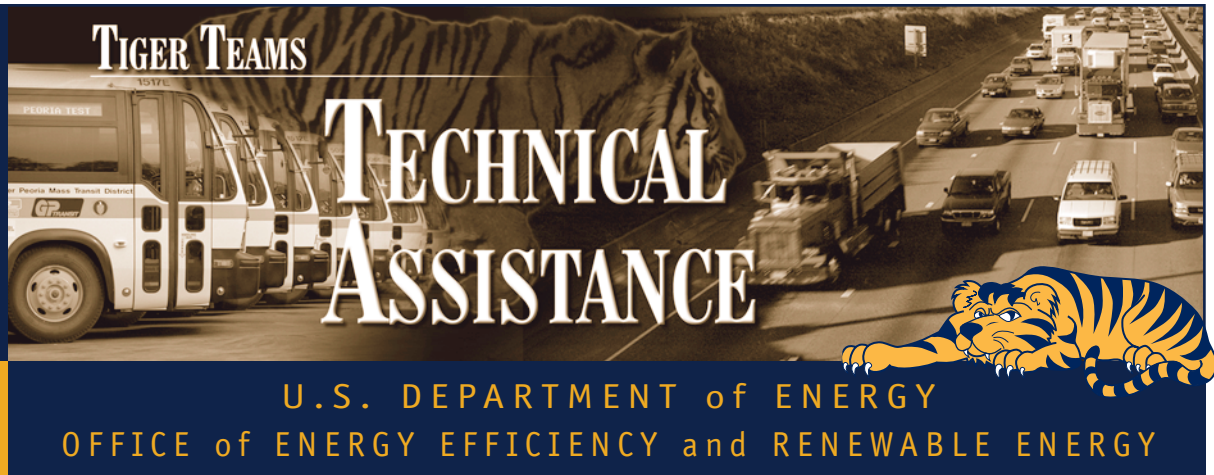




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Alternative Fuel Information Series

May 2003



## Tiger Teams Provide Coalitions Technical and Market Assistance

The Clean Cities Technical Assistance Teams (Tiger Teams) were formed in 2001 to work directly with Clean Cities coordinators, stakeholders, and partners to tackle difficult technical and market challenges that might otherwise stall alternative fuel vehicle (AFV) implementation projects. The Tiger Team project, managed by the National Renewable Energy Laboratory (NREL), was established by the U.S. Department of Energy (DOE) to provide technical expertise to the 80 Clean Cities coalitions operating across the country. The Tiger Teams provide assistance when coalitions encounter barriers that challenge local resources. Tiger Team specialists contracted by NREL have expertise in compressed natural gas (CNG) fueling station design and implementation; natural gas, propane, and biofuel vehicles; and light-, medium-, and heavy-duty vehicle applications.

The project descriptions here provide an update of recent Tiger Team tasks. Many of these projects have resulted in models, tools, and templates that can be applied by other coalitions.

### Planning for AFVs at Milwaukee's Airport

General Mitchell International Airport in Milwaukee, Wisconsin, has approximately 137 fleet vehicles and a large contingency of airline tugs and belt loaders with viable off-road AFV uses. The Wisconsin Clean Cities Southeast Area coalition asked a Tiger Team to create a strategic plan for full AFV integration. This plan can be used as a model for the fleet operations of the entire county—potentially thousands of fleet vehicles.

### Providing CNG Bus Assistance

This ongoing project allows Clean Cities coalitions to tap into Tiger Team expertise when incorporating natural gas buses into their fleets. The team has provided assistance to the Beaumont, Texas, metropolitan planning organization and the Atlanta metro area. It is also assisting with the Natural Gas Transit Users Group and has assessed the technical viability of a variety of alternative fuel school bus initiatives.

### Bringing CNG Buses to Beaumont

A Tiger Team is helping the East Texas Regional Planning Commission develop preliminary CNG transit bus fueling and maintenance facility plans for the city of Beaumont, Texas. The plans will identify fueling station design criteria and placement, contain preliminary suggestions for facility upgrades or modifications, and include an outline of CNG implementation in transit bus service.

### Planning School Bus Infrastructure in Long Beach

The Long Beach, New York, School District wants to make a positive contribution to the local air quality. With that in mind, it is working with a Tiger Team to develop a preliminary CNG school bus fueling and maintenance facility plan.



A Tiger Team worked with the Washington (DC) Metropolitan Area Transit Authority to define requirements and specifications to upgrade its CNG bus maintenance and fueling facilities.

Leslie Endy/PIX 12293

## Adding CNG Buses to WMATA

The Washington Metropolitan Area Transit Authority in Washington, DC, wanted to incorporate CNG transit buses into its fleet. A Tiger Team developed specifications for modifying the agency's maintenance facility and developing its new CNG fueling facility.

## Upgrading CNG Stations in Washington, DC

The Washington, DC, area has numerous federal, state, and private natural gas fleets. Over the past 10 years, the local gas utility has installed several natural gas fueling stations to service those fleets, but some have recently fallen into disrepair or require upgrading to a higher operational pressure. A Tiger Team and the Washington Metropolitan Clean Cities coalitions are working with fleets to analyze these stations and determine potential sites for new ones.

## Developing AFV Incentives in North Carolina

The Triangle Clean Cities Coalition and a Tiger Team have helped North Carolina Representative Joe Tolson develop and gain support for a state house bill that would provide rebates to AFV purchasers and grants to construct related fueling infrastructure. North Carolina House Bill 1213 proposed a 10-year program that would be funded by a slight increase in the state's vehicle registration fee. The bill is under consideration by the state legislature.

## Publishing a Training Resource Guide

To ease the transition of adding AFVs to transit fleets, the Tiger Team developed *The Alternative Fuels and Vehicles Transit Training Resource Guide for Transit Districts* ([www.ccities.doe.gov/pdfs/32534.pdf](http://www.ccities.doe.gov/pdfs/32534.pdf)). The guide points transit managers and maintenance personnel to companies and organizations that offer training programs related to alternative fuels and vehicles.

## Creating Opportunities with Texas Truckers

Heavy-duty AFVs substantially reduce nitrogen oxides and other air pollutants. With that in mind, Texas has created incentive programs to encourage the use of heavy-duty AFVs. A Tiger Team conducted two workshops in the Dallas and Houston areas to inform truckers and fleet operators about the incentives and the availability of alternative fuel vehicles and engines.

## Analyzing the Design of Natural Gas School Buses

Alternative fuel school buses are gaining acceptance, but there are some obstacles to complete market acceptance. A Tiger Team gathered information from bus manufacturers, engine manufacturers, and bus purchasers on design and market potential for such buses. Clean Cities is using this information to determine possible alternative fuel school bus projects.

## Posting an On-Line School Bus Proposal Tutorial

Each year DOE awards competitive grants to purchase and implement alternative fuel school buses. A Tiger Team developed the *Alternative Fuel School Bus Proposal Tutorial* ([www.ccities.doe.gov/pdfs/bustutor.pdf](http://www.ccities.doe.gov/pdfs/bustutor.pdf)) to help states and school districts prepare effective proposals that will increase their chances of securing funding.

## Assessing Medium- and Heavy-Duty Vehicle Markets

Medium- and heavy-duty trucks have long been a target market for those seeking to meet Environmental Protection Agency and energy security goals of reducing petroleum consumption. A Tiger Team analyzed the market for alternative and heavy-duty vehicles and made research development and demonstration recommendations for DOE.

## Building Infrastructure Partnerships in California

In December 2002 a Tiger Team hosted a pilot workshop in California to support further AFV use in the state. The California AFV and Fueling Infrastructure Partnership Workshop provided fleet managers and fuel providers with a forum for identifying their needs and creating the necessary fueling infrastructure. The workshop also discussed opportunities and issues—vehicle availability, training, funding, and legislation—involved in operating AFVs.

For more information or to apply for Tiger Team assistance, check the Clean Cities Web site at: [www.ccities.doe.gov](http://www.ccities.doe.gov) or contact your Clean Cities coordinator.

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