

biodiesel, in order to make these fuels less costly and more widely used. The use of replacement fuels in fuel blends has a number of advantages that makes their increased use likely, including an ability to use the existing petroleum infrastructure, the ability to enable advanced engine control strategies, and relatively low costs compared with other immediate strategies.

Most importantly, the President and DOE have recently announced the creation of the FreedomCAR and Hydrogen Fuel Initiative, which is intended to make clean and affordable automotive energy a reality for all consumers. This initiative is focused on the introduction of hydrogen as a transportation fuel for the future and involves a number of different DOE programs. These efforts complement work already done in the area of hybrid electric drive systems and fuel cells, and look to advance these technologies beyond their existing state. DOE is working with the EPA, industry, academia, State Energy Offices, and DOE's national laboratories to bring the promise of low-cost, clean, and efficient hydrogen energy to the market. Although it will be many years before hydrogen vehicles and fuels are widely available, steps must be taken today in order to make hydrogen possible for the future. At the same time, DOE will continue to work with its partners through R&D programs to improve current technologies in order to make them cleaner, more economical and more fuel-efficient.

#### *D. Description of the Energy Policy Act's Alternative Fuel Transportation Programs*

##### **Alternative Fuel Provisions in the Energy Policy Act**

Titles III, IV, V, and VI of EPAct contain the basic provisions for various non-research alternative fuel-related programs, all of which are aimed at displacing motor vehicle petroleum consumption. (See 42 U.S.C. 13211 *et seq.*) Title III contains definitions of (1) alternative fuel; (2) AFV; and (3) covered fleet. Title III also sets forth requirements for Federal fleet acquisitions of AFVs, which began in fiscal year 1993.

Title IV authorizes, subject to the availability of appropriations, a financial incentive program for States, a public information program, and a program for certifying alternative fuel technicians. The public information program is intended to promote the use of AFVs and alternative fuels.

Title V specified percentages of light duty vehicles acquired by State

governments and alternative fuel providers that must be AFVs. The minimum acquisition requirements are phased-in, escalating from year to year until reaching a fixed percentage. Title V also gives DOE authority under specified conditions to impose by rule a similar mandate on private and local government fleets. Title V authorizes the allocation of credits to covered fleets that exceed their AFV acquisition requirements. These credits may be sold and used by other fleets that are subject to Title V vehicle acquisition mandates. It also contains investigative and enforcement authorities, including provisions for civil penalties and, in certain circumstances, criminal fines for noncompliance with the statutory mandates and implementing regulations. Finally, section 505 of Title V contains voluntary supply commitments that are covered by the Clean Cities Program.

Title VI of the Act confers on DOE a variety of authorities to promote, subject to the availability of appropriations, development and utilization of electric motor vehicles. Subtitle A provides for a commercial demonstration program for electric motor vehicles, and Subtitle B provides for an infrastructure and support systems development program.

##### **DOE Implementation of the Energy Policy Act**

Since 1992, DOE has taken a number of steps to implement EPAct's alternative fuel programs. DOE coordinates various aspects of the Federal fleets' efforts to comply with the vehicle acquisition requirements established under section 303. (42 U.S.C. 13212) DOE has promulgated and implemented regulations and guidance for alternative fuel providers and State government fleets, which are subject to the fleet provisions contained in sections 501 and 507(o), respectively. The implementation of the fleet regulations, in particular, has given DOE considerable experience in understanding the issues associated with fleet mandates.

DOE also has experience with implementing voluntary alternative fuel programs. The Clean Cities Program (Clean Cities) (sections 405, 409 and 505 of EPAct), is the primary means by which DOE promotes the use of alternative fuels. This program supports public and private partnerships that deploy AFVs and build supporting infrastructure. The Clean Cities Program has established the following relevant goals: (1) One million AFVs operating exclusively on alternative fuels by 2010; and, (2) one billion gasoline gallon

equivalents per year used in AFVs by 2010.

Unlike traditional command and control regulatory programs, Clean Cities takes a unique, voluntary approach to AFV development, working with coalitions of local stakeholders to help develop the AFV industry. The program thrives on strong local initiatives and a flexible approach to building alternative fuels markets, providing participants with options to address problems unique to their cities and fostering partnerships to help overcome them. There are currently more than 80 local Clean Cities organizations around the country. From local businesses and municipal governments to regional air quality organizations and national alternative fuel companies, more than 4,400 stakeholders have found the Clean Cities to be an effective route to building local alternative fuels markets.

Many Clean Cities organizations have focused their efforts on marketing to niche markets. Niche market fleets offer the best opportunities for overcoming the barriers that often limit alternative fuel use. These barriers include limited refueling infrastructure, higher acquisition costs, and lower operational range for vehicles. High-mileage, centrally-fueled fleets are a good example of a niche market. High-mileage fleets consume larger quantities of fuel, so over time, fleet managers can benefit from the cost savings associated with alternative fuels that cost less than conventional fuels. Low-mileage, high-fuel-use vehicles—those that must often wait, idling, or those with repeated starts and stops, such as airplane tugs and airline baggage carts—are another niche market. Predictable routes and centralized refueling stations also facilitate scheduling and allow for overnight or off-hour refueling, leaving more time for scheduled stops during the workday. Considering these factors, alternative fuels in many niche applications make sense and can be economical today. With the many niche markets in communities across the country—taxis, delivery fleets, shuttle service and transit bus fleets, airport ground fleets, school bus fleets, and national park vehicles—market penetration for alternative fuels and vehicles is viable and can have an impact on alternative fuel growth.

Additional details on the Clean Cities Program may be found on the world wide web at [www.ccities.doe.gov](http://www.ccities.doe.gov). Details on DOE's existing fleet regulations may be found on the World Wide Web at <http://www.ott.doe.gov/epact/>.