RESULTS OF THE EMPOWER LOUISIANA TRANSPORTATION EFFICIENCY AND ALTERNATIVE FUELS GRANT PROGRAM

by Bryan Crouch, P.E.

The EmPower Louisiana Transportation Efficiency and Alternative Fuels Grant Program (the Program) is now finished and all projects that received funding through the Program are complete. The Program was established by the Louisiana Department of Natural Resources (DNR) for the purpose of implementing energy efficient traffic and street lighting and increasing the use of natural gas as a vehicle fuel throughout the State of Louisiana. The Program was funded through the U.S. Department of Energy with dollars allocated from the American Recovery and Reinvestment Act (ARRA) of 2009.

Energy efficient traffic and streetlights consume up to 80% less energy and last many times longer than incandescent lighting; and natural gas, when used as a vehicle fuel, costs approximately 40% less than gasoline or diesel. All of these technologies currently have significantly higher capital costs than traditional alternatives.

Sixteen grants totaling \$8.3 million were awarded from the Program, with grant recipients additionally contributing an estimated \$16.3 million. The funding was used to purchase energy efficient traffic signals and streetlights, purchase refueling equipment for 11 compressed natural gas (CNG) stations, and to purchase or convert over 200 CNG vehicles.

An estimated 1.5 million gallons of gasoline and diesel will be displaced annually, and almost 400,000 kWh of electricity saved annually, as a result of these projects. The Program has also served to increase interest statewide in natural gas vehicles and as a solid foundation on which to build Louisiana's natural gas vehicle infrastructure.

Some highlighted projects from the Program include:

• The City of Shreveport replaced 18 of the city's diesel-powered garbage trucks with new CNG-powered trucks. Garbage trucks burn large amounts fuel, and by switching to CNG, the city will see a significant reduction in fuel costs. The CNG trucks are quieter and emit fewer pollutants than diesel-powered trucks. The city also received funding to help install a time-fill refueling system for the trucks and a publicly accessible fast-fill refueling dispenser at the Kings Highway facility in Shreveport.





• The Lafayette Consolidated Government (LCG) is aggressively moving their fleet to CNG. In addition to five CNG transit buses already in operation, LCG received funding from the Program to convert 80 vehicles

to CNG and to help construct a publicly accessible CNG refueling station at their public works facility on University Avenue.





• The St. Landry Solid Waste Disposal District received funding to construct the first landfill gas CNG refueling facility in Louisiana. The facility makes use of landfill gas collected at their solid waste landfill, which otherwise would have been flared. The District also received funding to convert five of their vehicles and ten St. Landry Parish Sheriff's Office vehicles to CNG.





 DNR and the Department of Transportation and Development also utilized ARRA funds to purchase one CNG vehicle and convert five vehicles to operate on CNG. The vehicles will serve as test cases to assess the viability of CNG vehicles in the state fleet. Two of DNRs vehicles will serve in a marketing and educational role to promote the use of natural gas as vehicle fuel in Louisiana.

