



August 2017 FVEAA Newsletter

Fox Valley Electric Auto Association

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

Next Meeting

August 18, 2017 Meet 6:30 p.m. Starts 7:00 p.m. Ends 9:30 p.m.

NOTE ALTERNATE MEETING LOCATION FOR AUGUST 18

The Small Wonders Micro/Mini Car Museum

3515 Oak Ridge Rd. Crystal Lake, IL 60012

[Map to Small Wonders Museum](#)

Agenda

- 6:30 Doors open -> Sign-in Sheet
- 7:00 Call To Order, Welcome and Introductions
- 7:15 Planning National Drive Electric Week and other Car Shows
- 7:30 Nominations of officer and board positions
- 7:35 Close then subsequent museum viewing

President's Words

Michael Willuweit

The FVEAA will meet in Crystal Lake at the Small Wonders Micro/Mini Car Museum for our August meeting. The address is above in red with a link to a map. This is a private residence and Bob Baker has worked hard to bring our meeting there. This museum is not run for a profit. The owner would like each attendee to donate to the local food pantry, suggested donation is \$10. The FVEAA will be making the payment for our members. We are asking attendees to reimburse the club for this donation if they have the means. We have been very fortunate that our club has been able to operate at very little expense, mostly due to the generosity of others, and if the club 'loses' money to a food pantry for our meeting, the board is willing to accept that loss.

In what should be a very short meeting, nominations for all board and officer positions will be open until we vote in September. The next month and a half will be a very busy month for EV events. Please see Bruce Jones's minutes from our last meeting. For those who enjoy cars inside and outside the EV realm our Vice President Rich Hirschberg has worked hard to bring a car show at the Home Depot in Schaumburg on August 26th. Also in this newsletter, please read 'Rich's Ramblings' as it recounts the amazing news Hunter Hamstra from Netgain Motors shared at our last meeting

Lastly I was informed by club member George Zogaib that his mother-in-law Loretta DeBoth had passed earlier this month. Loretta was the wife to club member Ray DeBoth for 70 years. Our thoughts and condolences to Ray, George and the whole family.



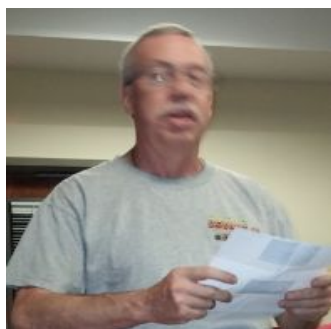
Hunter Hamstra presents new and exciting announcements at NetGain Motors



Mike and Bruce charging up at the Fox Valley Ice Arena at the July 21st meeting



Rich Hirschberg reviews the next Outreach events



Bob Baker describes the location of Small Wonders Mini/Micro Car Museum 3515 Oak Ridge Rd in Crystal Lake on Aug 18



President Mike!



George Hamstra of NetGain Motors

<https://www.facebook.com/FoxValleyElectricAutoAssociation>

In October 2015, i created a Facebook group for the FVEAA and invited all the past and current FVEAA members i know that are on Facebook. There are 69 members as of 8/15/17. If you're on Facebook but not in the group, yet please join us! If you're not on Facebook yet, please consider joining so you can join our group there! This group will help to replace our forums because it is much easier to use, read, post pictures and videos and get notifications. Please let me know if you have any questions/comments/suggestions. Hope to see you there! <https://www.facebook.com/groups/889497691136309/>

The announcement by Hunter Hamstra and Net Gain Motors at the July meeting is a game changer in the EV conversion market.

As most are aware, all of the successful, commercial EVs in mass production in the past 20 years have been AC powered. AC motors must be carefully matched to their controller/inverter, and should be thought of as a package. There hasn't been a reasonable package for AC motor and controller in the conversion market in the past. Yes, a \$2,500 motor and \$5,000 controller would have been possible, but most considering a conversion looked at DC motors (just under \$2,000) and controllers that were in the \$2,500 - \$3,000 range. Thus, the major components (motor/controller/pedal) started any conversion cost at close to \$5K, plus batteries.

This new HyPer 9 with an inverter/controller/motor/pedal combination for about \$4,000. Are there advantages, other than the lower price? You betcha.

Better efficiency, better heat dissipation, easily controllable regenerative braking are high on the bullet points. The entire package can be fairly easily adapted to many possible conversions. The suggested system voltage of 120 V (130 absolute max) means a slightly different approach to battery pack specifications, but allows for somewhat less expensive components like the DC/DC converter used to take traction battery voltage and make 12V+ for automotive systems like headlights, fans, wipers, radios, etc.

Hunter reports he shipped a motor and controller to EV West (who has done several VW beetle EV conversions) and by adapting a Beetle differential (Type 1) to a very tired VW panel truck, they were able to get the truck running (and doing burnouts) three days later. That's starting from a truck that crashed against a fig tree years ago, dragging it out of where it was buried next to the fig tree, and repowering it with Lithium and the new HyPer 9. Fortunately, he did not measure or report the force of the acceleration burnouts, as the units likely would have been in multi fig-kilo-newtons.

With more efficiency, more range, less heat waste, lowered component price for DC/DC converters, regenerative braking, and a substantial saving in initial cost, why would you consider starting a DC conversion?

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FVEAA members are presented with a once in a life time choice for this Friday, and you can't do both. The first choice is our meeting, which is not only at a wonderful museum, but offers really fascinating, focused EV tour. Ken Weger's Small Wonders Museum houses over 100 microcars, most are completely unfamiliar to the automotive public. These are truly tiny automobiles, most are much smaller than common cars of today, but

many are capable of highway speeds. Ken Weger has agreed to give us a focused presentation of the battery powered microcars, a most unusual opportunity.

On the same night, NEDRA (National Electric Drag Racing Association) has arranged for many of the leading electric powered dragsters in the country to race nearby in Michigan. Midnight Madness will occur, also this Friday, from 6pm to midnight (local times) at the US 131 Motorsports Park in Martin, MI. The track is north of Kalamazoo, about a three hour drive from Chicago. Check out NEDRA.Com or their Facebook page for more details.

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I had planned on more explanation on both of these topics, but my computer motherboard suddenly became unreliable (again) (terrible ASUS customer service) and I'm forced to enter text on my phone. A virtual keyboard under a layer of Gorilla Glass is hardly acceptable for short texts, but for articles, it becomes quite a chore. Adding to the problem, auto-correct seems to have been changed to auto-corrupt. My "grrrrrrr" has nothing to do with the screen manufacturer.

Membership Update Ted Lowe

We currently have **66 active paid-up** members, same as last month! Please renew and recruit new folks!



FVEAA Membership Report
as of 2017-08-15 04:58:05

Count of Members by Type

Membership Type	Count	Paid Up
BusinessStd	1	1
Family	7	7
Individual	56	55
LifetimeInd	3	3
Totals	67	66

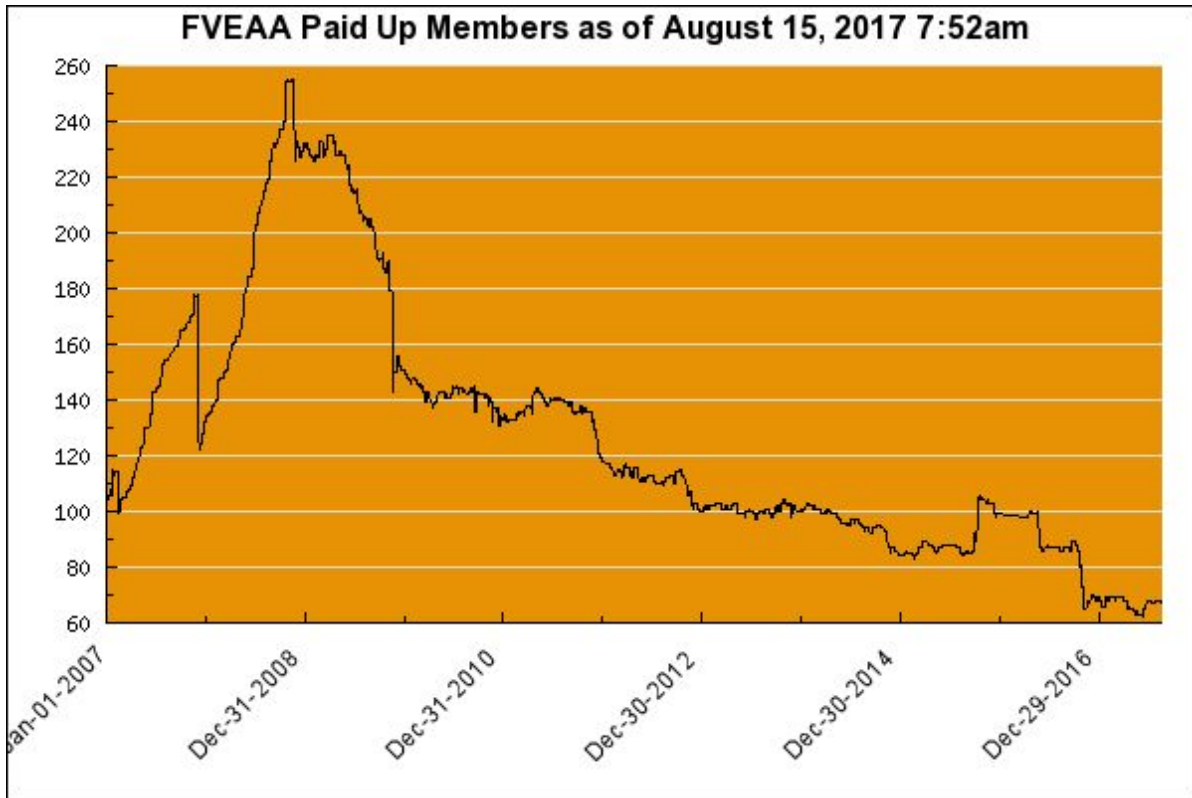
Other Statistics

Statistic	Value
% Paid Up	98.5%
Avg. Paid Up Days	155.0 days
% With Email	94.0%

Encouraging Our Membership To Grow in 2017 and Some History Ted Lowe

We live in a large metro area with 8 million people and EVs are the latest buzz so we should be able to grow the FVEAA! **Please invite your friends, neighbors, family, colleagues**, etc. to FVEAA meetings and EVents. Volunteer to attend EVents on behalf of the FVEAA (with or without an EV)! Your ideas on how to help grow the FVEAA are welcomed at anytime, thanks! Howard Hansen had a **great idea**... giving an FVEAA membership as a gift!

Here is a time-varying graph of our membership size from 2007 to now. Note that we peaked at about 255 members in the Summer of 2008 when gas was nearing \$5 per gallon. We were also attending lots more invitational EVents with our EVs. **Let's get out there and grow the FVEAA in 2017!!!**



Membership Renewals

Ted Lowe

Our membership system sends out “renewal reminder emails” before your membership is due. You will receive up to 3 before being marked “not renewed” (inactive). The sooner you renew, the fewer emails you will receive :)

So please pay attention to your email from the FVEAA and renew online using this link (for the easiest approach for all of us):

<http://www.fveaa.org/renew>

THANK YOU for your continued support of the FVEAA!

Meeting Minutes - July 21, 2017

Bruce Jones

The meeting opened at 7:05

- President Mike Willuweit opened up the meeting and introduced himself.
- Those in the audience then Introduced themselves including George Hamstra and his son Hunter

NetGain Motors

- Hunter from NetGain was the featured speaker who presented what the company has been doing to develop new electric motors over the last 4 years.
- The talk included many awards for their motor achievements, and the new HyPer 9 AC motor which is a 100v nominal Voltage, Current 750 amps, 173 ft. lbs of torque at 0 rpm, weighs 120 lbs 3 phase motor with regeneration, along with the Controller
- NetGain Motors signed a worldwide agreement with SME for non-production electric vehicles and distribution of other items
- SME a manufacturer of controllers and motors is headquartered in Italy but has offices in China and Canada
- Hunter described their Synchronous Reluctance motor

- completely sealed
- generates almost no heat in the rotor
- 95% efficient (versus AC induction 92%)
- Hyper 9 motor and Controller production this Fall
- George suggested coming out on Friday Aug 18th to the U.S. 131 drag strip in Michigan (north of Kalamazoo) for some exciting NEDRA electric vehicle racing
- Discussions with the group on various aspects of the motors

Rich Hirschberg – OUTREACH EVENTS

- 8/18 Next meeting
 - At Ken Weger's Small Wonders Micro/Mini Car Museum
 - Per Bob Baker we'll assemble at 6:30 p.m. and end 9:30 p.m.
 - 3515 Oak Ridge Rd. Crystal Lake, IL
 - [Small Wonders web site](#)
- 8/19-20 Illinois Renewable Energy Association (IREA)
 - Illinois Renewable Energy & Sustainable Lifestyle Fair
 - Location: Oregon, IL 61061
 - Contact Jeff Green
 - [IREA Fair](#)
- 8/26 Schaumburg Home Depot Event and Fundraiser
 - Rich Hirschberg coordinating this event
 - Sat Aug 26st 10-4pm
 - 100 Barrington Rd. Schaumburg
 - [Home Depot Location](#)
- National Drive Electric Week Dates: Sept. 9 to 17 Locations:
 - (see 8/26 event alternative)
 - 9/17 EVent 2 - Naperville Test Track Setup 12:00 noon, open 1-4, take down /pizza after
- Steve Clark made an objection to the \$10 entrance fee for the upcoming meeting and the board will discuss ways to provide a fee donation to the Museum without requiring a mandatory entrance fee
- **We ARE MEETING AT A COMPLETELY DIFFERENT LOCATION in AUGUST - the Micro/Mini Car Museum in Crystal Lake run by Ken Weger**

Meeting Adjourned at 9:00 p.m.

FVEAA Membership Application Form - Version 2014-01-01

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 ? _____

Membership Types and Annual Dues (please circle one):

Individual	\$20
Business	\$100
Premier Business	\$250
Charter Business	\$500

Newsletter Delivery Type (please circle one): No Newsletter Electronic

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



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It is great having near zero, or sometimes even negative, rates to fill up my car for nearly free or even better!

—Daniel H., Hourly Pricing participant since 2015

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