New Technology Research and Development (NTRD) Program

December 9, 2004

Applications Selected to Receive FY05 Funding

Application Number	Applicant Name	Grant Description	Project Type	Purpose
2004-1-034N	Gas Technology Institute	GTI is asking for research funds in order to develop a small-scaled hydrogen fuel cell refueling station and a fuel cell powered delivery truck.	Testing and/or Development	Fuel Cell technology deployment
2004-1-039N	County of El Paso	The project partners will install an LNG engine with a Hydraulic Launch Assist (HLA) system on a low-floor Americans with Disabilities Act (ADA) compliant transit bus.	Demonstration	Reduces emissions from On-Road Vehicles
2004-1-044N	Railway Equipment Corporation	REC proposes to assemble a 40 ton fully battery-electric locomotive (removed diesel engines) for demonstration and additional R&D as required to service the Texas industrial switching rail market.	Demonstration	Reduces emissions from locomotives
2004-1-047N	Baytech Corporation	This project will develop, emissions test, and certify a Low NOx Liquefied Petroleum Gas (LPG) and a Low NOx Compressed Natural Gas (CNG) fuel injection system for General Motors heavy duty 8.1L and 6.0L gasoline engines to 0.1 g/bhp-hr.	Verification and/or Deployment	Reduces emissions from On-Road Vehicles (TERP)
2004-1-069N	Teledyne Energy Systems, Inc	Idle truck reductions using portable onboard propane fuel cells.	Testing and/or Development	Fuel Cell technology deployment
2004-1-070N	Railroad Commission of Texas	Verification of a forklift retrofit for the Nissan H20 pre-2003 propane engine which has about 19% of the market share.	Verification and/or Deployment	Reduces emissions from forklifts (TERP)
2005-1-001N	Lamar University	The proposed project is to develop a cost-effective microwave -assisted cyclone-adsorption-destruction technology for the simultaneous control of NOx, VOC and soot emissions from stationary emission sources.	Testing and/or Development	Reduces emissions from Non-Road sources
2005-1-008N	Clean Air Worldwide GP, Inc.	Verification of a superheated computer-controlled diesel fuel injection system. The applicant states they can obtain a 50% NOx reduction.	Verification and/or Deployment	Reduces emissions from mobile sources (TERP)
2005-1-011N	The University of Texas, Center for Space Research	New methodologies will be developed to allow the direct incorporation of measurements made by satellite remote sensing technologies into the biogenic emissions and photochemical grid models currently used by TCEQ.	Study	Increases understanding of Ozone
2005-1-012N	WOW Energy, Inc.	Project consists of building a pilot plant that will be used to demonstrate the technology to reduce/eliminate vaporized heavy metal pollutants and removal of SOX, NOX, PM2.5 & PM 10 from the flue gas streams at two cogeneration plants.	Demonstration	Reduces emissions from energy generation

2005-1-018N	Rolling Frito-Lay Sales, LP	Two types of hybrid trucks will be tested on a fixed route as well as a variety of actual routes delivering products to market. In addition to conventional and durability testing, data recorders will be placed on the vehicles to measure various emissions and fuel efficiency under these “real-time” scenarios	Testing and/or Development	Reduces emissions from delivery vehicles (TERP)
2005-1-021N	Railpower Hybrid Technologies Corporation	This project will extend the application of the Green Goat™ diesel-battery-electric hybrid switch locomotive technology to include “road-switching” applications such as local and branch line service.	Testing and/or Development	Reduces emissions from locomotives (TERP)
2005-1-022N	Biofriendly Corporation	The project is for verifying a catalyst, with CARB testing labs, used along with diesel for improving the combustion and thus reducing NOx, PM, HC's and CO. Had a TCET grant that validated 5.09% reduction. (Claim they will get between 5-30% during verification testing)	Verification and/or Deployment	Diesel Fuel additive to lower NOx emissions (TERP)
2005-1-025N	FedEx Express	The project is for testing and certification of the hybrid E700 into the light weight vehicle category.	Verification and/or Deployment	Reduces emissions from delivery vehicles (TERP)
2005-1-033N	Texas A&M Research Foundation, John W. Nielson-Gammon	This project will install and instrument a 66’ tower in a protected oak woodland approximately 80 mi northwest of Houston. The site is along the Houston-Dallas transport corridor and is far from local NOx sources.	Study	Increases understanding of Ozone
2005-1-034N	Valparaiso University	This study proposes to launch ozonesondes from the campus of Rice University in Houston, TX and other sites in East Texas. The ozonesondes will provide measurements of temperature, pressure, relative humidity, and ozone from the surface to about 130,000 ft with 1 Hz sampling.	Study	Increases understanding of Ozone
2005-1-039N	GE Rail of General Electric Company	The final development and certification of a low NOx retrofit (42% reduction) system to be deployed on switcher and road locomotives equipped with EMD 645 turbocharged engines will be performed to move them from Tier 0 to Tier II locomotive.	Verification and/or Deployment	Reduces emissions from locomotives (TERP)
2005-1-043N	Gas Technology Institute	This project will develop a small scale natural gas liquefaction facility that can be replicated for use in transportation fleets across Texas.	Testing and/or Development	On site fuel capability for LNG vehicles
2005-1-046N	Sonoma Technology, Inc.	SIT will provide, install, and operate a radar wind profiler (RWP), a Radio Acoustic Sounding System (RASS), a mini-Sodar, and a surface meteorological station at one offshore oil platform site in the Gulf of Mexico from April 1 through August 21, 2005. The objective of the project is to obtain hourly boundary layer wind data (from near the platform surface to about 4000 m), virtual temperature data (Tv) (from near the platform surface to about 2000 m), and reflectivity (turbulence) data over the Gulf of Mexico offshore of Houston-Galveston.	Study	Increases understanding of boundary layers from the Gulf

2005-1-053N	OceanAir environmental, LLC	Locomotive retro-fit to comply with Tier II. Engine families will be one 12-645 roots blown engine and a 12-645 turbocharged engine will be retrofitted with clean air technology on two separate locomotive and sent to South West Research Institute in San Antonio for certification testing.	Verification and/or Deployment	Reduces emissions from locomotives (TERP)
2005-1-055N	Clean Air Power	CARB Verification of the Clean Air Power's SCR / TERS CPO system for medium and heavy duty vehicles powered by diesel engines to reduce NOx, PM, CO, and HC. The system consists of SCR with urea aqueous solution dosing system and a TERS CPO catalyst.	Verification and/or Deployment	Reduces emissions from On-Road Vehicles (TERP)
2005-1-058N	Combustion Components Associates	EPA ETV verification urea based ELIM-NOx SCR system for Class 8 diesel.	Verification and/or Deployment	Reduces emissions from On-Road Vehicles (TERP)