



# 2004 SIP Summit

## Financial Incentives

**January 14, 2004**

# Why Utilize Incentives?

- One part of overall strategy to meet clean air goals
  - Obtain emission reductions not easily achieved with regulations
  - Cost-effective
- Encourages technology development
- Ability to target reductions
  - e.g., environmental justice areas

# Overview

- What programs are already in place?
- What are the opportunities?

# Existing Incentive Programs

- Light-duty vehicles
  - ARB/District and BAR scrap programs
- Heavy-duty engines
  - Carl Moyer Program
  - Fleet Modernization Pilot Programs
  - Low-Emitting School Bus Program
- Other mobile sources
  - Buyback programs

# Light-Duty Vehicles

- ARB/District and BAR scrap programs

# What Is Scrap?

- Accelerates voluntary retirement of older, higher-emitting cars
- Speeds up turnover to more modern, durable emission control equipment

# Does Scrap Clean The Air?

**Yes**

But there are issues:

- Funding
- Emission benefits
- Replacement transportation
- Car collector concerns

# Light-Duty Scrap Programs Issues

- Funding
  - Dependable source of funding needed to enable large-scale program
  - Current programs funded by local air districts

# Future Scrap Programs

- \$500 million program can generate 15-20 tons per day of ROG+NOx reductions
  - Equivalent to retiring 10% to 15% of pre-1996 vehicles over life of the program
  - Assumes pre-1996 vehicles are replaced with fleet average vehicle

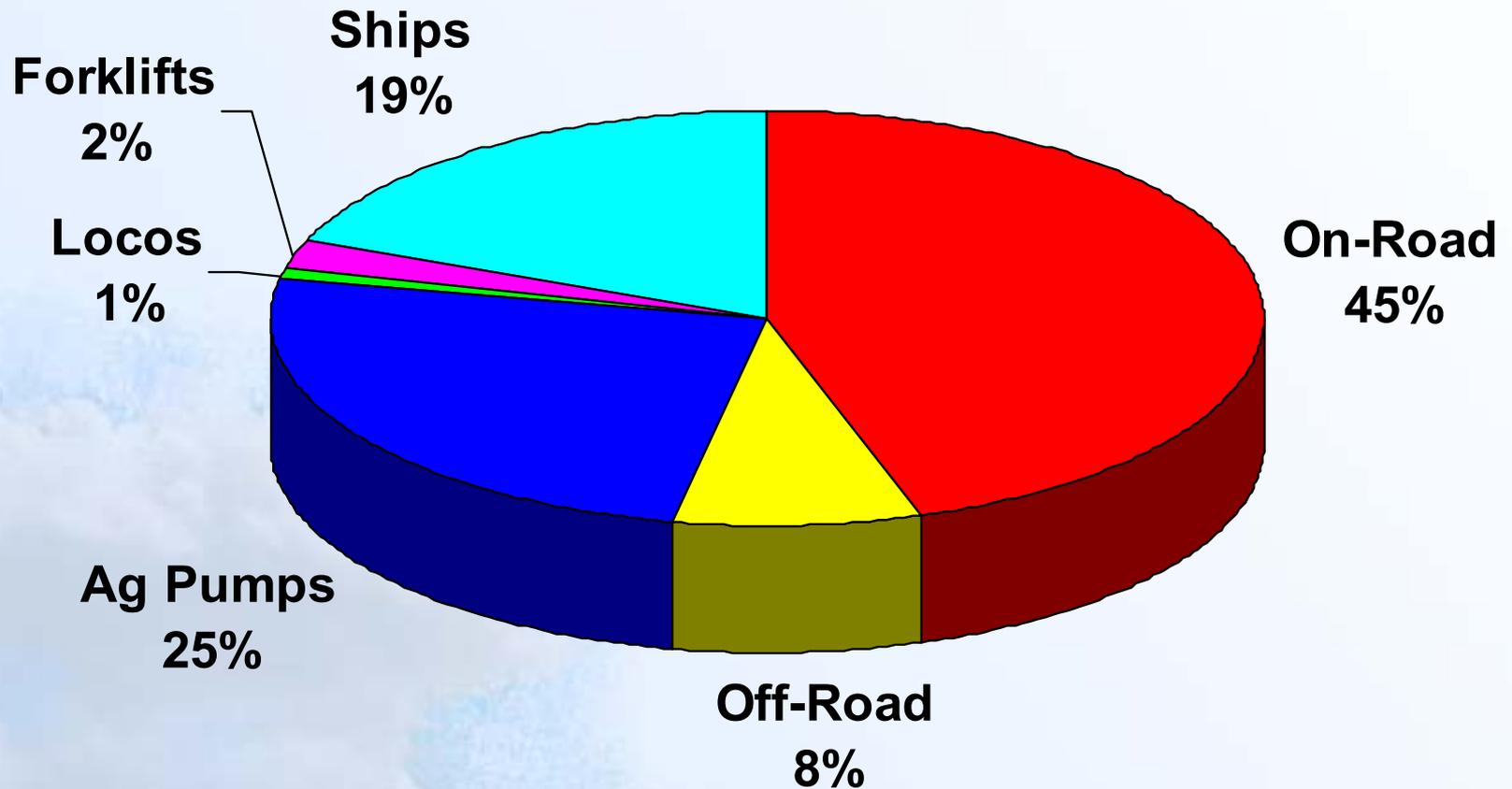
# Heavy-Duty Vehicles

- Carl Moyer Program
- Fleet Modernization Pilot Programs
- Low-Emitting School Bus Program

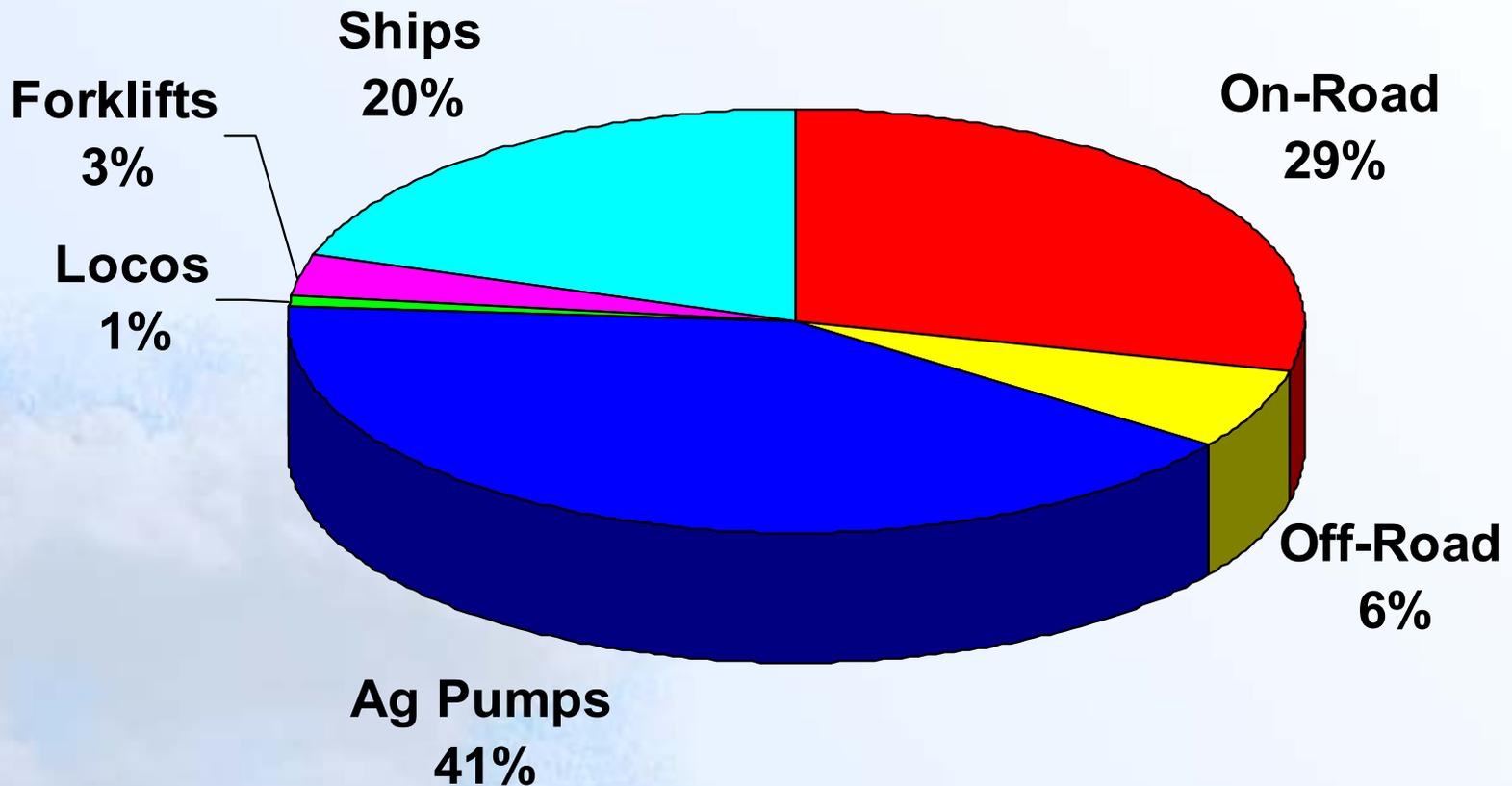
# Carl Moyer Program

- Grant program: funds extra capital cost of cleaner-than-required diesel vehicles and equipment (on- and off-road)
- Reduces emissions to help meet California's air quality goals
- ~\$154M appropriated over last six years

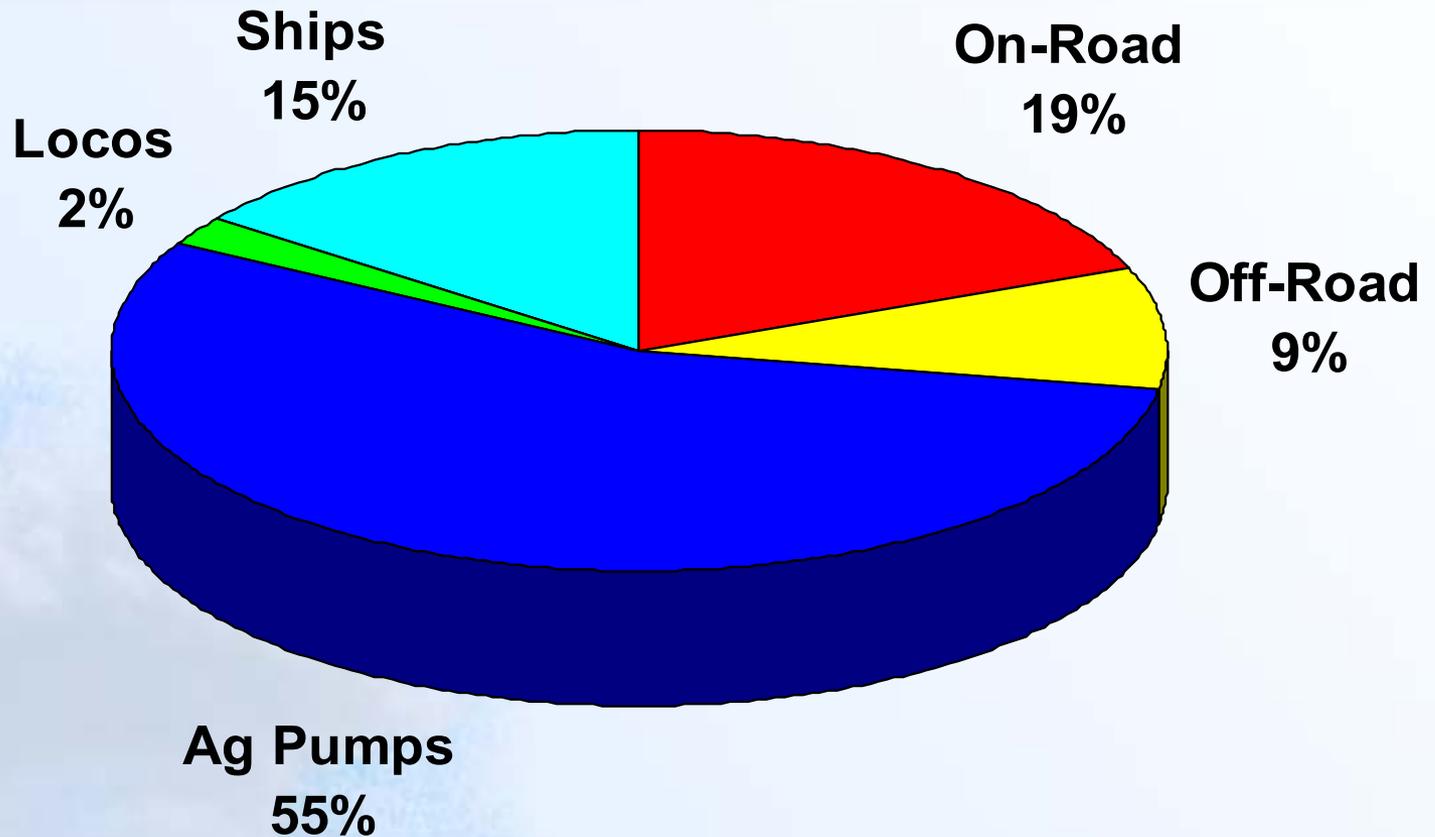
# Carl Moyer Program Funding



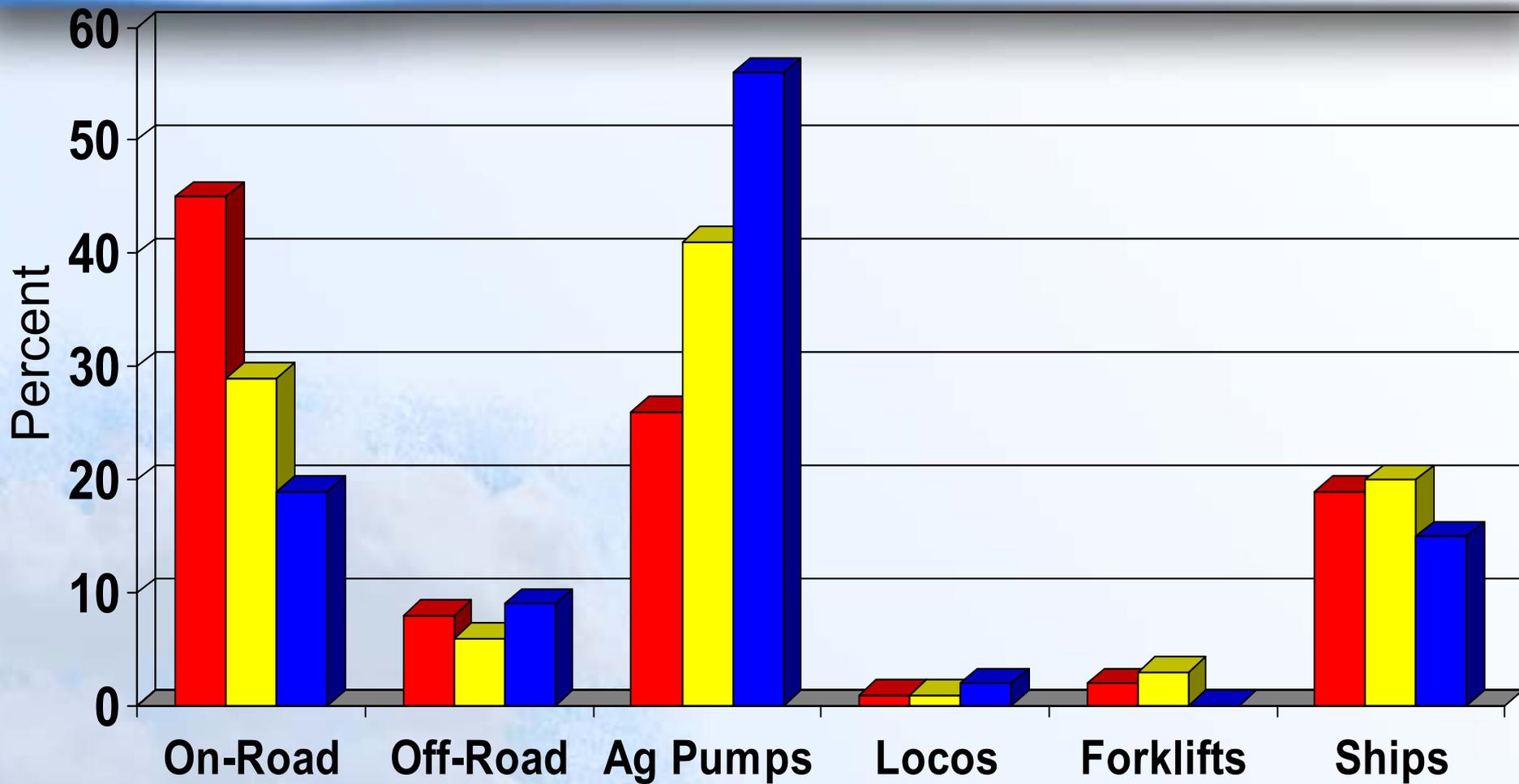
# Carl Moyer Program NOx Reductions



# Carl Moyer Program PM Reductions



# Carl Moyer Program



# Carl Moyer Program

- Successfully cleaned up ~ 5,000 engines
  - \$1.00-\$3.50 per pound of NOx
  - Off-road projects generally more cost-effective
- Demand for funding has exceeded available funds each year
- District and industry partnership have been critical to success
- Need for continued funding to meet air quality goals
  - \$100M a year (from Moyer Advisory Board report)

# Future Carl Moyer Program

- \$500 million program can generate ~50 tons per day of NO<sub>x</sub> reductions
  - Based on existing cost-effectiveness of existing Moyer projects
  - Assumes cost-effectiveness decreases over time

# What About Heavy-Duty Scrap?

- Part of the 1994 SIP (M7)
- Self-funded program faded when overseas market did not materialize
- Older trucks were more valuable to their owners than we had thought
- Scrapped trucks likely to be replaced with trucks of similar age from outside California

# Fleet Modernization

## Heavy-Duty Scrap Re-visited

- Currently two pilot programs in operation
  - Sacramento Metropolitan AQMD
  - Gateway cities area (27 cities and Port of Long Beach)
- Both pilot programs addressing ARB's major concern: vehicle replacement/importation
- Evaluating whether large-scale fleet modernization projects are feasible

# Lower-Emitting School Bus Program

- ~\$76M allocated over 4 years
  - Replace older buses with safe and clean new buses
  - Clean up in-use buses
- Expect to replace over 500 dirty school buses and install 3,000 aftertreatment devices

# Future Lower-Emitting School Bus Program

- An additional \$50M/yr for 5 years would replace about 2,400 of the 6,000 pre-1987 buses still on the road

# Other Mobile Sources

- Buyback programs

# Buyback programs

- Lawnmower buyback programs
  - Primarily administered through local air districts
  - >20,000 lawnmowers retired since 1998
  - Primarily funded through settlements
- Other possible consumer buyback programs?
  - Personal watercraft/recreational boats?
  - Other lawn and garden equipment?

# Potential Funding Mechanisms

- Check-off boxes
  - Vehicle registration
  - State income tax
- Vehicle registration surcharge
- Smog Check surcharge
  - Exempted vehicles
- Petroleum surcharge
- Manufacturer mandates
- Recycling fees
- Corporate donations

# Summary

## Incentive programs:

- One component of our clean air plan
- Enjoy widespread support
- Provide cost-effective reductions that are early or outside regulations

*Obtaining future funding is critical*