


Directions: From the Boughton & Weber Rd intersection, go south 0.5mi (past all the malls) and turn right (west) on Clow Intl. Pkwy. Park in the lot next to Charlie's Restaurant. The meeting is in the Packer Wings hangar (second hangar north from the parking lot). Enter the hangar from the side door on the south side.

Meeting: Friday, October 20th
Doors open at 7:00PM
Meeting starts at 7:30PM
Clow International Airport
130 S Clow Intl. Pkwy, Bolingbrook, IL 60440

Fox Valley Electric Auto Association
PO Box 214
Wheaton, IL 60189-0214

<p>FVEAA NEWSLETTER Fox Valley Electric Auto Association A Not-For-Profit IL Corporation & Chapter of the Electric Auto Association (eaaev.org)</p>	
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October, 2006

Meeting Agenda

Ted Lowe

- **Call to Order and Introductions**
- **Approval of Minutes**
- **Treasurer's Report – Dale Core**
- **Administrivia** – Newsletter Submission, Membership Renewals, Cruise Nights 2007, Raffle, etc.
- **Charging Infrastructure Project Update - Todd Martin**
- **Website Update - Forums coming soon!**
- **Members Show and Tell – 5 minutes to anyone to talk about their EV projects or other EV-related issues (includes Todd Dore about Plugin Prius Update and Ted Lowe about iPod stereo integration)**
- **Intermission - Refreshments, Networking and Raffle Ticket Sales!**

Program

Ted Lowe - EVing Through Northern Illinois Winters How to implement an EV that will get close to summer-like range in the cold winters months and how to stay warmer this winter (without a "5 Mile Jacket").

George Gladic -- Rust: The Only Thing That Kills EV s How to make minor body repairs to prevent rust from killing an EV.

Ed Meyer – The “New” Ed Meyer Charger Part 3 Continuation of the discussion on effective battery charging and give us any updates on the new charger.

George Hamstra, NetGain Technologies - WarP Motors and Hybrid Conversions This is a continuation of the discussion of WarP motors where John Emde left off last month. He may also speak about Hybrid Conversion kits that are coming to market.

Minutes for FVEAA meeting September 15, 2006 at Clow Airport in Bolingbrook.

President Ted Lowe called the meeting to order with a moment of discussion about the recent article on the front page of the Transportation Section of the Sunday Tribune. He then asked our guests and new members to introduce themselves. With over 40 in attendance this was the second very large meeting in a row. Members were encouraged to submit pictures and information to our website and to the EVAlbum. Kevin Zak was again welcomed back. Minutes were approved and the treasurers report of \$5,742.26 in savings and \$1700.81 in checking.



Newsletter submissions can be sent to editor@fveaa.org. A short discussion presented information about the Chicago Area Clean Cities coalition, and their upcoming hybrid seminar meeting, along with a full day program of breakfast, golf and dinner.

John Emde and Ted Sanders have marked members homes on a map, and were working toward assuring that we retain a meeting place that is most convenient to all. Obviously we want a place to have a meeting, and pull cars in if possible. A free location, somewhere in the central, western suburbs would be desirable.

A short discussion of the Midwest Alternative Fuel Expo in May was held, which was scheduled to be a 3 day event at the Route 66 Raceway. Unfortunately, very significant rains canceled the event. Brochures from the event were passed out as members were encouraged to patronize the sponsors.

The Illinois State EV conversion rebate was discussed. Ted Lowe mentioned that the car owner must live in Illinois, license the car in Illinois, and convert it in Illinois. Save the receipts, and submit to the state on a calendar year basis.

Unfortunately, Todd Martin was not present to discuss charging stations. Members were encouraged to contact their employers to request charging stations. George Gladic reported that the Museum of Science and Industry, Joe's Crab Shack, Ikea Schaumburg, Millennium Park all have some EV charging locations. It was suggested and accepted that we post an "EV friendly" web page.

A short discussion of open forums on the website ensued. Andy will add forums to the web site.

The discussion on e-mail techniques was postponed. The meeting was adjourned at 9:42 P.M.

Newsletter Editor*Rich Carroll*

To further introduce myself, I own a very small electric car, an Elcar, which is a rebadged Zagato Zele. Zagato Zeles were made for a number of years in Italy, and were considered reasonable in-town transportation. Certainly enough to take two people to market, and return with six or eight grocery bags. I have long had an interest in cars, with that interests moving slowly from Pro-Rally cars, to performance cars, to antique cars as I got older. Electric cars make sense to me, as a better

way to utilize energy and a better way to control pollution. I joined FVEAA after I found a good number of folks who had built their own electric cars. I can personally say that building a car from the ground up seems perfectly reasonable to me, as I have done that a number of times over the years. I certainly found some sympathetic ears in FVEAA.



But, of significance, I find that many of our new members have little interest in building an EV, but they have an interest in buying and driving an EV. Sad to say, you can't quite yet go down to one of the EV stores in town and make a selection. So I pondered what can we, as a club, offer the possible interested EV owners.

We could certainly offer them:

- Suggestions on how to buy a used or new EV, what to expect to find, what to look for.
- Suggestions on how to drive them, using known techniques to maximize efficiency.
- Support for repairs. The older members know that electric motors are relatively trouble free, but some local mechanics may not want to work on a car powered by an electric motor, even if it is a wheel bearing replacement on a Geo Metro. Recommendations to a known mechanic or help in talking to an unknown about the differences in EV's will help
- Suggestions for improvement, whether it be battery regulators or controller upgrades, or what type of batteries to purchase
- Suggestions as to suppliers. (I think this is nicely covered already) Most of those businesses who support the EV culture with ads and help are pretty easy for us to point out.

I feel strongly that we need to welcome these new folks into our "club" and nurture them so they can drive and enjoy their own EV's.

EV Discussion List

A resource

Are you looking for technical help on an EV project? If so, tap into an incredible resource on the Internet, the EVDL! This is a mailing list of EV experts and enthusiasts from all the world that pose questions and share answers on EV technical issues. It is a very active list, so setup an email filter to autosort your email to a separate mailbox. More info at:

www.madkatz.com/ev/evlist.html

EV's in the News

Rich Carroll

Google has set up a foundation with plans to offer seed money for an ultra-fuel-efficient plug-in hybrid car engine that runs on ethanol, electricity and gasoline. This, directly from the N.Y. Times, says, google.org (the charitable portion of Google.com) "... is consulting with hybrid-engine scientists and automakers, and has arranged for the purchase of a small fleet of cars with plans to convert the engines so that their gas mileage exceeds 100 miles per gallon. The goal of the project is to reduce dependence on oil while alleviating the effects of global warming."

CNN reports the General Motors may be looking at building plug-in hybrids. A plug-in system would allow a full hybrid's batteries to be charged by the engine or, while parked, by the power grid, which would offer greater operating range in electric-only mode. The source for the story is "someone

familiar with the company's plans," which may or may not signal a strategic leak. Making a commitment to plug-ins would let GM to an end-run around criticism about being late to the hybrid game, by appearing proactive on addressing a noted deficiency in rival Toyota's system.

Jalopnik reports that hybrid vehicles may be soon winding their way into Formula One racing, where overlords of that heady luxu-sport world are sniffing around the technology. Two big players who build such Formula One dream machines, N.Technology S.p.a. and Tatuus s.r.l., have teamed up to build the first hybrid formula car. The single-seater open-wheeled race car will have a 250hp engine, presumably along with a thus-far unspecified electric motor that uses regenerative braking to recharge its batteries. The fact that hybrid engine technology is even being considered by world-class Formula One designers serves as an *ad hoc* endorsement for the idea.

Accelerated Composites is planning their introduction of the Aptera, a \$20,000 hybrid with both a 12HP CARB certified Diesel engine and a 25HP DC Motor. It also features regenerative braking control and an automatic CVT transmission. Specs include: 64in front wheel track, 173in length, weight of 850lbs, 0-60mph in 11secondsm, 95mph top speed (electronically limited), and 330 MPG at 65 MPH. See more details at: <http://www.acceleratedcomposites.com/aptera.php> .

SANYO, the world leader in the development and manufacture of rechargeable batteries, has introduced the next-generation nickel metal hydride battery named Eneloop that is as convenient to use as alkaline batteries because they are pre-charged.

The first product based on SANYO's Think GAIA vision, Eneloop is immediately usable from the box because it boasts minimal self-discharge, can be charged 1,000 times with little memory effect, and is recyclable when its long lifecycle is complete. The PET plastic packaging for the batteries is also recyclable, although it provides an ideal reusable case for the batteries. Product images are available at <http://www.ccnmatthews.com/sanyo/>

SANYO research shows that Eneloop batteries have an 85 per cent residual ratio after one year of non-use in 20 degree Celsius temperatures (compared to regular rechargeables that lose one per cent of power per day), meaning the batteries can be left in an electronic device for months, but the batteries will retain 85 per cent of their charge. Internal tests also prove that Eneloop batteries can take 4.4 times more digital pictures than dry cell batteries, even in zero degree Celsius conditions. Eneloop maintains its low self-discharge rate and stability in temperatures as low as minus 5 degrees Celsius.

The Venturi Eclectic, touted as an "autonomous energy vehicle," gets its charge from wind gusts and 8.2 square feet of solar cells atop its roof. The four-person ride boasts a 22-horsepower purely electric engine, is powered by liquid-cooled NiMH batteries, and can reach a (yawn-inducing) top-end speed of nearly 32mph. While it's no [Wrightspeed X1](#), the designers had "daily driver" in mind when the Eclectic was crafted, but considering it'll only roll 31 miles on a full charge, you best take the scenic (read: sunny) route to work if you're facing a long commute. The car does sport an option to recharge via AC power, should you face darker (and calmer) than expected conditions, but since it weighs just 772 pounds, a foursome shouldn't have too much trouble using the tried and true "push method" if worse comes to worst. Scheduled for production in June 2007, this oh-so-green automobile will run you €24,000 (\$30,511) -- if you can [manage](#) to score one of the 200 that'll be built, that is.

The Eclectic is designed as a daily-driver for urban areas and more closely resembles a golf buggy than an actual car. Designer Sacha Lakic describes the vehicle as a "modern, autonomous and intelligent automobile." The beauty of the Eclectic is that when it stands still, it's actually adding energy to its

batteries. In regions where the sun doesn't shine that often, the vehicle uses wind power to rotate a force wheel, which generates electricity topping up the battery.



Complete charge of the liquid cooled NIMH batteries provides a range of about 50km and allows the car to reach speeds of 50 km/h. Wind power alone can drive the car 15km after a full day of charging. If all else fails, owners can simply plug it into a mains unit at home. The four-seater Eclectic weighs just 350 kilograms and will go into production in June 2007 with a price tag of 24,000 euros. Initially, only 200 units will be made but if they prove popular a cheaper version will be produced starting from 2009. For more images, see:

<http://www.motorauthority.com/news/car-shows/wind-and-solar-powered-venturi-eclectic/>

Mitsubishi apparently has plans to bring an all-electric compact car to the United States. According to Automotive News, Mitsubishi president Osamu Masuko made the announcement recently, in Las Vegas, saying that the lithium-ion battery powered car would be launched first in Japan, and later find it's way to the U.S. Shores. Last year, Mitsubishi showed an all-electric sporty hatchback at major automobile shows. This car was driven by hub-mounted electric motors. With Li-ion batteries and hub motors this is quite interesting. Other sources seem to indicate that Mitsubishi is looking forward to a 2008 date, but we suspect that could be the prototype introduction.

http://reviews.cnet.com/4531-10921_7-6649850.html?tag=blog&tag=nl.e501

The Sun Times is running a 3 part series on green homes, green travelling, and green products. A Sun Times reporter, Monisa Thomas, interviewed me via phone and a photographer came out to take some pictures of the EV. The series will run starting Sunday 10/15 (or Sunday 10/22) in the Metro section. Check it out!

Dues renewal time

Ted Lowe

It's that time year of again, time to renew our FVEAA memberships!

This year will be easier than ever with our online renew feature. You can securely renew online via

credit card at: www.fveaa.org/renew or while logged into our site by clicking Renew Membership. The electronic method is preferred since it will save time in renewal processing time and resources!

We can still renew the old fashioned way, with cash or check at a meeting or by sending us a check to: FVEAA, PO Box 214, Wheaton, IL 60189-0214

When you renew, indicate your preferred newsletter delivery method:

- \$15 (electronic only - save \$5 and resources)
- \$20 (snail mail only)
- \$20 (snail mail and electronic)

All our 2007 dues are due by November 1st, so please renew ASAP to reduce the churn, nagging, resource waste, etc.

Electric Car Cruise Nights

Christopher Sharp

I have an idea to help promote the FVEAA! Hold Electric Car Cruise Nights next summer.

Ted Lowe has added the following comments. "I really like this idea, so lets develop more details around it over the winter and try it out next summer." Here are just a few questions to encourage discussion. Where ? When ? How often ?

We could meet-up at existing cruise nights (Wheaton, Lombard, Elmhurst, ???) or create our own. If we had friends/colleagues/family with a business venue where we could assemble on a Friday night we could bring them some business too. We could hold the cruise nights in lieu of our regular meetings on the 3 summer nights (June, July, August). We could invite other AFVers to join us to make a 'green section'. What do you think folks ?

Welcome New FVEAAers

Ted Lowe

Join me in extending a warm welcome to new FVEAAers:

Michael Kroppe, Westchester
Ted Karson, Arlington Heights
George Anderson, Pecatonica
Jan DeLong, Schaumburg
Rick DeLong, Schaumburg
Jim Dawson, Romeoville
Daniel Casey, Chicago
Ray Lesnik, Aurora
Kris Campbell, Poplar Grove
Dave Rosenbaum, Aurora

Welcome aboard folks! We hope to see you at meetings and other Events! Let us know if we can be of help in your EV pursuits!