



STATE OF ARKANSAS  
**Department of Finance  
and Administration**

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**Memorandum**

**To:** Senator Bill Sample, Co-Chair  
Representative John C. Edwards, Co-Chair  
Arkansas Legislative Council

**From:** Jane T. Benton, CPPO, Director

A handwritten signature in cursive script, appearing to read "Jane T. Benton".

**Date:** January 31, 2014

**Subject:** Alternative Fuel Vehicle Report

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This report is provided in accordance with Ark. Code Ann. §19-11-217(2)(A) which requires the Office of State Procurement to report on the state's usage of alternatively fueled vehicles. The report addresses acquired vehicles that help to reduce the overall annual petroleum consumption by state agencies.

This report includes:

- (a) The number and type of alternative fueled vehicles used by each state agency;  
**(Attachment A)**
- (b) The difference between the acquisition cost, maintenance, and operation of alternative fueled vehicles and comparable conventionally fueled motor vehicles; **(Attachment B)**
- (c) An evaluation of the plan's success; and
- (d) Suggestions for modifying the plan.

The initial step taken by the Office of State Procurement was creating a state-wide contract for alternative and hybrid vehicles, beginning with the 2006 models. Each year since the inception of this contract, it has been modified to increase and encompass the market available vehicles.

The purchase of alternative fueled vehicles is based on available funding, the State's emphasis on the use of hybrid or alternative fueled vehicles, the availability of competitively priced vehicles and alternative fuels, and the active participation of the state agencies. There continues to be a significant purchase price difference between alternative fueled vehicles and conventionally fueled vehicles. **Attachment B** is a comparison of acquisition cost, average gas mileage, annual gas costs and savings, based upon an average of \$3.36 per gallon of regular unleaded gasoline. The format of this report has changed from previous reports, attempting to depict a closer equivalent comparison to the alternative fuel vehicle type, based on the awarded 2013 state contract.

Ark. Code Ann. §15-13-205 required the Department of Finance & Administration to implement a policy regarding the standard of biofuel usage, effective January 1, 2009. The policy states that when available and economically feasible, all State agencies are required to purchase diesel fuel that contains at least a minimum of two percent (2%) biofuels by volume for all State diesel powered motor vehicles, light trucks and equipment. The average diesel cost in 2012 was \$3.85 per gallon. This policy works in

tangent with the desire to purchase alternative fueled vehicles to help reduce petroleum consumption by state agencies.

This report covers the twelve month period from October 1, 2012 through September 30, 2013, which corresponds closely with the annual new vehicle contract developed by the Office of State Procurement. State agencies order most of their new fleet vehicles between October and March. As of September 30, 2013, the state had 1518 vehicles that fall into the alternative fueled category. This figure includes those alternative or hybrid fueled vehicles purchased from contracts developed and also awarded by the Arkansas Highways and Transportation Department. The current percentage of alternative fuel vehicles is 17.9% of the 8,490 vehicles in the state fleet as of September 30 2013. The purchase of alternative fueled vehicles has kept abreast of what the market currently bears relating to the life cycle cost of both types of vehicles.

In 2013 the Office of State Procurement expanded its vehicle contract based on market availability for compressed natural gas vehicles. There are four hybrids: Toyota Prius, Chevy Malibu, Chevy Volt, & Toyota Camry. There are twelve CNG vehicles: Honda Civic Dedicated, Dodge Ram Bi-fuel 3/4 ton pick-up, Ford F-250 Regular, Super and Crew Cab, Chevy ¾ ton cargo van dedicated, Chevy 1 ton cargo van dedicated, Chevy Bi-fuel 2500 crew cab, Ford F-150 Bi-fuel regular, super and crew cab, and Chevrolet Silverado 2500 HD Extended Cab. There is a state contract with one Arkansas certified installer to facilitate the CNG conversions for state vehicles. There are no known CNG conversions that have been performed on a state vehicle. These efforts, along with the opening of the several CNG fueling stations, helps to position the state to migrate to this type of vehicle as the purchase price becomes more competitive. The Office of State Procurement maintains a life cycle cost comparison chart on state contract vehicles to assist entities in making an informed decision when purchasing a vehicle.

The purchase price of an alternative fueled vehicle and the availability of fueling stations have restricted the number of alternative fueled vehicles in the state's fleet. The Office of State Procurement's recommendation for the plan is to create legislation to remove E85 and 95 type vehicles from the Arkansas definition of alternative fuel because this is no longer an option at the point of vehicle purchase and are not restricted to using only alternative fuel. We also recommend a requirement for all agencies to self-report through SAVA (State Agency Vehicle Application) and in their Strategic Energy Plans.

<u>AGENCY</u>	<u>ALTERNATE FUEL TYPE</u>	<u>NUMBER</u>
AR DEPARTMENT OF ENVIRONMENTAL QUALITY	E85 - 85% Ethanol	12
AR DEPARTMENT OF ENVIRONMENTAL QUALITY	EVC - Electricity	6
AR DEPT OF EMERGENCY MANAGEMENT	BIO - Biodiesel (B100)	1
AR DEPT OF EMERGENCY MANAGEMENT	E85 - 85% Ethanol	2
AR ECONOMIC DEVELOPMENT COMMISSION	E85 - 85% Ethanol	7
AR ECONOMIC DEVELOPMENT COMMISSION	EVC - Electricity	3
ARKANSAS AGRICULTURE DEPARTMENT	E85 - 85% Ethanol	32
ARKANSAS BUILDING AUTHORITY	E85 - 85% Ethanol	3
ARKANSAS CRIME INFORMATION CENTER	E85 - 85% Ethanol	3
ARKANSAS DEPARTMENT OF WORKFORCE SERVICES	E85 - 85% Ethanol	3
ARKANSAS DEVELOPMENT FINANCE AUTHORITY	E85 - 85% Ethanol	2
ARKANSAS FAIR HOUSING COMMISSION	E85 - 85% Ethanol	1
ARKANSAS GAME AND FISH COMMISSION	E85 - 85% Ethanol	336
ARKANSAS GAME AND FISH COMMISSION	EVC - Electricity	1
ARKANSAS GEOLOGICAL COMMISSION	E85 - 85% Ethanol	1
ARKANSAS INSURANCE DEPARTMENT	EVC - Electricity	1
ARKANSAS LEGISLATIVE COUNCIL	EVC - Electricity	1
ARKANSAS MINORITY HEALTH COMMISSION	E85 - 85% Ethanol	1
ARKANSAS NORTHEASTERN COLLEGE	E85 - 85% Ethanol	13
ARKANSAS REAL ESTATE COMMISSION	E85 - 85% Ethanol	1
ARKANSAS STATE CRIME LABORATORY	E85 - 85% Ethanol	4
ARKANSAS STATE MILITARY DEPARTMENT	E85 - 85% Ethanol	2
ARKANSAS STATE UNIVERSITY - BEEBE	EVC - Electricity	1
ARKANSAS STATE UNIVERSITY/MT HOME	E85 - 85% Ethanol	1
ARKANSAS SUPREME COURT - OFFICE OF CHIEF JUSTICE	E85 - 85% Ethanol	2
ARKANSAS TOBACCO CONTROL	E85 - 85% Ethanol	16
BLACK RIVER TECHNICAL COLLEGE	E85 - 85% Ethanol	2
BLACK RIVER TECHNICAL COLLEGE	ETH - 95% Ethanol	4
COMM ON LAW ENFORCE STND/TRAIN	E85 - 85% Ethanol	3
DEPARTMENT OF ARKANSAS STATE POLICE	E85 - 85% Ethanol	65
DEPARTMENT OF CAREER EDUCATION	E85 - 85% Ethanol	1
DEPARTMENT OF COMMUNITY CORRECTION	E85 - 85% Ethanol	124
DEPARTMENT OF COMMUNITY CORRECTION	ETH - 95% Ethanol	1
DEPARTMENT OF CORRECTION	E85 - 85% Ethanol	5
DEPARTMENT OF EDUCATION - ARKANSAS STATE LIBRARY	E85 - 85% Ethanol	2
DEPARTMENT OF HEALTH	E85 - 85% Ethanol	46
DEPARTMENT OF INFORMATION SYSTEMS	E85 - 85% Ethanol	4
DEPARTMENT OF LABOR	E85 - 85% Ethanol	2
DEPARTMENT OF PARKS AND TOURISM	E85 - 85% Ethanol	104
DEPARTMENT OF PARKS AND TOURISM	ETH - 95% Ethanol	1
DEPARTMENT OF PARKS AND TOURISM	EVC - Electricity	2
DEPARTMENT OF VETERANS' AFFAIRS	E85 - 85% Ethanol	1
DEPT HUMAN SVCS	E85 - 85% Ethanol	1
DEPT HUMAN SVCS	EVC - Electricity	6
DEPT OF AR - COMMEMORATIVE COMMISSION	E85 - 85% Ethanol	1

DEPT OF AR HERITAGE - DELTA CULTURAL CENTER	EVC - Electricity	1
DEPT OF AR HERITAGE - NATURAL HERITAGE COMMISSION	E85 - 85% Ethanol	2
DF & A - REVENUE SERVICES	E85 - 85% Ethanol	6
DFA - ADMINISTRATIVE SERVICES	E85 - 85% Ethanol	4
DFA - ADMINISTRATIVE SERVICES	EVC - Electricity	3
DFA - ALCOHOLIC BEVERAGE-ENFORCEMENT	E85 - 85% Ethanol	20
EAST ARKANSAS COMMUNITY COLLEGE	EVC - Electricity	1
HOUSE OF REPRESENTATIVES	EVC - Electricity	1
LAND DEPARTMENT	E85 - 85% Ethanol	2
LIQUEFIED PETROLEUM GAS BOARD	ETH - 95% Ethanol	1
MARTIN LUTHER KING, JR COMMISSION	E85 - 85% Ethanol	1
NATIONAL PARK COMMUNITY COLLEGE	E85 - 85% Ethanol	1
NORTHWEST ARKANSAS COMMUNITY COLLEGE	E85 - 85% Ethanol	3
NORTHWEST TECHNICAL INSTITUTE	E85 - 85% Ethanol	2
OFFICE OF ATTORNEY GENERAL	EVC - Electricity	7
OFFICE OF SECRETARY OF STATE	EVC - Electricity	1
OIL AND GAS COMMISSION	E85 - 85% Ethanol	7
OIL AND GAS COMMISSION	EVC - Electricity	2
OZARKA COLLEGE	E85 - 85% Ethanol	7
PAROLE BOARD	E85 - 85% Ethanol	1
PROFESSIONAL BAIL BONDSMEN LICENSING BD -	E85 - 85% Ethanol	2
SCHOOL FOR THE DEAF	E85 - 85% Ethanol	9
SOUTHEAST ARKANSAS COLLEGE	E85 - 85% Ethanol	1
SOUTHERN ARKANSAS UNIVERSITY TECH	E85 - 85% Ethanol	6
STATE BANK DEPARTMENT	E85 - 85% Ethanol	5
STATE HIGHWAY AND TRANSPORTATION DEPT	E85 - 85% Ethanol	494
STATE SECURITIES DEPARTMENT	E85 - 85% Ethanol	3
U OF A - COMMUNITY COLLEGE @ MORRILTON	E85 - 85% Ethanol	3
U OF A - COMMUNITY COLLEGE @ MORRILTON	ETH - 95% Ethanol	1
U OF A-COMMUNITY COLLEGE AT BATESVILLE	E85 - 85% Ethanol	1
UNIVERSITY OF ARK FOR MEDICAL SCIENCES	BIO - Biodiesel (B100)	2
UNIVERSITY OF ARK FOR MEDICAL SCIENCES	E85 - 85% Ethanol	13
UNIVERSITY OF ARKANSAS - FORT SMITH	E85 - 85% Ethanol	3
UNIVERSITY OF ARKANSAS AT FAYETTEVILLE	E85 - 85% Ethanol	3
UNIVERSITY OF ARKANSAS AT FAYETTEVILLE	EVC - Electricity	6
UNIVERSITY OF ARKANSAS AT FAYETTEVILLE	PSF - P-Series	1
UNIVERSITY OF ARKANSAS AT LITTLE ROCK	E85 - 85% Ethanol	13
UNIVERSITY OF ARKANSAS AT MONTICELLO	E85 - 85% Ethanol	3
UNIVERSITY OF ARKANSAS AT PINE BLUFF	BIO - Biodiesel (B100)	1
UNIVERSITY OF ARKANSAS AT PINE BLUFF	E85 - 85% Ethanol	2
UNIVERSITY OF ARKANSAS AT PINE BLUFF	M85 - 85% Methanol	6
UNIVERSITY OF CENTRAL ARKANSAS	E85 - 85% Ethanol	36
<b>Total Alternative Fuel Vehicles as of October 2013</b>		<b>1518</b>

*Report is based upon data provided by state agencies.*

<u>Alternative Fuel</u>	<u>Alternative Vehicle Type</u> <u>Make/Model</u>	<u>2013 Contract</u> <u>Price</u>	<u>Combined</u> <u>MPG</u>	<u>Carbon</u> <u>Footprint</u>	<u>Annual Fuel</u> <u>Cost</u>	<u>Standard Vehicle Type</u> <u>Make/Model</u>	<u>2013 Contract</u> <u>Price</u>	<u>Combined</u> <u>MPG</u>	<u>Carbon</u> <u>Footprint</u>	<u>Annual Fuel</u> <u>Cost</u>	<u>Annual Fuel</u> <u>Savings</u>	<u>ROI in</u> <u>Years</u>
Hybrid Electric												
Hybrid Electric	Mid-Size Hatchback Toyota Prius	\$ 23,719.00	50	2.08	\$ 1,000.00	4 Door Mid-Size Sedan Dodge Avenger	\$ 15,620.00	26	4.73	\$ 2,100.00	\$ 1,100.00	7.36
Hybrid Electric	Mid-Size Sedan Chevrolet Malibu Eco	\$ 22,933.00	31	4.67	\$ 1,750.00	4 Door Mid-Size Sedan Dodge Avenger	\$ 15,620.00	26	4.73	\$ 2,100.00	\$ 350.00	20.89
Hybrid Electric	SUV (5) Passenger 4WD/AWD Toyota Highlander	\$ 42,732.00	28	3.82	\$ 1,800.00	Compact 4WD (5) Passenger SUV Chevrolet Equinox	\$ 21,392.00	24	4.76	\$ 2,200.00	\$ 400.00	53.35
Hybrid Electric	SUV (7) Passenger 2WD Chevrolet Tahoe	\$ 45,295.00	21	6.97	\$ 2,400.00	SUV (7) Passenger 2WD Chevrolet Tahoe PPV	\$ 25,093.00	18	6.65	\$ 2,950.00	\$ 550.00	36.73
Hybrid Electric	SUV (7) Passenger 4WD/AWD Chevrolet Tahoe	\$ 47,861.00	21	6.97	\$ 2,400.00	SUV (7) Passenger 4WD/AWD Chevrolet Tahoe SSV	\$ 28,555.00	18	6.65	\$ 2,950.00	\$ 550.00	35.10
Hybrid Electric	1/2 Ton Crew Cab 2WD Pickup Chevrolet Silverado	\$ 33,348.00	21	6.96	\$ 2,400.00	1/2 Ton Full Size Crew Cab 2WD Pickup Dodge Ram 1500	\$ 19,150.00	16	7.08	\$ 3,150.00	\$ 750.00	18.93
Hybrid Electric	1/2 Ton Crew Cab 4WD Pickup Chevrolet Silverado	\$ 36,230.00	21	6.97	\$ 2,400.00	1/2 Ton Full Size Crew Cab 4WD Pickup Dodge Ram 1500	\$ 22,275.00	16	7.22	\$ 3,150.00	\$ 750.00	18.61
Hybrid Electric	Mid-Size Sedan Toyota Camry	\$ 23,933.00	41	2.55	\$ 1,250.00	4 Door Mid-Size Sedan Dodge Avenger	\$ 15,620.00	26	4.73	\$ 2,100.00	\$ 850.00	9.78
Electric												
Plug-In Hybrid	Compact Sedan Chevrolet Volt	\$ 37,268.00	* 98 MPGe		\$ 950.00	Compact Sedan Nissan Versa	\$ 15,252.00	31	3.6	\$ 1,700.00	\$ 750.00	29.35
Ford Focus Electric	Compact Sedan Ford Focus Electric	\$ 35,597.00	*105 MPGe		\$ 600.00	Compact Sedan Nissan Versa	\$ 15,252.00	31	3.6	\$ 1,700.00	\$ 1,100.00	18.50
CNG												
CNG	Compact Sedan Honda Civic	\$ 26,925.00	32		\$ 1,050.00	Compact Sedan Nissan Versa	\$ 15,252.00	31	3.6	\$ 1,700.00	\$ 650.00	17.96
CNG	3/4 Ton Extended Cab Chevrolet Silverado	\$ 34,062.00	14			3/4 Ton Extended Cab Ford F-250	\$ 19,321.00	14			\$ -	-
CNG	3/4 Ton Cargo Van Chevrolet Express	\$ 30,900.00	12			3/4 Ton Cargo Van Chevrolet Express	\$ 17,424.00	12	7.86		\$ -	-
CNG	1 Ton Cargo Van Chevrolet Express	\$ 34,900.00	12			1 Ton Cargo Van Chevrolet Express	20024	12	8.64		\$ -	-

\* Combined MPG = 55% city and 45% highway  
\* Based on 15,000 miles per year and \$3.36/Gallon of regular unleaded gasoline

Note: EPA data for 3/4 ton and 1 ton CNG types is unavailable; carbon footprint data for Volt & Focus Electric is unavailable.