

FVAAA NEWSLETTER FOR MAY 2003

An Independent Not-For-Profit Corporation associated with the National Electric Auto Association

NEXT MEETING: Friday May 16th at 8 PM in Room 108 of the INDUSTRIAL CAREERS BUILDING at Triton

DISCUSSION TOPICS: 1. Seminar review and future plans 2. Outlook for future conversions

MEMBERSHIP INFORMATION

Any person interested in electric cars is welcome to join the Fox Valley Electric Auto Association. The cost for a full year's dues is \$ 20 which will entitle members to receive our monthly Newsletter that contains useful information about electric car conversions, construction, news, policies, and events. Membership is not required to attend our meetings. Dues for NEW members joining in May will be \$16.

To obtain information about the FVEAA you may:
Visit the FVEAA Website at www.fveaa.org

Or contact FVEAA President William H. Shafer
1522 Clinton Place
River Forest, IL 60305-1208
(708) 771-5202
E-Mail Assessorbill@cs.com

PRESEZ

Let me unravel the confusion about the Seminar.

My original plan included a ComEd notice of the event in their bill-enclosure document Energy@Home that is mailed to 3-million customers. An extremely small 0.003% response would have generated the 800 Seminar registrants originally envisioned. I received a preliminary OK from ComEd.

The arrangement collapsed due to a policy change by ComEd. They declined to send the notice. They helped me to prepare and distribute a Press Release about the Event and said they would post an event notice on their internal electronic employee information bulletin board, but it was too late to devise an effective publicity program. Also, Iraq war coverage crowded out other news stories.

I noted in the April Newsletter that we could hold the Seminar in the smaller 100-seat classroom in Industrial Careers Building, where we held our rehearsal. I delayed canceling the as long as possible, hoping there would be enough registrants. The website on April 16th showed only about a dozen registrations, including several FVEAA members. It was cancelled on April 18th with unanimous approval of the FVEAA Board.

There may not be general interest in our useful hobby of converting conventional cars to electric power and using the conversions for regular short-trip driving. This is where we have work to do. It will be the major discussion subject at the May meeting.

I received help from FVEAA members after the collapse of the bill-enclosure notice. I want to recognize Peter Hartel for arranging a classified ad in the Chicago *READER*; Rob Glowacki for letting his fellow Radio Ham group know about the Seminar; Todd Dore for offering to distribute handouts outside of Union Station; and to Tim Moore and others for posting the Poster. I particularly want to thank Ted Lowe for volunteering to lead a group who will try to revive the Seminar this fall.

BILL

APRIL EVENTS

There was no meeting in April. Original the Seminar was scheduled on the 28th and the College was shut down for the Easter Vacation on our regular third Friday meeting date. An e-mail was sent inviting FVEAA members to come to Clow Airport on April 12th to view the construction of a replica of the *Wright Flyer* to commemorate the 100th anniversary of the original flight on December 3. The work was initiated by *National Geographic*. FVEAA Director Ed Meyer, a member of the construction team, issued the invitation.

The replica will be hanging from the ceiling in Chicago's Museum of Science & Industry. I was pleased to have a close-up look. A lot of craftsmanship was involved in building the replica. Five FVEAA members showed up on April 12th to have a look. There will be many more at the airport to watch the replica's flight.

FROM OTHER EV NEWSLETTERS AND ARTICLES ABOUT ELECTRIC VEHICLES

DEVA, the Denver Group in their April Newsletter had an article about the Post Office test of the Segway vehicle in Chandler, AZ. It was one of six testing sites selected by the Agency. Eleven postal employees were chosen based on routes requiring extensive walking and doorstep delivery. Two days of training were required to familiarize the users with the vehicle. Preliminary results indicated the users were able to cover their routes 20% faster with the Segway. The users reported their regular trucks provided shade while the vehicle had none. A complete account of the report is available on the DEVC website, www.devc.org. Editor's note – The March 1st issue of the Chicago Sun-Times reports that Chicago is one of the ten test sites. There are 13 delivery routes involved. The test will see how the Segway performs in rain and snow.

They report that a DEVC member's Sparrow with an anti-war sign in the window was damaged while parked in a shopping mall. Corbin Motors, the Sparrow manufacturer, has filed for Chapter 7 (dissolution) bankruptcy according to their website, www.corbinmotors.com

DEVC has a story on their website about a converted Chevy S-10 pickup owned by a DEVC member. The owner, Dave Hawkins, says he is a recovering "gearhead".

The EEVC April Newsletter from the Eastern folks had excerpts from an Electric Power Research Institute (ERPRI). It concludes that life-cycle cost of an EV will be significantly less than an IC vehicle. Cost parity was established at production of 50,000 EV annually.

An insert reports that the Boyertown (PA) Museum of Historic Vehicles has the largest collection of electric vehicles. These include a 1912 Curtis Truck used for 50 years to haul paper, coal, and magazines, a 1961 Henny Kilowatt (Conversion of a Renault Dauphine), a 1976 CitiCar, and a 1981 Electrek built by Unique Mobility. It would be interesting to visit this collection if you are in the vicinity.

VEVA in Vancouver in their April Newsletter reports that Eagle-Pitcher has formed a joint venture with Horizon batteries to produce a new sealed lead-acid battery. It will use a woven-grid construction that allows quick recharging and has a 45-watt-hour per kilogram energy storage. It is expected to find a niche in new hybrid vehicles. The VEVA President is offering a converted 1997 Fiero for sale for \$5,000. (I assume that is US \$)

ARTICLES AFFECTING ELECTRIC VEHICLES - CONTINUED

The December issue of *Current Events*, the National EAA group had a lead article titled, *Steal this Car!* It is about the experience of Ellen Spertus, one of the persons leasing a GM EV-1 during the California trial program. The article appeared in SALON magazine. She is a computer science Ph.D. and her husband is rocket scientist with NASA. They qualified to lease a vehicle.

In February GM sent notices to persons leasing their EV-1s that the lease will be terminated, citing a lack of probable customers willing to sacrifice an all-purpose gasoline car with unlimited range. Persons participating in the EV-trial have said that is just so much spin, perhaps because the manufacturers want to retain the electric car image are little more than glorified golf carts.

They probably succeeded. A federal judge has issued an injunction against the California Mandate and reclaimed EV-1s will be sent to crusher. Editor's note - GM spent almost a billion dollars on the EV-1 program. GM engineers produced probably the best battery-electric car possible.

Ellen and her husband offer to buy their car was rejected by GM. GM wants the car out of their hair. It seems that everyone who leased the car is unwilling to let go of it. When her lease expires she is contemplating an act "of civil disobedience" in protest.

More on the Segway in the April 28th issue of *Fortune* on page 42. Allstate and State Farm Insurance companies have established liability insurance rates for the \$ 5000 vehicle, placing them in same class as snowmobiles and ATV's. In Indiana the annual premium is \$ 190, in Michigan it is \$ 290, and Los Angeles it is \$173 if you haven't taken a motorcycle safety course. Oakland CA has banned the vehicle.

Dr. Peter Lycos, a Chemistry Professor at IIT sent to me article entitled "Fuel-cell faux pas" appearing in Chemical Engineering News, online at www.cen-online.org. It compares a new combined-cycle (gas & steam turbine combined) power plant with a fuel cell system of the same size. The combined-cycle system has a thermal efficiency of 56-60%. The thermal efficiency of a fuel cell plant is 35-40%. The gas turbine plant would consume 80 million barrels of oil costing \$1.9 billion in ten years. The fuel cell would need 160 million barrels of oil costing \$4.2 billion. The turbine plant would emit 26-billion tons of CO₂ and the fuel cell 50-75 billion tons.

There needs to be a quick end to the \$1.2 billion fuel cell program for automobiles proposed by President Bush. Not-for-profit organizations are forbidden by their Charter to lobby Congress. Individuals are not.

Along the same lines, the Car Talk section of the Chicago Sun Times headlines an article about fuel cell cars entitled "*Bush support for fuel cells could be a head fake*". Car Talk hosts, Click and Clack, have a one-hour program on local Public Radio Station WBEZ (91.5 fm) at 9 AM on Saturday mornings. In the article they observe three problems about the fuel cell car; 1) Fuel cell stacks are incredibly expensive to build. 2) The range of the cars is insufficient {Sound like an electric car?} 3) There is no national infrastructure, like gas stations, to support hydrogen.

In their opinion Bush is talking about hydrogen powered cars as a distraction.

ARTICLES AFFECTING ELECTRIC VEHICLES – CONCLUDED

The March 14th issue of *Science* on page 1686 has an article entitled *Water splitting goes au natural*. It concerns about the way the nature gets hydrogen. Today's petrochemical plants get the gas by using methane fuel and a platinum catalyst. The catalyst makes a molecule of hydrogen by combining two protons and two electrons (dihydrogen) from the methane. Carbon dioxide is a byproduct, 3 tons of CO₂ for every ton of hydrogen output. The process uses more fuel to run than it produces as thermal energy in the gas. Nature has evolved a system that uses iron and nickel in enzymes that produce hydrogen from water. The process is called *hydrogenases*. Chemists hope to refine the system and coat a substance on to the surface of an electrode. Work is being done at Oxford.

The Columbus Ohio *Dispatch* had an article in their August 21 issue about the world's fastest electric car, *White Lightning*. It set of world's speed record for electric vehicles of 245 mph in 1997. (The first electric car in a race achieved 100 mph in 1916) It is little more than a long tube filled with flashlight batteries. The 2,400 pound \$1-million vehicle is powered by 6,000 nickel metal-hydride C-cell batteries. Editor's note - Its owner, a retired California businessman, offered the car for sale on e-bay. The opening bid was \$400,000 with no takers.

USA Weekend for March 30 has a though-provoking article about computer applications. Glitches have show up in some computers. For example a BMW 745 has experienced fuel shutdowns while driving. The owner of Toyota *Prius* wanted to find out how many miles the car would go after the low-fuel warning light came on. Adding fuel couldn't restart the car. The computer had to be "rebooted". Much care is taken with these devices because you can't just reboot a car's computer while going down the road at 70 mph. A Houston homeowner installed a high-tech electronic security system that went haywire. Lights flashed, the doorbell wouldn't function, and the TV was stuck on Barney and Friends. It took 8 hours to restart the house. The moral, KISS – Keep It Simple, Stupid.

Sun Publications (Naperville) had an article entitled *Thinking inside the box*. It is about the Neighborhood Vehicles. Most appear similar to golf carts, and indeed they are. Golf carts were adapted for low-speed road use by adding headlights, seat belts, and other features. The original was the CitiCar produced in response to the 1970's oil crisis. A lot of these are still running today, a tribute to the durability of the electric drive systems.

The problem with these vehicles is their 30-mph or so top speed, sluggish acceleration, poor handling (steering wheels that don't return to neutral), inadequate brakes, and absence of doors on some precludes their use in sloppy weather. They are not cheap, around \$ 8-12,000. Many are found in Florida's retirement communities. They will soon be seen in California where the wreckage of the EV-1 test program has State-provided purchase subsidies for neighborhood vehicles.

Editor's note – When you convert a conventional car to electric power it is based on real vehicle that can keep up with urban traffic. After a while the driver adapts his use to the limited range and the vehicle becomes a useful second car.

Member John Berton in Chicago has overcome the last hurdle in getting his conversion on the road. His insurance agent didn't want to bother with it. John e-mailed Tim Moore and used the State Farm Agent that insured Tim's car. Congratulations John.

We welcome Mike Arney of Wauwatosa Wisconsin as a new member. He is looking for a donor car suitable for a conversion project for a 22-mile round trip work commute.