

**Fox Valley Electric Auto Association  
PO Box 214  
Wheaton, IL 60187-0214**

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## **February 2011 FVEAA Newsletter**

**The FVEAA is a Not-For-Profit Illinois Corporation and the Chicago Area Chapter of The Electric Auto Association**

### **Next Meeting**

**Friday, February 18th, 2011 - 7:00PM (doors open at 6:30PM) at  
Packer Engineering, 1976 N Washington St, Naperville, IL 60563**

**Packer Engineering is the on East side of Washington St, just North of the I-88 Tollway (North of Diehl, South of Warrenville Rd). Turn off of Washington onto Bighorn at the Packer Engineering sign, then take the first right into Packer Engineering and then an immediate left. Park in the lot between the buildings. 1976 is the new building up the hill. Enter the building in the middle of the North side.**

### **Agenda**

- Call To Order
- Old Business
- Committee Reports
- New Business
- Intermission: Refreshments, Networking and EV Viewing.
- Program: John Emde will discuss the steps needed to covert an AVCON station into a J1772 Charging station. He plans to show examples, and explain his recommendation about how to upgrade those stations.

### **President's Words**

*Rich Carroll*

I am really encouraged about the upcoming Chicago Green Festivals. This has all the earmarks of a really good exposure for the FVEAA, and it sounds like cooperation is occurring on several fronts within the club. We have a decent sized booth, and can put on a

good effort to getting our information out. The only disadvantage of the Festival is that is in the Lakeshore building at McCormick place, which is great for visibility of our efforts but costly in several aspects. We would be wise to consider beverage and food needs before we get to the show. I have a good friend who works as a carpenter for a couple of the firms that contract work out at McCormick Place. He doesn't work every show, but may be able to help us in several ways. His name is Rick, and he may be able to tell us how to get 117V power at a discount. I had hoped that he might have a handle on some used, but not badly abused display materials, but he has almost no access to that. He does know that several groups that do not display commonly at shows have purchased used displays of one of the online services, eBay or Craigslist come to mind. Normally the show chooses a color for all the drapes, and the drapes are just hung over steel pipes. Almost every exhibitor puts an display with a back on the floor, and the material they cover the display with is velcro receptive, and they can easily attach display photos, promotions, logo's and signs. The curtains that come as the rear wall of the booth are not velcro receptive, and we are not allowed to attach anything to the curtains or drapes anyway. Rick indicated that many exhibitors purchase an exhibit and sell it after their needs. Apparently, from what Rick says, the cost of renting one is almost identical to purchasing one.

We have a couple of months to work all this out, and with the enthusiasm of our members, I don't expect any insurmountable obstacles.

### **Preview of Chicago Auto Show**

*Rich Carroll*

Mary Culler, who is in charge of Governmental Affairs for Ford, and is a member of the CEVC committee, invited committee members to join her and her colleagues on Press Day at the Chicago Auto Show as Ford showed both the Ford Transit Connect Electric and the Ford Focus Electric. It was unclear as to whether or not the Focus Electric would stay for the show, Ford had a very early pre-production model there. Both of these vehicles looked like winners. The Ford Focus was a very nice mid sized car, and was very well appointed. Ford was reluctant to show the trunk, as the charging equipment had not been replaced with production units, and the test mule had misshapen boxes that significantly intruded on the trunk space. I was assured that the final product will not have limited trunk space, and will look much more finished than the pre-show pre-production prototype. It was still very impressive; this is not a roller, but a running, driving test bed. It is very, very close to production form. I want one, and I'm not much of a Ford guy!

The Transit Connect was one of the first batch of 50 or so hand assembled units, with the drivetrain from our old friends at Azure Dynamics. You should remember Azure, they purchased Solectria in 2002 or 2003 and continued to support the Solectria line with parts and answers to questions. Solectria had a long history of specialty electric powered vehicles, the best known of which was the Solectria Force. The Force was a Geo Metro, purchased as a glider, and purpose built as an electric. Solectria has a significant number of other attempts at production cars and small and even medium sized trucks, but looked like one of the bright startups that just didn't have enough capital to continue as things started to get good. Todd Martin, our VP has driven a Solectria Force for several years. I don't think I can see myself in a minivan right now, but , if I did, the Azure based Ford Transit Connect would be right at the top of my list.

Our presentation on the Ford Transit Connect was done by Mike Elwood, who is the VP for Marketing for Azure Dynamics, and he did show us an impressive little utility van. Azure Dynamics is a high quality, EV and hybrid drivetrain producer, whose headquarters is in British Columbia. Mike is from a suburb of Toronto, and we started by discussing Canadian Winters. (I remember trying to race cross country in between Toronto and Ottawa at 54 below. We shared some Canadian winter stories, and spent few minutes on battery chemistry and how it functions at ultra low temps.)

The first Transit Connects had seats for two in the EV presentation, but the battery pack sits on top of the cargo floor, so they are reengineering the seats to sit on a platform. The window van with more than just driver/passenger seats will not be on the market until July, but you can likely purchase a two seat Transit Connect Electric with a cavernous rear area this month. I didn't have a chance to talk to Mike during the presentation, but did wander back later and talk at length. Mike is also Chair of the Board of Directors of EMC-MEC

(Electric Mobility Canada – Mobilité Electrique Canada) whose mission is "to establish electric mobility, in all its forms, as the primary solution to Canada's growing transportation energy issues." We had a long discussion about Azure's past and future roles in electric vehicles.

Partway through the discussion, we were joined by Tim Mason who is the President of 350Green, who is the winner of the contract for the first stage of the CEVC charging station buildout. I had never met Tim before, but he did mention several other projects that 350Green is involved in up and down the West coast.

After these discussions I went on my own to view the other electrics, the Chevrolet Volt, the Honda Fit EV, and the Nissan Leaf. I admit that I kind of ignored the hybrids. I own a hybrid, and these aren't really that new. I did notice that two Buick models, Lincoln, no less than five models from Toyota are in the 'hybrid camp.' The displays for Volvo and Fiat did not have electrics in them yet, but each had an obvious space where one could be added before the show opens, and both manufacturers are known to have pure electrics on the road.

I didn't time my visits to the promotional announcements, but did find several people at the Chevrolet Volt exhibit that were most interested in what was being built out in charging stations, what had EV enthusiasts been doing lately, etc. They were as interested in my story as I was in their story.

Between the hybrids, the plug-in hybrids, the pure electrics, and the cars that don't easily fit into a class (like the Volt) it is going to be an exciting time to be driving without the sound of an internal combustion engine.

## **Meeting Minutes - January 2011**

*Bruce Jones*

FVEAA Meeting Jan. 21, 2011 by Bruce Jones

At 7:00 p.m. Rich Carroll opened the meeting and had all EV members introduce themselves. Then he urged non members to join the FVEAA as the "best deal in town." Rich also mentioned the Chicago Electric Vehicle Consortium is about to have a publicity event with the governor and dignitaries regarding the rollout of electrical vehicle charging stations. The goal is to have 30% installed by March 30<sup>th</sup> and work has begun on installing rapid DC chargers at Chicago toll way oases.

**NEW ITEMS FROM MANUFACTURERS** – none

**LEGISLATIVE UPDATES** - none

**COMMITTEE UPDATES**

**FINANCIAL ASSISTANCE** – George Vergara had no new news.

**TREASURER** - Todd Dore described the financial health of the club, and is still working on 2010 financial statements, hoping to have them at the next meeting. Along with Ted Lowe he mentioned we're still working to get an approximate \$1600 rebate from the EAA, thanks to Todd Martin who started a charging station project back in 2006.

**CHARGING INFRASTRUCTURE** - Todd Martin discussed a situation in Wheaton where Briarcliff Lakes is forbidding electric vehicles to charge there. He'll speak to the board and try to get them to change their minds. Likely issues may be related to safety and cost concerns but Todd believes some education may help change the policy.

**WEB** – Ted Lowe mentioned the forums have had some intermittent problems

**OUTREACH** - Rich Hirschberg had no news

**NEWSLETTER** – Keith Baubkus had no updates

**PROJECT** - Ken Simmermon had nothing to add

### **OLD BUSINESS**

Projects in the works – Bob Baker mentioned he is within a month or so from finishing a Honda civic conversion using a neatly wired Warp 9 motor, 10 x 12 volt lead acid batteries.

Dio Vesselinov is working on an electric Mitsubishi Eclipse conversion and working on getting low cost lead acid batteries.

### **NEW BUSINESS**

Ron Vann mentioned an interesting seminar on Feb 4<sup>th</sup> at Fermilab regarding batteries and electrochemical energy for transportation.

The Chicago Auto Show is on Feb 11 – 20<sup>th</sup> for those interested in going to see the latest green cars.

### **GREEN FESTIVAL**

Todd Dore suggested the club needs to spend some of its funds and wisely promote the education and the use of EVs. The Green Festival appears in four cities San Francisco, Chicago, Seattle, and Washington D.C. So he recommended we sign up for a booth. Cost is around \$1500 or so at McCormack Place in May. Discussion was held among the attendees. Todd will check the date and space and will put some time into coordinating the booth and setting up a meeting. Dio said he could provide a wide screen TV and assist with preparing a movie in the booth.

### **PACKER CHARGING STATION**

Rich Carroll mentioned there had been some preliminary work to survey the Packer facilities but the project seems stalled. We are not interested in doing a "home conversion" of the existing Avcon charger there due to liability reasons. And Packer is looking for a way to reduce energy usage in the 1976 building so getting new charging stations there may take a while.

### **DOOR PRIZE**

Due to complications and potential costs with auctions and/or "Raffles" we will have a door prize instead. All members will get a ticket.

### **CONDOLENCES**

Bill Schafer passed away last weekend memorial service tomorrow at St. John's Lutheran in Forest Park at 11:00 a.m. In lieu of flowers the FVEAA Board approved a \$100 donation to the Alzheimer's association. Bill was an important, 35 year founding member of this organization, and he was a key leader in its initial creation.

### **BREAK**

Vehicles – Todd Dore's electric VW bug and Ted Lowe's electric S-10 pickup truck were on display.

DOOR prize – shirts from Plug-In Vehicle Solutions and several items were on display.

BREAK was from 8:00 p.m. to 8:25 p.m.

### **EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT RELAYS**

Todd Martin presented on Relays and described how they work. He also provided a handout on the technical aspects of a relay and explained how a multimeter with digital readout works.

Relays allow high current devices to operate using a low current device. Good job Todd!

### **MAKING CHOICES WHEN BUILDING AN EV**

Rich Carroll then presented "Making choices when building an EV," especially for those who are interested in building an electric vehicle. He started with picking the right type and quantity of batteries for the range required, then picking the type of vehicle – minivan sports car etc., one that "you'll love to drive."

Rich also described, legal and insurance issues where some rates go down, but others go up when you drive an EV, and the issues with license plates and restrictions, plus parking ordinances on trucks etc.

Rich strongly suggested choosing a rust free vehicle which makes bolting and unbolting easier and improves vehicle life, like a southern truck, without rust. And bad reasons to pick a vehicle included picking a vehicle that doesn't run, or if it has automatic transmissions, air conditioning etc.

### **J-1772-2010**

Rich also presented on what to expect in new EV charging connectors, the J1772-2010 which provides 240 VAC x 70 amps maximum charge capabilities. He covered high speed DC charging technologies for cars like the Nissan Leaf, using the JARI direct DC high amperage connector created by the CHADEMO consortium. JARI is the Japan Automotive Research Institute and JARI handles 600V 550A maximum, and is a charging technology in the Level 3 category, but it is not yet an SAE approved official technology. SAE is letting the Level 3 specification float, allowing the market to help dictate what direction it should go. Rich also talked about various charging stations, connection fee schemes and cars. The ICC prohibits selling electricity in kWh but it is possible to charge by hour or other method. There are 2 proposals in front of the ICC that are looking to change the rules. Thanks Rich!

Rich Hirshberg to check w / Volt dealer(s) to discuss signing up Volt buyers with the FVEAA.

At 9:20 p.m. the meeting ended.



**FVEAAers checking out Todd Dore's all-electric VW bug**



**Todd and his "lightning bug"**



**FVEAA Membership Application Form**

Name: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City, State Zipcode: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Phone Type: Home \_\_\_ Work \_\_\_ Cell \_\_\_  
 Email: \_\_\_\_\_

Please check one: New Member \_\_\_\_\_ Renewal \_\_\_\_\_

How did you hear about the FVEAA ? \_\_\_\_\_

| Member Types and Annual Dues<br>(Please circle one) |       | Newsletter Delivery Types (Please<br>circle one) |      |
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| Charter Business                                    | \$500 |  |      |
| Total Due from Both Columns:                        |       |  |      |

Please make your check payable to "FVEAA" and postal mail it with this membership application form to:

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