Incentive Programs

Alternative Diesel Fuels Symposium

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Purpose of Carl Moyer Program

- 1994 Ozone State Implementation Plan (SIP)
- Obtain real, quantifiable, enforceable and surplus NOx benefits from existing engines
- Speed introduction of new technology
- Funds for incremental capital cost of cleaner than required heavy-duty vehicles or equipment
- Funds for alternative fuels infrastructure and incremental fuel costs
History of the Carl Moyer Program

- **1998 - 2002**
  - Total of $114 million in one-time annual allocations
  - ARB approved the first Carl Moyer Guidelines
  - ARB-approved guidelines included incremental cost of “Clean Fuels”

- **2003 - 2004**
  - Total of $50 million over two years through Proposition 40
State/Local Partnership

- California Air Resources Board
  - Oversees statewide program
  - Develops guidelines
  - Allocates funding to local air districts

- California Energy Commission
  - Infrastructure and advanced technology development

- Local Air Districts (APCDs, AQMDs)
  - Provide “matching” funds ($1 for every $2)
  - Administers local Carl Moyer programs
  - Selects, monitors, and enforces projects
Program Benefits

- Emission reductions (first three years)
  - 14 tons of NOx per day
  - 800 pounds of PM per day
- Average cost-effectiveness below $5,000/ton
- Greater than 50 % of the funds now allocated in Environmental Justice areas
Project Categories

- On-road Heavy-duty (trucks, buses)
- Off-road Equipment (construction, port)
- Agricultural Irrigation Pumps
- Electric Forklifts
- Ground Support Equipment
- Locomotives
- Marine Vessels
- Auxiliary Power Units
- Alternative Fuel
- Alternative Diesel Fuel
Types of Projects Funded
Criteria for Alternative Diesel Fuels Projects

- Certified / verified/ “confirmed” technology
- Maximum Cost-effectiveness - $13,600/ton NOx
- Incremental cost between alternative diesel and conventional diesel fuel
- Accepted on a case by case basis
- Funded with District’s matching funds
Alternative Diesel Formulations

“Confirmed”:
- Purinox™ with diesel oxidation catalyst
- Minimum 50% PM and 20% NOx benefit
- Off-Road Engines in Port Applications

Interim Verification:
- Purinox™
- 63% PM and 14% NOx benefit
- Applicable to On-Road and Off-Road
Other Funding Sources

- AB 2061, Lowenthal
  - $500,000 to offset incremental operating cost of alternative diesel fuels for years 2000 - 2003
  - Criteria:
    - administered through Districts
    - $0.25/gal incremental cost of fuel
    - minimum one year contract
  - Type of projects done at ports:
    - locomotive switchers
    - yard hostlers, side handlers, gantry cranes, forklifts
Other Funding Sources (cont’d)

- NOx / PM Emission Reduction Credit Program (Peaker Plants)
  - Approximately $2,000,000 to offset incremental operating cost of alternative diesel fuels
  - Criteria:
    - 50% in the SCAB and 50% in SJV
    - $0.25/gal incremental cost of fuel
Cost Effective Projects

New Tier 2?
Other Funding Sources

- AB2766 - DMV / Local District funds
- Port Funding
- U.S. EPA
- Clean Cities (DOE)
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