



**Department of the Environment**

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# Mid-Atlantic Diesel Collaborative Group Call

## Maryland Project Update

### October 6, 2011





# ARRA State Clean Diesel Grant

Program	Project	Technology	Number of Buses	Grant Amount
Port of Baltimore Clean Diesel Project	Port of Baltimore Tugboat Engine Repower *	n/a	n/a	\$ 97,185
Idle Reduction Campaign	Idle Reduction Outreach Program: Buses & Delivery Trucks	n/a	n/a	\$ 150,000
Maryland School Bus Grant Program	Baltimore County Public Schools	Active DPF & CCV	24	\$ 400,000
	Montgomery County Public Schools	Active DPF	17	\$ 264,000
		CCV	30	
	Prince George's County Public Schools - Phase I	Passive DPF & CCV	60	\$ 516,000
	Prince George's County Public Schools - Phase II *	Passive DPF & CCV	25	\$ 302,815
	Total Maryland School Bus Grant Program			156
<b>State Clean Diesel Grant Total</b>				<b>\$ 1,730,000</b>

\* Reallocated Funds





# ARRA Regional Grant Maryland School Bus Grant Program

Program	Project	Technology	Number of Buses	Grant Amount
Maryland School Bus Grant Program	Frederick County Public Schools	Active DPF & CCV	19	\$ 303,600
		Timers for Auxiliary Heaters	19	
	Harford County Public Schools	Active DPF & CCV	14	\$ 290,300
		Auxiliary Heaters and Timers	28	
		Timers for Auxiliary Heaters	31	
	Queen Anne's County Public Schools	Active DPF & CCV	2	\$ 32,000
Washington County Public Schools	Active DPF & CCV	23	\$ 374,100	
<b>Total Maryland School Bus Grant Program</b>			<b>136</b>	<b>\$ 1,000,000</b>



## Retrofit Issues

- DPF Choices restricted to those on the Verified Technology Lists.
- Limited DPF choices for engines with EGR systems.
- Installation problems: workmanship & quality control.
- Adequate heat retention for passive DPF re-generation.



## Installation Issues: Workmanship & Quality Control

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- Missing driveshaft guards
- Wire & control module corrosion
- Fuel leaks
- Damaged wire harnesses
- Red Light Issues
- Software updates
- Clamps & connections not tightened properly

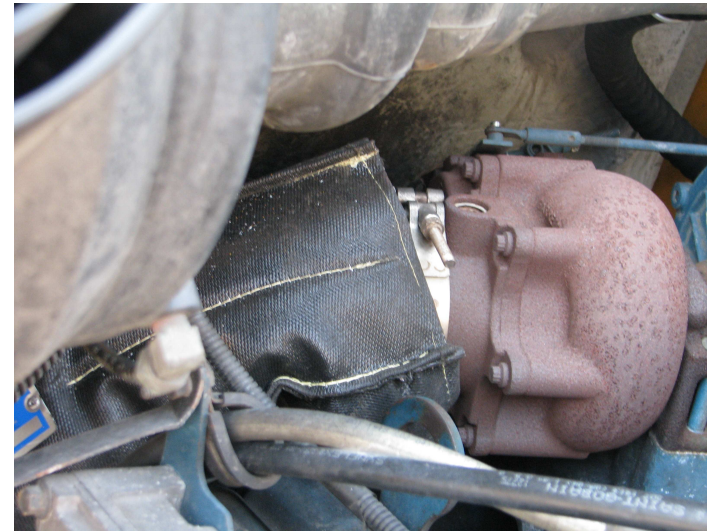
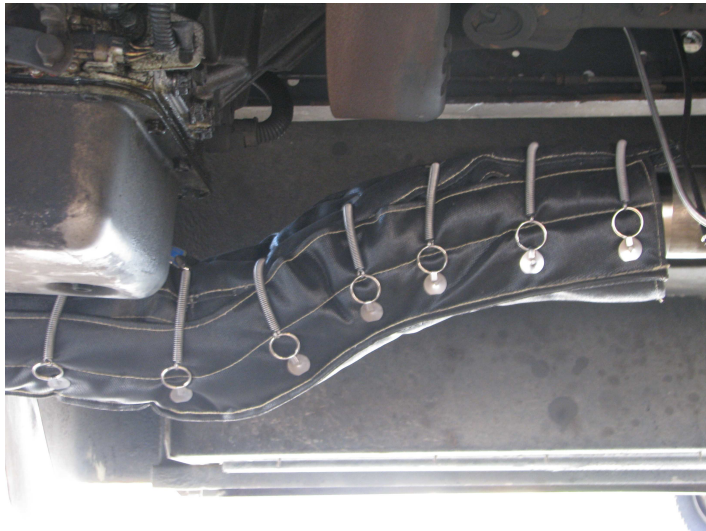
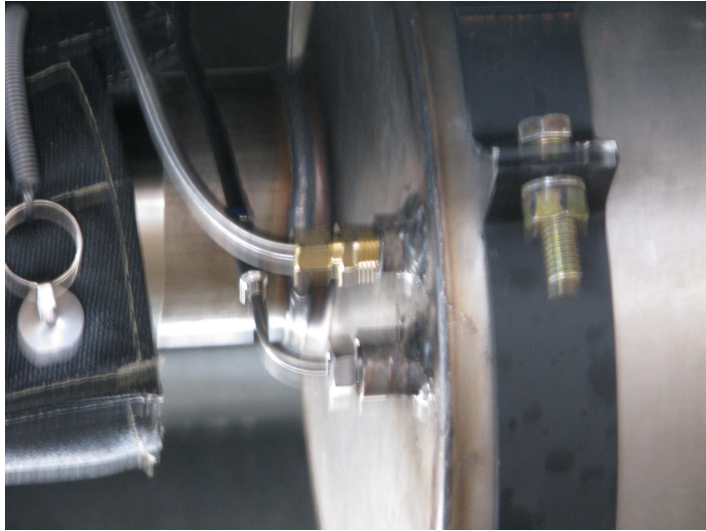


## Thermal Insulation Wrap

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- Retains lost by pipe connecting turbo and DPF
- Retained heat (temperature increase) at DPF = 125 degrees Celsius.
- Material cost for a six foot section of pipe = \$660.
- Installation time on MY 2004 International school buses with T444E engines:
  - One hour coincidental with installation of DPF.
  - Two hours with buses with an existing DPF.

# Thermal Insulation Wrap





# DERA Clean Diesel Projects

<b>Grantee</b>	<b>Project</b>	<b>Amount</b>	<b>Status</b>
Kent County Public Schools	Retrofit three buses with CCV	\$ 3,050	Completed September 2011.
Local Governments	Retrofit onroad and nonroad vehicles with DPF & CCV	\$ 175,647	Kent, Charles, Garrett and Harford Counties have expressed their interest. MDE is reviewing their fleet for viable candidates and technology compatibility.
MARAMA	Mid-Atlantic Dray Truck Replacement Program	\$ 100,000	MOA in progress
MEA	Maryland Idle Reduction Technology Program	\$ 225,000	Program will be launched in October 2011. Construction of website and support documents such as application, proof of sale, program flyer and Idle Reduction Technology fact sheet are in-progress.
MWCOG	Continuation of the Idle Reduction Campaign	\$ 20,000	MOA to continue the program until September 30, 2012 is in-progress.
Prince George's County Public Schools	Install thermal wraps on 60 buses	\$ 50,425	MOA in progress





# Maryland Idle Reduction Technology Grant Program

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The Maryland Idle Reduction Technology Grant Program provides financial assistance for the installation and equipment cost associated with idle reduction technology on trucks. Vouchers will be used to reduce 50% of the installed equipment cost up to a maximum of \$4,000 per truck.





# Maryland Idle Reduction Technology Grant Program

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## Eligible Vehicles:

- On-highway class 6 to class 8 trucks. Buses are not eligible.
- Maryland registered trucks including new trucks which will be registered in Maryland.
- Retrofitted idle reduction devices must be installed in the State of Maryland.
- New trucks must be purchased from a dealership in Maryland.
- Leased vehicles are **not** eligible to apply.





# Maryland Idle Reduction Technology Grant Program

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## **Eligible SmartWay Verified Technologies include:**

- Auxiliary Power Units (APU)
- Fuel Operated Heaters (FOH)
- Automatic Stop-Start Systems
- Electric Truck Refrigeration Units (eTRU)
- Battery Operated Air Conditioning Systems (BAC)
- Thermal Storage Systems (TSS)
- On-board (truck mounted) accessories such as inverters, battery upgrades, electrical connections and electric heaters and air conditioning units.



# Mobile Sources Control Program

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