



## Appendix E and Company Proposed Projects

### Status Report First Quarter 2003

The following sections provide updates for Detroit Diesel Corporation (DDC) Appendix E and Company Proposed projects wherein DDC has committed Net Project Funds of \$7,000,000.

#### Project Status – Company Proposed Projects

- Metropolitan Atlanta Clean Natural Gas Transit Bus Heavy Duty Engine Deployment Program (\$300,000) and Appendix E Project – Supplemental NOx Emission Offset Project (\$16,500)

These combined projects were completed during calendar year 2002 and a final report issued on February 1, 2002. The projects subsidized the incremental expense of natural gas fueled engines for one hundred and eighty-four transit buses. The NOx emissions benefit of this project was estimated to be 2,870 tons over a 12-year operating period.

- Incremental Cost Funding of CNG Buses for the Port of Allegheny County (\$300,000)

As described in previous quarterly reports, funding problems encountered by project partners prevented this Company Proposed project from moving forward. Alternate projects have since been sought. DDC has proposed and EPA accepted (in the second quarter of 2003) that the project funds be redirected towards exhaust aftertreatment retrofit of diesel powered vehicles in the Puget Sound area. A project SOW was submitted in the second quarter of 2003, which proposed to retrofit twenty-two diesel-powered buses operating in the Puget Sound area, by Community Transit.

- Fleet Demonstration of Urea-Based Catalytic Reductant Technology (\$400,000)

This project was closed due to catalyst failures and a final report issued on September 27, 2001. DDC spent in excess of its originally committed level of funding, however the emissions benefits expected to be derived from this project were not realized since the maturity level of early prototype hardware was not conducive to supporting the planned mileage accumulation.

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- Fleet Demonstration of Continuously Regenerative Diesel Particulate Filters (\$200,000)

DDC's support of the Ralphs Grocery PM filter demonstration component of this project was completed short of final reporting. Continuously regenerating PM filter technology was successfully demonstrated on ten ultra-low sulfur diesel fueled vehicles in Ralphs Grocery's fleet operating in Riverside California. Details of the projects final results were published by the United States Department of Energy (see <http://www.afdc.doe.gov>), a major sponsor of the project.

The originally proposed Santa-Monica based transit bus retrofit component of the project was discontinued due to organizational changes at the Santa Monica property. DDC and EPA had discussed redirection of the majority of remaining funds towards support of exhaust aftertreatment retrofit projects in the Puget Sound area. In the first quarter of 2003, DDC submitted a proposal to EPA supplement the DPF demonstration project with project scope of work to EPA proposing \$148,000 be spent on retrofit and maintenance of thirteen articulated transit buses at Sound Transit for a period of two years. DDC received EPA's approval of the proposal on March 27, 2003.

- California Offset Project: Conversion of Diesel Powered Heavy-Duty Tractors to Natural Gas. (\$1,400,000)

Conversion to natural gas of thirty of the originally planned thirty-two diesel powered heavy-duty tractors was completed in the second quarter of 2002. DDC was advised by the relevant customer participating in the project that they no longer desired the two tractors remaining on the conversion schedule to be converted to natural gas. Converted vehicles remain in service operation. DDC will continue to provide service and warranty coverage for the duration of the project as committed in the scope of work, and will produce a final report.

- Fleet Demonstration of Advanced Integrated Engine-Catalyst Systems. (\$550,000)

The initiation of this project in the first quarter followed the completion of installation and shakedown of the initial field demonstration unit of the related Appendix E Advanced Integrated Engine-Catalyst Systems project (see status report). Additional installations are planned for completion by December 2003.

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- Fleet Demonstration of Advanced Integrated Engine-Catalyst Systems. (\$550,000) (continued)

The duration of the demonstration phase is 3 years. Work has commenced on the second and third installations with no delay of the completion date anticipated.

Project Status – Appendix E

- Integrated Engine-Catalyst System Strategies for Reduced NOx and Particulates (\$2,333,500)

See separately provided detailed report.

- Model-Based (Smart) Engine for Practical Emissions Reductions (\$1,500,000)

See separately provided detailed report.

- Integrated Metropolitan Atlanta Clean Natural Gas Transit Bus Heavy Duty Engine Deployment Program (\$16,500)

This supplement to the same-named Company Proposed Project summarized above, was completed during calendar year 2002 and a final report issued on February 1, 2002.