

# AQMD's Incentive Programs



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# AQMD's Incentive Programs

- Carl Moyer Program
- Lower-Emission School Bus Program
- Proposition 1B – Goods Movement Program

# Carl Moyer Program under SB 1107 & AB 923

- About \$56M annual funding is available for the Carl Moyer and the School Bus Programs
- Heavy-duty projects that achieve emission reductions earlier than required by adopted regulations
- Cost effectiveness calculated for NO<sub>x</sub>, PM, & HC combined, limit raised to \$16,640/ton

# Equipment

- Marine Vessel Engines
- Locomotives (LNG and Hybrid)
- Construction Equipment
- Heavy-Duty Trucks (new & retrofits)
- Forklifts
- Auxiliary Engines
- Truck Stop Electrification
- Transit Buses
- School Buses



# Program Status

- Approximately \$290M spent/obligated through Year 13
- Over 9,000 engines and equipment have been funded
- Overall program cost-effectiveness is about \$8,000 per ton

# Carnival Shore Power Project

- Carnival submitted an application to Carl Moyer Program for a grid-based shore power project at Long Beach Cruise Terminal
- Passenger cruise ship
  - 104 visits per year (2 visits per week)
  - 10 hours per visit (hotelling)
  - 6 onboard diesel engines
- Total Project Cost: \$12M
  - AQMD: \$5M Moyer funds (shore side)  
\$1.6M EPA funds(retrofit side)
  - Carnival \$5.4M (upgrade utility distrib. & retrofit)



*Carnival Inspiration*

# Carnival Shore Power Project (Cont'd)

- Project Timeline
  - Start Construction: Sept 2010
  - Fully Operational: Jan 2012
  - Estimated Emission Reductions:  
59 tpy NOx, 1.6 tpy PM
- Phase 2 (In Progress)
  - Scheduled for 2012
  - Retrofit Second Larger Ship
  - Upgrade power distribution system
  - Funded by Carnival



# Carnival/AQMD Air Quality Messaging

Contract specifies that Carnival will provide the following:

- Physical space in the Plaza for banners or displays on AQMD Clean Air messages
- Access to shipboard Closed Circuit Television (CCTV) for 3-5 min. video on shore power technology and related clean air benefits (5 to 7 times while ship in port)
- Five-year commitment



# Years 14 Update

- Solicitation: - to open on March 2, 2012  
- to close on June 5, 2012
- About \$25M will be available in state and local match funds
- CARB's updated guidelines released on June 6, 2011 will be used

# Voucher Incentive Program (VIP)

- Limited to owners/operators with fleets of 3 or fewer vehicles
- At least 75% operation in CA
- First-come, first-served basis
- Retrofits: \$5K to \$10K available per truck
- Replacements: Up to \$45K available per truck
- Dealerships, dismantlers, retrofit installers, and applicants subject to specific program requirements outlined in the VIP Guidelines
- About 250 trucks have been funded to date



# Lower-Emission School Bus Program Status

- From 2001 through 2008, AQMD awarded \$106M for replacement & retrofit of school buses to:
  - Replace 621 pre-1987 school buses with 535 CNG and 86 lower-emitting diesel buses
  - Retrofit 2,777 model year 1994 and newer school buses with particulate traps

# Lower-Emission School Bus Program

- Only public school districts qualify for school bus replacements
  - School pays \$25K as local match and AQMD pays the balance for a new CNG bus
  - AQMD also pays funds equal to ten percent of its bus replacement contribution for infrastructure
- Both public school districts and private operators qualify for school bus retrofits
  - AQMD pays for the unit cost, installation, and maintenance cost of the retrofit system

# School Bus Program under Proposition 1B

- Since 2009, CARB has allocated \$71M to AQMD under the Proposition 1B - School Bus Program
- Funds have been used to:
  - replace 466 pre-1987 school buses with new alternative fuel buses
  - retrofit 534 post-1993 model year school buses with particulate traps
- All the projects will be completed by June 30, 2012

# Proposition 1B

## Goods Movement Program

- Proposition 1B approved by voters in November 2006
  - \$1 billion for projects involved in movement of freight along California's trade corridors
  - Funding available over 4 year period
  - 55% allocated to LA/Inland region
- Authorizing Legislations
  - Senate Bill 88
  - Assembly Bill 201



# “Year 1” Proposition 1B Program Summary

Grant Type	Funding Amount	No. of Equipment
Drayage Trucks	\$71.9M	1,444 trucks*
Other Trucks	\$47.5M	946 Trucks 30 Retrofits 1 Truck Stop Electrification
Intermodal Facilities Trucks	\$2.5M	50 Trucks 2 Retrofits
Locomotives	\$3.0M	4 Locomotives
<b>Total</b>	<b>\$124.9M</b>	<b>2,440 Trucks</b> <b>32 Retrofits</b> <b>1 Truck Stop Electrification</b> <b>4 Locomotives</b>

\*559 of the drayage trucks are LNG with additional \$26.6M from the AQMD and the Ports

# “Year 2” Proposition 1B Goods Movement Program

- AQMD was allocated \$110M comprised of:
  - \$61.3M for shore power projects
  - \$42.5M for truck projects
  - \$6.2M for locomotive projects
- Truck projects have been approved and contracts are underway
- Six locomotive projects for \$4.5M have been awarded



# Prop. 1B Shore Power Projects

	Port of Long Beach	Port of Los Angeles	Port of Hueneme
No. of Berths Awarded	12	10	3
Type of Shore Power	Grid-Based	Grid-Based	Grid-Based
Anticipated Date of Installation	No later than 12/31/13	No later than 12/31/13	No later than 12/31/13
Total Project Cost (avg. per berth)	\$6,278,333	\$4,887,500	\$3,003,806
AQMD Grant Award (per berth)	\$2,500,000	\$2,373,000 (avg.)	\$1,501,903
Estimated Emission Reductions:			
PM (ton per year, avg. per berth)	0.65	0.85	0.78
NOx (ton per year, avg. per berth)	38	49.7	45.7