



FVEAA NEWSLETTER

February 1994

President	Vice President & Editor	Secretary	Treasurer & Librarian	Director	Director
Ken Woods 1264 Harvest Court Naperville, IL 60565	Bill Shafer 308 South East Ave Oak Park, IL 60302	Dave Aarvold 915 Oak Street DeKalb, IL 60115	Dale Corel 595 Gateshead N. Elk Grove, IL 60007	John Emde 6541 Fairmount Downers Grove IL 60514	John Stockberger 2 S 643 Nelson Lake Rd Batavia, IL 60510

NEXT MEETING - February 18 at 7:30 PM

Will be in Room 2020 A in the Student Resource Center at the College of DuPage, Southeast corner of 22nd St & Lambert Road

DISCUSSION TOPIC - FVEAA proposed test program for the ECOSTAR

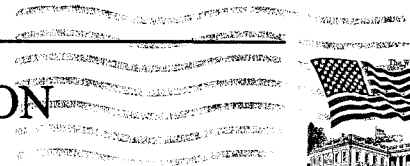
MEMBERSHIP INFORMATION

Any person interested in electric cars is welcome to join the FVEAA. The cost for a full year's dues is \$15 which will entitle the member to receive our monthly Newsletter which contains useful information about electric car components, construction, policies, and events. Dues for new members joining in March will be \$ 10.

NEWSLETTER

FOX VALLEY ELECTRIC AUTO ASSOCIATION

308 South East Avenue
Oak Park, Illinois 60302



First Class

John Emde
6542 Fairmount Avenue
Downers Grove IL 60516

ADDRESS
CORRECTION
REQUESTED



Fox Valley Electric Auto Association, Inc.

Rev. October 19, 1990

MEMBERSHIP

A membership in the FOX VALLEY ELECTRIC AUTO ASSOCIATION (FVEAA) is open to everyone. Currently there is only one grade of membership regardless of the members degree of participation in association activities. Membership in the FVEAA is contingent upon payment of the annual membership fee. The membership fee can only be waived by special vote of the board of directors. Each member in the FVEAA receives a copy of the FVEAA NEWSLETTER each month. They are also entitled to attend and vote at all association meetings.

All memberships in the FVEAA run from November 1st to October 31st of the following year. The dues are \$15.00 per year payable at the November meeting. "NEW" members joining after November shall only pay \$1.25 for each month remaining before the following November. (see chart below)

Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
15.00	13.75	12.50	11.25	10.00	8.75	7.50	6.25	5.00	3.75	2.50	1.25

The following form may be used to apply for membership or to renew your membership.

----- cut ----- cut -----

APPLICATION FOR MEMBERSHIP OR RENEWAL

Date _____

Name _____

Address _____

City _____ State _____ Zip _____

Phone # _____ Include Area Code

- Just interested in electric vehicles
- I have an electric vehicle (describe) _____
- I wish to build an electric vehicle

Amount enclosed \$ _____ for _____ months.

Make checks payable to: FOX VALLEY E. A. A.

Mail to: MR. Dale Corel, FVEAA TRES.
595 Gates Head North
Elk Grove Village, Il 60007

MINUTES OF JANUARY 17, 1994 FVEAA MEETING

The meeting at the College of DuPage was called to order by President Woods at 7:44 PM. 15 members and 3 guests were present.

Treasurer Corel reported \$ 2106.02 in the savings and \$ 994.42 in the checking account. His report was approved.

The Treasurer also noted that 26 members had paid their 1994 dues. He suggested that the next Newsletter include a membership form and a notice that the deadline date for renewals would be extended to February 28, 1994 due to publication difficulties with the 1993 Newsletter issues. After discussion of his suggestion, the membership unanimously approved the proposal.

There followed a discussion of the minutes. Member Clark noted the September minutes had been published twice and the October minutes were missing. It was moved that publication of the October minutes be omitted and that copies be available for review at the February meeting. The motion was approved.

A motion was made to discontinue printing of the minutes of the newsletter. During the discussion it was pointed out this was the only means for members not able to attend a meeting to receive information about what occurred. The motion was defeated.

Professor Bohlmann and Valpariso students working on the 1985 Escort conversion brought the motor adapter plate fabricated for the project. The plate will couple the aircraft-style motor to the car's standard transmission. The adapter can be a major stumbling block for electric car wannabe's because of the precision metal work involved requires skill and tools not available to the individual. University facilities, including numerically-controlled machine tools were utilized in fabricating the plate. The \$800 cost for the 47-pound plate is about the expected value for a typical project. Professor Bohlmann noted poor technical support from the local Ford dealer in securing technical information about the transmission system.

The purpose of the Valpo project is to provide a test bed for development of a means to track the power supply system to provide a means to predict range. Due to insurance considerations, the Escort will be owned by Professor Bohlmann and used in connection with his position as Professor of Emerging Technology to guide the University project which will involve monitoring voltage, current, charge-discharge efficiency, temperatures and other factors. A microprocessor will be used.

President Woods received an invitation for the FVEAA to participate in the "MRS WIZ" event sponsored by the area Girl Scouts. The purpose of the Expo to be held at the DuPage County Fairgrounds on March 12 is to encourage female school students to enter the fields of math, science, & technology. About 3000 are expected to attend. The President was directed to ask member Johanna Helenowska to head the FVEAA participation. She is science teacher at Steinmetz High School in Chicago and owns a converted car.

President Woods asked members who would like to have FVEAA badges to call him.

There was a brief discussion of the ECOSTAR test program. Members were reminded to submit their suggestions to the President for the major discussion the February meeting.

The meeting was adjourned at 10:10 PM.

Submitted by:

Dave Aarvold
Secretary

JOHN NEWTON 1908-1994

Member John Newton died February 2nd after a short illness. His many contributions to the FVEAA and help to members needing assistance with their electric motor problems is remembered and will be missed.

IN THIS ISSUE

The major problem with commercial introduction and consumer acceptance of electric cars is the perception of their limitations and probable cost. It is not lack of public interest, lack of need, or more technical development. What is missing is the proper **MARKETING** of their advantages. This month's **PRESSEZ** alludes to the history of some government-industry cooperative development projects. An article appearing in the January 3d issue of **FORBES** magazine entitled : "Alex Trotman Meet Don Quixote" summarizes the difficulty that the Ford Motor Company CEO has with electric car development expenditures. The FVEAA response to his observation that he feels these expenditures are foolish is included with this issue.

This issue also contains a membership (renewal) application form. It is important that present members wishing to continue their membership in 1994 send their \$ 15 checks to Dale Corel. Include any ideas or requests you have for future subjects.

The March Newsletter issue will be the final copy for 1993 members.

Bill Shafer

PRESEZ

"Give your heart and lungs a break; GO ELECTRIC"

(1) The Good News

Robert Stempel, former C.E.O. of General Motors, an engineer and car man, announced through Automotive News that he plans a return to the car business as the entrepreneur of a new company that will build electric or hybrid vehicles. He had previously announced his association with Ovonic, an advanced battery company.

Could this be a replay of Ford Motor Company "sacking" of Lee Iacocca, who was also an engineer and car man? That action by the Ford Motor Co. is now history as one of their biggest blunders since continuing to build cars in the late thirties with obsolete transverse mounted "buggy" springs, their introduction of the Edsel car, or the purchase of our judicial system in the Ford Pinto gas tank case in Indiana,

(2) The Bad News

The move by the Big 3 and the oil industry to solve the "global warming" problem and the problem of health destroying air quality in the Los Angeles basin and the Denver, Chicago and Washington, D.C. area by "political" means is a travesty. They are cooperating with the current administration by providing development money for a joint industry-government "Super Car". Will this cooperation be successful? Let's look at the history of past Government-Industry cooperation efforts.

1. The Reconstruction Finance Corporation. I visited the former aircraft plant in Ohio that was converted for the production of prefabricated housing in the late forties. The government (taxpayers) provided the money for this conversion. On returning to Chicago I told my engineering colleagues that I had witnessed one of the biggest boondoggles in history and that it would setback the prefabricated housing industry at least 20 years. I was wrong; in hindsight it set back the industry 50 years.

2. General Electric, with government (taxpayers) money participated in the idea of a nuclear reactor flying around the world taking off and landing with nuclear reactors blazing. It does not take a "Rocket Scientist" to see the folly in this government-industry "cooperation".

3. More recently government (taxpayers) money was used in an industry-government joint venture to build the Clinch River sodium cooled breeder reactor power plant. That project became another boondoggle. Fortunately the Japanese salvaged the drawings and components constructed to the date of termination of the project. At least we recovered some of the money spent. Japan's recent purchase of plutonium from the French provides evidence that they are continuing the project.

There is a widely held view in government that problems can be solved by throwing money at them. All the excess money does is create a huge bureaucracy that feed on themselves and create layers and layers of paper shufflers, thick reports, and very little creative output.

We are witnessing this with the advanced battery consortium people with more time spent on how to spend the money allocated than producing an advanced battery.

The "Super Car" defined by Amory Lovins of the Rocky Mountain Institute in a research paper presented to an international audience will be built. The guidelines are clear. Will it be American?

It is my belief that a "no frills" electric car can be built with today's technology to complement the fossil fuel car at a price competitive with used cars. These would be niche cars for short trips around town. Converted cars built and being used by our members show it can be done.

I witnessed solar-electric cars produced by high school students in the fifth Tour de Sol in New England. These cars were viable for short range trips and for use as commuter cars.

In addition, I observed the operation of the Ford Escort built by professor Philip Krein of the University of Illinois Urbana and his students. The car was demonstrated at a recent S.A.E. meeting at Argonne National Laboratory. Off-the-shelf components were used with no new technologies required to develop this viable vehicle.

I don't believe government-industry cooperation will produce a marketable electric car. That will come by individual initiative.

I still say **"GO ELECTRIC; Save Money"**.

Kenneth R. Woods



FOX VALLEY ELECTRIC AUTO ASSOCIATION, Inc.

William H Shafer, Vice-President
308 South East Avenue, Oak Park IL 60302
(708) 383-0186

January 8, 1994

Mr Alex Trotman
CEO, Ford Motor Company
The American Road
Dearborn, MI 48121

This communication was stimulated by the January 3 Forbes Magazine article on electric cars. You were quoted as saying that when Ford develops electric cars you already know that, "We're simply unable to provide a vehicle that provides the range that is acceptable to the customers out there, or anywhere else in the U.S. , at a price that is remotely affordable." I agree with your comment, but believe there is an alternative that can make these vehicles commercially acceptable.

This opinion is based on my use of an electric car in everyday service since 1974 when I first recycled a conventional car and converted it to electric power. The car had a limited range of 20 miles, was not optimized technically, used standard lead-acid batteries, and had all the electric car limitations. It did have one great virtue -**COST**. After 17 years of use I retired the car in 1991 because it suffered from terminal rust and converted my second car, a 1980 Mazda RX-7 (Photo attached). The Mazda project cost was \$ 4226.

My log of costs over the life of the original car shows an annual operating cost of \$ 392 in its final year for 936 miles of local travel. These costs are as follows:

	COST	CENTS/MILE
Battery Amortization	\$ 140	14.95
Electric Power @ 8 cents/Kwh	32	0.03
Insurance	182	19.44
License & Village Sticker	34	0.04
Maintenance (Distilled Water)	4	0.00
	-----	-----
Total	\$ 392	34.02

Added to this must be the depreciation. The \$ 3312 project cost included the purchase price for the car, the initial battery, and an upgrading after 14 years of use. Salvage value, based on 1991 market prices for the electrical components which were removed and recycled, was \$1000. This makes the annual depreciation a miserly \$ 130 and the final year's annual cost \$ 522. This is economical local transportation.

I consider my electric car as a transportation tool. When the weather is nice I either walk or ride a bicycle. I use the electric car when the weather is bad or I have local driving or shopping and packages to carry. For driving around the Chicago area I use a compact conventional car. I rent a boulevard barge when the occasion requires since it is less costly than ownership for this purpose.

This concept could be the key to electric car commercial acceptance.

For your information, I am enclosing a copy of the FVEAA entry in the 1993 Electric Vehicle and the American Community Design Competition which further develops the idea.

The realities of electrochemical storage of electrical energy rule out trying to make an electric car with the range performance equivalent of a petroleum-fueled vehicle. It simply cannot compete with the energy stored in gasoline. This is Don Quixote's windmill, as the Forbes article notes. No government fiat will ever overcome this limitation.

My electric car has the equivalent of a 1-gallon gasoline tank, and I have adapted to that reality by using the electric within its capability and where it is appropriate. By doing so I have enjoyed a reduction of my annual transportation costs, principally by avoiding the depreciation of a conventional car when it is used for short-range trips which account for over 70% of my driving missions. The electric's use and long life also extends the useful life of my compact car and is a money-saver, although this is probably bad news for automobile manufacturers depending on periodic replacements for sales.

I hope that Ford will not diminish its electric vehicle work, but will see this as adding to its product line. If this is not done by domestic manufacturers, it will probably be done abroad, as indicated by the recent Volkswagon announcement of a replacement Beetle which can be equipped with a hybrid drive.

The FVEAA is presently negotiating with Commonwealth Edison to test one of the three ECOSTAR vans being leased from Ford by CECO. We look forward to producing test data useful to both Edison and Ford which will compare the ECOSTAR with electric cars that our members have recycled, converted, and use.

Sincerely,

William H. Shaffer

atch.
encl.

cc J.J. O'Connor (CECO)

