

SUBJECT: Use of additional fuels under alternative-fuel fleet programs

COMMITTEE: Environmental Regulation — favorable, without amendment

VOTE: 8 ayes — Jackson, Dukes, Howard, Kuempel, Saunders, Stiles, Talton, Yost  
0 nays  
1 present, not voting — Chisum

SENATE VOTE: On third reading, March 8 — voice vote (Bivins recorded nay; Moncrief and Montford recorded present, not voting)

WITNESSES: (*On House companion, HB 346 by Stiles*)

For — Rob Looney, Texas Mid-Continent Oil and Gas Association; Mary Miksa, Texas Association of Business and Chambers of Commerce; Craig P. Knoeller, Exxon; Raymond Paggi, Texaco; Skip Teel, Lyondell Petrochemical and American Methanol Institute; Mary Staples, Frito Lay, Inc.; Paul Lawrence, United Parcel Service; Edward Zagorski, American Automobile Leasing Association; Linden Blackmon, Mrs. Baird's Bakeries, Inc.; Emmett Sheppard, Texas AFL-CIO; Lois Bennett, American Automobile Manufacturers Association, Thomas Trueblood, Engine Manufacturers Association; Michael White, The Greater Houston Partnership; Edward J. Burger, The Oxygenated Fuels Association for Arco Chemical; Robert Howden, National Federation of Independent Business/Texas; Hector Rivero, Texas Oil Marketers Association; Michael K. Stewart, Texas Aggregates and Concrete Association

Against — Wayne P. Johnson, American Natural Gas Power, Inc.; Steven P. Laden, Southern Union Company; Andrew Littlefair, Mesa, Inc.; Ken Kramer, Sierra Club

On — Garry Mauro, General Land Office; Lin Ehrilch

BACKGROUND: The Texas Alternative Fuels Program (TAFP) requires certain state agencies, local mass transit authorities and school districts to convert specified percentages of their fleet vehicles to run on natural gas and other

approved alternative fuels. TAFP, enacted in 1989 and amended in 1993, sets various compliance deadlines. Private and local government fleets in areas judged by the Environmental Protection Agency to have serious air pollution problems (nonattainment areas) may also fall under fleet-conversion requirements after 1996. Nonattainment areas under the federal Clean Air Act include Houston-Galveston, Dallas-Fort Worth, Beaumont-Port Arthur-Orange and El Paso.

The fleet fuel requirements call for use of "compressed natural gas and other alternative fuels that result in comparably lower emissions." In addition to compressed natural gas, alternative fuels approved by the Texas Natural Resources Conservation Commission (TNRCC) include liquefied petroleum gas (propane), electricity, methanol, ethanol and certain methanol and ethanol blends. The list does not include reformulated gasoline, which is gasoline that is refined so that it burns more cleanly than conventional gasoline and meets various federal standards.

**Local governments and private fleets.** The TAFP program may be expanded to include parts of the fleets of local governments and private entities in nonattainment areas. TNRCC is required to evaluate the TAFP program by December 31, 1996, and afterward the program may be amended to include local government fleets of more than 15 vehicles and private fleets of more than 25 vehicles. The alternative-fuels compliance requirements for these fleets would be 30 percent by September 1, 1998; 50 percent by September 1, 2000, and 90 percent by September 1, 2002. Waivers based on economic harm, lack of financing or unavailability of central refueling stations are allowed.

**State agencies and mass transit authorities.** TAFP requires state agencies with more than 15 vehicles and city and regional transit authorities in Houston, Dallas, San Antonio, Austin, El Paso, Fort Worth, Corpus Christi, Laredo and Port Arthur to convert their fleets to approved alternative fuels on the following schedule: 30 percent by September 1, 1994; 50 percent by September 1, 1996, and 90 percent by September 1, 1998 (subject to TNRCC's 1996 program evaluation).

All new vehicles purchased by agencies and transit authorities after September 1, 1991 must be capable of using an approved alternative fuel. Waivers are allowed under certain conditions.

**School districts.** About 100 of the state's 1,000-plus school districts must convert their fleets on the following schedule: 50 percent by September 1, 1997, and 90 percent by September 1, by 2001. All new vehicles purchased by school districts after September 1, 1993, must be capable of using an alternative fuel. Waivers are allowed under certain conditions.

**Texas Alternative Fuel Fleet Program (TAFF).** The federal Clean Air Act mandates the use of low emission fleet vehicles for fleets in serious, severe and extreme nonattainment areas. (Dallas-Fort Worth, a moderate nonattainment area, does not automatically fall under the program). A state program to implement the federal requirements, the Texas Alternative Fuel Fleet Program (TAFF), sets fleet requirements based on federal low emission vehicle (LEV) standards. Fleets covered by the requirements of TAFP would continue to comply with the TAFP requirements, using alternative fuels that would also achieve TAFF emission standards. Other fleets may use any combination of fuels and vehicles certified to meet LEV standards.

TAFF applies to mass transit fleets and all other fleets with 15 or more vehicles that operate in the designated nonattainment areas. Beginning September 1, 1998, these fleets must either have all newly acquired vehicles certified to meet or exceed the federal low emission vehicle (LEV) standards or the following portions of their total fleets must meet LEV standards: 30 percent by September 1, 1998; 50 percent by September 1, 2000; 90 percent by September 1, 2002. Certain vehicles are exempted from TAFF requirements.

**DIGEST:** SB 200 would amend the definition of alternative fuel for fleet conversions of mass transit agencies, local governments and private fleets. The definition would include any fuel-vehicle combination that would satisfy federal low emission (LEV) and clean fuel vehicle standards. The bill also would repeal a provision requiring TNRCC to determine by December 31, 1996, whether or not local government and private fleets would be required to use alternative fuels.

SB 200 would amend compliance requirements for government fleets of more than 15 vehicles and private fleets of more than 25 fleet vehicles in the four nonattainment areas of Texas. Fleets in these areas would have to ensure alternative-fuel capability as follows:

- 30 percent of fleet vehicles purchased after September 1, 1998, or 10 percent of total fleet vehicles as of September 1, 1998.
- 50 percent of fleet vehicles purchased after September 1, 2000, and at least 20 percent of total fleet vehicles as of September 1, 2000.
- 90 percent of fleet vehicles purchased after September 1, 2002, and at least 45 percent of total fleet vehicles as of September 1, 2002.

TNRCC could not require local governments or private fleet operators to purchase vehicles capable of running on alternative fuel if 90 percent of the fleet was alternative-fuel vehicles.

**Waivers.** Waivers from fleet conversion requirements for local government private and mass transit fleets could be granted if adequate refueling stations for vehicles are not established or expected to be established in the area. Waivers could also be obtained if fleet conversion costs exceeded the costs for vehicles operating on reformulated gasoline and diesel. State or federal funding or incentives for the use of alternative fuels would be included in cost calculations.

**Definition changes.** The definition of "fleet vehicles" would be changed to refer only to vehicles that could be centrally fueled at the fleet operator's locations or at facilities serving both business customers and the general public. Exempted from fleet vehicle definitions would be vehicles parked at an owner's residence and vehicles weighing more than 26,000 pounds except those owned by the state or mass transit authorities.

"Centrally fueled" would mean vehicles in a fleet that could be refueled 100 percent of the time at the fleet owner's location. "Reformulated gasoline" would be gasoline certified under federal Clean Air Act guidelines.

"Alternative fuels" would apply to dual-fuel vehicles, defined as conventional gasoline-powered or diesel-powered vehicles that could also operate on an alternative fuel and could be used to meet the fleet conversion goals required of mass transit authorities, local governments and private fleets.

The definition of alternative fuels that state agencies may use to reach fleet conversion goals would be changed from "compressed natural gas or other alternative fuel resulting in comparably lower emissions..." to a list of the specific alternative fuels currently approved by TNRCC.

**Fleet Conversion Credits.** Fleet owners could also meet the required conversion requirements by acquiring program compliance credits. Credits would be issued by TNRCC for, among other things, the purchase of clean fuel vehicles that meet emission controls more stringent than the low-emission vehicle (LEV) standards, the purchase of more clean fuel vehicles than is required or the acquisition of certain vehicles before purchase is required. Program compliance credits could be acquired by mass transit authorities, school districts and state agencies.

TNRCC would also establish a Texas Mobile Emissions Reduction Credit Program (MERC) that would comply with Environmental Protection Agency (EPA) requirements for such a program. Vehicle fleet operators who wished to generate mobile emission reduction credits (which could satisfy state or federal mobile source emission requirements) could apply to the MERC program and enter into a contract with the board.

TNRCC would also create and administer a MERC Fund to assign credits to eligible vehicle owners applying for credits who agreed to purchase or use clean fuel vehicles. The number of credits a fleet operator could acquire or generate would be based on the emission certification level of their vehicles, using federal emission reduction standards, as well as EPA-approved models and formulas for estimating emissions.

Acquired credits could be used to fulfill requirements or they could be banked, traded, sold or purchased for use in the same nonattainment area. The penalty for claiming MERC credits fraudulently or other violations of the MERC program would be a civil penalty of up to \$25,000 per violation.

Vehicles could qualify for both MERC and program compliance credits. Both kinds of credits could be acquired by school districts, mass transit authorities and state agencies, local governments and private fleet.

The bill would take effect September 1, 1995.

**SUPPORTERS  
SAY:**

The narrow fuel-based standards currently used in the state's alternative-fuels program should be replaced with the more flexible emission-based standards of SB 200. The current standards unfairly favor the natural gas industry by virtually mandating the use of natural gas and propane. The proposed standards would allow any fuel/vehicle combination that met federal LEV and clean-fuel standards to be used for fleet conversion, including vehicles that run on reformulated gasoline and low-sulphur diesel.

Emission-based standards are the most efficient way to reduce air pollution, since clean combustion depends on the fuel-vehicle combination. SB 200 would give fleet operators flexibility to choose the most efficient vehicle/fuel combination to meet LEV standards. This would be less expensive for both businesses and consumers.

Natural gas does not burn more cleanly than other alternative fuels — in fact, the level of unburned fuel measured at the tailpipe of natural gas vehicles is higher than the amount from gasoline-fueled vehicles, and natural gas powered vehicles can have high nitrogen oxide emissions. A badly tuned and maintained natural gas vehicle can be more polluting than a well-maintained vehicle running on reformulated gas. In recent years the amount of reactive hydrocarbons in the exhaust of vehicles powered by clean-burning reformulated gasoline has become very low. Particulate matter from diesel engines has been reduced 90 percent in the last eight years, and new diesel engines are virtually smokeless. Exhaust toxics in LEV certified vehicles are practically non-detectible.

Texas should adopt a fuel-neutral policy, not guarantee a share of the transportation fuels market for the natural gas and propane industry. Emission-based standards would ensure that all alternative fuels compete on a level playing field. Natural gas, propane and other state-approved alternative fuels are getting taxpayer assistance to compete against Texas

oil companies that have spent millions to produce reformulated gasoline, a clean alternative fuel that meets federal emission standards.

Fleet-conversion compliance would be much greater, bringing the added benefits of cleaner air for all Texans, under the federally approved emission-based standards proposed by SB 200. Only by using federal LEV standards would the state be able to quantify emission reductions and gain credit for them from the EPA. The more fleets that meet low-emission standards, the more mobile source reduction credits the state could amass. Credits are not fuel specific, but are based on emission reductions. SB 200 would therefore help Texas to comply with the federal Clean Air Act and escape possible onerous federal sanctions.

Certified clean-fuel gasoline-powered vehicles that comply with federal LEV standards will soon be available in Texas. They are already available in California.

The state-mandated TAFP requirements are more restrictive than federally mandated fleet conversions. Texas fleet operators should not be burdened by requirements that exceed those of the federal Clean Air Act and are prohibitively expensive. Converting gasoline-powered vehicles to natural gas or propane can cost as much as \$4,000 per vehicle and \$116,000 per bus. New natural gas-powered vehicles are also more expensive than new gasoline-powered vehicles.

Only 23 of the 94 eligible state agencies and three out of the nine eligible transit authorities have met or exceeded the 30 percent fleet conversion goal mandated by the TAFP program for 1994.

High initial conversion costs for fuel-specific mandates, a lack of available technology, the high cost of original equipment designed to use natural gas, and the virtual non-existence of a natural gas and propane maintenance and refueling structure make much of the TAFP program unworkable.

The use of alternative fuels under the TAFP program is not cost-effective, as demonstrated by the number of economically based waivers granted to transit authorities and state agencies. It is only fair to give private and

local government fleets the same type of economic waivers that mass transit, school district and state agency fleets already enjoy.

No definitive health studies submitted for peer review link reformulated gas to health problems and many health complaints concerning RFG have proved to be unsubstantiated.

Exposure to RFG is no more hazardous than exposure to conventional gasoline fumes. The EPA has found that the use of RFG with the additive methyltertiarybutylether (MTBE) is the most efficient way to meet public health standards, and the amount added is unlikely to create health problems. RFG provides health benefits by reducing emissions that cause respiratory illness and ground level ozone.

There have been almost no complaints in Dallas and Houston, where RFG has been sold since December 1, 1994.

The use of RFG does not cause engine damage. A few reports indicate that it might not be the optimum fuel choice for certain lawn mowers and small engines, but no hard evidence shows that it could damage motor vehicles.

SB 200's fiscal note from the Legislative Budget Board indicates that the bill would result in some savings to the state and to local units of government.

**OPPONENTS  
SAY:**

Natural gas and propane burn more cleanly than diesel or reformulated gas (RFG), both of which could fall under SB 200's definition of alternative fuels, and the law should continue to favor their use. The use of natural gas and other truly clean-burning fuels is an essential part of the solution to Texas' clean air problems. Air pollution is a serious threat to public health, and the state faces federal sanctions if emissions are not reduced.

Big oil companies and refineries that want to keep their transportation fuel monopoly are determined to impede the fledgling natural gas industry. They already enjoy a huge market for reformulated gas in the Dallas and Houston areas, where only reformulated gas may be sold. By 2002 an additional 2 million more vehicles will be operating in those areas, while only 350,000 vehicles would be affected by the current Texas alternative



fuel fleet program requirements. To demand ever greater market share is greedy and runs counter to the state's best interests.

The TAFP program did provide the natural gas and propane industry with a small market opportunity, but only if the industry stayed competitive with other fuel suppliers — fleet operators who could demonstrate that the cost of conversion to alternative fuels would raise expenses above those of operating on conventional fuels could get a waiver from the program. Promoting the use of a Texas industry and its product is a fine idea, as is creating new industries and jobs. The use of fuels like natural gas and propane reduces the state's dependence on foreign oil and spurs job creation and economic growth in the state.

Supporters of SB 200 are making a misleading comparison between the dirtiest natural gas powered vehicle and the cleanest-running RFG vehicle. Natural gas vehicles run at least 30 percent cleaner than the cleanest version of a certified low emission vehicle (LEV) running on RFG, according to EPA studies. It is misleading to compare total hydrocarbon emissions of different vehicles: the reactive hydrocarbons formed from gasoline-powered vehicles are far more damaging to the air than the largely non-reactive methane emissions from natural gas vehicles.

Natural gas vehicles do not emit airborne particulates (the black cloud that comes out of diesel trucks and buses). Allowing the use of diesel for transit buses (high mileage in-town vehicles) is particularly unfortunate since a recent study, published in the *American Journal of Respiratory and Critical Care Medicine*, found that tiny airborne particles are a health hazard even in areas that meet EPA air-quality standards.

LEV standards fail to take into account a number of environmental and public health hazards like evaporative losses and exhaust toxics. Exhaust toxics (carcinogenic tailpipe emissions like benzene) and evaporative losses (reactive hydrocarbons which contribute to ozone) are slight or nonexistent in clean natural gas and other sealed systems.

SB 200 would reduce fleet vehicle emission reductions, providing that only a percentage of *new vehicles purchased* be converted as opposed to current law which mandates conversion of a percentage of the *total fleet*. SB 200

would also reduce the number of vehicles in private and local government fleets required to use alternative fuels by giving them an economic waiver that previously only applied to mass transit, school district and state agency fleets. High mileage fleet vehicles log more than twice as many miles and cause twice the pollution as passenger cars. It is only fair that they be asked to use the cleanest burning fuels.

If the nonattainment areas in Texas fail to meet the emission reduction goals of the federal Clean Air Act, Texas could risk losing federal funds and control over regulatory programs. The use of RFG alone (which produces a 10-15 percent reduction) will not meet mobile source reduction requirements. In order to further reduce emissions, fuels that burn more cleanly than RFG should also be introduced in higher mileage fleet vehicles.

Clean air standards affecting vehicles are being seriously diluted, and this bill would make things even worse. The Legislature recently suspended its EPA-approved emission inspection and maintenance program for three months and its employee trip reduction program for 180 days when it enacted SB 19 by Whitmire et al. and CSSB 290 by Henderson et al. The longer these programs to reduce harmful emissions from motor vehicles are suspended or delayed, the heavier the burden will be on stationary sources such as industry and small businesses to reduce their share of air pollution.

Fleet owners may end up spending almost as much money and effort trying to meet LEV standards than they would to meet TAFP standards. Simply using RFG in existing fleet vehicles does not result in compliance with federal emission standards. To comply with these standards, fleet owners have to purchase certified clean-fuel vehicles that are specifically designed and certified to meet LEV standards operating with RFG. There are no such vehicles currently available, since California LEV-certified vehicles are certified for a cleaner-burning form of reformulated fuel, and are not available in Texas. LEV-certified clean-fuel vehicles designed to run on natural gas, however, are available at this time.

RFG costs more than natural gas, and although initial fleet conversion costs to natural gas may be higher than to RFG, natural gas is cost effective over the life of the vehicle.

Serious concerns have been raised about the health hazards of reformulated gasoline, which contains up to 15 percent of the additive methyltertiarybutylether (MTBE). Thousands of people have reported severe headaches and other symptoms from RFG exposure. In Pennsylvania several counties have opted to not use RFG for these reasons, and Alaska has banned MTBE. One study of MTBE found that rats exposed to MTBE developed a higher incidence of leukemia and testicular cancers. Until these complaints are fully investigated, the state should not expand RFG use. Some reports have indicated that RFG additionally may cause engine damage, especially to lawn mowers and snowmobiles.

OTHER  
OPPONENTS  
SAY:

School districts should have the same flexibility and range of options as mass transit districts in complying with emission reduction requirements and should fall under the emission-based definition of alternative fuels proposed by the bill.

NOTES:

SB 200 was substantially amended on the Senate floor. As reported by Senate committee it closely tracked its House companion, HB 346 by Stiles, left pending in the House Environmental Regulation Committee. HB 346 would list allowable fuels, including reformulated gasoline, diesel fuel and hydrogen, in the definition of alternative fuels, allow the use of the newly defined alternative fuels by school districts and state agencies and would not create a Texas Mobile Emissions Reduction Credit Program. HB 346 would not allow or require local government and private fleets the option of reaching conversion goals by converting a percentage of their total fleet and provided that could not be required to convert their vehicles if clean-fuel gasoline or diesel powered vehicles were not available from original equipment manufacturers.

SB 721 by Henderson, which would delay the dates by which state agencies have to comply with fleet conversion goals, was referred to the Senate State Affairs Committee on February 23.