



North Carolina Clean Construction LEADER

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NC LEADER -What is it?

- Leading in Early Adoption of Diesel Emission Reductions = LEADER
- Upgrade legacy statewide fleet of construction equipment to Tier 1 or higher
- Based on successful local program: GRADE
- GRADE was funded through MSERG for 2 years.



NC LEADER – What is it?...continued

- Funding from 2008 DERA Competitive Grant
- No CMAQ-type restrictions will apply
- Projects must be used in NC
- \$750,000 available in funding
- Covers all 100 counties in NC
- Private and public equipment owners eligible



The Idea

- Take a successful local construction grant program that reduces emissions and take it Statewide
- Fine tune and promotion from the construction sector: Caterpillar
- Add someone who has jurisdiction over state air quality: NC Division of Air Quality



NC LEADER - The Partnership

- Brett Alkins – Caterpillar, Inc.
 - Provided Statewide construction equipment inventory estimates as a basis for the application
 - Tailored program to construction equipment owners
 - Educated NC dealers
 - Provided one-on-one assistance to equipment owners





Other Partners

- Construction retrofitters found candidates and provided expertise to applicants
- Used established network of interested individuals and “Shepherds” throughout the State to target and encourage applicants.
- An exchange of projects with GRADE’s Leslie Rhodes was also helpful



NC LEADER - The Partnership

- Heather Hildebrandt & Anne Galamb – NC Division of Air Quality
 - Jurisdiction over State air quality
 - Air quality grant expertise
 - Managed project selection through a grant committee



NC LEADER – Funding Offered

- 50% Repowers
- 25% Replacements
- 80% Engine Upgrade Group Solutions
- 100% Retrofits

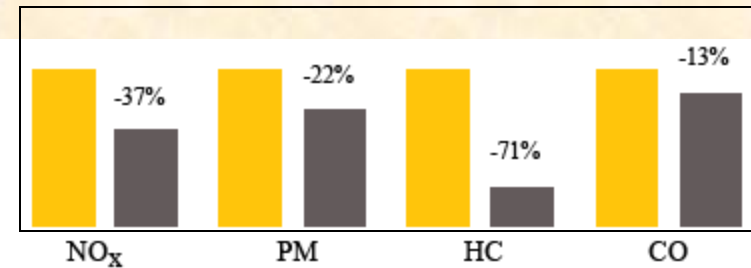


Emissions Retrofit Engine Upgrade Groups

Upgrade to Tier 1 emissions levels during engine overhaul



**Turbochargers
Fuel Pumps/
Governors
Cylinder Packs**



- **Cost effective solutions**
- **Same Caterpillar reliability and serviceability**
- **Available for select 3306 off-road applications**
- **Available for 3406 off-road applications in 2008**
- **EPA Verified, same benefits as engine repower!**



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TODAY'S WORK. TOMORROW'S WORLD.



Application Process

- 90 day application period
- Based on GRADE's one page application
- Application period Jan. to March 31, 2009
- NCDAQ quantifies emission reductions and cost effectiveness
- Selection made based on cost effectiveness of project however, other factors apply



Other Selection Criteria

- Geographical diversity
- Number of projects per applicant
- Type of emissions reductions
- Other received funding



Caterpillar Promoting LEADER

- Strategy was to work closely with local dealers
- They offer:
 - Long-standing relationships with equipment owners
 - Can ensure the opportunity makes it in the hands of the equipment decision makers
 - Can help with media releases, customer periodicals available with space for news releases
 - Events to educate customers such as Emissions Lunch and Learns, inviting state air quality representatives

Examples

Lunch and Learn Invite

Caterpillar Dealer Newspaper

from truck service and warranty... store to Power Service Manager in Memphis, before relocating to Jackson at the time of that store's opening. Hilton, who received a cash prize for his great suggestion, says his job experiences helped get him thinking about names for our newspaper. "In my job, I have to field a variety of technical questions, so I see just how fast technology is changing. With all the new services

Hilton Cohea
Thompson is offering, the term 'cutting edge' came to mind, and seemed like a good way to describe what our customers can expect from us."
Congratulations from all of us, Hilton – an

TDOT Sponsors Emission \$500k in Federal Fun

With all the work you do, you don't want to think about complying with emissions regulations. But you should – now – because government funding will not last forever. The Tennessee Department of Transportation (TDOT) announced a new funding program to promote emission control technologies for diesel-powered construction equipment. This competitive funding opportunity is open to private sector construction companies working on current or recently awarded state road construction projects in the counties of Anderson, Blount, Cocke, Davidson, Hamilton, Jefferson, Knox, Loudon, Montgomery, Roane, Rutherford, Sevier, Shelby, Sumner, Williamson and Wilson. The new funding, called the Clean Transportation Innovations Incentives Fund, is aimed at reducing exhaust emissions from heavy-duty diesel engines. Funds will pay up to 80% the cost of an emissions control technology.

There are a number of Caterpillar® Emission solutions to choose from. The best option (or mix of options) depends on your equipment, applications, upcoming regulations and more. Solutions eligible for funding may include:

- Engine Repower – replacing your existing engine with a newer, lower-emission engine
- Engine Upgrade Groups – upgrading your existing 3306 or 3406 engine using lower-emission components
- Aftertreatment – treating exhaust gases to reduce emissions

The basic funding application forms can be found at www.tennessee.gov/tdot/cmaq. Proposals are due January 31, 2008. Thompson Machinery can help you choose the best



www.thompsonmach

Carolina



Carolina Cat and Caterpillar

Cordially invite you to our

EMISSIONS INFORMATION SESSION and COOKOUT

Please join us at any one of our sessions for some great food and your chance to learn about emissions, air quality and how emissions impacts you in today's business environment. Following our cook out, we will have a presentation from a Caterpillar Emissions Representative and a Q&A session with local and state air quality and representatives.

Cookouts begin at the start times below. Our presentation and Q&A session will begin about 45 minutes later and last as long as there are questions.



DAQ Promotion of LEADER

- LEADER website
(<http://www.ncair.org/motor/LEADER/>)
- Unfunded GRADE and MSERG applications
- List serves/E-mails



Results

- Over \$1 M in applications
- 44 pieces of equipment proposed
- 14 different organizations applied
- Both private and public sector applied
- From GRADE expected mostly repowers and mostly graders (Smalls)



Results.....continued

- Applicants did reflect the number of each size in the Statewide inventory i.e. 50% Smalls, 25% each of Medium and Large
- 18 Smalls (175HP), 9 Mediums (300HP), and 11 Larges (600HP)
- LEADER applicants were varied geographically

Results.....continued

NO_x (TPY)	PM (TPY)	HC (TPY)	CO (TPY)	CO₂ (TPY)	Total (TPY)	Annual CE
68	6	7	40	?	122	\$6,154



Who Received Funding

- 1st = Repowers
- 2nd = Replacements
- 3rd = EUG/Repower project
- 4th = Retrofits did not rank well
- -----
- 80% of funds spent in private sector
- 20% of funds spent in public sector



What Did We Learn?

- One page applications are the best
- Check the application against the DEQ
- 90 day application period is important
- The one-on-one approach is a must
- Some folks don't e-mail
- Be flexible
- Communication, Communication, Communication



What Would We Change?

- Allow all nonroad sectors
- Address the need – generators and pumps



For More Information

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