

**Fox Valley Electric Auto Association**

**PO Box 214**

**Wheaton, IL 60187-0214**

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## **OCT 2013 FVEAA Newsletter**

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

### **Next Meeting**

**October 18, 2013**

**Community Christian Church**

**1635 Emerson Lane, Naperville, Illinois 60540**

at the intersection of Ogden and Rickert Drive in Naperville

Also called the "Yellow Box." We'll meet in the little theater west side, 1st floor

Map: [Community Christian Church](#)

**DOORS OPEN 6:30 p.m. MEETING STARTS 7:00 p.m. ENDS 9:15 p.m.**

### **Agenda**

- 6:30 Doors Open
- 7:00 Call to Order, Welcome and Introductions
- Committee Reports
- Old Business / New Business
- Review of EV Events and Plug-In Day 2013 on Sept. 29th
- Presentation: Deb Seymour - Seattle-area EV Happenings, Etc.

- Presentation: Tom Brunka - Helwig Improvements For Your EV Motor
- Break
- Presentation: Tom Brunka - Do We Need BMS For Lithium Ion Batteries?
- 9:15 Close

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**FVEAA is now on Facebook** thanks to member Grant Gerke. Check it out and **Like** us at: <https://www.facebook.com/FoxValleyElectricAutoAssociation>

**President's Words**

*Bruce Jones*

**Hi EVeryone  
Last Month**

We had a terrific presentation from David Zygmunt who showed how he plotted, planned, drove and charged his Tesla Model S around Lake Michigan Sept. 13 – 17. We learned a lot about how to prepare for such trips to insure electric charging is available (always have a backup plan!), and we saw many of the nice landmarks and events in and around Lake Michigan on his 1222 mile journey. Then V.P. Rich Hirschberg gave us a very informative history of the electric car. Excellent job Dave and Rich, thanks for sharing.



David Zygmunt and his silver Tesla Model S

Rich Hirschberg

**NCEC “Revenge of the Electric Car”**

The Naperville for Clean Energy and Conservation (NCEC) headed by Stephanie Hartong Hastings held a showing of the Revenge of the Electric Car movie at the Naperville Municipal Center on Friday Sept. 27. Around 30 people showed up to view the movie, which was actually produced from Lombard, IL. In fact two of the movie’s producers were there, and at the end of the evening a panel of experts and electric vehicle representatives, including yours truly, were there to answer questions posed by the audience. Really nice evening and good promotion for Plug-in Day.

**NATIONAL PLUG-IN DAY 2013**

Over 110 people showed up to see 26 electric vehicles, and hold 70 test drives of electric vehicles on Sunday Sept. 29<sup>th</sup> at the Naperville vehicle test track. Thanks to everyone who showed up, it was a beautiful day to hold the ride n drives and promote electric vehicles. Thanks to everyone who volunteered, Rich Hirschberg for coordinating, Rich Carroll for the signs, Jim Schmidt, Todd Martin and everyone else for pitching in to make it a

great day. The pizza was really tasty!

## **ELECTIONS**

Congratulations to those who were elected to leadership positions in the club. Please see the meeting notes for final results. Looks like another great year is ahead. Invite a friend to join!

## **THIS MONTH**

This month Ted Lowe has coordinated a nice package of technical presentations by Tom Brunka on Electric Motor Brushes and BMS-less Lithium Ion Batteries.

Just to let you know, we're already starting to plan for the December Holiday party and Todd Dore is collecting ideas on location. If you have any suggestions please contact Todd.

See you all on Oct 18

**Thanks  
Bruce**

## **This Month's Presenters**

Ted Lowe

We are lucky to have two presenters this month!

1) Deb Seymour is an EV activist from the Seattle area and will update us on what's happening out there! You can catch her on her website at Deb Goes Green: [www.debgoesgreen.com](http://www.debgoesgreen.com). Deb has also written and performed a great EV advocacy song called 'Little ZENN Car'. Maybe we will play it at the meeting. Here it is on YouTube, please share widely: [www.youtube.com/watch?v=byPFCLc0w-w](http://www.youtube.com/watch?v=byPFCLc0w-w)

2) Tom Brunka brings a tremendous amount of automobile and EV knowledge and will speak on two topics! Here's more about him in his bio:

"Tom is the senior lab technician for Helwig Carbon Products, Inc., and has a degree in electronics with over 35 years of experience in the electrical industry.

As a member of the Helwig engineering team, Tom has worked closely with several well-known electric motor manufacturers in the design of specialized brushes to suit the needs of their applications, including the ability to handle extreme loads, or improve efficiency. A few noteworthy manufacturers include Advanced Motors and Drives, D&D Motors, NetGain Motors Inc., and Mars Electric LLC, whose motors are specifically designed for EV applications. Many parameters affect brush performance and life; Tom along with the Helwig engineering team analyze and recommend brush grades and designs based on requirements.

A devoted and long-time automotive enthusiast, Tom's knowledge and passion for the electric vehicle has come naturally. He is an avid member of two EV clubs, with his own EV currently under construction."

His company's website is [www.helwigcarbon.com](http://www.helwigcarbon.com) and he can be reached via email at [tom.brunka@helwigcarbon.com](mailto:tom.brunka@helwigcarbon.com).

## **Pictures**

Dio Vesselinov and Bruce Jones



**National Plug-in Day Sept. 29, 2013**



**NPID crowds**



**Chris Young**



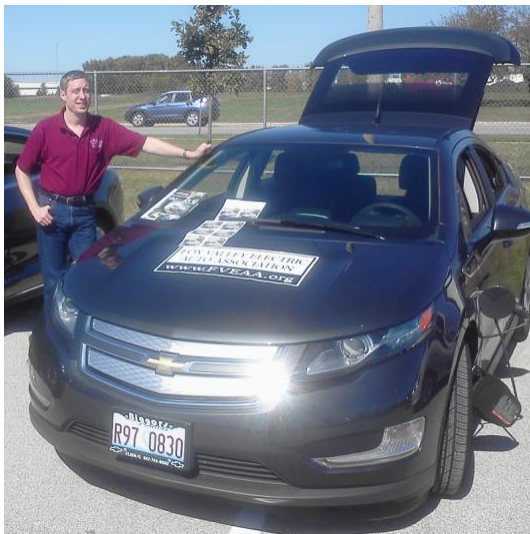
**NPID at the Naperville car test track 1720 West Jefferson.**



**Nissan booth with 5 Leafs**



**Toyota Rav-4**



**Model S**

**Meeting Minutes***Grant Gerke*

President Bruce Jones opened the meeting at 7:00 p.m. and attendees introduced themselves. Remember dues are only \$15 per year, the best deal in town. He presented the agenda for NATIONAL PLUG-IN DAY SEPTEMBER 29<sup>TH</sup> 1:00 – 4:00 p.m. and discussed the schedule.

We booked the Naperville test track that Sunday from 1:00 to 4:00 p.m. All FVEAA members should bring their electric vehicles to show to the public. 1720 West Jefferson Avenue, in Naperville.

We'll need folks to set up and tear down, and then eat some pizza!

Bruce presented a summary of PHEV Sales and variety of EV industry updates

Old Business/New business

**Ted Lowe**

1. IL solar energy association is raffling a Volt, 3,000 tickets. Posted on our web and facebook and they will at the National Plug -in Day
2. Madison area - Level II & III chargers in Madison, more than 30 in the area.
3. October meeting - Seattle Electric Assn, Deb Seymour will be here at the meeting; speaking at the event. Also is a folk singer.
4. Part II - Tom Brunka, one on Elect. motor brushes & teaser - you don't need a BMS for Li-Ion batteries. Jack Rickard evtv.me -- in agreement.
5. Part III

**Todd Martin**

Update on last month's Level II charging stations; paying ½ for the units FVEAA. 3 units. You can charge for free. Going for vote in the middle of oct (will be approved). 75% of the installation costs.

**Todd Dore -**

Treasury plenty of money

**Rich H. --**

Variety of outreach: car shows, parades and movies. Homeowner Associations.

**Committee Reports**

7:10 - Upcoming events, National Plug-in day

sponsored by the EAA & Sierra

1:00 - 4:00 before 1pm if you want

4 Nissan Leafs (2 for ride & drives)

Chevy Volt - Bringing any?

Pizza afterwards

Club canopy

Location signs - Rich Carroll

Todd - Has a magnetic stick on sign.

Come with your EV after noon.

Drinks/Refreshments/pizza - 4 pm.

Done leave by 5pm.

Nametags/Markers

7:20 - 7:35 Elections

74 cities

PHET updates:

- no longer to PHEV but PHET (Plug-In Hybrid Electric Transportation), boats, airplanes

EDAirplane

- electric taxiing system saves fuel
- wheel tug - frontwheel drive
- honeywell - Safran- rear wheel drive
- short - to medium flights; cost effective with the extra weight
- [aviation.com/awx\\_06\\_16\\_2013](http://aviation.com/awx_06_16_2013)

Twitter powered car, drayson racing - world record, 7 electric vehicles, Tesla at CNH per Michael bodein; EV opportunity NY

Revenge of the Electric Car Movie

Next Friday, 9/27,

downtown municipal meeting (NCEConseV)

Revenge of the Electric CAR

EV PRomotion Contract Opp - Ny

PON 2755 EV - Enabling Technology

Converted Electric Karma Ghia runs on Tweet and Social Media, huh

- Minddrive Gola to start natl conversation about experiential learning to transform educational sys.
- 20 at risk students restored and converted 197 VW Karman Khia
- 5 watts - Twitter follow; 3 watts - for mention
- Building kit car for low speed urban travel

Drayson

- sets new electric land speed record
- 6/25/2013 lord play drayson set world record
- top speed of 204.2 (328.t km/h)

Seven EVS for the city and a budget

honda fit,, nissan leaf, ford focus, mitsui iMiev, smart, 2013 Toyota Rav4 EV, Tesla of the future

- Tesla @ CNH Burr Ridge 9/11/2013
  - Michael Bodine
  - Tesla meeting Case Holland, Burr Ridge
  - Dustin Krause

### **Election Results - New Officers**

President - Bruce Jones

Treasurer - Todd Dore

Secretary - Grant Gerke

3 Directors: Jim Schmidt (new replacing John Emde), Ted Lowe, Rich Carroll.

### **7:30 - 8:05 David Zygmunt - Model S trip around the lake**

Dave gave us a great summary of the road trip he took in the Tesla Model S planning, rated miles on the model 2. public charging, RV parks , spontaneous

- 85 kW -- 265 miles
- Plugshare, Chargepoint, Allstays (allstays.com)
- Stopped in Kalamazoo
- Looking for reviews of public charging stations (+)
- ChargePoint network - MI & Wisc
  - whether they are in use or not
- Camp & RV parks
  - amenities - 50 amp plug
- Choose the chargepoint network
- RV parks - 3 miles away, Minising, MI, St Ignace motel

- Rockford, IL - Tesla Supercharger
- Draw elevation maps -- Madison to Rockford
- Lake Zurich to Kalamazoo, MI
  - 70 miles
  - 65 F (196 miles, 330, 64.7 planned)
  - 202 (302, 60.9)
  - J1772 - 12hr
- Kalamazoo to Muskegon
  - chargepoint
- Muskegon to Traverse City
- Traverse City to Mackinac Island
- Mackinac Island to Pictured Rocks
- Pictured Rocks to Green Bay
  - Voltage sags at certain charging unit.
- Green Bay to Taliesin
  - Changed plans from green bay
- Taliesin to Madison, WI
  - Charging infrastructure in Madison
  - Chargepoint
- Wanted a 40 mile buffer in general.
- 87 miles from Madison to Rockford
- Full 15 miles left
  - 360 V 15 minutes and 75 mile range.
- Rockford to Lake Zurich
- 1,221 miles 336.1 (total energy) avg energy 300 wh/mi

A lot of planning was needed.

Rated miles indicator

Very reliable, just don't drive fast



Top factors that reduce range  
cold temperature outside  
speed

RV parks

mixed reactions, 3 of 5 RV parks welcomed me.

Spontaneous

not really, a day before

allstays.com; plugshare.com, chargepoint.com

no reviews, look for another.

Q&A:

- parking garages don't usually charge money (off of the parking fees)
- Two illinois tesla supercharging stations. 25 charging stations.
- By 2014 Tesla Superchargers will enable travel to detroit & michigan.

BREAK

8:45 9:15 Rich Hirschberg - History of the Electric Car

PreEV history

- steam-powered vehicles
  - stanley steamer
- ICE took over
- 1828 hungarian Anyos Jedlik
  - small-scale power
- Scott Robert Anderson
  - 1832 & 1839
  - powered carriage
- 1835 Hollander prof. stratingh
  - small scale car

- davenport, a blacksmith from vermont

## EV History

- 1865 French physicist Gaston Plante invent a better storage battery
- 1881 Gustave Trouve
  - 3 wheeled electric automobile
- 1899 Belgian elv La Jamaia Contente
- American Designs
  - 1895 Americans began to devote
  - A.L. Ryker and Bill Morrison built a six-passenger wagon both in 1891.
- Innovations
  - early attractiveness in 1900s
  - 1st ev william morrison, des moines, IA
  - 1888, 6 passengers
  - 14 to 20 mph
  - 24 rechargeable cells
- Mid 1890s - Passenger EVs
- King, olds, baker electric, anthony electri, detroit electric, pioneer auto, Packard, Fey
- High point of electric cars, outsold 1899 and 1900
- 1902 phaeton, 14 mph \$2000
- Thom edison - top speed power - 20 mph
- sold as town cars - upper class customers
- ICE cars -
- Ev racing history -
  - they called it moto - cycles - 1895,
  - chicago to evanston
- Elwood hayes - favorite to win the race, but damaged it on the way there.

- nov. 2
- 83 entered only 6 were entered.
- the day was snowy 38 deg; three benz ran in the race on thanksgiving day.
- a couple of electrics were in the race.
- mueller-benz, 2nd place.
- EV history - WWI
  - Battery SWap idea - Berlin
- 1961 henney Kilowate EV - Elcar
- 73 GM uran electric car
- late 90s - GM impact to EV1
- GeM NEW

## Membership Form

Ted Lowe

### 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

(Please circle one)

#### Newsletter Delivery Types

(Please circle one)

Individual	\$15	No Newsletter	\$0
Family	\$20	Electronic Only	\$0
Business	\$100	Postal Mailed	\$15
Premier Business	\$250	Postal Mailed and Electronic	\$15
Charter Business	\$500		

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Total Due from Both Columns:

Please make checks payable to "FVEAA" and postal mail it with this membership application form to:  
**FVEAA**  
**PO Box 214**  
**Wheaton, IL 60187-0214**  
 Attn: Membership

**FVEAA Business Members**

<div data-bbox="107 758 678 1087" data-label="Complex-Block"> <p><b>Netgain Motors, Inc.</b></p>  <p>NetGain Motors, Inc.</p> <p>Exclusive worldwide distributor of WarP™, ImPulse™, and TransWarP™ electric motors for use in electric vehicles and electric vehicle conversions.</p> <p>900 N State St, Suite 101        Lockport, IL 60441        630-243-9100        Fax: 630-685-4054</p> <p><a href="http://www.go-ev.com">www.go-ev.com</a></p> </div>	<div data-bbox="727 699 1289 867" data-label="Image"> </div> <div data-bbox="716 884 1198 1129" data-label="Text"> <p><b>Bob's Hillview Auto</b>        Bob Baker        4c Hillview Dr        Lake Barrington, IL 60010        Work: 847-842-9543        Email: <a href="mailto:bobshillviewauto@gmail.com">bobshillviewauto@gmail.com</a>        Web: <a href="http://www.bobshillviewauto.com">www.bobshillviewauto.com</a></p> </div>
<div data-bbox="120 1230 459 1356" data-label="Image"> </div> <div data-bbox="99 1413 581 1623" data-label="Text"> <p><b>Harris Precision Tools</b>        Robert Harris        10081 Anderson Ave        Chicago Ridge, IL 60415        Phone: 708-422-5808        Email: <a href="mailto:harrisprecision@comcast.net">harrisprecision@comcast.net</a></p> </div>	<div data-bbox="716 1335 1190 1581" data-label="Text"> <p><b>Plug-In Vehicle Solutions, Inc.</b>        Mike Piscitelli        1104 Coventry Circle        Glendale Heights, IL 60139        Cell: 620-248-8810        Email: <a href="mailto:mpiscitelli@getplugging.com">mpiscitelli@getplugging.com</a>        Web: <a href="http://www.getplugging.com">www.getplugging.com</a></p> </div>