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Committee on Transportation

Senator James "Jim" Hargrett, Chairman

ALTERNATIVE FUEL VEHICLES

SUMMARY

The National Highway Transportation Safety Administration (NHTSA) has recently established rules concerning the new generation of golf carts called "low-speed vehicles." The standard requires low-speed vehicles to be equipped with headlamps, stop lamps, tail lamps, reflex reflectors, parking brakes, rearview mirrors, windshields, seat belts, and vehicle identification numbers. This report recommends that the Legislature adopt the NHTSA standards for low-speed vehicles and require operators of these vehicles to be licensed and insured.

Unlike standard gasoline vehicles which are taxed per gallon of gas, liquefied petroleum gas and compressed natural gas driven vehicles pay fuel taxes through the purchase of an annual decal. Electric vehicles have no direct fuel tax. The operator pays local and state utility taxes, which do not go toward the construction and maintenance of roads. Under most circumstances, alternative fuel vehicles have the advantage of comparatively little or no fuel tax. If these vehicles accounted for a significant portion of Florida's registered vehicles, local and state road building funds could be in jeopardy. However, this is not the case. Should this become an issue, the Legislature should consider adopting a British Thermal Unit or other equitable fuel tax structure.

In 1992, Congress passed the Energy Policy Act. The Act requires federal, state, and in the future, local governments and private fleets, to buy alternative fuel vehicles. Florida state agencies are currently in compliance with the alternative fuel vehicle requirements for state fleets. However, considering the questionable benefits of these vehicles, Florida should request the Federal government review the effectiveness of this program given today's cleaner and more efficient gasoline vehicles, and examine alternative ways to curb the nation's dependence on foreign oil.

BACKGROUND

Alternative fuel vehicles (AFVs), for the purposes of this report, include vehicles that are fueled by liquefied petroleum gas, compressed natural gas, electric power, or any combination of these fuels. Vehicles that use alternative fuel range from golf carts to large commercial trucks. Most AFVs are manufactured for road use and must meet the same federal motor vehicle safety and equipment requirements, and state registration, driver's license, and insurance requirements as a standard gas or diesel fueled vehicle. Some AFVs, such as golf carts, were not originally manufactured for use on public streets and have not been subject to federal vehicle safety requirements. Golf carts are also exempt from state registration, driver's license, and insurance requirements.

This report will examine two areas of operation of alternative fuel vehicles. First, the report will examine the safety requirements for golf carts and other small low-speed vehicles to determine if additional requirements are needed to ensure safe operation in conjunction with standard vehicles. The report will then address state and federal requirements and incentives for the use of alternative fuel vehicles and the treatment of these vehicles under the tax laws of this state. This aspect of the report will determine if Florida should consider changes to more effectively recognize current and future use of these vehicles.

A. Safety Regulations for Golf Carts and Low-speed vehicles

Golf carts have become a very popular mode of transportation especially in retirement states such as Florida, Arizona, and California, and have been introduced for use on streets. The National Highway Traffic Safety Administration (NHTSA) recently developed rules regarding the appropriate classification and safety regulations for golf carts and other small, lightweight vehicles which proposed that a category of motor vehicles called "low-speed vehicles" be established. The agency has recently

acknowledged that the design and use of some of these vehicles are changing, and regulations to provide for safer operation are appropriate.

Prior to this ruling, NHTSA interpretations and regulations provided that so long as golf carts and other similar vehicles were incapable of exceeding 20 mph, such vehicles were subject to only state and local safety equipment requirements. However, if these vehicles were originally manufactured to operate faster than 20 mph, they were treated as motor vehicles under federal law. Similarly, if golf carts were modified after original manufacture to achieve 20 or more mph, they too were treated as motor vehicles. As motor vehicles, they were classified as passenger cars and were required to comply with the Federal motor vehicle safety standards for that vehicle type. Because of the size of these vehicles, compliance with the full range of these standards was not feasible.

To permit the manufacture and sale of small, 4-wheeled motor vehicles with top speeds of 20 to 25 miles per hour, NHTSA's final rule reclassifies these small passenger-carrying vehicles as "low-speed vehicles." This new rule does not impact conventional golf carts, as presently manufactured, since they have a top speed of less than 20 mph.

LSVs which are manufactured or modified to achieve 20 or more miles per hour are subject to a new Federal Motor Vehicle Safety Standard No. 500 (49 CFR 571.500). In justifying the rule NHTSA notes that the growing on-road use of golf carts has already resulted in deaths and serious injuries, and believes that the new standard is needed to address the effects in crashes of the higher speed of LSVs. The standard requires low-speed vehicles to be equipped with headlamps, stop lamps, tail lamps, reflex reflectors, parking brakes, rearview mirrors, windshields, seat belts, and vehicle identification numbers. The agency contends that these requirements appropriately address the safety of LSV occupants and other roadway users, given the low speed capability of these vehicles and the controlled environments in which they operate.

Any company that manufactures low speed electric vehicles capable of maximum speeds of 20 to 25 mph, or any company that retrofits golf carts to reach speeds of 20 to 25 mph are responsible for ensuring those vehicles meet NHTSA safety standards. Companies which violate this rule are subject to a federal fine of \$1,100 per offense.

This rule does not affect how the states regulate these types of vehicles. However, under the preemption provisions of 49 U.S.C. 30103 (b) (1), with respect to those areas of a motor vehicle's safety performance regulated by the Federal government, any state and local safety standards addressing the regulated areas must be identical. For example, since Standard No. 500 addresses the subject of the type of lights which must be provided, state and local governments may not require additional types of lights. Further, since NHTSA has not specified performance requirements for any of the required lights, state and local governments may not do so either. However, state and local governments may supplement standard 500 by requiring the installation of safety equipment not required by the standard, such as a horn.

The Florida Department of Highway Safety and Motor Vehicles (DHSMV) has already titled a few of this type of vehicle. DHSMV issued a technical advisory dated July 15, 1998 to all tax collectors in Florida. The technical advisory stated that, in order to be titled and registered, each vehicle must have a Manufacturer's Certificate of Origin issued by the manufacturer with a standard 17 digit vehicle identification number and a statement that the vehicle conforms to the federal regulations. To register these vehicles the owner must show proof of insurance.

The DHSMV has registered vehicles manufactured by Bombardier because the vehicles this company manufactures comply with the NHTSA standards. Bombardier vehicles include the 17 digit vehicle identification number on all of their LSVs. The department also plans to require dealers who sell these LSVs to become licensed as motor vehicle dealers under s. 320.27, F.S.

Safety Findings

NHTSA found that although deaths and serious injuries resulting from the on-road use of golf carts are not numerous, they are occurring. NHTSA's Fatal Analysis Reporting System (FARS) shows nine on-road deaths of golf cart occupants from 1993 to February 1998. One of those deaths was in Florida. Eight of the nine deaths resulted when a golf cart collided with a car or truck. Seven additional deaths were reported by the Consumer Product Safety Commission (CPSC). This data was taken from confirmed death reports resulting from the on-road and off-road operation of golf carts.

CPSC also provides data on injuries involving golf carts from the National Electronic Injury Surveillance System (NEISS) for the years 1993 to 1997.

Based on the data provided by CPSC, NHTSA estimates that there was an average of 222 on-road golf cart injuries per year over the 5-year period. However, this sample data may underestimate total occurrences because the sample data estimates only one fatality involving a golf cart in the five years of NEISS data, while there were 16 actual deaths.

NHTSA anticipates that the number of on-road serious injuries and deaths involving occupants of fleet and personal golf carts will grow with the growth in number and speed of these vehicles or similar vehicles on the road. As more local governments in Florida designate public roads for use of low-speed vehicles, the sale and use of low-speed vehicles will increase.

Because of the low speeds at which these vehicles operate, they were not crash tested by NHTSA. Further, no independent crash data or safety data was available.

Current Florida Law

The current statutory definition for a golf cart is a motor vehicle designed and manufactured for operation on a golf course for sporting or recreational purposes. s. 320.01(22), Florida Statutes. There is no current Florida definition for what NHTSA defines as a low-speed vehicle, and any vehicle, which is configured like a golf cart, regardless of speed capabilities, is defined as a golf cart.

Golf carts are exempt from registration and license taxes under s. 320.105, F.S., and pursuant to s. 322.04, F.S., golf cart drivers are not required to have a driver's license or insurance.

Pursuant to s. 316.2125(2)(a), F.S., the operation of golf carts on local roads is allowed. After making a safety determination, a city or county may designate county or city roads for golf cart use. s. 316.212 (1), F.S. A city or county may prohibit the use of golf carts on any road under its jurisdiction in the interest of safety.

Pursuant to s. 316.212(2), F.S., the operation of a golf cart on state highways is allowed if the Florida Department of Transportation (FDOT) determines that: the safe and efficient flow of traffic will not be impeded; the road is the only available public road along which the golf carts may travel or the road provides the safest travel route among alternative routes available; and, the speed, volume, and character of motor vehicle traffic using the road is considered.

A golf cart that is operated on a public road must be equipped with efficient brakes, reliable steering apparatus, safe tires, a rearview mirror, and red reflectorized warning devices in both the front and the rear in accordance with s. 316.212(5), F.S. A golf cart may be operated only during the hours between sunrise and sunset, unless the FDOT or local government has determined that a golf cart may be operated during the hours between sunset and sunrise and the golf cart is equipped with headlights, brake lights, turn signals, and a windshield, in addition to the other equipment requirements.

Golf carts may operate on roads within a self-contained retirement community unless the roads within the community are state or local roads and the FDOT or local government prohibits such use for safety reasons. Golf carts operating within a self-contained retirement community must also be equipped with efficient brakes, reliable steering apparatus, safe tires, a rearview mirror, and red reflectorized warning devices in both the front and the rear. Golf carts operating at night within a self-contained retirement community must also be equipped with headlights, brake lights, turn signals, and a windshield.

Florida law does provide driver's license, registration, and insurance exemptions for other non-traditional motor vehicles that operate on public streets.

Motorcycle operators must have a driver's license, but are not required to have insurance until they have been found at fault in an accident. At this time, the motorcycle driver has 30 days to show proof of bodily liability insurance, including personal injury protection as well as property damage and liability coverage, and to provide a release from the injured party stating that they have released the motorcycle driver from all liability. The driver of the motorcycle will not have their driver's license reinstated until these requirements are met. Motorcycles must be registered annually with the Department of Highway Safety and Motor Vehicles.

Mopeds, vehicles with pedals which permit propulsion by human power not capable of exceeding 30 miles per hour with an engine no larger than 50 cubic centimeters, are not required to have insurance even if charged with an accident. However, moped drivers are required to have a valid driver's license, and annually register their mopeds.

Drivers of motorized bicycles, which are propelled by a combination of human power and electric power and

are not capable of exceeding speeds of 10 mph, are not required to have a driver's license or insurance. Owners of these vehicles are only required to register their motorized bicycles once and are not required to renew their registration.

B. State and Federal Tax Requirements for Alternative Fuel Vehicles

Electric Vehicles

Pursuant to s. 320.01(37), F.S., an electric vehicle (standard size vehicles that do not include LSVs or golf carts) is defined as a motor vehicle powered by an electric motor that draws current from rechargeable storage batteries, fuel cells, or other sources of electric current.

Electric motor vehicles that operate on the roads of this state must be registered with the Department of Highway Safety and Motor Vehicles as any other motor vehicle. The registration tax for electric vehicles is the same as the tax for non-electric vehicles as prescribed in ss. 320.08, and 320.08001, F.S. Most electric vehicles would be taxed as a small vehicle; therefore, including all fees, the total license tax would be \$24.10.

Owners of electric vehicles pay no direct fuel tax which is deposited into the State Transportation Trust Fund for road improvements. However, owners of these vehicles do pay utility taxes on the electricity used to charge the vehicle's batteries.

Owners of electric motor vehicles must have the same minimum insurance required for non-electric vehicles pursuant to s. 627.733, F.S., and must provide proof of coverage upon registration. Electric vehicles are provided an exemption from an insurance provider imposing a premium surcharge based on factors such as new technology, passenger payload, weight-to-horsepower ratio, etc. s. 627.06535, F.S. These exemptions were provided to encourage use of electric vehicles.

As another incentive to purchase an electric vehicle, s. 212.08(7)(hh), F.S., exempts the sale of electric vehicles from sales tax until June 30, 2000.

Liquefied Petroleum Gas & Compressed Natural Gas

Alternative fuel vehicles (AFVs) must be registered with the Department of Highway Safety and Motor

Vehicles as any other motor vehicle. The registration tax for AFVs is the same as the tax for standard vehicles as prescribed in s. 320.08, and s. 320.08001, F.S.

In addition to the registration fee, owners of vehicles that use these alternative fuels pay their fuel taxes through the purchase of an annual decal, the price of which varies according to the type of vehicle involved and the total amount of state and local fuel taxes in effect in the county of residence. Owners pay an annual fee for the decal from \$11 to \$21 per penny levied for fuel taxes specified by s. 206.877, F.S. There are currently approximately 2,900 of these vehicles registered in Florida.

Automobiles weighing up to 3,500 pounds, trucks weighing up to 5,000 pounds, motorcycles, for-hire-vehicles which carry less than nine passengers, and motor homes weighing less than 4,500 pounds must pay \$11 for every penny of gas tax that is levied per gallon on gas-fueled vehicles. In fiscal year 1997-1998, the average decal cost was \$175.

Vehicles designed exclusively to haul specialized equipment, such as well drillers and construction equipment, school buses, wreckers, for-hire-vehicles that carry nine passengers or more, motor homes weighing more than 4,500 pounds, and locally operated motor vehicles for hire must pay \$15 for every penny of gas tax that is levied per gallon on gas-fueled vehicles. In fiscal year 1997-1998, the average decal cost was \$238.

Heavy trucks, which register by gross vehicle weight, ranging from 5,001 pounds to 72,000 pounds, must pay \$21 for every penny of gas tax that is levied per gallon on gas-fueled vehicles. In fiscal year 1997-1998, the average decal cost was \$334.

The main incentives provided for these vehicles are in Broward, Miami-Dade, and Palm Beach counties. In these counties, the Gold Coast Clean Cities Coalition operates a low-interest revolving loan fund, with a maximum loan amount of \$5,000 to \$30,000 per vehicle, depending on vehicle type and size. These funds are used by local governmental entities to purchase new vehicles using these alternative fuels or to convert standard vehicles. The State Energy Office is also using \$2 million in oil overcharge funds to assist state agencies in meeting alternative fuel fleet requirements by paying for conversion or incremental costs for these vehicles.

Further, the Transportation Equity Act for the 21st Century (TEA-21) provides up to \$15 million in funds to assist transit operators in the purchase of low-emissions buses, related equipment and facilities to accommodate alternative fuel vehicles.

C. Federal Acquisition Requirements for Alternative Fuel Vehicles

In 1992, Congress addressed the Country's dependence on foreign oil through the Energy Policy Act (EPACT). The legislation seeks to curb the nation's dependence on imported oil by encouraging energy conservation and efficiency and increased use of domestic fuels. It specifically promotes vehicles that run on alternative fuels by requiring federal, state and in the future, local governments and private fleets, to buy alternative fuel vehicles in increasing percentages over time. The goal is to achieve acceptance of non-petroleum fuels in the light duty vehicle market.

EPACT required state governments to purchase light duty alternative fuel vehicles in increasing percentages of the state fleet over a period of years. On March 14, 1996, The U.S. Department of Energy revised the schedule through a final rule. The new requirements are as follows:

- ▶ 10 percent in model year 1997
- ▶ 15 percent in model year 1998
- ▶ 25 percent in model year 1999
- ▶ 50 percent in model year 2000
- ▶ 75 percent in model year 2001 and thereafter

These requirements apply only to state fleets in Metropolitan Statistical Areas (areas with a population of 200,000 or more), and the percentage applies only to the number of vehicles purchased that year, not for the entire agency fleet. Law enforcement and emergency vehicles are exempt.

Requirements for local government and private fleets are currently under review by the Federal Government. Federal mandates for these fleets may be effective as early as 2002, depending on the outcome of the federal review.

METHODOLOGY

Committee staff conducted an extensive literature review of alternative fuel vehicles. Staff reviewed rulings and documents by the National Highway Transportation Safety Administration regarding low-speed vehicles and interviewed administration

officials. Current laws regarding low-speed vehicles in eleven other states were also examined, and officials from Florida retirement communities were interviewed. Staff also reviewed documents and rulings by the U.S. Environmental Protection Agency concerning fleet vehicle mandates. Staff interviewed state agency fleet managers and reviewed state policy concerning the purchase of alternative fueled vehicles for state fleets. Staff also met with related industry groups.

FINDINGS

A. Safety Regulations for Golf Carts and Low-speed vehicles

Research has found that Florida's current regulation of golf carts does not recognize the current technology and use of these vehicles. Even though golf carts are allowed on certain public roads and can be operated at higher speeds, Florida law requires only minimal safety equipment and does not require insurance, a driver's license, or registration. Further, Florida law does not distinguish between low-speed vehicles (LSVs) used on public roads and golf carts used on golf courses.

Sixteen states have enacted some form of golf cart regulation. The most comprehensive laws are in California and Arizona, states with large retirement communities similar to Florida.

Arizona Law

Arizona refers to low-speed vehicles as Neighborhood Electric Vehicles (NEV) and they are defined as any self-propelled electrically powered motor vehicle to which all of the following apply:

- (1) The vehicle is emission free.
- (2) The vehicle is designed to carry four or more persons.
- (3) The vehicle is designed to be and is operated at speeds of twenty-five miles per hour or less.
- (4) The vehicle has at least four wheels in contact with the ground.
- (5) The vehicle has an unladen weight of less than 1,800 pounds.

Golf carts are exempt from registration and license taxes. NEVs must register as a regular motor vehicle and pay a registration tax which is determined by the weight of the vehicle. NEVs are exempt from state requirements related to mufflers, multibeam head lamps, fuel tank caps and the provision which requires vehicles imported into this country to comply with federal vehicle equipment and emissions equipment standards.

Arizona law requires a person applying for initial registration of a neighborhood electric vehicle to certify that a notice of the vehicle's operational restrictions is permanently attached to or painted on the vehicle in a location that is in clear view of the driver. An NEV may operate on public streets but may not operate at speeds faster than 25 mph or upon a street that has a posted speed limit of more than 35 mph. NEVs may cross a street with a higher speed limit at an intersection.

California Law

California defines a golf cart as a motor vehicle having not less than three wheels in contact with the ground and an unladen weight of less than 1,300 pounds. Golf carts are designed to be and are operated at no more than 25 mph and are designated to carry golf equipment and not more than two persons including the driver.

California law makes no distinction between LSVs and golf carts, and does not register golf carts or LSVs at the state level.

California law allows any local city or county to authorize the use of golf carts only in designated golf lanes. Golf cart lanes are defined as all publicly owned facilities that provide for golf cart travel including roadways designated by signs or permanent markings that are shared with pedestrians, bicyclists, and other motorists in the plan area. In order for a community to be eligible to incorporate golf cart lanes they must, by city or county ordinance, adopt a golf cart transportation plan. The plan must be approved by the local transportation planning agency and the local law enforcement agency. The golf cart transportation plan must address route selection, transportation interfacing, coordination with long-range transportation plans, parking, and lane markings.

If a city or county adopts a golf cart transportation plan it must establish minimum general design criteria for the development, planning, and construction of separated golf cart lanes. The city or county must also, in cooperation with the California Department of Transportation, establish uniform specifications and traffic control devices to control golf cart traffic.

The only time a golf cart is permitted to drive on a public road with traffic is within certain small golfing and retirement communities with specified restrictions.

Florida's Retirement Communities

Of the five retirement communities contacted, all had dedicated lanes for golf carts, and the golf carts were not normally operated on the roads. None of the communities had any special regulations for golf carts beyond state law. Only the larger communities had residents who own the new low-speed vehicles, and one community had a licensed Bombardier dealership.

None of the communities contacted kept any accident statistics, and they all stated that there had never been any major accidents involving golf carts in their community.

B. Alternative Fuel Vehicle Emissions

One of the perceived advantages of alternative fuel vehicles is that, in theory, the vehicles run cleaner. Natural gas and propane are chemically less complex than gasoline, and when oxidized or burned, they burn cleaner with fewer emissions. The longer and more chemically complex a molecule is, the less likely it is to be completely burned. The incomplete combustion of the molecule in an internal combustion engine releases carbon monoxide, nitrogen oxide and other molecules in the exhaust.

However, it must be recognized that the use of alternative fuels does not automatically yield emission benefits. With more stringent vehicle tailpipe emission standards, cleaner-burning gasoline, and better emission controls on vehicles, alternative fuels face an increasing challenge to demonstrate actual emission advantages over gasoline.

Electric vehicles are emission free, but their source of power comes from an electric power plant. If the plant from which the electric vehicle draws its energy is inefficient, any environmental benefits gained from the use of an emission free vehicle would be negated.

In British Columbia, where alternative fuel vehicles are subject to the same emissions tests as gasoline powered vehicles (Florida exempts alternative fuel vehicles from testing), it was found that the failure rates for vehicles powered by natural gas and propane were 41 percent, compared to 17 percent for vehicles using gasoline. This high failure rate was attributed to poor quality conversions and improper maintenance.

It is critical that the conversion process is done properly to ensure the effectiveness of the vehicles emissions control equipment. The U.S. Environmental

Protection Agency has recognized this fact and has promulgated strict rules for the conversion process. Back-to-back I/M 240 emissions tests (a more comprehensive emissions test than the current test given to vehicles in Florida's maintenance areas) must be completed on each vehicle before and after the conversion.

From 1992 to 1994, one of the most comprehensive side-by-side studies of alternative fuels was conducted by Battelle Memorial Institute on vehicles in Southern California. Emission results from the study indicate that all five alternative fuels tested, compressed natural gas, electricity, methanol, propane and reformulated gasoline bested gasoline in nearly all emissions.

However, while many studies espouse the emission benefits of AFVs, Florida's experience has not proven these vehicles to have such clean emissions. The Florida Department of Management Service's side-by-side emission testing has shown little to no emission benefits from using propane and natural gas vehicles.

C. Fuel Tax Issues

As stated earlier, unlike standard gasoline vehicles which are taxed per gallon of gas, liquefied petroleum gas and compressed natural gas driven vehicles pay fuel taxes through the purchase of an annual decal. This tax structure does not take into account the amount of fuel consumed by liquefied petroleum gas and compressed natural gas driven vehicles. In addition to the decal, these vehicles must pay the 6-cent state sales tax on the purchase of alternative fuels. The Department of Revenue estimates that once a liquefied petroleum gas or compressed natural gas vehicle drives more than 9,000 to 10,000 miles in a year they are then essentially driving fuel tax free.

Alternative fuels are taxed differently because they have different energy content than standard gasoline. A gallon of liquefied petroleum gas does not have as much energy as a gallon of gasoline, therefore, the liquefied petroleum powered vehicle will not travel as far on a gallon of fuel as a gasoline driven vehicle. To tax all fuels at the same rate would be unreasonable.

Electric vehicles have no direct fuel tax. However, the operator does pay local and state utility taxes, but none of these funds go toward the construction and maintenance of roads.

One state has enacted a British Thermal Unit (BTU) based fuel tax structure which is capable of taxing any type fuel by the fuel's energy level. Idaho taxes alternative fuels based upon the equivalent BTUs per gallon of gasoline. For example: gasoline has 127,000 BTUs per gallon and is taxed at .25 cents per gallon; Propane has 92,000 BTUs per gallon and is taxed at .181 cents per gallon; and, natural gas has 100,000 BTUs per gallon and is taxed at .197 cents per gallon.

This taxing system may be an equitable way to tax fuels, but the small number of these vehicles registered in Florida does not warrant a reorganization of the state's fuel tax system.

D. Federal Mandates

Florida state agencies are currently in compliance with the alternative fuel vehicle requirements for state fleets as required by the Energy Policy Act. However, remaining in compliance by the year 2000 when 50 percent of the vehicles purchased must be alternative fuel vehicles may be more difficult.

States are fined \$5,000 per offense, plus a flat \$50,000 fee, if state agencies are not in compliance with the Energy Policy Act. The U.S. Environmental Protection Agency could interpret the \$5,000 per offense fine as being for each vehicle not converted to alternative fuel or each alternative fuel vehicle that should have been purchased to be in compliance.

All of the funding for FDOT's fleet conversions comes from federal oil overcharge funds. FDOT determines the cost to purchase a standard gasoline powered vehicle for that fiscal year, and the additional cost for an alternative fuel vehicle. The federal funds pay for the difference. Only vehicles purchased by FDOT in a county within a metropolitan statistical area are eligible for funding.

Federal money may not be available to meet the year 2000 standard of 50 percent. In order to comply with this federal requirement, the Florida Legislature may have to appropriate funds toward the purchase of alternative fuel fleet vehicles.

The advantages of having alternative fuel vehicles in a fleet depend upon the circumstances. Convenient fueling stations and maintenance expertise are essential to the efficiency of an alternative fuel fleet. Florida agency fleet managers have found both of these factors lacking and have therefor found alternative fuel vehicles to be less efficient than standard gas driven vehicles. Since natural gas and propane vehicles are

converted from standard vehicles, the vehicles cannot be serviced at the local dealership as other newly purchased fleet vehicles. There are only a few conversion companies in Florida and this often forces fleet managers to send their AFV out of town for servicing.

AFVs are most efficient when used locally following a fixed route. In this use the range and refueling of the vehicle may be anticipated. Many police departments have found low speed electric vehicles a very efficient option for community policing. Alternative fuel buses are also an efficient option to older high emission diesel buses.

Some Florida agency fleet managers support the use of alternative fuel vehicles in general, but feel in most cases that the technology is still years from being an efficient use of agency dollars. Without the federal mandates fleet managers may continue to purchase AFVs, but not as many as required by the current federal mandate.

RECOMMENDATIONS

The Legislature should consider adopting the following NHTSA safety and equipment standards for low-speed vehicles (LSVs):

- ▶ LSVs must be equipped with headlamps, stop lamps, taillamps, reflex reflectors, parking brakes, rearview mirrors, windshields, seat belts, and vehicle identification numbers.
- ▶ LSVs may not exceed speeds of 25 miles per hour, and may only operate on local roads, with local government approval, or state roads with approval of the FDOT, where the posted speed limit is 35 miles per hour or less.

Further, to ensure the safest operation of these vehicles on the public streets of Florida, drivers of low-speed vehicles should be required to have a driver’s license; and, to ensure that LSVs are insured, all LSVs should be registered annually with the Department of Highway Safety and Motor Vehicles.

Florida statutes should be amended to distinguish between golf carts, which are used as golf course transportation and are not capable of exceeding speeds of 19 mph, and LSVs which are manufactured for use on public streets and are capable of operating at speeds up to 25 mph.

The Federal Government should be notified of the cost effectiveness of the federal alternative fuel vehicle fleet requirements. Without federal subsidies, the purchase and maintenance of alternative fuel vehicles by state agencies is not the most effective use of taxpayer’s dollars.

Florida should continue to monitor the effect of the taxation of alternative fuel on the State Transportation Trust Fund and local governments road funds. Should the use of alternative fuel vehicles becomes more widespread, the Legislature should consider adopting a British Thermal Unit or other equitable fuel tax structure.

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MEMBER OVERSIGHT
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