



*Leveraging Funding  
CMAQ and Public Private  
Partnerships*

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## *CMAQ Program – Eligibility*

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- ★ Congress expanded eligibility to include non-road diesel retrofits
  - On-road retrofits always eligible
  - Collaboration needed to ensure INCENTIVES in place for non-road and on-road retrofits
    - Financial \$8.6 Billion ~\$1.6 B/Yr. (2004 - 2009) (U.S.DOT/CMAQ)
    - Emission reduction credit: On-road already allows transportation conformity credit
    - Non-road retrofits not currently eligible for transportation conformity credit





## *CMAQ FY 06 – How Much Money?*

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- ★ FY06 \$1.672 Billion
- ★ Funds lapse Sept. 30, 2009 unless obligated
- ★ Top Ten States
  - CA - \$353 M
  - NY - **\$152 M**
  - TX - \$95 M
  - PA - **\$86 M**
  - NJ - **\$77 M**
  - IL - \$74M
  - OH - \$71M
  - MI - \$58M
  - MA - **\$57M**
  - MD - \$44M





## *Why Spend on Diesel Retrofits?*

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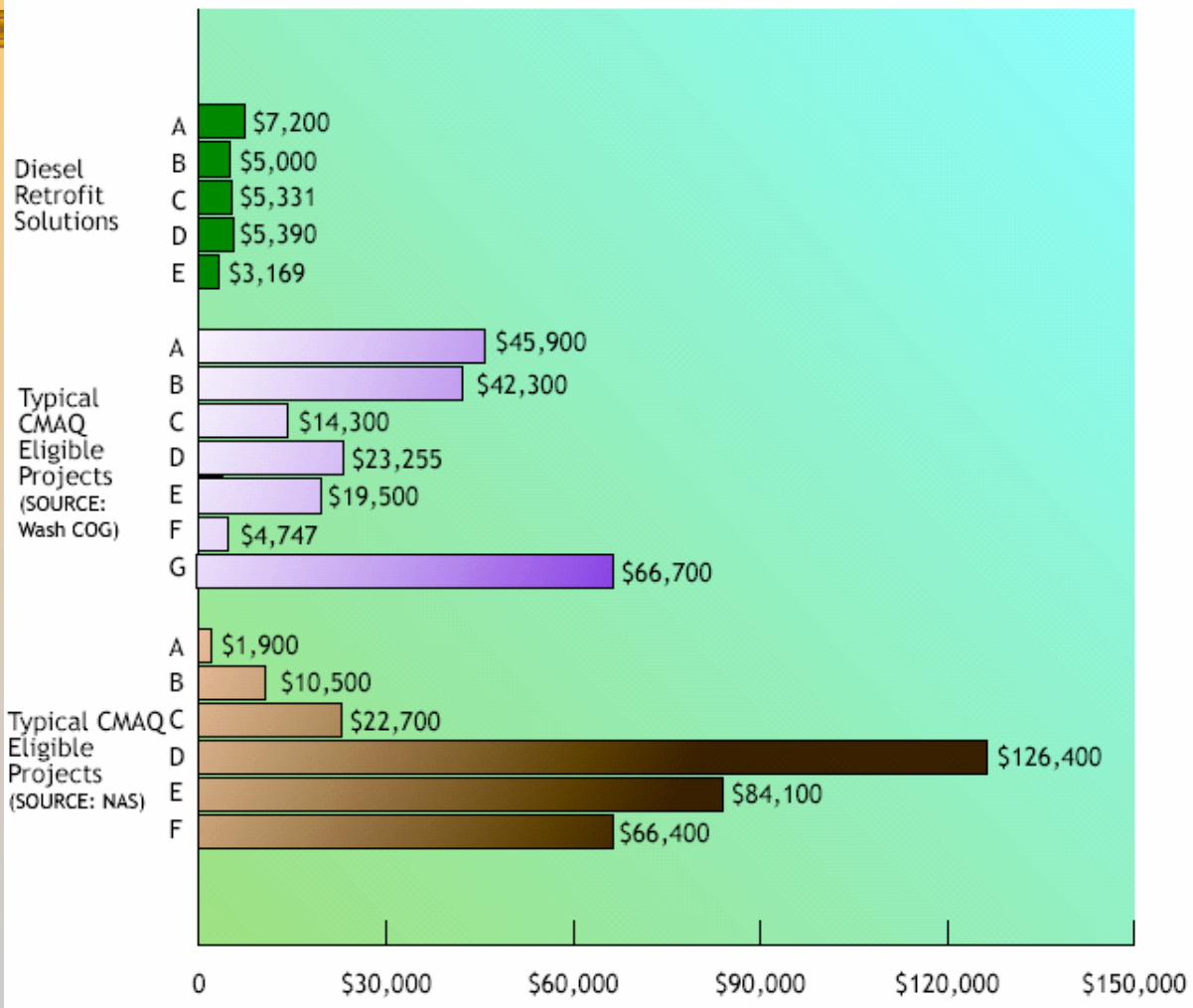


- ★ To help meet transportation conformity requirements
- ★ To get COST-EFFECTIVE and immediate reductions
- ★ To help demonstrate attainment
  - 8-hour ozone and PM<sub>2.5</sub> SIPs under development
- ★ Diesel retrofits among best options for transportation agencies





### Cost Effectiveness Comparisons for Various CMAQ Eligible Emissions Reduction Strategies





## Diesel Retrofit Solutions\* (Specific Project Examples)

		Cost per Ton NO <sub>x</sub> reduced
A	Diesel Truck Replacement (SOURCE: Gateway Cities Program, CA**)	\$7,200
B	Cleaire Longview (SOURCE: MTC, Oakland CA**)	\$5,000
C	Carl Moyer Program Off-Road Repower (SOURCE: California Air Resources Board)	\$5,331
D	Repower up to 18 very-heavy-duty off-road construction equipment (SOURCE: South Coast Air Quality Management District)	\$5,390
E	Repower engines from 15 self-propelled lumber loaders (SOURCE: South Coast Air Quality Management District)	\$3,169

\* All of the above examples assume a 5-year useful life of the vehicle post retrofit. This is a very conservative assumption in most cases. Cost-effectiveness methodology to Carl Moyer Program methodology. The cost effectiveness for all of the above projects depend on a number of factors including the year and type of equipment or vehicle being retrofit, off-road vs. on-road applications, Tier 0, 1, or 2 technologies, assumptions about participation in the various TCM projects by the public, and other factors. Readers are encouraged to review the source materials for assumptions and cost effectiveness range.



### Typical CMAQ-Eligible Projects \*

(SOURCE: Washington Council of Governments, Washington DC)

Cost per Ton  
NO<sub>x</sub> reduced

A	100 CNG Buses (replace diesel with CNG)	\$45,900
B	Employer Outreach (private sector)	\$42,300
C	100 TaxiCab Replacement with CNG	\$14,300
D	Voluntary Parking Cash-out Subsidy	\$23,255
E	Bike Racks on WMATA Buses	\$19,500
F	95 Miles of Speed Enforcement Northern VA	\$4,747
G	Signal Optimization	\$66,700

\* All projects shown in cost-per-ton, per-year, with 2005 cost-effectiveness.

### Typical CMAQ-Eligible Projects \*

(SOURCE: National Academy of Sciences)

Cost per Ton  
NO<sub>x</sub> reduced

A	Inspection and Maintenance Programs	\$1,900
B	Vanpool Programs	\$10,500
C	Employer Trip Reduction programs	\$22,700
D	Alternative Fueled Buses	\$126,400
E	Bicycle / Pedestrian Facilities/programs	\$84,100
F	New Transit Capital investments or vehicles	\$66,400

\*See the Congestion Mitigation and Air Quality Improvement Program: Assessing 10 Years of Experience for Cost-effectiveness methodologies. Cost effectiveness will fall into ranges depending on factors including: year and type of equipment or vehicle being retrofit, off-road vs. on-road engines, age of the engine being retrofit, public participation levels in TCM projects, and other factors. Readers are urged to review source materials for assumptions and cost-effectiveness ranges.



## *Partnerships*

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- ★ Private sector will respond to incentives
  - Everyone brings something to the table and takes something away vs. what's mine is mine and what's yours is mine....
- ★ However, public sector needs to see through private sector lenses
  - Bottom line drives successful businesses
  - Let's get this retrofit project implemented!
  - Don't tie me up in red tape
  - Let's do the right thing (retrofit our vehicles) and get back to business.....





## *Challenges*

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- ★ TIPS/Plans in place for at least next three years
  - CMAQ funds programmed at least three years in future (MPOs programming FF07-08 funds NOW)
- ★ Pipeline of projects is long
- ★ CMAQ most flexible funding program
  - Many types of eligible projects
    - Operating expenses even eligible
  - Projects that can't otherwise be federally-funded
    - Bike/Pedestrian facilities
    - Rideshare/vanpool programs
    - Outreach programs



## *CMAQ Fund Allocation*

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- ★ FHWA to State DOTs
- ★ State DOT:
  - retains funds and decision making; OR
  - allocates to MPOs according to apportionment formula; OR
  - allocates to MPOs by some other formula; OR
  - State legislation dictates (e.g. CA)
- ★ Are all funds allocated each fiscal year?





## *Award Process - CMAQ funds*

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- ★ Application Process
  - Is there one?
  - What is the calendar?
  - Are there eligibility criteria?
  - How are priorities set?
  - Is there a scoring/ranking process?
  - What is the calendar?
  - Who ranks/scores projects?
- ★ Approval Process
  - Who decides?
  - How do I get to know them?





## *Local Match Requirements*

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- ★ CMAQ funds usually 80% of project cost
  - Some projects can be funded at 100%
  - State/MPO can have different requirements
- ★ Sources of matching funds
  - Federal, state, local and/or private funds
  - Port authority funds
- ★ What are local match requirements?
- ★ Can in-kind services be counted as match?





## *Procurement Requirements*

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- ★ Project sponsor acquires and installs retrofit devices, submits invoices, gets reimbursed
- ★ State/MPO use their procurement process
  - What are requirements?
  - How long does it take?
  - Is it lowest cost bid?
  - What are the on-going maintenance requirements or contractual obligations?





## *Competing for Funds*

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- ★ Know TIP development calendar
  - At least every four years
  - Usually every one or two years
- ★ Know the competition
- ★ Know air quality challenges (e.g. O<sub>3</sub>, PM<sub>2.5</sub>)
- ★ Don't be afraid to do something innovative
- ★ Emphasize cost-effectiveness of your strategy
- ★ Be ready for contract negotiation



## *Final Project Decision Making*

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- ★ State DOT
- ★ MPO
- ★ Air Agency
- ★ Transit Agency
- ★ All of the above
- ★ Other



## *Show Me The Money*

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- ★ **We are interested in the same result – cost-effective diesel emission reductions**
- ★ The financial incentive is in place - \$8.6 Billion
- ★ CMAQ – Diesel Retrofits – Conformity Credits: It's a Win-Win-Win
- ★ Let's work **together**, this opportunity is too good to miss.



## ★ *Bottom Line*

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*Q: Why would transportation agencies spend transportation funds with no return on investment?*

*A: They probably won't – Need strong incentives (I.e., conformity credit)*



*Questions?*



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