1 of 2

Alternative Fuel Vehicles for the State Fleets: Results of the 5-Year Planning Process

**U.S. Department of Energy
Conservation and Renewable Energy
1000 Independence Ave., SW
Washington, DC 20585**

May 1993

Office of Technical & Financial Assistance

**Office of Alternative Fuels
Office of Transportation Technologies**

Prepared by

**Abacus Technology Corporation
5454 Wisconsin Avenue, Suite 1100
Chevy Chase, MD 20815**

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

Table of Contents

1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	2
3.0 COORDINATION WITH STATES	3
3.1 State Agency Consultation	4
3.2 State Five-year Plan Framework	4
3.3 Resources Provided by DOE	6
4.0 TARGET ALTERNATIVE FUEL TECHNOLOGY	6
4.1 Fuels	6
4.2 Vehicles	7
4.2.1 Dedicated	7
4.2.2 Dual Fuel	7
4.2.3 Flexible Fuel	7
5.0 RESULTS OF STATE FIVE-YEAR PLANS	8
5.1 Vehicle Requests	8
5.2 Fuel Requests	8
5.3 Problems/Concerns	12
5.4 State Laws/Regulations/Incentives	13
5.5 State Needs	14
6.0 COORDINATION WITH INDUSTRY	14
6.1 Original Equipment Manufacturers (OEMS)/Dealers	14
6.2 Fuel Suppliers	15
6.3 Conversion Companies	15
6.4 Combined Federal/State Coordination	15
7.0 ENERGY POLICY ACT OF 1992	15
7.1 State and Local Incentives Program	15
7.2 Mandates for States	18
8.0 CONCLUSIONS	18
8.1 Results of First Five-Year Plan	19
8.2 Next Steps	20
REFERENCES	22

Table of Contents (continued)

APPENDIX A - Support Office Contacts	A-1
APPENDIX B - Industry Contacts	B-1
APPENDIX C - State Information Summaries	C-1

1.0 EXECUTIVE SUMMARY

This report documents the first attempt by the Department of Energy (DOE) to work with states to prepare five-year Alternative Fuel Vehicle (AFV) acquisition plans to identify alternative fuels and vehicles that they are planning on or would like to acquire. The DOE Regional Support Offices (RSOs) met with representatives from the states in their regions and assisted in the preparation of the plans. These plans will be used in conjunction with previously gathered Federal five-year plans to encourage Original Equipment Manufacturers (OEMs) to expand the variety of AFVs produced, reduce the incremental cost of AFVs, and to encourage fuel suppliers to expand the alternative fuel infrastructure and alternative fuel availability. By identifying the needs and requirements of state fleets, DOE can begin to describe the specific nature of the future state fleets, and establish a defined market for OEMs and fuel suppliers.

DOE initiated the development and collection of the state five-year plans before the signing of the Energy Policy Act, to raise the awareness of states that they will be required by law to acquire AFVs. As a result, several states that had no AFV acquisition plan when queried have developed or are in the process of developing plans. The DOE and its RSOs are still working with the states to develop and refine acquisition plans, and this report should be treated as documentation of work in progress.

Significant and valuable information is contained in the data collected so far. For FY93, 32 states and the District of Columbia have requested a total of 8,271 AFVs. These include 148 E-85 fueled vehicles, 150 M-85 fueled vehicles, and 63 Electric Vehicles (EV). The remainder of the vehicles requested will be either Compressed Natural Gas (CNG) or Liquefied Petroleum Gas (LPG) with the majority being CNG. In addition to state government AFV acquisition plans, several states provided information on the AFV acquisition plans of non-state owned fleets. Local, municipal, and private fleets have requested 317 CNG AFVs, 124 LPG AFVs, 2,520 M-85 AFVs, and 22 EVs for FY93. In addition, California is conducting a program in which the State will purchase 6,500 M-85 fueled vehicles and then resell them to the public.

CNG was the most requested fuel type in thirty-one states. LPG and E-85 were the most requested fuel type in five states, although the most requested fuel type in four additional states was split between CNG and LPG. M-85 was the most requested fuel type in only one state. EVs were not the most requested fuel type of any state; however, several states expressed a preference for EVs in the long-term, greater than ten years.

In addition to vehicle requests, states expressed problems and concerns associated with the acquisition and operation of AFVs. The most commonly expressed problem or concern is the incremental cost of purchasing OEM AFVs or converting vehicles at a time when most states are experiencing tight budgets. States also expressed concern over the limited range of dedicated AFVs and also the availability of alternative fuels, AFVs, service facilities, and training programs. The lack of available information was also a concern of several states.

This summary of the state five-year plans is considered as a planning document, and not as a procurement request. The state data indicate current state requests for alternative fuels and vehicles. Those requests may change as the availability and cost of various alternative fuels change, and as more AFVs become available. DOE will be working actively to encourage coordination between industry, states, and Federal activities to accelerate AFV utilization.

The plans presented in this report were developed before the passage of the Energy Policy Act of 1992, dated October 5, 1992. Sections 507(o), "Mandatory State Fleet Programs", requires that AFVs comprise set "percentages of new light duty motor vehicles acquired annually for State government fleets" beginning with the model year 1996 vehicles. The targets for state AFV acquisition under Section 507(o) are 10 percent of motor vehicles acquired in model year 1996, 15 percent in model year 1997, 25 percent in model year 1998, 50 percent in model year 1999, and 75 percent in model year 2000 and thereafter. Section 409, "State and Local Incentives Programs", requires the development of state plans that address laws, regulations, and incentives to accelerate the introduction of AFVs. DOE anticipates that states will be re-evaluating AFV acquisition plans in light of these requirements.

Information on the Energy Policy Act of 1992, on state and local programs, and all DOE alternative fuel activities can be obtained by calling the National Alternative Fuels Hotline. The number is 800-423-1DOE. In the Washington, DC area, the number is 202-554-5047.

2.0 INTRODUCTION

An increasing number of efforts are underway to reduce the United States' dependence on foreign oil and/or improve the environment by utilizing alternative fuels in place of conventional gasoline. The development of alternative fuels is driven by national concerns about the United States' growing dependence on imported oil and declining air quality. Increasing the supply of cost-competitive alternative fuels and alternative fuel vehicles (AFVs) addresses these concerns and contributes to economic efficiency. The United States Department of Energy (DOE) has recognized and acted on the need to collect information on the planned or desired acquisition of AFVs from fleet operators and to distribute this information to AFV manufacturers and alternative fuel suppliers.

DOE is collecting AFV acquisition information from Federal, State, Local, and Municipal Agencies. DOE was tasked with implementing Section 11, "Procurement of Alternative Fueled Vehicles," of Executive Order 12759, "Federal Energy Management," dated April 17, 1991. Section 11 requires that the "maximum number practicable of vehicles acquired annually are alternative fuel vehicles." DOE, working closely with the Federal agencies, gathered five-year plans for acquisition of AFVs by each Federal agency. In August 1992, DOE issued "Alternative Fuel Vehicles for the Federal Fleet: Results of the 5-Year Planning Process." This report contained the planned five-year AFV acquisition data collected from the Federal agencies as well as DOE's analysis of the information.

In an effort to prepare states to meet the mandates established in the Energy Policy Act of 1992, DOE has encouraged states and provided assistance with the five-year planning process at the state level. The state plans are market estimates and will be used in conjunction with the Federal five-year plans to encourage Original Equipment Manufacturers (OEMs) to expand the variety of AFVs produced, reduce the incremental cost to the buyer of AFVs, and to encourage fuel suppliers to expand the alternative fuel infrastructure and alternative fuel availability. This effort is consistent with the DOE mandate to promote the use of alternative fuels to achieve cleaner air and reduce oil imports.

3.0 COORDINATION WITH STATES

Coordination with the states was an important factor in the collection of five-year plans from each state. The DOE chose to coordinate with the states through the DOE Regional Support Offices (RSOs). The RSOs have developed working relations with many state officials over several years and are aware of the needs of the states in each region. A list of the RSOs and the point of contact for each is provided in Appendix A. Figure 1 is a map showing the RSOs.

Figure 1: DOE Regional Support Offices

3.1 State Agency Consultation

Various approaches were used by the RSOs to identify the states' AFV acquisition plans for 1993-1997. One common approach was to conduct separate meetings with officials from each state to gather information for the state five-year plans. Other RSOs conducted meetings and organized workshops that included state officials from each state in their region. State officials included representatives of the state energy, environmental, transportation, and purchasing agencies. Several RSOs also included fuel suppliers, utilities, and vehicle manufacturers in their meetings. These industry representatives are included in Appendix B, which lists industry contacts for each region.

In addition to the meetings that were held, some RSOs provided the states in their regions with guidance documents to assist in the development of the state five-year AFV acquisition plans. Other RSOs used questionnaires and letters sent to the State Energy Offices to aid in the collection of data. The Philadelphia Support Office (PSO) provided the states in its region with two desktop computer programs that perform simple economic and environmental analyses of AFVs to assist the state officials in making decisions.

3.2 State Five-Year Plan Framework

States that had alternative fuel vehicle acquisition plans were asked to provide estimates for the number of alternative fuel vehicles projected to be purchased, leased, or converted during each fiscal year, listed by vehicle type and fuel requirement. The engine size, fuel configuration, fuel type, and geographic location, if known, of each AFV were also requested. The first state five-year plan period covers fiscal years 1993-1997. Table 1 shows the menu of alternative fuel and vehicle types that the states were asked to use to develop their five-year plans. Table 2 is an example of a plan provided by a state.

In addition to the AFV acquisition information, states were asked to include in their plans information on state laws, regulations, and incentives that impact alternative fuels and AFVs. States were also asked to address problems and concerns they have regarding alternative fuels and AFVs in their plans.

Table 1
Menu of Alternative Fuel Vehicle Types and Technologies
for Use in State Five-Year Plans

Suggested alternative fuel types and technologies are listed below to help in developing the summary five-year plans. These are suggestions, and additional types/technologies may be specified if desired.				
Vehicle Type	Engine Size	Alternative Fuel Type	Configuration	Acquisition Approach
Sedans Compact Mid-size Full-size Light-Duty Trucks Compact pickup Full-size pickup Vans Mini-van 8 passenger van 12 passenger van Medium-Duty Trucks (please describe)	4 cyl 6 cyl 8 cyl E	Methanol M-85 Ethanol E-85 Compressed Natural Gas (CNG) Liquefied Natural Gas (LNG) Liquefied Petroleum Gas (LPG) Electric	Dual-Fuel Dedicated Flexible Fuel	Owned Purchased Leased

Table 2
Five-Year Plan Data Example

Agency: CT Dept of Admin Services/Dept of Transport Fiscal Year: 1993 Prepared by: John Doe Date Prepared: 10/5/92 Telephone No: (555) 555-5555 Total State Vehicle Acquisition this Year: 700							
Vehicle Type	Engine Size (cyl)	Alternative Fuel Type	Configuration	Acquisition Approach	Quantity OEM	Quantity Converted	Location
Sedan Subcompact	E	Electric	Dedicated	Purchase	10	0	Hartford
Sedan Compact	4	CNG	Dual Fuel	Owned	0	10	Hartford
Full-size Pickup	6	CNG	Dedicated	Purchase	20	0	Hartford
8 Passenger Van	6	CNG	Dedicated	Purchase	20	0	Hartford
40-foot Bus	6	CNG	Dedicated	Purchase	49	0	Hartford
Totals					99	10	

3.3 Resources Provided by DOE

Through the RSOs, DOE made available the following resources:

- Background reports on alternative fuel vehicle types and technologies
- Bibliography of literature sources on alternative fuels
- Hotline telephone service for information on alternative fuels
- Electronic, on-line access to the Alternative Fuels Data Center
- Safety and emissions issues for conversions
- Guidelines for appropriate conversion programs.

Several RSOs also provided their states with the opportunity to share information and ideas through organized workshops. These workshops brought together representatives from each state's energy, environmental, transportation, and purchasing offices as well as fuel suppliers, utilities, and vehicle manufacturers. The wide variety of participants opened the door for dialogues that otherwise might not have taken place. The industry representatives as well as the state officials benefitted from this information exchange and the result should be increased coordination between all parties.

4.0 TARGET ALTERNATIVE FUEL TECHNOLOGIES

The five-year planning process did not limit the state fleets to certain types of alternative fuels or vehicles. The coordination strategy is designed to assess state needs and requirements for alternative fuels, thus, no fuels were endorsed or eliminated ahead of time. Availability and cost are important factors in state choices for alternative fuels and vehicles.

4.1 Fuels

One of the goals of the five-year planning process is to help establish the re-fueling infrastructure for alternative fuels in order to expand their use. Thus, the primary emphasis will be on those alternative fuels that are already in common usage. The principal alternative fuels that were considered by the states are:

- Methanol and M-85
- Ethanol and E-85
- Compressed Natural Gas (CNG)
- Liquified Natural Gas (LNG)
- Liquified Petroleum Gas (LPG)
- Electricity.

Another alternative fuel considered by several states was soydiesel. Although this alternative fuel is not common or in mass production, its use by any state fleet will not be discouraged.

Many state fleets are already significant consumers of "gasohol," a blend of 10 percent ethanol and gasoline. Gasohol, reformulated gasoline, oxygenates and other additives, are not considered alternative fuels for the purposes of this study.

"Do not underestimate the ultimate ability of reformulated gasoline to compete effectively on price and cleanliness" -- Maine

4.2 Vehicles

The vehicles using these alternative fuels can be of any appropriate technologies. Most will have traditional internal combustion engines in the short to mid-term time period. Over the longer term, the States' fleets will probably adopt the more advanced alternative technologies, such as fuel cells and hybrids, as they become available at a reasonable cost. The primary vehicle types considered fall into three classes: dedicated, dual fuel, and flexible fuel. The classes are defined in the paragraphs below.

4.2.1 Dedicated

A dedicated vehicle operates only on the alternative fuel. This design reduces the number of components required and allows the engine/fuel system to be optimized for the alternative fuel. For fuels with a lower energy content than gasoline a dedicated vehicle has a limited range compared to a similar conventional vehicle.

4.2.2 Dual Fuel

A dual fuel vehicle can operate on either an alternative fuel or a conventional fuel (gasoline or diesel). Dual fuel vehicles usually have an automatic or manual switch that allows operation on either fuel, and have at least one fuel tank for each fuel. This design has more fuel system components than a dedicated vehicle, but allows a state fleet to use AFVs in an area where the infrastructure is not well developed. Most dual fuel vehicles are a combination of natural gas and gasoline or LPG and gasoline.

4.2.3 Flexible Fuel

A flexible fuel vehicle (FFV) has only one fuel tank that can contain mixtures of the alternative fuel and gasoline. A sensor determines the percentage of the alternative fuel relative to gasoline and adjusts engine parameters automatically. Until methanol and ethanol become more widely available, FFVs are the preferred option for alcohol fuel vehicles because they perform quite well on gasoline.

5.0 RESULTS OF STATE FIVE-YEAR PLANS

Through the working groups and individual meetings, states provided the most detailed information available regarding the acquisition of alternative fuel vehicles. Since the Energy Policy Act was still pending when states were queried, the plans do not reflect the requirements of this act. Many states are in the initial stages of plan formation; therefore, these states could not provide estimates for the number of alternative fuel vehicles projected to be purchased, leased, or converted during each fiscal year.

Thirty-two states and the District of Columbia did provide AFV acquisition figures for FY93. However, data in subsequent years was provided by fewer states. Although acquisition figures are not available for every state, most states did provide information concerning their acquisition plans, laws, regulations, problems, and concerns with regards to alternative fuels and AFVs. Appendix C contains one-page summaries of the information provided by each state. The following is a summary of critical issues that were raised by the states that responded.

5.1 Vehicle Requests

Of the states that responded, most expressed interest in light-duty AFVs. Flexible- and dual-fuel vehicles were more requested than dedicated vehicles for all fuels. In addition, several municipal fleets requested dedicated, gaseous-fueled alternative fuel buses. However, the number of these requests is minimal compared to the number of light-duty vehicle requests.

5.2 Fuel Requests

The most requested fuel type was CNG for the majority of the respondents, 31 of 51. LPG and E-85 were the second most requested alternative fuel with five states each. M-85 was the most requested fuel type in only one state, California. The most requested fuel type in four states was split between CNG and LPG. Five states, Ohio, Oklahoma, Tennessee, Washington, and Wisconsin, did not request more of any particular alternative fuel. Figure 2 is a map that shows the most requested fuel type in each state. Figure 3 graphically presents the number of states where each fuel type was the most requested and Figure 4 graphically presents the number of requests for each fuel in fiscal year 1993.

Although Electric Vehicles (EVs) were not the most requested vehicle in any state, 63 were requested in FY93 and 50 were requested in FY94. Several states, including all states in the New England area, stated that EVs were their preference in the long-term, over ten years. Many states would acquire EVs now but the extremely high cost and limited range make EVs impractical.

Figure 2: Most Requested Fuel Types Map

Figure 3: Most Requested Fuel Types

Figure 4: FY93 State Requests for AFVs

Since the Energy Policy Act was not signed when states were queried, this study shows that states were already planning to acquire AFVs. Table 3 provides detailed information on the quantities requested for each alternative fuel in FY93 and FY94. The data in this table are not complete since only 33 states provided numbers for FY93 and only 26 for FY94. Several of these states were undecided between CNG and LPG for some of their AFVs. These AFVs accounted for nearly 4,000 of the 8,271 AFVs requested in 1993 and over 6,000 of the 7,921 AFVs requested in 1994. Many states have yet to make important choices regarding fuels and vehicles to be acquired but do plan on significant numbers. As a result, a total AFV acquisition figure of over 51,000, for the five years covered by this study, was provided by 37 states even though totals were not provided for each individual year or fuel type.

Table 4 provides the ten states with the most AFV requests for fiscal year 1993. The figures in this table only include AFVs requested for state fleets.

Partial AFV acquisition plans for local/municipal fleets were provided by four states. In FY93 these AFV acquisitions total 317 CNG, 124 LPG, 22 EVs, and 2,520 M-85. All of the EVs and the M-85 AFVs are for fleets in California. In addition, California is testing a program in which the state will acquire 6,500 M-85 FFVs and resell them to private owners in the State. This program will be repeated each year if it proves to be successful.

Table 3
Vehicle Request Summaries

FYEAR	Alternative Fuel							FYEAR Total or % Acq
	CNG or LPG	CNG	LNG	LPG	E-85	M-85	EV	
1993	3,923	3,617	0	369	148	150	63	8,271 ¹
1994	5,880	1,515	6	118	122	135	50	7,921 ²
1995	*	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*	51,595 ³

* Data unavailable, will be specified at a later date.

¹ One AFV will be biodiesel. Total based on information provided by 33 states.

² Fuel type of 95 AFVs is unspecified. Total based on information provided by 26 states.

³ TOTAL based on information provided by 37 states.

Table 4
Top Ten AFV Requests for FY93

State	AFV Requests	Most Requested Fuel Type	State	AFV Requests	Most Requested Fuel Type
Texas	4,698	CNG	Colorado	150	CNG
New York	1,389	CNG	Pennsylvania	130	CNG
Maryland	500	CNG	New Jersey	120	CNG
Florida	354	CNG	Connecticut	109	CNG
Washington, DC	238	CNG	West Virginia	107	CNG

5.3 Problems/Concerns

The most commonly expressed problem or concern is the incremental cost of purchasing OEM AFVs or converting existing vehicles at a time when most states are experiencing budget crunches. California has stated that it will not purchase new vehicles for the state fleet until FY95. Other states reported that their acquisitions will be much smaller than normal until additional appropriations are found. Table 5 is a list of the top five problems/concerns expressed by the states.

Table 5
Top Five Problems/Concerns Expressed by the States

1) Funding the incremental cost of AFVs.
2) Availability of alternative fuels and AFVs.
3) Limited range of dedicated AFVs in large states.
4) Lack of information on alternative fuels and AFVs.
5) Lack of vehicle/facility standardization

"If these OEMs were made available at \$0 incremental cost we would probably increase our AFV purchases" -- Iowa

The availability of alternative fuels, AFVs, service facilities, and training programs is also a concern among states. Several states have expressed that they will not acquire AFVs until the refueling infrastructure is established. The lack of infrastructure has also caused concern regarding the limited range of dedicated AFVs because state vehicles must travel great distances in many states. In addition, several states have stated that they need more information on alternative fuels before they can fully develop five-year plans. They are interested in cost, infrastructure, performance, safety, and maintenance information. The New England states also voiced concern over the lack of vehicle/facility standardization.

"AFVs should have the capability of achieving a range similar to that of the gasoline vehicles now used without substantially reducing their payload capabilities" -- Indiana

5.4 State Laws/Regulations/Incentives

Numerous laws, regulations, statutes, and mandates have been established by states concerning the use of AFVs. The most common of these legislative acts include stipulations such as:

- Reduction of state income tax for AFV owners
- Exemption from state licensing fees and other local fees or tolls for AFV owners
- Establishment of AFV acquisition goals for public and private fleets
- Reduction of sales tax on alternative fuels and AFVs
- Establishment of low-interest loan programs for purchasing AFVs, converting existing vehicles, or building/modifying fueling stations
- Lifting of tunnel restrictions for CNG AFVs
- Recognition that providers of CNG for motor vehicle use are not regulated utilities.

The stipulations discussed above are the regulations most commonly mentioned by the states. There are numerous additional state laws and regulations that contain AFV provisions. In addition, many states currently have AFV legislation pending. Additional information on the laws and regulations of the states and districts can be found in Appendix C - State Information Summaries.

5.5 State Needs

Several states made suggestions regarding assistance in implementing AFV acquisition plans. The New England states expressed a desire for a regional database to assist in the dissemination of information to the states in the region. In addition, many states requested demonstration programs for AFVs to help with public acceptance. Some states also suggested that increased coordination with the Federal Fleets in their states would help to establish the necessary infrastructure and training programs needed to support AFV fleets.

6.0 COORDINATION WITH INDUSTRY

One of the objectives of gathering the state five-year plans is to coordinate with industry. The information contained in the state five-year plans will be provided to Original Equipment Manufacturers (OEMs), automobile dealers, fuel suppliers, and conversion companies. This will assist industry in meeting state alternative fuel needs.

6.1 Original Equipment Manufacturers (OEMs)/Dealers

The Federal government purchases or leases approximately 50,000 new light-duty vehicles each year. State governments purchase or lease a considerably higher number of new light-duty vehicles each year. The state five-year plan is designed to provide OEMs with the necessary information to meet the AFV requirements of the states. With the information in the state five-year plan and the Federal five-year plan, OEMs will be able to identify needed vehicle types and move to make them available over the five-year period. The state five-year plan will be annually updated and extended, giving OEMs the opportunity to refine or revise plans accordingly.

Several states acquire new vehicles from dealers and not directly from the OEMs. The state five-year plan will communicate AFV acquisition information about these states to the OEMs, who might otherwise not receive the information. With this information, the OEMs will be able to deliver AFVs of the preferred fuel type to the dealerships where they are needed.

As more states develop specific AFV acquisition plans, this information will be provided to the OEMs. This will allow the OEMs to focus their efforts on the required models, reducing the up-front development costs. With a well defined market among the state fleets, OEMs can tailor materials orders and build schedules to keep costs low.

In addition, DOE will work with industry to establish and certify training programs for technicians responsible for maintaining AFVs and converting vehicles to alternative fuel operation. The training programs will include specialized maintenance and safety procedures, motor vehicle operating procedures, proper and safe conversion equipment installation procedures and techniques, adherence to specification, emissions testing, and other appropriate mechanical concerns.

6.2 Fuel Suppliers

The majority of state fleet vehicles that are under consideration for conversion to an alternative fuel or replacement with an AFV are centrally fueled at a fleet motor pool facility. This is an ideal situation for infrastructure development by fuel suppliers since it provides fuel suppliers with a known fuel demand. In addition, several states have expressed an interest in working with fuel suppliers to develop chains of refueling stations between major cities so that AFVs can be utilized for long distance travel.

6.3 Conversion Companies

DOE will provide information to and coordinate with the states and the conversion companies to satisfy the states' needs. Although several states have expressed the desire to obtain only OEM AFVs, many states are considering conversions. Conversions of conventional vehicles to alternative fuel vehicles can be an attractive way to meet state needs

in the short-term, until OEMs are able to design and manufacture the required AFVs. Conversions can provide states with the flexibility to introduce AFVs into their fleets with minimum operational changes. Conversions can be performed on existing vehicles that are known to satisfy a specific mission, or on new vehicles that meet the states' needs. In addition, conversions give the states the flexibility of introducing AFVs without incurring the cost of purchasing new vehicles.

6.4 Combined Federal/State Coordination

DOE will work closely with the General Services Administration (GSA), Federal agencies, and the states to coordinate the acquisition and placement of AFVs in each state. This effort will result in focusing and coordinating of orders for AFV types that are available and an increase in the concentrations of AFVs at specific locations. This will increase the ability of the OEMs and fuel suppliers to meet the needs of the Federal agencies and states.

7.0 ENERGY POLICY ACT OF 1992

The Energy Policy Act of 1992 contains alternative fuels provisions under titles III, IV, V, and VI. Specifically, states are required to consider incentive programs and are mandated to meet acquisition goals under the following titles: Title IV - Alternative Fuels - Non-Federal Programs; and Title V - Availability and Use of Replacement Fuels, Alternative Fuels, and Alternative Fueled Private Vehicles. The sections of these two titles that affect the states are discussed in the paragraphs below.

7.1 State and Local Incentives Programs

Section 409(a) provides that the Secretary shall issue regulations establishing guidelines for comprehensive state alternative fuels and alternative fueled vehicle incentives and program plans. The Governor of each state will then be invited to submit to the Secretary a state plan designed to accelerate the introduction and use of alternative fuels and alternative fueled vehicles. The following is an excerpt of Section 409:

(a) Establishment of Program.--(1) The Secretary shall, within one year after the date of enactment of this Act, issue regulations establishing guidelines for comprehensive State alternative fuels and alternative fueled vehicle incentives and program plans designed to accelerate the introduction and use of such fuels and vehicles. Such guideline shall address the development, modification, and implementation of such State plans and shall describe those program elements, as described in paragraph (3), to be addressed in such plans.

(2) The Secretary, after consultation with the Secretary of Transportation and the Administrator of the Environmental Protection Agency, shall invite the Governor of each State to submit to the Secretary a State plan within one year after the effective date of the regulations issued under paragraph (1). Such plan shall include--

(A) provisions designed to result in scheduled progress toward, and achievement of, the goal of introducing substantial numbers of alternative fueled vehicles in such State by the year 2000; and

(B) a detailed description of the requirements, including the estimated cost of implementation, of such plan.

(3) Each proposed State plan, in order to be eligible for Federal assistance under this section, shall describe the manner in which coordination shall be achieved with Federal and local governmental entities in implementing such plan, and shall include an examination of--

(A) exemption from State sales tax or other State or local taxes or surcharges (other than such taxes or surcharges which are dedicated for transportation purposes) with respect to alternative fueled vehicles, alternative fuels, or alternative fueling facilities;

(B) the introduction of alternative fueled vehicles into State-owned or operated motor vehicle fleets;

(C) special parking at public buildings and airport and transportation facilities;

(D) programs of public education to promote the use of alternative fueled vehicles;

(E) the treatment of sales of alternative fuels for use in alternative fueled vehicles;

(F) methods by which State and local governments might facilitate-- (i) the availability of alternative fuels; and

(ii) the ability to recharge electric motor vehicles at public locations;

(G) allowing public utilities to include in rates the incremental cost of-- (i) new alternative fueled vehicles;

(ii) converting conventional vehicles to operate on alternative fuels; and

(iii) installing alternative fuel fueling facilities, but only to the extent that the inclusion of such costs in rates would not create competitive disadvantages for other market participants, and taking into consideration the effect inclusion of such costs would have on rates, service, and reliability to other utility customers;

(H) such other programs and incentives as the State may describe;

(I) whether accomplishing any of the goals in this subsection would require amendment to State law or regulation, including traffic safety prohibitions;

(J) services provided by municipal, county, and regional transit authorities; and

(K) effects of such plan on programs authorized by the Intermodal Surface Transportation Efficiency Act of 1991 and

amendments made by that Act.

(b) Federal Assistance to States.--(1) Upon request of the Governor of any State with a plan approved under this section, the Secretary may provide to such State--

(A) information and technical assistance, including model State laws and proposed regulations relating to alternative fueled vehicles;

(B) grants of Federal financial assistance for the purpose of assisting such State in the implementation of such plan or any part thereof; and

(C) grants of Federal financial assistance for the acquisition of alternative fueled vehicles.

(2) In determining whether to approve a State plan submitted under subsection (a), and in determining the amount of Federal financial assistance, if any, to be provided to any State under this subsection, the Secretary shall take into account-- (A) the energy-related and environmental-related impacts, on a life cycle basis, of the introduction and use of alternative fueled vehicles included in the plan compared to conventional motor vehicles;

(B) the number of alternative fueled vehicles likely to be introduced by the year 2000, as a result of successful implementation of the plan; and

(C) such other factors as the Secretary considers appropriate.

(3) The Secretary, in consultation with the Administrator of General Services, shall provide assistance to States in procuring alternative fueled vehicles, including coordination with Federal procurements of such vehicles.

(4) The Secretary may not approve a State plan submitted under subsection (a) unless the State agrees to provide at least 20 percent of the cost of activities for which assistance is provided under paragraph (1).

7.2 Mandates for States

The following is an excerpt from Section 507, Fleet Requirement Program, Sub-Section (o) "Mandatory State Fleet Programs", concerning mandates for the states:

(o) Mandatory State Fleet Programs.--(1) Pursuant to a rule promulgated by the Secretary, beginning in calendar year 1995 (when model year 1996 begins), the following percentages of new light duty motor vehicles acquired annually for State government fleets, including agencies thereof, but not municipal fleets, shall be alternative fueled vehicles:

(A) 10 percent of the motor vehicles acquired in model year 1996;

(B) 15 percent of the motor vehicles acquired in model year 1997;

(C) 25 percent of the motor vehicles acquired in model year 1998;

(D) 50 percent of the motor vehicles acquired in model year 1999;

(E) 75 percent of the motor vehicles acquired in model year 2000 and thereafter

(2)(A) The Secretary shall within 18 months after the date of the enactment of this Act promulgate a rule providing that a State may submit a plan within 12 months after such promulgation containing a light duty alternative fueled vehicle plan for State fleets to meet the annual percentages established under paragraph (1) for the acquisition of light duty motor vehicles. The plan shall provide for the voluntary conversion or acquisition or combination thereof, beyond any acquisition required by this title, of such motor vehicles by State, local, or private fleets, in numbers greater than or equal to the number of State alternative fueled vehicles required pursuant to paragraph (1).

(B) The plan, if approved by the Secretary, would be in lieu of the State meeting such annual percentages solely through purchases of new State-owned vehicles. All conversions or acquisitions or combinations thereof of any alternative fueled vehicles under the plan must be voluntary and must conform with the requirements of section 247 of the Clean Air Act and must comply with applicable safety requirements. The Secretary of Transportation shall within 3 years after enactment promulgate rules setting forth safety standards in accordance with the National Traffic and Motor Vehicle Safety Act of 1966 applicable to all conversions.

To meet alternative fuel vehicle purchase requirements, states can include vehicles voluntarily purchased by private and municipal fleets as provided under Section 507 (o)(2)(B). If states choose this option to meet their fleet mandate requirements, they will be required to submit a plan to the Secretary.

8.0 CONCLUSIONS

Although the state five-year plans did not contain great detail on specific AFVs to be acquired or exact AFV placement, the plans did contain enough information to draw useful conclusions on the states' preferences, concerns, and needs. These conclusions will play an important role in the introduction of AFVs into state fleets.

8.1 Results of First Five-Year Planning Process

The first state five-year planning process has proven the willingness of states to operate AFVs in their fleets. Since the Energy Policy Act had not been signed when states were queried, most states had not yet formulated an acquisition plan for alternative fuel vehicles. Although only 32 states and the District of Columbia provided actual AFV acquisition totals for fiscal year 1993, states did provide information concerning their acquisition plans, laws, regulations, problems, and concerns with regard to alternative fuels and AFVs.

The initial low AFV acquisition requests from the states were expected because DOE had been informed by the RSOs that many states could not provide estimates for the number of

alternative fuel vehicles projected to be acquired during each fiscal year. Now that the Energy Policy Act of 1992 has been signed and the mandate for state AFV acquisition has been established, states will be required to develop AFV acquisition plans to meet the mandates, and the number of AFV requests will increase.

A strong initial request for CNG AFVs was expressed by the states followed by requests for LPG and E-85. These requests were expected since natural gas, propane, and agricultural feedstocks used in E-85 are abundant natural resources across the country. Many states view the use of in-state natural resources as economically beneficial at a time when most state economies are weak. Many states indicated that CNG refueling stations already exist as a result of the actions of fuel suppliers and utilities. Although many of these stations are privately operated, most states have been given permission to use them in exchange for refueling contracts. This current availability of CNG is viewed as another reason for the strong CNG request.

The only state where M-85 was the most requested alternative fuel was California; however, several other states will be acquiring M-85 fueled AFVs. California is not purchasing vehicles for its fleet until 1995. The State is conducting a program in which the State will purchase 6,500 M-85 FFVs annually and resell them to the general public. As a result of this program the number of requests for M-85 AFVs is approximately the same as the number of requests for all other alternative fuels combined. However, this will change as more states that prefer alternative fuels other than M-85 develop AFV acquisition plans.

The greatest concern of states is the incremental cost of purchasing OEM AFVs or converting vehicles at a time when most states are experiencing budget crunches. States also expressed concern over the limited range of dedicated AFVs and also the availability of alternative fuels, AFVs, service facilities, and training programs. These are valid concerns that were expected by DOE. The limited range of dedicated vehicles can be overcome by increasing the fuel capacity of the AFV or using a dual-fuel AFV in place of the dedicated. This concern shows how vital it is to expand the infrastructure of alternative fuels, because as the infrastructure is expanded across the country, the range of dedicated AFVs should become less of a problem. In addition, as the number of AFVs in use increases, the availability of alternative fuels, AFVs, service facilities, and training programs will also become less of a problem.

"CNG vehicles do not have enough range for the distances that they need to travel around a sparsely populated state" -- Wyoming

It is apparent from the state five-year plans that AFV demonstration programs that educate the public and provide experience to fleet managers are needed to accelerate the

introduction of AFVs into state fleets as well as the private sector. In addition, the most up-to-date information on alternative fuels and AFVs must be more widely distributed. These actions will help to increase the public awareness of and confidence in alternative fuels and AFVs.

8.2 Next Steps

Completion of the first state five-year plan is an initial step in meeting the mandates established in the Energy Policy Act of 1992. Over the next few months and years, efforts to accelerate the introduction of AFVs into state fleets will continue. The RSOs will continue to interact closely with state agencies and provide them with technical assistance for the further development of their five-year plans. A greater effort will be made to include local and municipal fleets in the state five-year plans.

DOE is currently working on establishment of a database to track the state AFV acquisition requests. The information to be included in the database will be the number, type, and fuel requirements of alternative fuel vehicles projected to be purchased, leased, or converted by each state during each fiscal year. The engine size, fuel configuration, fuel type, and geographic location, if known, of each AFV will also be included. Reports from this database will be included in the next update of this report.

DOE and GSA will continue to work closely with OEMs and fuel suppliers as the state five-year plans are updated and extended. Initial updates will focus on getting more respondents and modifying the state plans to meet the requirements of the Energy Policy Act of 1992. The experience gained from the Federal five-year plan and AFV fleet operations can then be used to assist states in increasing the number of AFV requests in the out years of the plan and matching AFV availability with state needs.

DOE will continue to share information with Federal agencies, states, the transportation industry, and the public on the advantages and disadvantages of various alternative fuel applications. The National Alternative Fuels Hotline for Transportation Technologies will continue to provide up-to-date information on Alternative Fuel Technologies. Consumers nationwide can call 800-423-1DOE. In Washington, DC consumers must call (202) 554-5047.

REFERENCES

1. "Energy Policy Act of 1992," House of Representatives Report 102-1018 dated October 5, 1992, PL 102-486.
2. "Federal Energy Management: Executive Order 12759 of April 17, 1991," Federal Register, Vol. 56, No. 76, April 19, 1991. Presidential Documents.
3. Alternative Fuel Vehicles for the Federal Fleet: Results of the 5-Year Planning Process, Office of Conservation and Renewable Energy, U.S. Department of Energy, Washington, D.C., August 1992.
4. National Energy Strategy, Powerful Ideas for America, First Edition, 1991/1992, Office of Scientific and Technical Information, U.S. Department of Energy, Oak Ridge, TN.
5. The Energy Policy Act of 1992, National Conference of State Legislatures, Denver, CO, December 1992.
6. Alternative Motor Fuels National Inventory, Office of Conservation and Renewable Energy, U.S. Department of Energy, Washington, D.C., Fall 1991.

APPENDIX A
Regional Support Office Contacts

APPENDIX A
Regional Support Office Contacts

REGION I

Point of Contact: Hugh Saussy, Director

Address: USDOE
Boston Support Office

Telephone: 617-565-9700

REGION II

Point of Contact: Charles Baxter, Director

Address: USDOE
New York Support Office
26 Federal Plaza
New York, NY 10278-0068

Telephone: 212-264-1021

REGION III

Point of Contact: Christopher G. McGowan, Director

Address: USDOE
Philadelphia Support Office
14421 Cherry Street, 10th Floor
Philadelphia, PA 19102-1492

Telephone: 215-597-3890

REGION IV

Point of Contact: Buddy Jackson, Director

Address: USDOE
Atlanta Support Office
730 Peachtree Street, N.E.
Atlanta, GA 30308

Telephone: 404-257-2837

REGION V

Point of Contact: Sharon Donaldson

Address: Chicago Support Office
9800 South Cass Avenue
Argonne, IL 60439-4899

Telephone: 708-252-2773

REGION VI

S.O. Director: Curtis E. Carlson, Jr.

Point of Contact: William Jernigan

Address: USDOE
Dallas Support Office
1420 West Mockingbird Lane, Suite 400
Dallas TX 75247

Telephone: (214) 767-7248 (Director)
(214) 767-7182 (POC)

REGION VII

Point of Contact: Benjamin Watson, Technology Marketing Specialist

Address: USDOE
911 Walnut Street, 14th Floor
Kansas City, Missouri 64106

Telephone: 816-426-5182

REGION VIII

Point of Contact: Al Hymer, Director

Address: USDOE
Denver Support Office

Telephone: 303-969-7001

REGION IX

Point of Contact: Martha Dixon, Director

Address: USDOE
San Francisco Support Office

Telephone: 510-273-4461

REGION X

Point of Contact: Kathy Vega, Director

Address: USDOE
Seattle Support Office

Telephone: 206-553-2157

APPENDIX B
Industry Contacts

APPENDIX B

Industry Contacts

National

Alternative Fuels Data Center
National Renewable Energy Laboratory
1617 Cole Boulevard
Golden, CO 80401
(303) 231-1990
FAX (303) 231-7815

American Gas Association
1515 Wilson Boulevard,
Arlington, VA 22209-2470
(703) 841-8600
FAX (703) 841-8697

American Methanol Institute
815 Connecticut Avenue, NW,
Washington, DC 20006
(202) 467-5050

Chrysler Corporation
Chrysler, Alternative Fuels
Gordon Allardyce/Tom Gage
1200 Chrysler Blvd., CIMS 416-15-16
Highland Park, MI 48288-1919
(313) 956-5926
FAX (313) 252-7928

Ford Motor Company
Electric Vehicles
Chuck Risch
23400 Michigan Ave.
Suite 1200
Dearborn, MI 48124
(313) 845-7969
FAX (313) 248-2430

Ford Motor Company
Rich Bell/Brian Rippon
The American Road
Rm 255 WHQ
Dearborn, MI 48121-1899
(313) 323-8126
FAX (313) 845-5175

General Motors Corporation
Jean Crocker
Director, GM Technical Center
(313) 986-2455

General Motors Corporation
Lynn Pasquale
GM Technical Center
(313) 986-2455

General Motors Corporation
Joseph Collucci
Research, Fuels/Lube
(313) 986-1880

General Motors Corporation
Mary Reznowski
(313) 986-5717

General Motors Corporation
Dr. Harry King
Hughes/GMC
(310) 517-5724

General Motors Corporation
David Sloan
(313) 986-5721

National (continued)

General Motors Corporation
Jack Dinan
News Relations, N2PR
GM Technology Center
30200 Mound Rd.
Warren, MI 48090
(313) 986-5719
FAX (313) 986-1637

General Motors Corporation
Lois Bennett
Environmental Activities Staff
Automotive Emission Control
P.O. Box 9015
30400 Mound Rd.
Warren, MI 48090-9015
(313) 947-1423
FAX (313) 947-1797

Governor's Ethanol Coalition
P.O. Box 95085
Lincoln, NE 68509-5085
(402) 471-2867

LP Clean Fuels Association
2102 Business Center Drive,
Suite 130
Irvine, CA 92715
(714) 253-5757

LPG Association
Natural Gas Vehicle Coalition
1515 Wilson Boulevard,
Suite 1030
Arlington, VA 22209
(703) 527-3022
FAX (703) 527-3025

National Alternative Fuels Hotline
P.O. Box 70879
Washington, D.C. 20024
(800) 423-1363

National Corn Growers
1000 Executive Parkway, Suite 105
St. Louis, MO 63141
(314) 275-9915
FAX (314) 275-7061

Renewable Fuels Association
201 Massachusetts Avenue, NE,
Suite C-4
Washington, DC 20002
(202) 543-3802

Region 1

Coalition of Northeastern Governors
400 N. Capitol Street, NW
Suite 382
Washington, D.C. 20001
(202) 624-8450
FAX (202) 624-8463

New England Gas Association
75 Second Avenue
Suite 510
Needham, MA 02194
(617) 455-6800
FAX (617) 455-6828

New England Governor's Conference, Inc.
76 Summer Street
Boston, MA 02110-1226
(617) 423-6900
FAX (617) 423-7327

**Northeast States for Coordinated
Air Use Management**
129 Portland Street
Boston, MA 02114
(617) 367-8540
FAX (617) 742-9162

Northeast Sustainable Energy Association
23 Ames Street
Greenfield, MA 01301
(413) 774-6051
FAX (413) 774-6053

Vermont Gas Systems, Inc.
Scott Albertson
P.O. Box 467
Burlington, VT 05402
(802) 863-4511

Vermont Electric Car Co.
Paul Scheckel
P.O. Box 643
Montpelier, VT 05601
(802) 456-1442

Region 2

Brooklyn Union Gas Company
Robert E. Nyman
Manager, Natural Gas/Clean Vehicles
One Netrotech Center
Brooklyn, NY 11202
(718) 403-3287

Consolidated Edison Company
of New York, Inc.
Mark Sindeband
Natural Gas Vehicle Marketing
4 Irving Place
New York, NY 10003
(212) 460-2163

National Fuel Energy Services Division
Carmen E. Rossi
NGV Program Manager
10 Lafayette Street
Buffalo, NY 14203
(716) 857-7972

New York Gas Group
Donald F. Straetz
Executive Director
Suite 428
500 Fifth Avenue
New York, NY 10110
(212) 354-4790

New York State Electric and Gas Corp.
Robert W. Stiles
Natural Gas Vehicles
4500 Vestal Parkway East
Post Office Box 3607
Binghamton, NY 13902-3607
(607) 729-2551 Extension 4019

New York State Propane Association
Tom Heslop
President
Post Office Box 351
1 Arrows Post Road
Catskill, NY 12414
(518) 943-3500

Niagra Mohawk Power Corporation
David Davin
Accounts Program Manager
21 British American Boulevard
Latham, NY 12110
(518) 782-2023

RAD Oil Company, Inc.
Steven J. Levy
Vice President
287 Bowman Avenue
Purchase, NY 10577-2540
(914) 253-8945

Region 3

Federal Government

**Department of Transportation
Herman Shipman
1760 Market St., Suite 19103
Philadelphia, PA 19103
(215) 656-6900**

**Regional GSA Administrator
Jack Williams
(215) 597-1261**

**EPA Region III, 3AT-13
Brian Rehn
Environmental Engineer
841 Chestnut Building
Philadelphia, PA 1917
(215) 597-4555
FAX (215) 597-7906**

Utilities/Fleet Managers

**Baltimore Gas and Electric
Energy Research and Technical Services
Dave Brown/Anthony Tangires
7225 Windsor Blvd.
Baltimore, MD 21207
(410) 265-4016
FAX (410) 265-4140**

**DELMARVA Capitol Investments
Charles L. Driggs/Glenn Moore
NGV Business Development Manager
824 Market St. Mall
Suite 902
Wilmington, DE 19801
(302) 651-9868
FAX (302) 652-7195**

**Pennsylvania Power & Light
Irv Keister
Manager, Division Operations Services
2 North 9th St.
Allentown, PA 18101
(215) 774-6185
FAX (215) 774-5281**

**Philadelphia Electric Company
M. Fred Pierce, P.E./Jeff Guistwhite
Product Group Manager -
Commercial Marketing
2301 Market St.
Philadelphia, PA 19101
(215) 841-5499
FAX (215) 841-4083**

**Philadelphia Gas Works
Richard Ney/Jim Nagle
Vice President Marketing
800 W. Montgomery Ave.
Philadelphia, PA 19122
(215) 684-6746
FAX (215) 684-6721**

**PWD
Planning and Research Division
Jim Bolno
Project Manager
2nd Floor, ARA Tower
1101 Market St.
Philadelphia, PA 19107
(215) 592-6316**

Region 3 (continued)

Fuel Industry

American Gas Association
Norman Stone
1515 Wilson Blvd.
Arlington, VA 22209
(703) 841-8574
FAX (703) 841-8689

ARCO
Jim Cobb/Bill Whitney/Craig Leafeburge
3801 West Chester Pike
Newtown Square, PA 19073
(215) 359-2000/5791/5799
FAX (215) 359-2581

American Methanol Institute
Ray Lewis/Felix Sanchez
815 Connecticut Ave.
Suite 800
Washington, DC 20006
(202) 467-5050
FAX (202) 331-9555

Chevron
Government Affairs
Vince Damiano/Jack Galloway/Joe Kelly
3001 Penrose Ave.
Philadelphia, PA 19145-5294
(215) 339-7157/7155/7489
FAX (215) 339-7021

Convault
(Methanol Tanks)
Anthony Tripoli/Brad Triebisch
(703) 883-8176

Eastern Propane
Bill Curcio
(201) 697-3111

Electric Vehicle Assoc. of the Americas
Paul Brown
Executive Director
701 Pennsylvania Ave., NW
Washington, DC 20004
(202) 508-5414
FAX (202) 508-5759

EPRI, Northeast
Elli Hollander
(202) 293-7513

LPG Coalition
Bob Meyers
(714) 253-5757

Propane Equipment Corp.
Ron Cassell, Vice President
11 Apple St.
Tinton Falls, NJ 07724
(908) 747-3795

Region 3 (continued)

**Sun Oil
Brian Davis
1801 Market St.
10 Penn Center
Philadelphia, PA 19103
(215) 977-3899**

Region 4

(None provided)

Region 5

Indiana

Cummins Engine Company Inc.
Box 3005
Columbus, IN 47202-3005
(812) 377-5000

Downstream Alternatives, Inc.
P.O. Box 190
Bremen, IN 46506-0190
(219) 546-4204

Indiana Natural Gas Vehicle Coalition
Deborah New
1630 North Meridian Street
Indianapolis, IN 46206-1496
(317) 321-0534

New Energy Company of Indiana
3201 W. Calvert
P.O. Box 2289
South Bend, IN 46680-2289
(219) 233-3116

Ohio

Basic Systems, Inc.
Thomas Stemmer
P.O. Box 767
Cambridge, OH 43725
(614) 685-2511

Columbia Gas
Tim Davis
200 Civic Center Dr.
P.O. Box 117
Columbus, OH 43216-0117
(614) 460-6359

Cummins Diesel Engines
S. Wooster Ave.
Strasburg, OH 44680
(216) 878-5511

The East Ohio Gas Company
Eric Hall (or John Wilbur)
1717 E 9th
Cleveland, OH 44114-2800
(216) 736-6405

The Flexible Corporation
970 Pittsburgh Dr.
Delaware, OH 43015-2859
(614) 362-2600

National Energy Services
Earl Beitterman
18 Harrison St.
P.O. Box 31
Zanesville, OH 43702-0031
(614) 453-0375
FAX (614) 453-5640

Ohio Gas Association
Richard Dallas
50 W. Broad St.
Suite 1614
Columbus, OH 43215
(614) 224-1036

Region 5 (continued)

Wisconsin

ANR Pipeline Company
2 East Mifflin St.
Suite 403
Madison, WI 53703
(608) 251-7660
FAX (608) 251-7680

Automotive Natural Gas, Inc.
265 North Janesville St.
Milton, WI 53563
(608) 868-4626
(800) 934-5219
FAX (608) 868-2723

Ethylmotive Engineering
4984 Simon Trail
Waunakee, WI 53597
(608) 238-5473

Inland Diesel
13015 W. Custer Avenue
Butler, WI 53007-0500
(414) 781-7100
FAX (414) 783-4164

Johnson Controls, Inc.
Battery Group
5757 North Green Bay Avenue
P.O. Box 591
Milwaukee, WI 53201-0591
(414) 228-2228
FAX (414) 228-2111

Milwaukee Solvents
N59 W14765 Bobolink
Menomonee Falls, WI 53051
(414) 252-3550

Oshkosh Truck Corporation
324 West 29th Street
P.O. Box 2566
Oshkosh, WI 54903-2566
(414) 235-9151
FAX (414) 233-9508

Pressed Steel Tank
P.O. Box 10-J
Milwaukee, WI 53201
(414) 476-0500
FAX (414) 476-7191

University of Wisconsin - Milwaukee
Alternative Fuels Research Laboratory
P.O. Box 784
Milwaukee, WI 53201
(414) 229-4126
FAX (414) 229-6958

Wisconsin Corn Growers
2976 Tiverton Pike Road
Madison, WI 53711-5898
(608) 274-7522

Wisconsin Gas Company
626 East Wisconsin Ave.
Milwaukee, WI 53202
(414) 291-6954

Wisconsin Natural Gas Company
233 Lake Ave.
Racine, WI 53407-0007
(414) 637-7681

Region 5 (continued)

Wisconsin (continued)

Wisconsin Power & Light Company
222 W. Washington Ave.
Madison, WI 53703
(608) 252-4842

Wisconsin Propane Gas Association
5248 North 35th Street
Milwaukee, WI 53209
(414) 461-7660
FAX (414) 461-1299

Region 6

Arkansas

Arkansas Gas Association
P.O. Box 1408
Fayetteville, AR 72119
(501) 521-1141

Arkansas Oklahoma Gas Company
P.O. Box 17004
Fort Smith, AR 72917
(501) 783-3181

Arkansas Propane Gas Association
P.O. Box 9099
North Little Rock, AR 72119
(501) 375-9176

ARKLA, Inc.
400 East Capitol St.
Little Rock, AR 72203
(501) 377-4981

Louisiana

Alternative Combustion Engineering
P.O. Box 296
Keithville, Louisiana 71047
(318) 925-8601

ARKLA, Inc.
P.O. Box 21734
Shreveport, LA 71151
(318) 429-2539

Entergy Corp.
P.O. Box 61000
New Orleans, LA 70161
(504) 529-5262

Louisiana Gas Service Company
P.O. Box 433
Harvey, LA 70059
(504) 367-7000

Tri-Fuels, Inc.
14464 Barringer Court
Baton Rouge, LA 70809
(504) 756-8036

New Mexico

Alliance for Transportation Research
University Center Research Park
1001 University Blvd., S.E., Suite 103
Albuquerque, NM 87106
(505) 246-6410

Amoco Production Company
200 Amoco Court
Farmington, NM 87401
(505) 326-9207

Compressed Natural Gas Corporation
2809 Broadbent Parkway
Albuquerque, NM 87107
(505) 343-8808

Edison Walcher Company
P.O. Box 1160
Hobbs, NM 88246
(505) 393-2197

Region 6 (continued)

New Mexico (continued)

Gas Company of New Mexico
P.O. Box 26400
Albuquerque, NM 87125
(505) 880-7900

New Mexico LP Gas Association
8 Vista de la Cruces
Los Lunas, NM 87031
(505) 865-6054

New Mexico Oil and Gas Association
500 Don Gaspar Ave.
Santa Fe, NM 87501
(505) 982-2568

Oklahoma

Fred Jones Manufacturing Company
900 West Main St.
Oklahoma City, OK 73125
(405) 272-9261

Oklahoma Gas & Electric Company
P.O. Box 321
Oklahoma City, OK 73101
(405) 272-3000

Oklahoma Natural Gas Company
P.O. Box 871
Tulsa, OK 74102
(800) 776-4CNG

Oklahoma Propane Gas Association
4200 North Lindsay
Oklahoma City, OK 73105
(405) 424-1775

Phillips 66
766 Adams Building
Bartlesville, OK 74004
(918) 661-4030

Texas

4E Technologies, Inc.
200 East Sixth St., Suite 209
Austin, TX 78602-0627
(512) 476-9888

Center for Global Studies
Houston Advanced Research Center
4800 Research Forest Drive
The Woodlands, TX 77381
(713) 363-7913

EcoGas, Inc.
5000 Plaza on the Lake, Suite 140
Austin, TX 78746
(512) 836-6638

Electrosources, Inc.
3800B Dorssett Drive
Austin, TX 78744-1131
(512) 445-6606

Region 6 (continued)

Texas (continued)

Enfuels Corporation
P.O. Box 1188
Houston, TX 77251-1188
(715) 853-6399

Gas Allied Services, Inc.
P.O. Box 627
Bastrop, TX 78602-0627
(512) 321-0177

Lone Star Energy Company
1817 Wood Street, Suite 630
Dallas, TX 75201
(214) 573-3853

Mesa Environmental
3125 West Bolt Street
Fort Worth, TX 76110
(800) 227-2532

Natural Gas Vehicle Technology Center
6111 Highway 290 East
Austin, TX 78723
(512) 541-1776

Southwest Natural Gas Vehicle Zone
c/o Texas General Land Office
Stephen F. Austin Building
1700 North Congress Avenue
Austin, TX 78701-1495
(512) 463-5039

Texas Propane Gas Association
P.O. Box 140735
Austin, TX 78714-0735
(512) 836-8620

TrenFuels, Inc.
701 Brazos Street, Suite 520
Austin, TX 78701
(512) 320-1421

Region 7

**AMOCO Oil Company
CNG Coordinator
200 East Randolph Dr.
Chicago, IL 60601
(312) 856-2969**

**Mid-States NGV Coalition
P.O. Box 2848
Tulsa, OK 74101
(918) 581-8701
FAX (918) 583-7555**

**National Institute for Petroleum and Energy
Research (NIPER)
220 N. Virginia
P.O. Box 2128
Bartlesville, OK 74005
(918) 337-4464**

Region 8

Colorado

Natural Fuels Corporation
5855 Stapleton Drive North
Denver, CO 80216-3312
(303) 322-4600

Montana

Ethanol Producers and Consumers
South Route, Box 206
Nashua, MT 59248
(406) 785-3722

Northern Energy (Propane)
Gary South
2225 11th Ave.
Helena, MT 59604
(406) 442-9759

Great Falls Gas Company
P.O. Box 2229
Great Falls, MT 59403

Montana Power Company
40 East Broadway
Butte, MT 59701
(406) 723-5421 x 2392
FAX (406) 496-5026

North Dakota

American Coalition for Ethanol
4023 North State Street
Bismarck, ND 58501
(701) 222-3221
FAX (701) 222-0018

Northern States Power
P.O. Box 1158
1206 5th Avenue South
Grand Forks, ND 58201
(701) 795-5212

Montana-Dakota Utilities Company
400 North Fourth Street
Bismarck, ND 58501
(701) 222-7980
FAX (701) 222-7886

South Dakota

Big D Oil Company
Box 1378, 3685 Sturgis Road
Rapid City, SD 57709
(605) 342-6777

Minnegasco
P.O. Box 5008
Sioux Falls, SD 57117
(605) 336-0530

Region 8 (continued)

South Dakota (continued)

Northwestern Public Service Company
P.O. Box 1318
33 3rd Street SE
Huron, SD 57350
(605) 352-8411

South Dakota Corn Council
4001 Valhalla Blvd., Suite 108
Sioux Falls, SD 57106
(605) 361-2242

Utah

Mountain Fuel
180 East First South
P.O. Box 11368
Salt Lake City, UT 84147
(801) 534-5184
FAX (801) 534-5166

Smith Detroit Diesel-Allison
250 West 3900 South
P.O. Box 27527
Salt Lake City, UT 84127
(801) 262-2631
FAX (801) 262-0078

Wyoming

Cheyenne Light, Fuel, and Power
P.O. Box 1409
Cheyenne, WY 82003-1409
(307) 638-3361

Region 9

**California Natural Gas Vehicle Coalition
2443 Fair Oaks Boulevard, #177
Sacramento, CA 95825-7685
(702) 254-4180**

Region 10

(None provided)

APPENDIX C
State Information Summaries

APPENDIX C
State Information Summaries

ALABAMA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type.

ACQUISITION PLANS

Alabama is planning to acquire 150 AFVs over the next five years. These AFVs will most likely be sedans. Ten vehicles were converted in 1992 and Alabama has had one Ethanol AFV and one CNG AFV.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

The availability of refueling facilities is considered the key issue.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	20	0	0	0	0	0	20
1994	20	0	0	0	0	0	20
1995	30	0	0	0	0	0	30
1996	40	0	0	0	0	0	40
1997	40	0	0	0	0	0	40
TOTALS	150	0	0	0	0	0	150

CONTACT: State of Alabama

PHONE: 404-347-2380

ALASKA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type.

ACQUISITION PLANS

Alaska will develop no AFV acquisition plans until infrastructure is in place. In the interim, Alaska is considering the placement of two or three CNG vehicles at the Anchorage airport.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

Alaska is concerned about the cost and availability of AFVs and refueling stations. In addition, Alaska views the limited range of dedicated AFVs as a problem because state vehicles must travel great distances.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	2-3	*	*	*	*	*	2-3
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	2-3	*	*	*	*	*	2-3

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

ARIZONA

FUEL TYPE MOST REQUESTED

CNG will be the most requested fuel type. The State is also interested in EVs.

ACQUISITION PLANS

Arizona has no AFV acquisition plans. MESA Environmental, Inc.. will pay for conversions of fleets to CNG in exchange for four year fueling contract at gasoline price.

LAWS AND REGULATIONS

Arizona has several laws and regulations concerning alternative fuels and AFV's. These laws and regulations stipulate:

- State must increase OEM AFV use with no more than 10 percent higher life-cycle cost.
- Only certified crash tested converted vehicles may be purchased by the State.
- Only Alternative Fuel buses can be purchased in Maricopa County.
- Reduced state vehicle license tax to AFV owners (60 times less).
- NG granted a 14 cent reduction in sales tax.

PROBLEMS/CONCERNS

Arizona is concerned about liabilities due to lack of warranties on converted vehicles, the safety of converted vehicles, and the lack of government standards for conversions. In addition, costs and the lack of servicing facilities are concerns of Arizona.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Totals or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

ARKANSAS

FUEL TYPE MOST REQUESTED

LPG will be the most requested fuel type.

ACQUISITION PLANS

Arkansas has no pending AFV acquisitions. State and local fleets are operating several LPG AFVs. The annual vehicle acquisition is 900 vehicles.

LAWS AND REGULATIONS

An Arkansas statute encourages the use of domestic fuels in all energy sectors and created an Alternative Fuels Commission and Alternative Fuels Advisory Committee.

PROBLEMS/CONCERNS

Arkansas is concerned with funding the incremental cost of AFVs as well as the availability of alternative fuels and AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: Arkansas Alternative Fuels Commission
Executive Building, Room 515
2020 West Third
Little Rock, AR 72205

PHONE: 501-324-9809

ARKANSAS SUMMARY

The statutorily declared policy is "to decrease the reliance of the United States, and especially the residents of Arkansas, on imported oil as a major source of energy. In furtherance of this purpose, the Alternative Fuels Commission . . . shall encourage and assist government agencies, private enterprise, and the citizens of this state to decrease their use of imported fuels and increase their use of fuels produced domestically." Arkansas Code Annotated, Section 15-10-501 (1991).

CALIFORNIA

FUEL TYPE MOST REQUESTED

M-85 will be the most requested fuel type.

ACQUISITION PLANS

California is not purchasing any vehicles for their fleet until 1995 because of a severe budget crisis. At that time, 90 AFVs will be purchased. California will purchase and then re-sell 6,500 AFVs in 1993. These AFVs will be M-85 FFVs. If this program is successful, they will repeat this process each year through 1997 (minimum 6,500/yr). Additionally, in FY93 municipal and private fleets will acquire 124 CNG and 2,320 M-85 AFVs and 22 EVs.

LAWS AND REGULATIONS

California has numerous laws and regulations regarding alternative fuels and AFVs; however, the stipulations of these laws and regulations were not provided.

PROBLEMS/CONCERNS

The greatest concern of California is the funding of the incremental costs of AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Totals or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	*	*	*	*	*	*	90 ¹
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	90

* Data unavailable, will be specified at a later date.

¹ California will acquire 90 AFVs in FY 95, but the fuel types have not been determined.

CONTACT: No information at this time

PHONE:

COLORADO

FUEL TYPE MOST REQUESTED

Colorado's first alternative fuel preference is CNG and the second is LPG.

ACQUISITION PLANS

The state motor vehicle advisory council has developed a State Fleet Alternative Fuel Plan. The plan calls for converting or acquiring 44 AFVs in 1992, 79 in 1993, 95 in 1994, and 120 in 1995. This would represent 10 percent, 20 percent, 30 percent, and 40 percent in each year, respectively, of the acquisition of vehicles to be used primarily in the Automobile Adjustment and Inspection Program area which includes most of the counties of Adams, Arapaho, Boulder, Douglas, El Paso, Jefferson, Larimer, Weld, and the City and County of Denver. Vehicles acquired for use outside of this program area would all operate on unleaded gasoline. This plan has not been implemented, however, because funds have not been appropriated.

LAWS AND REGULATIONS

Colorado has numerous laws and regulations concerning alternative fuels. Section 104 of the Colorado Air Quality Control Act created an Air Quality Control Commission to identify alternative fuels that have a demonstrated potential to reduce emissions without undue cost or performance degradation. Section 106.9 encourages the use of alternative fuels by providing a rebate to any vehicle owner who converts a vehicle to operate on alternative fuels. The rebate also applies toward the difference in purchase price of a new AFV and a conventionally fueled vehicle. HB 90-1275, signed on June 7, 1990, assigned a Motor Vehicles Advisory Council to develop a state fleet alternative fuels plan which determines how certain percentage goals are to be met within the Automobile Adjustment and Inspection Program (This plan and its goals are discussed above under "Acquisition Plans"). The Governor's Blue Ribbon Task Force on Alternative Fuels was created by executive order (A218 90) to investigate the use of alternative fuels. In addition, C.R.S. 39-22-516 provides for a state investment tax credit of 5 percent of the purchase price of an OEM AFV or of a newly purchased vehicle with an AF conversion, not to exceed 50 percent of the cost of the conversion or OEM option. The credit is available to businesses in 1992 and 1993 and to consumers after 1994. Compressed natural gas or propane used as a vehicle fuel is exempt from the \$0.18 per gallon fuel excise tax under Section 39-27-202 (HB 1161). Instead, a flat fee of \$75 to \$125 per year (depending on vehicle weight) is levied on the AFVs.

PROBLEMS/CONCERNS

Problems in implementing Colorado's alternative fuel plans stem from the cost of acquiring and operating AFVs and the cost of establishing a fuel distribution infrastructure. The major obstacle is a lack of matching funds for an incentive and market penetration effort.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	0
1994	*	*	*	*	*	*	95
1995	*	*	*	*	*	*	120
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	675

* Data unavailable, will be specified at a later date.

CONTACT: Paul Jensen
Department of Fleet Management
1001 East 62nd Avenue, #1050
Denver, Colorado 80216

PHONE: 303-287-6741 **FAX:** 303-289-7421

COLORADO SUMMARY

Tom Brotherton of the Colorado State Office of Energy Conservation (OEC) serves as a technical advisor to the Governor's Blue Ribbon Task Force. Representatives from industry make presentations to the Task Force outlining the most recent developments in their fields. OEC periodically receives publication from a number of sources which feature information regarding alternative fuels. OEC does not have a program devoted exclusively to alternative fuels, but is involved in a number of projects to develop and implement alternative fuel technologies including funding university activities and a proposed effort to fund an incentives and market penetration program. The OEC has intrinsic interest in the use of alternative fuels to reduce pollution, stabilize transportation energy supplies, and promote economic development.

The OEC is involved in the processing and dissemination of information regarding alternative fuels production and use. A recent example of this is the Energy Talk publication which featured transportation as the focus of the Fall 1991 issue. Energy Talk has a mailing of 9,000. OEC is an information resource for the general public and, as such, entertains numerous questions from the public as well as responding to numerous such questions.

CONNECTICUT

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type with Electric the second most requested.

ACQUISITION PLANS

Connecticut has several CNG AFVs and one EV. Connecticut is planning on acquiring AFVs over the next five years. However, the number of acquisitions will remain conservative until an assessment of AFVs, regulations and barriers is complete.

LAWS AND REGULATIONS

The impact of environmental regulations, through the state implementation plans for mobile source emissions reductions, is seen as the most significant legislation that might further the role of AFVs.

PROBLEMS/CONCERNS

Connecticut is concerned about vehicle costs, fuel costs and vehicle/facility standardization. In addition, Connecticut feels that general information on AFVs is needed. Connecticut also views budget constraints as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	99	0	0	0	0	10	109
1994	73	0	0	0	0	10	83
1995	105	0	0	0	0	10	115
1996	70	0	0	0	0	10	80
1997	90	0	0	0	0	10	100
TOTALS	437	0	0	0	0	50	487

CONTACT: No information at this time

PHONE:

DELAWARE

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type in the Northern portion of the State and LPG in the Southern portion of the State. Delaware currently has one CNG refueling station.

ACQUISITION PLANS

Delaware has projected purchases of CNG and LPG vehicles for the next five years, as shown in the table below. Although AFV types, locations and engine size are not available, it is likely that initial AFV purchases will be pick-ups and vans and locations will be in Wilmington and Dover.

LAWS AND REGULATIONS

Delaware legislation currently allows only gas companies to sell natural gas (i.e. oil companies can not sell NG at retail sites). This restriction is currently under review.

PROBLEMS/CONCERNS

Delaware is concerned about costs, fuel and vehicle availability, and regulatory uncertainty. In addition, the lack of reliable information on performance, economics, and environmental impacts is viewed as a problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	5	0	5	0	0	0	10
1994	15	0	15	0	0	0	30
1995	10	0	20	0	0	0	30
1996	10	0	10	0	0	0	20
1997	15	0	15	0	0	0	30
TOTALS	55	0	65	0	0	0	120

CONTACT: Charles Smisson
Energy Office

PHONE: (302) 739-5644

DELAWARE SUMMARY

Delaware currently has limited experience in operating AFVs. However, the state is actively pursuing several planning options that will allow them to meet the requirements set forth in the Clean Air Act Amendments and the recently passed Energy Policy Act. The state has formed a Governor's Clean Air Task Force which supports developing AFV fleet programs in order to attain compliance with this national regulation and legislation.

FLORIDA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. LPG AFVs and EVs were also requested by Florida.

ACQUISITION PLANS

Florida plans to acquire 2,097 AFVs over the next five years. An extensive local government AFV program is underway. St. Petersburg is converting 50 vehicles to CNG. The annual vehicle acquisition is 1,800 vehicles.

LAWS AND REGULATIONS

Legislative mandates have been issued and significant funds for AFVs allocated; however, the exact details were not provided.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Florida.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	276	0	71	0	0	7	354
1994	296	0	71	0	0	7	374
1995	346	0	71	0	0	12	429
1996	348	0	71	0	0	18	437
1997	329	0	71	0	0	40	440
TOTALS	1,595	0	355	0	0	84	2,034

CONTACT: Florida Energy Office

PHONE: 904-488-2475

GEORGIA

FUEL TYPE MOST REQUESTED

CNG will be the most requested fuel type and the second most requested will be LPG.

ACQUISITION PLANS

Georgia plans to acquire 150 AFVs over the next five years. A demonstration program to convert 20 to 25 vehicles is planned. The State Energy Office (SEO) provided \$400K for local governments to fund vehicle conversions.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

Georgia's greatest problem is that each state agency procures its own vehicles, which makes coordination difficult.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	0	*	0	0	0	*
1994	*	0	*	0	0	0	*
1995	*	0	*	0	0	0	*
1996	*	0	*	0	0	0	*
1997	*	0	*	0	0	0	*
TOTALS	▲	0	▲	0	0	0	150

* Data unavailable, will be specified at a later date.

▲ The exact number of CNG & LPG vehicles is unknown; however, the total number of AFVs is known.

CONTACT: No information at this time

PHONE:

HAWAII

FUEL TYPE MOST REQUESTED

LPG will be the most requested fuel type.

ACQUISITION PLANS

Hawaii has no AFV acquisition plans.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

Hawaii is concerned that the mainland states may push other alternatives and Hawaii's preferences would not be accepted by the auto manufacturers. In addition, Hawaii is concerned with fuel costs since all fuels must be shipped to the State.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

IDAHO

FUEL TYPE MOST REQUESTED

CNG will be the most requested fuel type.

ACQUISITION PLANS

Idaho has no AFV acquisition plan; however, alternative fuel engines will be an option in next year's bid specifications.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

Idaho is concerned about the availability and cost of alternative fuel refueling stations and AFVs. In addition, Idaho views the limited range of dedicated AFVs as a problem because state vehicles must travel long distances.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

ILLINOIS

FUEL TYPE MOST REQUESTED

E-85 was the most requested fuel type. Illinois currently has two E-85 refueling stations.

ACQUISITION PLANS

Illinois is demonstrating 12 E-85 VFVs, and will acquire additional E-85 vehicles over the next five years. In addition, Illinois will acquire CNG AFVs and is considering EVs.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Illinois.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	1	0	0	20	0	0	21
1994	0	0	0	25	0	0	25
1995	0	0	0	45	0	0	45
1996	0	0	0	45	0	0	45
1997	5	0	0	105	0	0	110
TOTALS	6	0	0	240	0	0	246

CONTACT: State of Illinois

PHONE: 217-785-3969

INDIANA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type followed by E-85.

ACQUISITION PLANS

Indiana plans to acquire ten E-85 vehicles, five dedicated CNG vehicles, and to convert ten pick-up trucks to dual fuel CNG vehicles.

LAWS AND REGULATIONS

Current state laws pertaining to alternative fuels relate to taxation. Persons selling alternative fuels must acquire a special dealer's license and owners of vehicles operating on CNG, LNG, or LPG must purchase a special decal. In addition, SB 516 requires the development and implementation of goals for the use of alternative fuels in the state fleet by 1994. Several additional bills pertaining to alternative fuels have been introduced in the 1993 Indiana General Assembly. These bills have in common their attempt to create financial incentives for the use of alternative fuels. No final action has been taken on any of these bills at this time.

PROBLEMS/CONCERNS

Indiana is concerned with the development of an adequate refueling infrastructure and the cost of alternative fuels and alternative fuel vehicles.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	15	0	0	10	0	0	25
1994	2	0	0	0	0	0	2
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	17	0	0	10	0	0	27

* Data unavailable, will be specified at a later date.

CONTACT: Indiana Office of Energy Policy

PHONE: 317-232-8979

INDIANA SUMMARY

An alternative fuel testing and demonstration program is now being developed to provide the state with basic information on, and experience with, a variety of alternative transportation fuels (ATFs) and alternative fuel vehicles (AFVs). This information will be needed to make informed decisions as the State develops and implements goals for the use of alternative fuels in its fleet by 1994. The development of these goals is a part of SB 516 now being considered by the Indiana General Assembly. The testing and demonstration program will collect data on operating and maintenance costs, emissions, driveability, infrastructure and other pragmatic questions. This information will be shared with other public and private entities.

IOWA

FUEL TYPE MOST REQUESTED

E-85 was the most requested fuel type and CNG was the second.

ACQUISITION PLANS

Iowa is in the process of establishing an infrastructure for 47 AFVs that it has in its fleet by installing fueling sites throughout the state. Iowa plans to acquire 71 AFVs per year starting in FY94.

LAWS AND REGULATIONS

State law mandates that 5 percent of state government vehicle purchases be AFVs by 92 and 10 percent by 94. The State is committed to this mandate and is doing it without regard to the additional modification or OEM incremental cost. Legislature passed a 1 cent/gallon tax exemption on ethanol sales.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Iowa.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	0	18	0	0	18
1994	5	0	0	66	0	0	71
1995	5	0	0	66	0	0	71
1996	5	0	0	66	0	0	71
1997	5	0	0	66	0	0	71
TOTALS	20	0	0	282	0	0	302

CONTACT: Iowa DWR/Energy Bureau

PHONE: 515-281-8094

KANSAS

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. There will be four public CNG refueling sites by the end of 1992.

ACQUISITION PLANS

There are currently 232 CNG vehicles and 1,100 LPG vehicles in use by public and private fleets. Kansas plans on a final fleet composition of 80 percent CNG, 10 percent Eth, 5 percent LPG and 5 percent Biodiesel.

LAWS AND REGULATIONS

Executive Order 92-152 (Kansas) promotes and encourages use of agricultural based fuels and natural gas. State fleets are also using 10 percent blended fuel (ethanol) in their central fueling.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Kansas.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	33	0	0	0	0	0	33
1994	12	0	4	0	0	0	16
1995	*	0	*	*	0	0	*
1996	*	0	*	*	0	0	*
1997	*	0	*	*	0	0	*
TOTALS	45	0	4	0	0	0	49

* Data unavailable, will be specified at a later date.

CONTACT: Kansas Corporation Commission

PHONE: 913-271-3333

KENTUCKY

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. There is currently a CNG refueling site at the state motor pool.

ACQUISITION PLANS

Kentucky plans to acquire 746 AFVs over the next five years. The state fleet size is over 1,850 vehicles and the annual vehicle acquisition is over 230.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

The lack of money in agency budgets is Kentucky's greatest concern.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	77	0	0	0	0	0	77
1994	104	0	0	0	0	0	104
1995	195	0	0	0	0	0	195
1996	205	0	0	0	0	0	205
1997	215	0	0	0	0	0	215
TOTALS	796	0	0	0	0	0	796

CONTACT: Division of Transportation Services

PHONE: 502-564-7192

LOUISIANA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type and LPG was the second.

ACQUISITION PLANS

As of September 1991, LSA-RS 39:364 initiated the acquisition of state agency fleet vehicles to alternative fuels. The state specifies the following minimum percentages of AFVs in state agency fleets: 30 percent by 9/1/94, 50 percent by 9/1/86, and 80 percent by 9/1/98. The obligation of a state agency to acquire an AFV is waived for reasons of vehicle and fuel availability and recovery of incremental costs within four years. Local governments will acquire 28 CNG and 50 LPG AFVs in FY93.

LAWS AND REGULATIONS

In addition to the statute affecting state agency AFV acquisitions, Louisiana has established a 20 percent state income tax credit for individuals and corporations based on alternative fuel conversion or incremental cost.

PROBLEMS/CONCERNS

Louisiana is concerned with funding the incremental cost of AFVs as well as the availability of alternative fuels and AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	22	0	2	0	0	0	24
1994	*	*	*	*	*	*	700 ¹
1995	*	*	*	*	*	*	700 ¹
1996	*	*	*	*	*	*	700 ¹
1997	*	*	*	*	*	*	700 ¹
TOTALS	22+	*	2+	*	*	*	2,824

* Data unavailable, will be specified at a later date.

¹ Vehicles acquired during FY 94-97 will be primarily CNG or LPG.

CONTACT: Energy Division
Louisiana Department of Natural Resources
Post Office Box 44156
Baton Rouge, LA 70804-4156

PHONE: 504-342-1399

LOUISIANA SUMMARY

The statutorily declared policy is to mandate the acquisition of AFVs by state government, subject to economic and operational factors, and to encourage acquisition by private individuals and corporations through state income tax incentives. Louisiana Statutes Annotated--Revised Statutes Sections 39:364 and 47:287.757 (1990 and 1991). Alternative fuels are defined by statute to include "compressed natural gas, liquefied petroleum gas, reformulated gasoline, methanol, ethanol, electricity, and any other fuels which meet or exceed federal Clean Air Act standards." LSA-RS, Section 39:364A(1) (1990). A subsequent statute includes liquefied natural gas in the definition. LSA-RS, Section 47:287.757B(1) (1991).

MAINE

FUEL TYPE MOST REQUESTED

LPG was the most requested fuel type in the short-term but Electric will be the most requested in the long-term (>10 years). Maine currently has 12 LPG refueling stations.

ACQUISITION PLANS

Maine has no AFV acquisition plan.

LAWS AND REGULATIONS

The impact of environmental regulations, through the state implementation plans for mobile source emissions reductions, is seen as the most significant legislation that might further the role of AFVs.

PROBLEMS/CONCERNS

Maine is concerned about vehicle costs, fuel costs and vehicle/facility standardization. In addition, Maine feels that general information on AFVs is needed. Maine also views budget constraints as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	3	0	0	0	3
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	3	*	*	*	3

* Data unavailable, will be specified at a later date.

CONTACT: Bill Pratt
Fleet Manager
State of Maine

PHONE: 207-287-7113

MARYLAND

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. There are currently nine CNG refueling stations in Maryland and four more are planned.

ACQUISITION PLANS

Maryland operates 35 to 40 CNG and six LNG AFVs. The Governor has announced that 25 percent of new vehicles purchased in 1993 will be CNG. This percentage will increase each year at a rate to be determined. It is likely, also that vehicle types will shift to a variety of vehicles in the out-years (when OEM availability is increased).

LAWS AND REGULATIONS

Maryland has changed regulations to allow NG vehicles access through the tunnels in Baltimore. Maryland currently has pending legislation that stipulates:

- The term "gas company" does not include a company that sells, supplies or distributes natural gas as Motor Fuel;
- NG sale for Motor Fuel not under Public Service Commission's jurisdiction.

PROBLEMS/CONCERNS

Maryland is concerned about costs, fuel and vehicle availability, and regulatory uncertainty. In addition, the lack of reliable information on performance, economics, and environmental impacts is viewed as a problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	500	0	0	0	0	0	500
1994	500+	0	0	0	0	0	500+
1995	500+	0	0	0	0	0	500+
1996	500+	0	0	0	0	0	500+
1997	500+	0	0	0	0	0	500+
TOTALS	2,500+	0	0	0	0	0	2,500+

CONTACT: Charles Miller
Energy Office

PHONE: 301-974-3755

MARYLAND SUMMARY

Maryland has been very active in the use and pursuit of AFV implementation. The Maryland Department of Transportation (MDOT) will be operating 35-40 natural gas vehicles by the end of 1992. Also, the MD Department of the Environment is operating six (6) LNG vehicles in a pilot program. However, these figures do not include transit bus systems which are likely to see increases in AFV purchases over this time period, particularly to CNG or LNG.

MASSACHUSETTS

FUEL TYPE MOST REQUESTED

Massachusetts is acquiring a substantial number of EVs; however, over the five-year plan the most requested fuel type was CNG followed by LPG then EVs. Massachusetts currently has seven CNG and 41 LPG refueling stations.

ACQUISITION PLANS

Massachusetts is conducting a demonstration program with 50 EVs under the "Congestion and Mitigation and Air Quality" section of ISTEA. Massachusetts will also be acquiring CNG and LPG AFVs over the next five years.

LAWS AND REGULATIONS

The impact of environmental regulations, through the state implementation plans for mobile source emissions reductions, is seen as the most significant legislation that might further the role of AFVs.

PROBLEMS/CONCERNS

Massachusetts is concerned about vehicle costs, fuel costs and vehicle/facility standardization. In addition, Massachusetts feels that general information on AFVs is needed. Massachusetts also views budget constraints as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	2	0	2	0	2	20	26
1994	30	0	20	0	0	30	80
1995	40	0	25	2	0	8	75
1996	50	0	30	0	0	20	100
1997	80	0	40	0	0	30	150
TOTALS	202	0	117	2	2	108	431

CONTACT: No information at this time.

PHONE:

MICHIGAN

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type and M-85 was the second.

ACQUISITION PLANS

Michigan will acquire 63 AFVs in FY93 and this number will increase to 40 percent of the vehicles purchased in 1997. The state fleet size is 8,600 and the annual replacement is 1,600 vehicles.

LAWS AND REGULATIONS

Michigan has no mandates for AFVs.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Michigan.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	3	0	0	10	50	0	63
1994	80	0	0	0	50	0	130
1995	100	0	0	0	65	0	165
1996	204	0	0	0	136	0	340
1997	425	0	0	0	275	0	700
TOTALS	812	0	0	10	576	0	1,398

CONTACT: DMB/Motor Transport Division

PHONE: 517-322-5006

MINNESOTA

FUEL TYPE MOST REQUESTED

E-85 was the most requested fuel type in the short-term and LPG was the most requested in the long-term.

ACQUISITION PLANS

Minnesota has no AFV acquisition plan.

LAWS AND REGULATIONS

Minnesota has an Order requiring state motor pools to use E-10, as well as an "oxygen mandate" about oxygen content of fuel.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Minnesota.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	0	40	0	0	40
1994	20	0	0	30	0	0	50
1995	20	0	0	30	0	0	50
1996	20	0	90	35	0	0	145
1997	20	0	90	40	0	0	150
TOTALS	80	0	180	175	0	0	435

CONTACT: Michael Blacik
Weights and Measures Director
Minnesota Department of Public Services

PHONE: 612-639-4010

MISSISSIPPI

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type.

ACQUISITION PLANS

Mississippi plans to acquire 63 AFVs over the next five years. The State Energy Office has designated \$186K for AFVs. The state fleet size is 6,500 and the annual vehicle replacement is 1,500.

LAWS AND REGULATIONS

Mississippi does have AFV legislation pending; however, no details were provided.

PROBLEMS/CONCERNS

The greatest problem for Mississippi is that each agency purchases and operates its own vehicles; therefore, coordination is difficult. Mississippi also views lack of refueling sites as a major barrier.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	23	0	0	0	0	0	23
1994	24	0	0	0	0	0	24
1995	7	0	0	0	0	0	7
1996	5	0	0	0	0	0	5
1997	5	0	0	0	0	0	5
TOTALS	64	0	0	0	0	0	64

CONTACT: State of Mississippi

PHONE: 404-347-2380

MISSOURI

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. The second and third most requested were LPG and E-85 respectively.

ACQUISITION PLANS

Missouri has established AFV acquisition goals of 10 percent of vehicle purchases by 7/96, 30 percent by 7/98, and 50 percent by 7/00. Dedicated AFVs must comprise 30 percent of the state fleet by 7/02. Kansas City currently has a CNG program and St. Louis has an E-85 and Soy Diesel program.

LAWS AND REGULATIONS

The Department of Natural Resources has been assigned to lead the efforts to introduce AFVs into the state fleets.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Missouri.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	30	0	22	15	0	0	67
1994	14	0	0	0	0	0	14
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	81

* Data unavailable, will be specified at a later date.

CONTACT: MO DNR/DE

PHONE: 314-751-6858

MONTANA

FUEL TYPE MOST REQUESTED

CNG and LPG will be the most requested fuel types. However, Montana is also interested in E-85 AFVs. There are currently nine CNG refueling stations but no E-85 stations. LPG is available across the state, primarily on a contract basis with private distributors of the fuel.

ACQUISITION PLANS

At this time, the State of Montana has no AFVs and no plan to acquire them. The state fleet size is 5,600 and the annual vehicle replacement is 900. LPG is the most widely used alternative fuel in Montana. There are currently around 300 privately owned vehicles operating on LPG state-wide. Utilities operate approximately 180 CNG vehicles and plan on converting another 100 vehicles to CNG next year. Two universities, Montana State University in Bozeman and the University of Montana in Missoula, are currently studying the feasibility of converting some of their vehicle fleets to operate on CNG or LPG.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

Fleet operators in Montana have expressed some concern that vehicles converted to alternative fuels such as CNG will no longer be covered by the vehicle manufacturers warranty. The high cost of refueling stations and the limits on vehicle driving range while operating on alternative fuels such as CNG have also been indicated as possible obstacles to development of alternative fuels programs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: Energy Division, Department of Natural Resources and Conservation
1520 East 6th Avenue
Helena, Montana 59620-2301

PHONE: 406-444-6697 **FAX:** 406-444-6721

MONTANA SUMMARY

Thus far, the Montana state government supports alternative fuels by funding research efforts, particularly for renewable fuels such as ethanol and safflower oil, and by providing a \$0.30 per gallon production incentive for ethanol. While there are currently no state plans to acquire alternative fuel vehicles, two bills have been proposed in the 1993 Montana Legislative session that may have an effect on the number of alternative fueled vehicles operating in the state. These are House Bill 219 (HB 219) and House Bill 10 (HB 10).

HB 219 allows an income tax credit for conversion of a motor vehicle to an alternative fuel or for installation of an alternative fuel refueling station. The maximum credits that may be claimed are \$3,000 for conversion of a motor vehicle with gross vehicle weight (GVW) of 10,000 pounds or less; \$5,000 for conversion of a motor vehicle with GVW over 10,000 pounds; and \$100,000 to install an alternative fuel refueling station. (NOTE: These maximum credits are likely to change in the legislative process given the large fiscal impact expected by this bill.)

HB 10 appropriates oil overcharge money for programs administered by the state. One program proposed under the bill promotes transportation energy conservation in part by fostering expanded use of alternative fuels. The proposed program includes funding for an education and marketing campaign to promote the use of alternative fuels. The program also provides grants for conversion of vehicles owned and operated by state and local government and non-profit organizations to alternative fuels.

NEBRASKA

FUEL TYPE MOST REQUESTED

E-85 will be the most requested fuel type. However, the purchase of CNG AFVs is also under consideration.

ACQUISITION PLANS

Nebraska will not provide a full plan until surveys being conducted are complete.

LAWS AND REGULATIONS

Nebraska requires all state vehicles and employees to use a 10 percent blend of Ethanol in all vehicles.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Nebraska.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	0	13	0	0	14 ¹
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	14

* Data unavailable, will be specified at a later date.

¹ One vehicle will be Biodiesel.

CONTACT: Nebraska Energy Office

PHONE: 402-471-2867

NEVADA

FUEL TYPE MOST REQUESTED

CNG will be the most requested fuel type.

ACQUISITION PLANS

Nevada has no AFV acquisition plans. MESA Environmental, Inc. will pay for conversions of fleets to CNG in exchange for a 4 year fueling contract at gasoline prices.

LAWS AND REGULATIONS

Regulations provide guidelines for conversion of state vehicles in two counties. The AFV acquisition goals have been set at 10 percent of new vehicles in FY95, 15 percent in 96, 25 percent in 97, 50 percent in 98, 75 percent in 99 and at least 90 percent in 2000 and beyond.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Nevada.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	10%
1996	*	*	*	*	*	*	15%
1997	*	*	*	*	*	*	25%
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

NEW HAMPSHIRE

FUEL TYPE MOST REQUESTED

LPG was the most requested fuel type in the short-term and Electric will be the most requested in the long-term (>10 years).

ACQUISITION PLANS

New Hampshire has no AFV purchase program.

LAWS AND REGULATIONS

The impact of environmental regulations, through the state implementation plans for mobile source emissions reductions, is seen as the most significant legislation that might further the role of AFVs.

PROBLEMS/CONCERNS

New Hampshire is concerned about vehicle costs, fuel costs and vehicle/facility standardization. In addition, New Hampshire feels that general information on AFVs is needed. New Hampshire also views budget constraints as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	1	0	0	0	1
1994	0	0	1	0	0	0	1
1995	0	0	1	0	0	0	1
1996	0	0	1	0	0	0	1
1997	0	0	1	0	0	0	1
TOTALS	0	0	5	0	0	0	5

CONTACT: Scott Maltzie
State of New Hampshire
Governor's Energy Office

PHONE: 603-271-2611

NEW JERSEY

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. LPG was the second and EVs were third.

ACQUISITION PLANS

New Jersey plans to acquire 7,800 AFVs over the next five years.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

No problems or concerns were addressed by New Jersey.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	99	0	20	0	0	1	120
1994	0	0	0	0	0	0	0
1995	*	0	*	0	0	10	2,710
1996	*	0	*	0	0	20	2,720
1997	*	0	*	0	0	50	2,250
TOTALS	99+	0	20+	0	0	81	7,800

* The exact number of CNG and LPG vehicles is unknown; however, the total number of AFVs is known.

CONTACT: State of New Jersey - Department of Environmental Protection and Energy
Office of Energy - CN 027
Trenton, New Jersey 08625-0027

PHONE: 609-292-5383

NEW MEXICO

FUEL TYPE MOST REQUESTED

CNG and LPG were the most requested fuel types.

ACQUISITION PLANS

New Mexico's AFV acquisition goals are 30 percent in the FY beginning 7/1/93 (FY94), 60 percent in FY95, and 100 percent in FY96 and beyond. The annual vehicle replacement is 600 vehicles. Local governments will acquire 17 CNG in FY 93, 2 CNG in FY 94, 5 CNG in FY 95 and 13 CNG in FY 96 (all vehicles are buses).

LAWS AND REGULATIONS

New Mexico has mandated the acquisition of AFVs for fleets of state agencies and post-secondary educational institutions. Alternative Fuel Conversion Loan Fund provides a maximum of \$3,000 per vehicle to be converted.

PROBLEMS/CONCERNS

New Mexico is concerned with funding the incremental cost of AFVs as well as the availability of alternative fuels and AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	▲	0	▲	0	0	0	70 ¹
1994	*	*	*	*	*	*	180 ¹
1995	*	*	*	*	*	*	360 ¹
1996	*	*	*	*	*	*	600 ¹
1997	*	*	*	*	*	*	600 ¹
TOTALS	*	*	*	*	*	*	1,810

* Data unavailable will be specified at a later date.

▲ The exact number of CNG and LPG vehicles is unknown; however, the total number of AFVs is known.

¹ Vehicles acquired during FY 94-97 will be principally CNG or LPG.

CONTACT: State Alternative Transportation Fuels Office
New Mexico General Services Department
715 Alta Vista
Santa Fe, New Mexico 87503

PHONE: 505-827-0142

NEW MEXICO SUMMARY

The statutorily declared policy is to mandate the acquisition of AFVs by state government agencies and post-secondary educational institutions. New Mexico Statutes Annotated, Section 13-1B-3 (1992). Alternative fuels are defined by statute as "natural gas, liquefied petroleum gas, electricity, hydrogen and fuel mixture containing not less than eighty-five percent ethanol or methanol." NMSA, Section 13-1B-2A (1992).

NEW YORK

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type.

ACQUISITION PLANS

See Table below.

LAWS AND REGULATIONS

A state law exempts companies that sell, distribute or furnish CNG for vehicle use from being regulated as a gas corporation by the Public Service Commission. Also, there is a State Sales Tax Exemption on the incremental cost of new AFVs or on the cost of conversions. New York is considering low interest loans for fleets to purchase AFVs, convert vehicles, or construct/modify refueling stations.

PROBLEMS/CONCERNS

No problems or concerns were addressed by New York.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	1,324		*		46	19	1,389 ¹
1994	59		5		45		109
1995	23		11		79		113 ²
1996	59		25		85		169 ²
1997	90		27		63		180 ²
TOTALS	1,555		68		318	19	1,960 ²

* Data unavailable, will be specified at a later date.

¹ Vehicles in place as of March 31, 1933.

² Projections based on NYS Alternative fuels Act of 1993.

CONTACT: New York State Energy Office
Two Rockefeller Plaza
Albany, New York 12223

PHONE: 518-473-4375

NORTH CAROLINA

FUEL TYPE MOST REQUESTED

LPG was the most requested fuel type and the second most requested was CNG. North Carolina will be acquiring more E-85 and M-85 in the out years of the five-year plan.

ACQUISITION PLANS

North Carolina is planning to acquire 835 AFVs over the next five years.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

North Carolina is concerned that the enthusiasm for AFVs is high but the information base for AFVs is limited. North Carolina would like a training program for fleet managers.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	0	*	*	*	*	*
1994	*	0	*	*	*	*	*
1995	*	0	*	*	*	*	*
1996	*	0	*	*	*	*	*
1997	*	0	*	*	*	*	*
TOTALS	265 ¹	0	280 ¹	100 ²	200 ²	*	845

* Data unavailable will be specified at a later date.

¹ 30 vehicles will be dual fuel CNG-LPG.

² 70 vehicles will be flexible fuel Eth/Meth.

CONTACT: North Carolina Motor Fleet Management
& Department of Transportation

PHONE: 919-733-6540

NORTH DAKOTA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. North Dakota is also considering E-85 vehicles. There are at least four CNG refueling stations in the state.

ACQUISITION PLANS

North Dakota has no AFVs, but plans to acquire 10 to 15 OEM CNG AFVs next year. The state fleet size is 1,800 and the annual vehicle replacement is between 225 to 300 vehicles.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

The greatest concern of North Dakota is the availability of OEM CNG AFVs because the state vehicle administrator is not interested in conversions.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	10	0	0	0	0	0	10
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	10

* Data unavailable will be specified at a later date.

CONTACT: State Fleet Services Manager
North Dakota Department of Transportation
Maintenance and Procurement Division
608 East Boulevard Avenue
Bismarck, North Dakota 58505-0700

PHONE: 701-224-2543 **FAX:** 701-224-4545

NORTH DAKOTA SUMMARY

In the interest of contributing to reducing the nation's dependence on imported oil, and with the aspiration of creating new opportunities for North Dakotans, the Office of Intergovernmental Assistance has taken the initiative in establishing the North Dakota Alternative Fuels Task Force, an organization representing privately owned utilities, the ethanol industry, including a representative of the Governor's Ethanol Coalition, bio-fuels, propane dealers, and state fleet, and energy conservation administrators. The NDAFTF is a fuel neutral, educational association, formed in an effort to facilitate the approaching fundamental transportation energy transition. In addition to the NDAFTF, the State Energy Conservation Program, in collaboration with Montana-Dakota Utilities Co., are advocating for public acceptance of alternative fuels, with the Natural Gas Vehicle Assistance Project, a program that has assisted over twenty community based, non profit organizations, in converting vehicles to CNG. A bill, pending in the North Dakota Senate, would allow an income tax credit for residents who convert their vehicles to alternative fuels.

OHIO

FUEL TYPE MOST REQUESTED

No fuel types were requested.

ACQUISITION PLANS

Ohio has no AFV acquisition plan.

LAWS AND REGULATIONS

Ohio has established the Ohio Alternative Fuels Council to study the potential of Alternative Fuels and issue a report on their findings.

PROBLEMS/CONCERNS

No problems or concerns were addressed by Ohio.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: Office of Energy Efficiency

PHONE: 614-466-6797 **FAX:** 614-466-1864

OKLAHOMA

FUEL TYPE MOST REQUESTED

No fuel types were requested.

ACQUISITION PLANS

Oklahoma has 20 dedicated OEM CNG AFVs and has converted 31 additional vehicles to CNG. The Tulsa schools operate 102 CNG buses (45 are dedicated). Oklahoma has no purchase plans for 93 but is looking at the conversion of 850 vehicles. The annual vehicle replacement for Oklahoma is 800 vehicles.

LAWS AND REGULATIONS

Oklahoma established the Oklahoma Alternative Fuels Conversion Fund which provides no-interest financing of up to \$3,500 per vehicle or \$100K per refueling site, for government agencies. The initial appropriation for the fund was \$1,450,000. Oklahoma also established an alternative fuel technician training and certification program. In addition, Oklahoma will grant a 50 percent credit on state income tax for converting a vehicle and give a tax credit of \$1,500 for buying a dedicated AFV. Oklahoma will also grant a 50 percent tax credit for converting locomotives to CNG, LNG or LPG.

PROBLEMS/CONCERNS

Oklahoma is concerned with funding the incremental cost of AFVs as well as the availability of alternative fuels and AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: Alternative Fuels Program
Department of Central Services
3301 North Santa Fe
Oklahoma City, OK 73118

PHONE: 405-521-4687

OKLAHOMA SUMMARY

The statutorily declared policy is to encourage the acquisition of AFVs by state government and school districts, to assist such agencies finance incremental costs with a state-administered loan fund to encourage acquisition by private individuals and corporations through state income tax incentives. 74 Oklahoma Statutes, Section 130.2 and 68 O.S., Section 2357.22 (1990). Alternative fuels are defined by statute to include "compressed natural gas, liquefied petroleum gas, liquefied natural gas, ethanol, and electricity."

2 of 2

OREGON

FUEL TYPE MOST REQUESTED

CNG will be the most requested fuel type. Two CNG refueling stations should be open by the spring of 1993.

ACQUISITION PLANS

When refueling stations (CNG) are available, Oregon will convert 50 to 60 vehicles. Oregon currently has no AFV acquisition plan because the State is working on infrastructure development first. AFV specifications have been put into requests for bids for 1993 vehicle purchases.

LAWS AND REGULATIONS

Business Energy Investment Tax Credit could help with establishing infrastructure. Oregon has mandated that to the maximum extent economically possible, state-owned passenger vehicles shall use Alternative Fuels and after 7/1/94, state agencies must acquire AFVs (except where there is no fuel).

PROBLEMS/CONCERNS

The greatest concern of Oregon is the cost and availability of AFVs and refueling stations. Oregon also views the limited range of dedicated AFVs as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

PENNSYLVANIA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type.

ACQUISITION PLANS

Pennsylvania currently operates 195 CNG AFVs and will acquire 130 additional CNG AFVs next year. In addition, Pennsylvania has two EV programs. No AFV acquisition plans exist beyond FY93. Pennsylvania is actively investigating many AFV options and is supportive of AFV development. Although Pennsylvania is not ready to supply detailed acquisition goals, the state will most likely begin meeting EPA AFV fleet levels earlier than required.

LAWS AND REGULATIONS

Pennsylvania has established an EV sales and use tax exemption and an alternative fuels grant program. An EV registration and inspection fee exemption is pending as is the alternative Motor Fuels bill.

PROBLEMS/CONCERNS

Pennsylvania is concerned about costs, fuel and vehicle availability, and regulatory uncertainty. In addition, the lack of reliable information on performance, economics, and environmental impacts is viewed as a problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	130	0	0	0	0	0	130
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	130	0	0	0	0	0	130

* Data unavailable, will be specified at a later date.

CONTACT: Jill Munro
Energy Office

PHONE: 717-783-9981

PENNSYLVANIA SUMMARY

Currently, Pennsylvania has an active Alternative Fuels Program coordinated by the PA Energy Office (PEO). Through this program, PA has converted 65 state government vehicles to dual-fuel operation on CNG and gasoline. Statewide, PA has completed projects that resulted in a total of 130 vehicle conversions to dual-fuel operation on CNG and gasoline. Another 130 conversions are planned during the last quarter of 1992 and early 1993. The PEO has also funded two electric vehicle programs.

Under the 1992-1994 funding cycle of PA's AFV program, thirteen fleet projects are being funded with 137 vehicles planned for conversion to CNG and an additional 26 vans planned for conversion to PG. Vehicle conversions will include utility and passenger vans, school buses, light-duty trucks, and passenger cars. Vehicles will be dual-fuel with the exception of a 21 school bus fleet dedicated to operate solely on CNG. A public refueling station that will be owned and operated by Sun Marketing and Refining Company of Philadelphia will be installed to fuel a 30 vehicle conversion project in Philadelphia.

RHODE ISLAND

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type and LPG was the second most requested.

ACQUISITION PLANS

Rhode Island has no specific projections, but does plan to purchase dedicated AFVs to meet CAA and EPACT mandates on or before the deadlines.

LAWS AND REGULATIONS

The impact of both CAA and EPACT environmental/energy regulations, through the state implementation plans for mobile source emissions, is seen as the most significant legislation that might further the role of AFVs.

PROBLEMS/CONCERNS

Rhode Island is concerned about vehicle and conversion costs, availability of dedicated vehicles in the Northeast, cost of refueling stations, safer, lighter and less expensive fuel cylinders, and fuel costs and vehicle/facility standardization. Rhode Island is also concerned that drivers do not want to refuel as frequently as needed with retrofitted vehicles. In addition, Rhode Island feels that general information on AFVs is needed. Rhode Island also views budget constraints as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	5	0	1	0	0	0	6
1994	5	*	*	*	*	*	5
1995	25	*	5	*	*	*	30
1996	25	*	5	*	*	*	30
1997	30	*	10	*	*	2	42
TOTALS	90	0	21	0	0	2	113

* Data unavailable, will be specified at a later date.

CONTACT: Bill Chapman/Janice McClanaghan
RI GOHEIR

PHONE: (401) 277-3370 **FAX:** (401) 277-1260

RHODE ISLAND SUMMARY

The Governor's Office of Housing, Energy and Intergovernmental Relations (GOHEIR) continues to work closely with other State agencies, such as planning, policy, transportation and environment, to market the merit of alternative fuels. GOHEIR also works closely with the DOE Boston Support Office and statewide utilities to seek out private and public AFV funding opportunities and keep the National Alternative Motor Fuel Inventory updated. The Rhode Island Public Transportation Authority presently has eight AFV buses as part of its fleet. The State is completing the conversion of its sixth State fleet vehicle to alternative fuel capability. Four are bi-fuel (three CNG and one LPG) and the other two, a pick-up truck and a dump truck, are dual fuel (80% CNG and 20% diesel). There have been no problems with the vehicles as converted.

SOUTH CAROLINA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type and the second most requested was M-85.

ACQUISITION PLANS

South Carolina plans to acquire 200 AFVs over the next five years. The state fleet size is 6,552 and the annual vehicle replacement is 1,340.

LAWS AND REGULATIONS

Legislation limits the State to purchase only compact and mid-size vehicles. Also, purchases must be based on the lowest life-cycle cost.

PROBLEMS/CONCERNS

The lack of refueling sites is very restrictive, especially impacting the use of alcohol fuels. South Carolina had a previous bad experience with conversions; therefore, the State is only interested in OEM AFVs. The cost of AFVs is viewed as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	105	0	0	0	95	0	200

* Data unavailable, will be specified at a later date.

CONTACT: State of South Carolina

PHONE: 803-737-1515

SOUTH DAKOTA

FUEL TYPE MOST REQUESTED

E-85 was the most requested fuel type. South Dakota is also considering the use of CNG.

ACQUISITION PLANS

The Bureau of Administration of the State of South Dakota has on order six Chevrolet Lumina E-85 AFVs. In addition, the South Dakota State University and the Black Hills State University each have on order one Chevrolet Lumina E-85 AFV. The Department of Agriculture also plans on acquiring six E-85 AFVs in FY93.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

Budget constraints are very much a concern of state officials.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	0	10	0	0	10
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	10

* Data unavailable, will be specified at a later date.

CONTACT: S. J. Axtman
Director of Fleet and Travel Management
500 East Capitol Avenue
Pierre, South Dakota 57501-5070

PHONE: 605-773-3162 **FAX:** 605-773-3502

TENNESSEE

FUEL TYPE MOST REQUESTED

No fuel types were requested.

ACQUISITION PLANS

Tennessee has no AFV acquisition plans and currently operates no AFVs.

LAWS AND REGULATIONS

Tennessee does have AFV legislation pending.

PROBLEMS/CONCERNS

Tennessee has no central procurement which will present a problem when introducing AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

TEXAS

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type and the second most requested was LPG.

ACQUISITION PLANS

Texas has established AFV acquisition goals of 30 percent of the state fleet by 9/1/94, 50 percent by 9/1/96 and 90 percent or greater by 9/1/98. Nineteen school districts are operating 796 buses in varying dedicated and dual-fuel configurations using CNG, LPG, and LNG. Texas is conducting a \$2.4 million program to encourage the mass production of dedicated NG sedans.

LAWS AND REGULATIONS

Subject to an environmental assessment in 1996, private fleets (minimum of 26 vehicles) in 21 affected counties must begin introducing AFVs in 1998, culminating in 2002 with 90 percent of their vehicles operating on alternative fuels.

PROBLEMS/CONCERNS

Texas is concerned with funding the incremental costs of AFVs as well as the availability of alternative fuels and AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	603+	0	236+	0	0	6	4,698 ¹
1994	*	*	*	*	*	*	5,000 ²
1995	*	*	*	*	*	*	5,000 ²
1996	*	*	*	*	*	*	5,000 ²
1997	*	*	*	*	*	*	5,000 ²
TOTALS	603+	*	236+	0	0	6	24,698

* Data unavailable, will be specified at a later date.

¹ 3,853 vehicles acquired in FY 93 are unspecified CNG or LPG.

² Vehicles acquired during FY 94-97 will be primarily CNG or LPG.

CONTACT: Texas General Land Office Texas Railroad Commission
Alternative Fuels Program Alternative Fuels Research
Stephen F. Austin Building and Education Division
1700 North Congress Avenue Post Office Box 12967
Austin, Tx 78701-1495 Austin, TX 78711-2967

PHONE: 800-6-FUEL-99 800-64-CLEAR

TEXAS SUMMARY

The statutorily declared policy is to mandate the acquisition of alternative fuel vehicles by designated fleets operated by state agencies, school districts, metropolitan transit authorities, municipal governments and private organizations. Alternative fuels are defined by statute and administrative regulation as compressed natural gas, liquefied natural gas, liquefied petroleum gas, electricity, methanol and methanol-gasoline blends of 85 percent or greater, ethanol and ethanol-gasoline blends of 85 percent or greater. Vernon's Texas Civil Statutes, Article 601b, Section 3.29b(1) (1989).

UTAH

FUEL TYPE MOST REQUESTED

CNG will be the most requested fuel type. There are seven CNG stations statewide.

ACQUISITION PLANS

Utah currently operate 28 CNG vehicles and an additional 700 CNG vehicles are operated by Mountain Fuel. Utah has no current acquisition plan besides the conversion of 6 or 7 more vehicles to CNG this year. The state fleet size is 5,000 vehicles (55 percent compact sedans and 30 percent mid-size sedans). If funding were not a problem Utah would make AFVs 20 percent of their annual vehicle purchase.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

The greatest concern of Utah is funding the incremental costs of AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	20%
1994	*	*	*	*	*	*	20%
1995	*	*	*	*	*	*	20%
1996	*	*	*	*	*	*	20%
1997	*	*	*	*	*	*	20%
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: Division of Central Services, Motor Pool
Capital Plaza
Salt Lake City, Utah 84114-1115

PHONE: 801-538-1393

UTAH SUMMARY

Utah has a tax credit for clean fuel vehicle use in Utah. This allows a tax credit of 20 percent, up to a maximum of \$500 per vehicle, of the cost of new (dedicated) motor vehicle using a clean fuel; and a tax credit of 20 percent, up to a maximum of \$400 of the cost of converting an existing vehicle to use a clean fuel.

The Utah Clean Fuels Loan Program establishes a revolving loan program fund to convert fleet vehicles to clean fuels. The program, administered by the Utah Division of Energy, loans up to \$3000 per vehicle for conversion to clean fuels. Payback is up to seven years and there is a low variable interest rate. Eligible vehicles include private and public fleet vehicles.

Natural gas used as a vehicle fuel has been deregulated in Utah and the natural gas utility may establish an equipment lease program to lease natural gas fueling and conversion devices. Clean fuels are defined to be propane, compressed natural gas, electricity or a fuel determined by the Air Quality Board to be as effective in reducing pollution, or a fuel that meets the Federal Clean Air Act standards.

There are numerous clean fuel demonstration programs in Utah. The Utah Transit Authority is operating five natural gas buses in its transit system. The Utah Division of Energy has a DOE grant to help a school district to buy natural gas school buses in a five year data gathering effort to assess the opportunities and operational history of using CNG school buses. Other demonstration programs are being conducted by industry, utilizing fleet demonstrations and delivery systems.

A unique Utah company, B.A.T. International Inc., is developing a retro-fit electric vehicle for the public. Their current version has about a 100 mile range on a single battery charge and operates smoothly and efficiently at all freeway and urban speeds and conditions. The batteries are guaranteed for 100,000 miles.

VERMONT

FUEL TYPE MOST REQUESTED

Initially LPG is the most requested fuel type and EVs are the most requested in the out years of the five-year plan. There are currently 33 LPG refueling stations and one CNG station.

ACQUISITION PLANS

Vermont has no AFV purchase program. Vermont is studying the conversion of the state fleet and is also planning an EV demonstration program.

LAWS AND REGULATIONS

The impact of environmental regulations, through the state implementation plans for mobile source emissions reductions, is seen as the most significant legislation that might further the role of AFVs.

PROBLEMS/CONCERNS

Vermont is concerned about vehicle costs, fuel costs and vehicle/facility standardization. In addition, Vermont feels that general information on AFVs is needed. Vermont also views budget constraints as a potential problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	0	0	2	0	0	0	2
1994	0	0	2	0	0	3	5
1995	0	0	2	0	0	6	8
1996	0	0	4	0	0	27	31
1997	0	0	4	0	0	25	29
TOTALS	0	0	14	0	0	61	75

CONTACT: Energy Efficiency Division
Vermont Department of Public Service
120 State St.
Montpelier, VT 05620

PHONE: (802) 828-2393

VERMONT SUMMARY

In late 1993 Vermont will release a plan for converting its fleet of state vehicles to alternative fuels. Additionally, the state, the University of Vermont, and a natural gas company have organized a campus shuttle project using CNG. Elsewhere, the state's sparse population and northern climate pose certain challenges, making it likely that propane, electricity and methanol will serve as alternative fuels for vehicles in rural areas in future years. Compressed natural gas will be prominent in northwest Vermont where natural gas is distributed. Although not as pressured as urban areas by air pollution concerns, Vermont is seeking the benefits of cleaner air, competition and diversification that a broader choice of transportation fuels will produce.

VIRGINIA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type.

ACQUISITION PLANS

Virginia will have converted 50 vehicles to CNG and purchased six new CNG AFVs by 1993. Future AFV procurements will be based on the results of this demonstration program. Virginia is planning to meet EPACT requirements before they take effect.

LAWS AND REGULATIONS

State legislation has eliminated the possibility of double taxation on sales of CNG. In addition, Virginia has created a fund to provide loans to governmental entities for the conversion of publicly owned vehicles to AF use.

PROBLEMS/CONCERNS

Virginia is concerned about costs, fuel and vehicle availability, and regulatory uncertainty. In addition, the lack of reliable information on performance, economics, and environmental impacts is viewed as a problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	26	0	0	0	0	0	26
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	26	0	0	0	0	0	26

* Data unavailable, will be specified at a later date.

CONTACT: Frank Hough
Fleet Mgmt
PHONE: (804) 367-6525

Woody Delbridge
Dept of Trans
(804) 786-1989

Jim Smith
Energy Office
(804) 367-0979

VIRGINIA SUMMARY

In 1991, the Commonwealth of Virginia initiated a pilot program authorized by their General Assembly. Under this program, VA has converted approximately 50 automobiles and pick-up trucks to dual-fuel CNG. These trucks will be used by the VA Department of Transportation (VDOT). The program is being monitored by the VA Transportation Research Council, an organization sponsored jointly by VDOT and the University of Virginia.

It is expected that future AFV purchase decisions will be guided in large part by the results of this current 50 vehicle pilot project, along with the availability of AFV's and their fueling infrastructure. However, for fiscal years 1992-93, it is anticipated that another six (6) new CNG vehicles will be added to the state fleet.

WASHINGTON

FUEL TYPE MOST REQUESTED

No fuel types were requested.

ACQUISITION PLANS

Washington has no AFV acquisition plan.

LAWS AND REGULATIONS

The Washington Clean Air Act of 1991 directed development of "clean-fuel" performance and vehicle emissions specifications by 7/1/92. It also mandates that 30 percent of new vehicles must run on "clean-fuel" (not AF). Washington has appropriated \$750K in grants for refueling stations.

PROBLEMS/CONCERNS

Washington has expressed concerns over the limited range of dedicated AFVs, the availability of AFVs and the costs associated with operation of AFVs.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: No information at this time.

PHONE:

WASHINGTON D.C.

FUEL TYPE MOST REQUESTED

Initially CNG was the most requested fuel type and M-85 was the most requested in the out years of the five-year plan.

ACQUISITION PLANS

The District of Columbia has projected purchases of CNG and Methanol AFVs as shown in the table below. The Department of Public Works and the Fire Department are acquiring CNG AFVs and the Police Department is acquiring M-85 AFVs. The School District will convert four buses to CNG in 1993. The Fire Department has three LPG vehicles and the Police Department has several M-85 AFVs. Out-year acquisition goals for the general fleet (not police) are currently being discussed and will be updated as soon as information is released.

LAWS AND REGULATIONS

District legislation established a timetable for commercial fleet AFV acquisitions.

PROBLEMS/CONCERNS

The District of Columbia is greatly concerned about funding the costs of AFVs with a limited budget, fuel and vehicle availability, and regulatory uncertainty. In addition, the lack of reliable information on performance, economics, and environmental impacts is viewed as a problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	198	0	0	0	40	0	238
1994	*	0	0	0	40	0	40
1995	*	0	0	0	80	0	80
1996	*	0	0	0	130	0	130
1997	*	0	0	0	180	0	180
TOTALS	198	0	0	0	470	0	668

* Data unavailable, will be specified at a later date.

CONTACT: Sabrina Williams
Energy Office

PHONE: (202) 727-4700

WASHINGTON, D.C. SUMMARY

The District of Columbia has been actively pursuing plans to implement AFVs into government fleets, but limited funds have thus far prevented AFVs from widespread incorporation. The fire department has converted three (3) vehicles to LPG, DC's school district will be converting four (4) school buses in fiscal year 1993, and the DC police force has carried out small test projects using methanol in their vehicles.

Although the existing uses of AFVs in DC are limited, DC is taking a very progressive approach towards AFVs for the future. Public works and the fire department are turning to CNG as their fuel of choice, while the police department is shifting a substantial number of cars to methanol.

WEST VIRGINIA

FUEL TYPE MOST REQUESTED

CNG was the most requested fuel type. There are currently 50 CNG stations with additional stations planned.

ACQUISITION PLANS

West Virginia converted 60 vehicles to CNG and has purchased an additional 10 OEM CNG AFVs. The State plans that 10 percent of the fleet will be CNG by the end of 1993 and that 40 percent of annual purchases will be CNG starting in FY94. WVU has converted 50 vehicles to CNG and several commercial fleets in the State run on CNG.

LAWS AND REGULATIONS

West Virginia has mandated the adoption of CNG by state agencies.

PROBLEMS/CONCERNS

West Virginia is concerned about costs, fuel and vehicle availability, and regulatory uncertainty. In addition, the lack of reliable information on performance, economics, and environmental impacts is viewed as a problem.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	107	0	0	0	0	0	107
1994	250	0	0	0	0	0	250
1995	*	0	0	0	0	0	*
1996	*	0	0	0	0	0	*
1997	*	0	0	0	0	0	*
TOTALS	40%	0	0	0	0	0	40%

* Data unavailable, will be specified at a later date.

CONTACT: Jeff Herholdt
Energy Office

PHONE: (304) 558-4010

WEST VIRGINIA SUMMARY

In October of 1990, West Virginia's Travel Management Office of the Department of Administration (DOA) was directed by the Governor to develop an AFV plan. The plan was to result in the widest possible use of CNG as a transportation fuel by state agencies.

On January 28, 1991, the Governor issued Executive Order No. 1-91. This order mandated the adoption of CNG as a transportation fuel by state agencies. The order resulted in the conversion of 53 Chevy Lumina's (91-92 models) and seven Ford AeroStar Mini-vans (91 models) to CNG. These 60 vehicles retain a dual fuel capability and the majority are assigned to agencies in the Charleston area. They refuel at the Natural Gas Transportation Company's fueling station in Kanawha City.

West Virginia University in Morgantown has also been aggressive in adopting CNG as an alternative transportation fuel. During 1991-92, WVU converted 50 vehicles to CNG. The vehicles are refueled at their fast-fill station on the Evensdale campus.

In 1992 the State of WV made its first purchase of dedicated CNG vehicles. The DOA purchased ten Chevrolet pick-ups. These vehicles are assigned to agencies in the Charleston area.

WISCONSIN

FUEL TYPE MOST REQUESTED

All fuel types except Electric were requested on almost an equal basis. There are currently two E-85 refueling stations.

ACQUISITION PLANS

Wisconsin is conducting a demonstration of 12 E-85 VFVs and is acquiring other AFVs. The state fleet size is 6,200 and the annual vehicle replacement is 1,000 vehicles. Wisconsin local government grant program will acquire 148 CNG and 74 LPG AFVs in 1993 and 82 CNG 50 LPG AFVs in 1994.

LAWS AND REGULATIONS

At this time, there is no special statutory treatment for alternative fuel vehicles to report. Regulations and possible legislation are now being investigated by both legislative committees and state agency personnel.

PROBLEMS/CONCERNS

Wisconsin is concerned about the incremental cost of AFVS.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	6	0	4	12	12	0	34
1994	6	6	0	1	0	0	13
1995	12	6	0	0	0	0	18
1996	*	*	*	*	*	*	132
1997	*	*	*	*	*	*	173
TOTALS	*	*	*	*	*	*	370

* Data unavailable, will be specified at a later date.

CONTACT: Wisconsin Department of Administration,
Division of State Agency Services/Alternative Fuels Task Force

PHONE: 608-268-1011/608-267-2715

WISCONSIN SUMMARY

Governor Thompson's Alternative Fuel Task Force was formed in September, 1990 with the mission to explore the potential of alternative fuels to reduce air pollution from vehicles. The Task Force operates through working partnerships with industry and universities. Projects include fleet testing different alternative fuels, funding local government programs, facilitating action by transit districts and local governments, public education activities, and Wisconsin-Milwaukee, University of Wisconsin Stevens Point, and University of Wisconsin-Madison are research partners.

WYOMING

FUEL TYPE MOST REQUESTED

CNG will be the most requested fuel type and LPG will be the second. There are currently four CNG refueling stations.

ACQUISITION PLANS

Wyoming has no AFV acquisition plans due to a severe budget crisis.

LAWS AND REGULATIONS

Not provided.

PROBLEMS/CONCERNS

The greatest concerns of Wyoming are the cost of AFVs and the limited range of dedicated CNG vehicles in a large state.

VEHICLE REQUEST SUMMARY TABLE

FYEAR	Alternative Fuel						FYEAR Total or % Acq
	CNG	LNG	LPG	E-85	M-85	EV	
1993	*	*	*	*	*	*	*
1994	*	*	*	*	*	*	*
1995	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*

* Data unavailable, will be specified at a later date.

CONTACT: Acting Fleet Supervisor
State of Wyoming
Central Services - MVMS
723 West 19th Street
Cheyenne, Wyoming 82002

PHONE: 307-777-7247

WYOMING SUMMARY

The Wyoming Transportation Department (WTD) has received approval to use \$225,000 dollars of stripper well funds to convert 41 vehicles to switchable fuel status, the alternative fuel being CNG. These conversions are slated for 6 cities, Casper (9 vehicles), Cheyenne (9 vehicles), Cody (5 vehicles), Laramie (5 vehicles), Rock Springs (5 vehicles), and Sheridan (8 vehicles). These vehicles will consist mostly of vans and buses used for senior citizens, disabled individuals organizations, and public transportation. All conversions will require a 10% match. Also, \$20,000 has been reserved to purchase a fuel switchable vehicle dedicated for use by the WTD local government coordination program and with access provided to the Wyoming energy office. All cities participating in the demonstration must make available, through their respective gas utility companies, a public accessible CNG refueling site in order to receive the stripper well funds.

**VEHICLE REQUEST SUMMARY TABLE
NATION**

FYEAR	Alternative Fuel							FYEAR Total or % Acq
	CNG or LPG	CNG	LNG	LPG	E-85	M-85	EV	
1993	3,923	3,617	0	369	148	150	63	8,271 ¹
1994	5,880	1,515	6	118	122	135	50	7,921 ²
1995	*	*	*	*	*	*	*	*
1996	*	*	*	*	*	*	*	*
1997	*	*	*	*	*	*	*	*
TOTALS	*	*	*	*	*	*	*	51,595 ³

* Data unavailable, will be specified at a later date.

¹ One AFV will be biodiesel. Total based on information provided by 33 states.

² Fuel type of 95 AFVs is unspecified. Total based on information provided by 26 states.

³ TOTAL based on information provided by 37 states.

DATE

FILMED

2 / 11 / 94

END