

FVEAA NEWSLETTER FOR AUGUST 2003

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

NEXT MEETING: Friday, August 18 at 8.00 PM in the Triton INDUSTRIAL CAREERS BUILDING, (East Campus), Room 108

DISCUSSION TOPICS: 1. September Seminar

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 September will be \$ 4.

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

Seminar Manager, Ted Lowe, requested the August meeting discussion scheduled items be limited to the September Seminar.

The River Forest Town Board is considering what to do about scooters. A proposal has been made to ban motorized scooters from the sidewalks. State Highway Regulations bans them from the streets. That means motorized scooter use is illegal, except on private property. Yet, motorized scooter dealers are doing a brisk business. This Newsletter contains an article about this subject. I expect it to stimulate discussion at a future FVEAA meeting.

Persons who bought cars converted to use natural gas as a fuel will be affected by the price of the fuel. Since last year it has risen from \$2/million cubic feet (mcf) to \$4.70/mcf. There is a shortage of new gas sources in the US that is expected to continue. Alan Greenspan recommended that the US should begin importing natural gas. The Sheikdom of Qatar (Located east of Saudi Arabia) has the world's largest supply of natural gas; 500 *trillion cubic feet* in the Persian Gulf off their shores.

This isn't going to be easy. Compressing the gas to 2200 psi can liquefy natural gas when the temperature is reduced. It will require construction of a fleet of specialized tankers to move the product to the US. Look for headlines about the economic effects of higher natural gas prices on this winter's home heating bills, shutdown of fertilizer production, and other processes using the fuel.

MINUTES OF THE JULY MEETING

The meeting at Triton was called to order by President Shafer at 8pm. Minutes were approved. Ted Lowe was asked to give a Seminar report. He talked about the details and handed out the copies of the flyer and also describing the website additions. Members have volunteered to contact various people and organizations: Todd Dore will contact IEPA Darwin and Darwin Burkhardt, Paul Harris will contact Brent Miller at Channel 5 news, Tim Moore-Pioneer Press, Steve Grushas-25 local CarQuest stores, Rob Glowacki will contact Ham Radio clubs. , Bill Shafer will send a mailing to the Car Clubs listed in the Chicago Tribune. NEED members to put flyers in their local Radio Shacks and others places of interest. Ted Lowe ended by saying he is going to be speaking at the Illinois Renewable Energy Fair in August.

Bill Shafer talked about the Elmhurst car show and said he will pick a Wednesday. He asked for at least three electric cars to be there.

Bill also asked for status reports on member's cars. Ted Lowe is back and running with a rebuilt Curtis Controller that KTA Services delivered in a very timely fashion. His S-10 experienced a rear end collision. He is expecting the other driver's insurance company to cover the replacement cost. Todd Dore is back running with a repaired Rudman Charger, again with quick service. John Emde reported the Dragster is again competing and Net Gain has purchased a Rudman charger. George Gladic has new batteries and enjoys greater range. He had a small problem with the fuse mounting experiencing an accidental contact while installing a battery. George also reported a friendly electric car environment in Chattanooga Tennessee where electric buses are common. The Tennessee Valley Authority is still encouraging the use of electric cars.

All members introduced themselves for the benefit of guests John Rossi and Tom Madden.

At 9:45 the meeting was recessed to the garage where six members had parked the electric vehicles they drove to the meeting. The meeting was adjourned at 10:30 PM.

Submitted by Secretary Tim Moore
July 28, 2003

FROM OTHER EV NEWSLETTERS AND ARTICLES AFFECTING ELECTRIC VEHICLES

The July Newsletter from the Denver Group featured an article concerning this year's Pike's Peak hill climb. A new record was set for the electric car category - 14minutes, 33.12 seconds, 10 seconds lower than last year's time. The ER3 was designed and built by Tim Eckert. It has 12 kWh of lithium-ion batteries, an AC propulsion 165 kW motor. The car's top speed is 125 mph. The car was equipped with a sound system that produced a buzz that warned spectators of its approach.

Phoenix Motorcars is building 20 vintage electric automobiles for a taxicab company in Sacramento, CA. The body style is 1937 Ford Phaeton. The Evercell nickel-zinc batteries give the vehicle a range of over 100 miles.

DEVC member John Bidwell of Ft. Collins CO has designed and built an electric motorcycle, called El Chopper. A unique feature is a freewheeling back wheel when coasting. The motorcycle weighs 220 pounds, has a 40mph top speed, and a Curtis 1204 controller. Megawatt Motorworks has the vehicle plans for sale. For more info go to website <http://www.megawattmotorworks.com>.

The DEVC reports that the \$14-million solar powered *HELIOS* flying wing crashed during a high-altitude (95,000 feet) test flight in Hawaii on June 26th. The vehicle weighed 2000 pounds because of the added weight of a 180-pound hydrogen fuel tank at each wingtip and a fuel cell modified for high-altitude flight. Its normal weight was 1600 pounds.

EEVC from the eastern group in their July newsletter featured an interesting article by EV Pioneer, Tulio Falini, entitled, "How far we have come". He recalled seeing Briggs & Stratton hybrid at the 1980 EV Symposium in St. Louis. People didn't quite understand the concept then. We now take these vehicles for granted.

The issue also reports on this year's tribulations of the Cinnimanson High School EV that participated in many Tour de Sol events since its construction. They planned to drive it in a 4th of July Parade. Previous use has taken its toll on a number of the batteries. The charger malfunctioned and a some of batteries were overcharged because they did not have equalizers. On top of this the charger couldn't be found! They used a Lester 144 volt charger, dubbed "Lester the Molester" as a replacement.

More than 10,000 Californian's are using Chrysler's GEM EV, a "Neighborhood " vehicle that was encouraged by the State's EV incentive program. This was instituted after the Collapse of the California Mandate.

EV Circuit from the Ottawa folks in the May-June issue has a 7-page article by member Dave Behn about hydrogen fuel cells. In it he notes a MIT study on fuel cells which concluded these would be no better than diesel engines in terms of efficiency and Greenhouse Gas emissions. He also notes GM and Dow Chemical have established a joint effort to recapture waste hydrogen from their chlorine production plants. The hydrogen has been burned in the plant's boilers. The June 16 issue of Chemical & Engineering News article about the venture reports 500 fuel cell modules will be installed at Dow's Freeport, TX plant. They will generate about 35 megawatts of power for plant use. GM will supply the 75 kW cells. They are proton exchange membrane units being developed by GM for vehicular use. They will be housed in a string of 14 trailers. boilers.

Behn also notes that report that fuel cells may use a new class of storage materials called metal-organic frameworks that shows promise of being a better material for hydrogen storage than metal-hydrides. He states, "Skepticism is fine, Paranoia is not".

In his second article, Behn revisits Fuel Cell Vehicles (FCV), Battery EV's (BEV) and revisits the hydrogen Economy. He lists the following efficiencies for FCV: electrolysis -75%, liquefaction - 60%, transport - 96%, bulk storage - 97%, fuel cell - 40%, supercapacitor - 98%. The overall efficiency of this process is 16%. For the BEV he lists the following: electric grid - 92%, battery-charger - 90% for an overall efficiency of 83%. (Editor's note) He has omitted the efficiency of the power plant that uses fuel to generate the electricity. The typical coal-fired a generating plant has an overall efficiency of about 35%. This would make the BEV overall efficiency 31.5%. The article contains a detailed analysis of the efficiency of the Honda FCV.

The issue also notes that six electric buses in Birkenhead, England are still going strong since their introduction in 1998. The vehicles provide free hop-on, hop-off service around town. There are two sets of lead-acid batteries for each bus. Batteries are low height and installed under the vehicle. Each is rated at 72 volts, 585 amp-hours. Charging is done in a garage where battery swapping is also done.

FROM OTHER EV NEWSLETTERS AND ARTICLES AFFECTING ELECTRIC VEHICLES - Concluded

The Chicago Tribune and Naperville Sun both have articles that the push for electric cars is powering down. . GM built about 1000 EV-1 vehicles that had a 100-mile range, Dozens are now lined up behind a fence in a Southern California parking lot. GM reclaimed the cars on lease expiration, saying the test proved the 100-mile range was unacceptable to the public. In the past decade California regulators have caved in to pressure as car manufacturers vigorously fought at hearings and in court to halt the EV mandate. All the cars will be scrapped except for a few cars that will be given to museums,

The last VW Beetle was built recently in a plant 75 miles east of Mexico City. They had a reputation for simplicity and durability. 21 million were sold in the 70 years since its introduction in Hitler's Germany.

SCOOTERS

Streets and sidewalks provide access to properties in urban areas. The first is for motor vehicles and the second for pedestrian traffic. Other types of transportation share the roads and sidewalks. Motorcycles and bicycles share the streets with cars. There are inevitable conflicts caused by the difference in mass, speed, and maneuverability of the car and other wheeled vehicles. Laws and ordinances that regulate the use of these facilities.

Scooters provide an energy-efficient transportation means. They require only a fraction of the energy and emit a minuscule amount of pollution compared to a SUV carrying an only the driver. Scooter use should be encouraged for this reason.

Scooters are useless in rain or snow.

There are a few scooters in the US. They range from the \$65 Razor, a simple foot-propelled 2-wheeled type, to motorized scooters selling for about \$150. Typically these have a 50cc 2-cycle engine that move the vehicle up to 15 mph. The top of the line is the \$2500 Italian Vespa.

There are electric scooters. Sharper Image, who introduced the Razor, lists an electric scooter selling for \$200. The California made \$350 *ZAPPY* is qualified to be carry-on luggage in aircraft. Gasoline powered scooters cannot be brought inside a building. The most-recent addition to electric scooters s the \$5000 *Segway*.

Which pathway should they occupy, the street or the sidewalk? Many believe scooters should be banned from the sidewalks for pedestrian safety reasons. There are no licensing requirements for these vehicles. No insurance is required. State law prohibits the use of scooters on streets. That makes the use of motorized scooters legal only on private property. Boys about 10 years old ride some scooters.

The Village of River Forest is addressing this question. The Village has curb cuts at all locations, a measure intended to make the sidewalks handicapped-accessible. Bicycles and scooters can readily use Village sidewalks.

Where do scooters belong?

Send me e-mail with your opinion
Assessorbill@cs.com

