

SFO's Incentive-Based Approach to Reducing Ground Vehicle Emissions

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SFO Clean Vehicle Policy

- **A voluntary program, not mitigation**
- **50% of applicable landside vehicles to be clean-powered by 2005, 100% by 2012**
- **Trip fee differentials and franchise point scoring encourage compliance**
- **Airport manages available grant funding**
- **250 vehicles funded to date through SFO**

2004 Clean Vehicle Count

- 239 BART, Airtrain Electric Rail Cars*
 - 4 Full Size Buses
 - 90 Minibuses over 10,000 lbs.
 - 100 Vans
 - 55 Staff Pickup Trucks and Autos
 - 108 Taxicabs
 - 50 Rental Cars
 - 400 Airfield Vehicles
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- SFO Weekday Peak Period Requirement

San Francisco International Airport



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Emissions Reductions

- **Estimated Lifetime Emissions Reductions of Clean Air Vehicles in Service by 2005: ***
 - **Nitrous Oxides: 1,850 tons**
 - **Hydrocarbons: 200 tons +**
 - **Carbon Monoxide: 2,900 tons +**

* Compared to appropriate baseline fuel (gasoline or diesel). Does not include BART.

CNG Fueling Facilities

- **Two large public access CNG stations developed and managed by two fueling station providers at no cost to the Airport**
- **Total of 16 fast-fill hoses providing 3,000 and 3,600 psi**
- **2005 CNG demand estimated to exceed 100,000 gge per month**

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Taxicabs

- **Serve 10% of ground trips**
- **CNG cabs get short line privilege twice per day**
- **Trip fee waived twice per day**
- **Continued availability of CNG cabs is issue**

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On-Demand Door-to-Door Van Operators

- **Serve 10% of ground trips**
- **In 2004, RFQ process will award extra points to firms pledging to acquire only clean air vehicles**
- **Operators qualify for \$4,000 per vehicle Air District incentive**
- **About 27% of vans now clean air vehicles**

Hotel and Parking Courtesy Shuttle Operators

- **Air District incentive of approximately \$12,000 for CNG cutaway**
- **Avoid paying triple trip fees to the Airport**
- **For hotels, opportunity to consolidate**
- **Two-thirds of courtesy shuttle passengers now ride in clean air vehicles**

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Scheduled Airporter Buses

- **Significant category in North Bay market**
- **Full-size highway coaches operated**
- **CNG and LNG impractical**
- **Biofuel could substitute for diesel if competitively priced**

Limousines and Charter Vehicles

- Are 60% of permitted ground vehicles at SFO, but serve only 4% of access trips
- No readily available limousine product
- Limousines and charters have widely dispersed destinations making CNG refueling difficult

Airfield Highlights

- **Airline GSE electrification started two decades ago, with United in forefront**
- **About 20% of GSE is now clean powered, including most of American's fleet**

SFO's ILEAV Grant

- **\$2 M for partial funding of 200 electric GSE units, 16 fast electric chargers, 4 full-size CNG buses and 92 staff and utility vehicles**
- **CNG station funding support unnecessary**
- **3 airlines are expected to participate, plus a possible ground handler**
- **Regional carrier deployment ahead of mainline carriers**

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Outlook Going Forward

- **Continue to press for CNG/ SULEV vehicle product and simplified grant processes**
- **Encourage biofuel in bridge applications**
- **Support permanent ILEAV program**
- **Expand operator incentives and penalties**
- **Then let the market work!**

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