



## SACOG Board of Directors

November 5, 2008

### Approve Line-Haul Class 8 Diesel Hybrid Truck Demonstration under SECAT

**Issue:** To authorize the funding of a Fleet Modernization project to demonstrate a line-haul Class 8 diesel hybrid truck with the Sierra Nevada Brewing Company.

**Recommendation:** The Climate & Air Quality Committee unanimously recommends that the Board approve funding of a Fleet Modernization project to demonstrate a line-haul Class 8 diesel hybrid truck with the Sierra Nevada Brewing Company.

**Committee Action/Discussion:** The SECAT program has the unique opportunity to help demonstrate hybrid-electric vehicle technology in a line-haul Class 8 diesel truck operated by the Sierra Nevada Brewing Company throughout Northern California, including delivery operations in the Sacramento region.

Hybrid technology is already in use for light-duty vehicles and smaller heavy-duty vehicles in delivery and local operations. This is the first hybrid optimized for longer routes found with the largest trucks. The Peterbilt 387 Hybrid uses a “mild” hybrid system that stores braking energy in a battery to assist the motor during acceleration. Combined with aerodynamic and efficiency improvements from its SmartWay configuration, staff expects the vehicle to emit about 15% less NOx than a comparable new diesel truck.

Sierra Nevada Brewing Company has also proposed to destroy one of its 1997 trucks and replace it with the hybrid to further increase the emission benefit. The total NOx reduction for the project is estimated to be 0.153 tons per year. They are requesting \$40,000 of SECAT funding to cover the incremental cost of the diesel-hybrid truck. This will result in a cost effectiveness of \$261,651/one-year ton NOx, which is well within the range of similar advanced technology projects funded by SECAT. This amount exceeds the \$100,000/one-year ton NOx level for staff approval, requiring Board approval.

In addition to reducing ozone precursors, reducing fuel consumption through a hybrid system will also reduce toxic air contaminants, greenhouse gas emissions, and will reduce foreign oil consumption. Because a line-haul truck uses over 10,000 gallons of diesel fuel a year, even a small reduction of 15% is equivalent to the fuel savings from 10 light-duty hybrid passenger cars.

Approved by:

Mike McKeever  
Executive Director

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