emissions and help to reduce petroleum dependency. This project will also demonstrate how regional fleets can incorporate this technology into their purchasing. Staff expects to see many more hybrid-electric heavy-duty diesel vehicles being used in the future and wishes to support this new technology.

This project will reduce NOx emissions by 82 pounds per year with a SECAT cost-effectiveness of \$265,149/1-yr ton NOx. Because this project exceeds the SECAT Executive Committee approval level of \$100,000/1-yr ton NOx, it must be approved by the SACOG Board of Directors. The cost effectiveness of this project is similar to other alternative fuel projects previously funded under the SECAT program. This project was reviewed by the SECAT Executive Committee and they recommended forwarding this project to the SACOG Board of Directors for approval.

Approved by:

Mike McKeever
Executive Director

MM:DHY:ts
Attachment

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Description of the SECAT Program

The Sacramento Clean Air and Transportation (SECAT) program is a voluntary program initiated by SACOG that began in November 2000. The goal of the SECAT program is to reduce oxides of nitrogen (NOx) emissions from heavy-duty diesel engines (trucks and buses). The program was funded with \$66 million in Traffic Congestion Relief Program (TCRP) funds and \$4 million in Congestion Mitigation and Air Quality (CMAQ) funds. The types of projects that have been funded under the SECAT program have included: Diesel Repowers, Compressed Natural Gas (CNG) buses, Refuse Trucks, Fueling Infrastructure (LNG), and Fleet modernization (replacing older heavy-duty diesel trucks with newer cleaner burning trucks).

As of March 5, 2007, the SECAT program has processed over 750 applications and has obligated approximately \$65.3 million out of \$70.0 million approved by the California Transportation Commission (CTC) for eligible projects under the SECAT program. These applications represent approximately 2.1 tons per day of NOx emissions reduced. The total number of engines affected by this program is now over 2000.

As of March 5, 2007, there is approximately \$4.7 million left in the SECAT program. At the current rate of expenditures, it is anticipated that the remaining funds will be fully obligated by the end of July 2007.