



## February 2022 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

**This month's meeting is on Friday February 18, 2022  
7:00 p.m. on Zoom only**

We are using the Zoom video-conferencing platform to hold this VIRTUAL meeting. Zoom runs on all computers and phones. Some setup is required prior to your first use of Zoom on your device of choice. Connect to the meeting a bit early (6:45pm earliest) by using the link below to test your connection. Please call Ted Lowe (630-260-0424) if you want help getting Zoom installed on your device of choice. You can also dial-in on your telephone to have an audio-only connection (see phone number and meeting ID below). The audio on your device will be automatically muted upon entering the call to avoid disrupting the call.

Pre-meeting setup check starts at 6:45pm.

Meeting starts at 7pm and will run until 9pm.

Use this information to connect if you want to join remotely:

Topic: FVEAA February 2022 Monthly Meeting

Time: Fri February 18, 2022 6:45 PM CST (pre-meeting setup check), Meeting 7:00 PM

### Join Zoom Meeting:

<https://us02web.zoom.us/j/95901481473?pwd=U npJVUJOUmVPOFZqR013ZFpPbzM0UT09>

Dial-in for audio-only users: Call: 312-626-6799

Enter Meeting ID when prompted: 95901481473#

Participant ID: (blank, just #) \*6 mutes/unmutes your line, \*9 raises your virtual hand

Contact us if you need the password for audio only calls.

Topic: FVEAA February 2022 Meeting

Time: Fri February 18, 2022 7:00 PM CST

### Agenda

- 6:45 Virtual Meeting Starts (to test connections)
- 7:00 Introductions
- 7:30 Ryan Walsh on Valqari Electric drone delivery

- 8:00 Break
- 8:05 Jeff Miller and Tim Moore on EV road trip driving tips
- 9:00 Close

**In Memoriam - Ray DeBoth, great FVEAA friend and much more**

Ray DeBoth, long time FVEAA member passed away on 1/20/2022 at the age of 99. Ray was an avid member as a former professor at Illinois Institute of Technology where he promoted the development of a Zinc Air battery in his pursuit of battery storage alternatives and renewable energy technologies.



4/15/2011 Ray presented a Zinc air battery that he was developing with his students at the Illinois Institute of Technology

Aug. 18, 2017 Ken Weger's "Small Wonders" Micro / Mini Car Museum (L to R) George Zogaib, Bob Baker, Ray DeBoth, Ken Weger, Maureen Stillman, Matt Remec and Mike Padberg before the tour



05/20/2016 Ray (R) discussing electric bicycles with son-in-law George Zogaib



10/19/2018 Ray (R) with Matt Remec at the FVEAA meeting at Jeff Miller's house

The FVEAA offers its sincere condolences to the family of Ray DeBoth, including son-in-law George Zogaib another FVEAA member, and we thank you for your many years of dedicated service seeking alternative energy, and developing battery storage technologies.

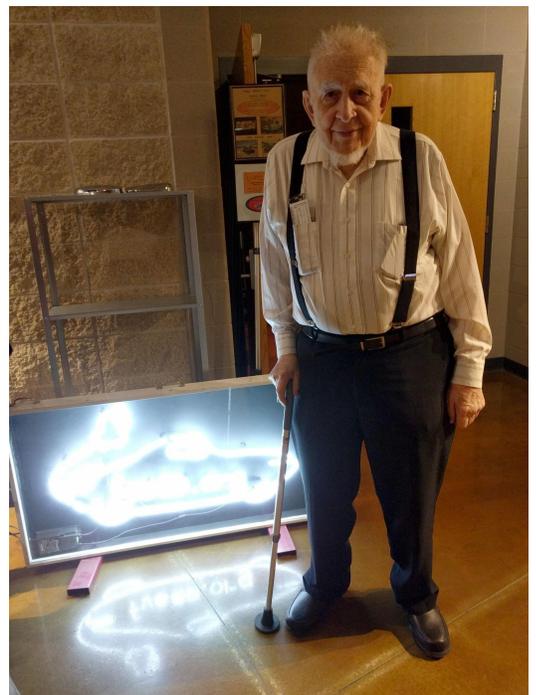
Obituary can be found here.  
<https://www.hursen.com/obituary/raymond-deboth>

RIP Ray  I really appreciated your friendship for almost 20 years from the first time we met at Triton college (back in the days)! I immediately took a liking to your humble, intelligent, kind, wise, curious and highly-technological ways!!!

With much gratitude, ted lowe



Ray and "many FVEAA oldtimers" at Triton College circa 2005



## January Meeting

Thanks to Bruce and Ian for presenting in January. Bruce is breaking ground by codifying EV charging and Ian went into some detail on heat pumps and what you want to look for living in Northern Illinois. For those that missed it Ian actually presented a video which can be found here: [https://youtu.be/mKixXQv0\\_MI](https://youtu.be/mKixXQv0_MI) He has taken the road less traveled by reducing Natural Gas and those that missed can watch it at the link above!

## February Meeting

On the agenda for the February meeting is Ryan Walsh from Valqari Electric drone delivery.

<https://www.valqari.com/>

I look forward to hearing about the technology they are using for electric drones. Normal consumer drones don't really put in many flight hours a year, so their batteries can trade life for energy and power density. This is a commercial aviation venture so cycle life is a consideration. The airspace rules and automation are also interesting challenges.

Second, myself and Tim Moore are going to discuss some road trip tips. As most of us live in the Chicago land area during the winter we know there are things you want to consider as you take your EV out for a drive when the temperature plummets. Road trips can compound some of those challenges and make them worse, and actually help with others. We will be focusing on the Non-Tesla world, however I use these same methods when I am planning my Tesla trips too because the plan Tesla comes up with isn't always what I want to do.

## Recent Events

The Super Bowl was Sunday night and EV's appeared in about half the car commercials! Even more interestingly, Wallbox advertised their home charging station. I have always viewed the Super Bowl ads as a benchmark of what message companies are really trying to get out there and advertising EV's during the game is an exciting benchmark.

The state is considering dropping its mask mandate around the end of the month. That is certainly a sign of the times, and we are all hoping that we are able to get together indoors this spring.

## Car shopping again

I bought a 2017 Bolt Premium with just over 50K miles for \$19,000 in Ovid MI and drove it home. As it still has the old battery in it, and all the range reducing software updates applied, I had to spend a fair bit of time charging. The tires weren't low rolling resistance and it was well below freezing, and as we all know this doesn't bode well for the drive home. I had to stop four times on the way back to charge and my longest leg was 89 miles. Anything over that and the recharge time climbed through the roof due to the charging rate tapering down as the pack gets full. The Bolt only charged at a max rate of 43KW on that day no matter the station I was at. Naturally we took the Model 3 up there to retrieve the Bolt and it did a great job on the round trip. For those keeping track, yes, this is my third Chevy Bolt, and my wife Jessica loves it very much. Being the premium, it has some extra features we haven't had before, but I don't know that any of them are earth shattering. I wanted the roof rails to support bike racks as I see this car

supporting my youth, one of which is an avid cyclist. As the only Bolt LT I have ever seen with roof rails was my first one, I had to spring for the Premium trim to get them again.

I have contacted my local dealer about the battery pack and they have advised that it isn't available for my VIN yet, so this car must be in a lower risk group.

### **My home improvement projects**

I installed an Emporia home energy monitoring system in my house. The kit I bought comes with 16 clip-on sensors for circuits, and the two sensors for the incoming service. This is something you install inside your home panel and then stick the antenna out through a knock out on the panel. Their app walks you through the setup and is quite clear which way the sensors go on the wires. My only real complaint about the setup is it didn't find my wifi network automatically so I have to type in the SSID each time I add a device. If you have a simpler install then you would only have to do this once. For me this will be done about 10 times as I set up all the pieces. So far I like the system and it has helped show me things I wasn't previously able to understand. For example, my gas furnace uses over 700 watts while heating the house. I am hoping that my future furnace uses less by having more efficient blowers. Another thing I have noticed is that the 100cfm bathroom fan in my master bath uses 20 watts, where the 70 cfm fan in the other bathroom uses 100 watts! I knew that the master bathroom fan would be more efficient as it was a more expensive unit, but it is still surprising how much more efficient it is. I also discovered that the lights I installed over my desk aren't very efficient in lumens per watt. The lights in my garage are much better in lumens per watt, and I might remove the current lights over my desk and install one of the left over units like I use in the garage.

### **Articles I found interesting:**

<https://www.washingtonpost.com/climate-environment/2022/02/02/usps-trucks-epa-climate-change/>

Courtesy of John McGowen

[https://www.youtube.com/watch?v=mKixXQv0\\_Ml](https://www.youtube.com/watch?v=mKixXQv0_Ml)

Presentation from recent meeting. (same link as above)

<https://www.resolve-ev.com/shop/p/resolve-controller>

Leaf drivetrain adapter box for conversions

<https://zero-ev.co.uk/product/ccs-type2-fast-charging-kit/?v=7516fd43adaa>

CCS based fast charging for conversions!!! This is the Type 2 connector for Europe, but heading in the right direction. Works with the Orion BMS.

Pacifica battery recall for 2017 and 2018 models

<https://www.autoblog.com/2022/02/12/chrysler-pacifica-hybrid-recall-fire-risk/>

I was curious to see if they are LG cells and based on the video in this forum post they are.

<https://www.pacificaforums.com/threads/battery-teardwon-video.40423/>

<https://arstechnica.com/science/2022/02/renewables-are-cheaper-than-ever-why-are-household-energy-bills-only-going-up/>

<https://www.theverge.com/22923871/carvana-pandemic-used-car-prices-sold-online-chip-shortage>

Car prices are still silly

<https://arstechnica.com/cars/2022/02/battery-powered-trains-are-picking-up-speed/>

<https://arstechnica.com/cars/2022/01/weve-driven-fords-other-electric-workhorse-the-2022-e-transit/>

<https://arstechnica.com/cars/2022/01/kias-new-ev6-electric-crossover-goes-straight-to-the-head-of-the-pack/>

<https://www.cnn.com/2022/02/09/uk/nuclear-fusion-climate-energy-scni-intl/index.html>

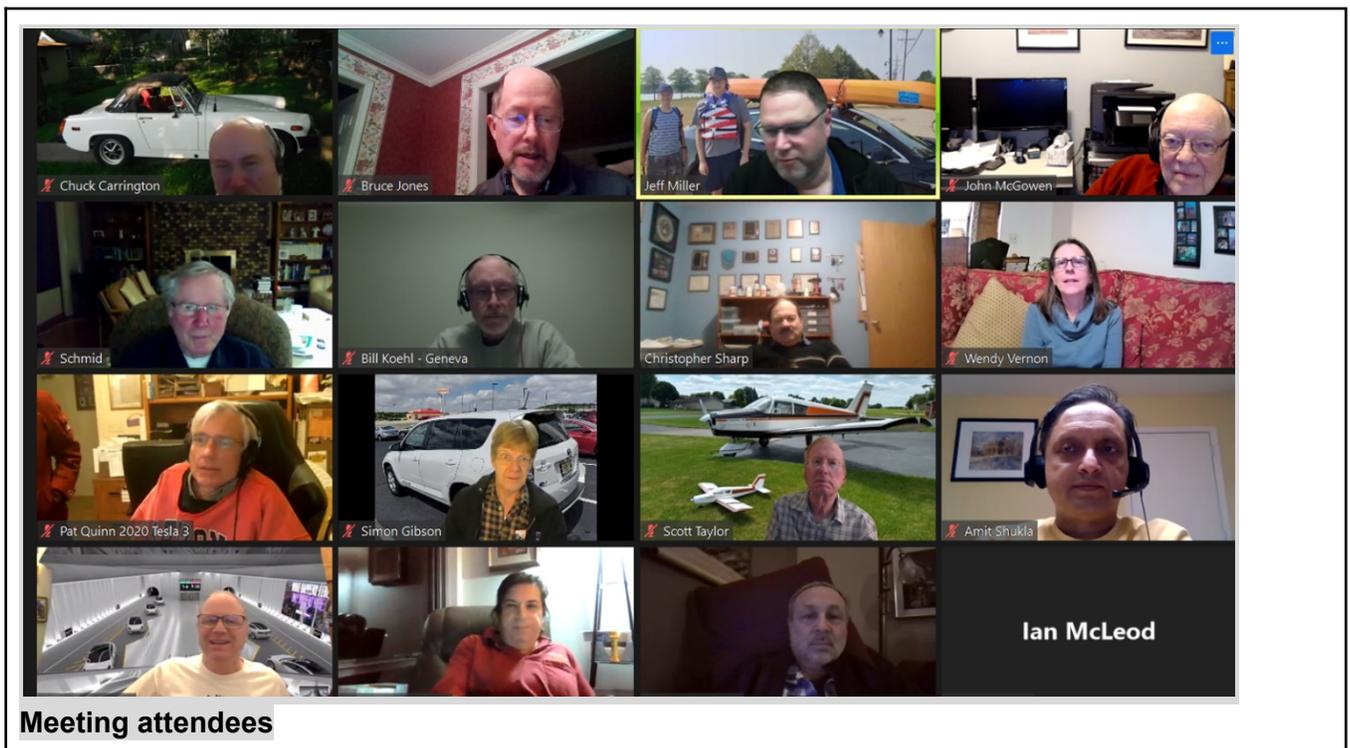
## Upcoming Events

Rich Hirschberg

None to report at this time.

## Photos of our Meeting January 21,2021

Bruce Jones



Meeting attendees



TEXAS RIVER CITIES PLUG-IN ELECTRIC VEHICLE INITIATIVE  
REGIONAL PLAN AND FINAL REPORT



Texas River Cities Plug in Electric Vehicle Initiative - with ORdinance Tool Kit

<https://studylib.net/doc/18495422/texas-river-cit>

NEST - Transportation  
Amending Codes / Ordinances for  
Electric Vehicle Charging Stations

Transportation Committee - Bruce Jones Presented 12-21-2021 v4

Join us on Facebook! Facebook.com/NaperSustain or Web: www.SustainNaperville.org

Bruce Jones' presentation for the City of Naperville Transportation, Engineering and Design group on 12/21/2021

[ies-plug-in-electric-vehicle-initiative](#)



Ian McLeod presented on heat pump technology

### How? Heat Pumps!



Ian McLeod's heat pumps above, as he described in his presentation: Heat Pumps? Sure! From analysis paralysis to screw it, just do it!

Login to our FVEAA website for access to lots of member-only tools!

Ted Lowe

Hi Folks, If you haven't logged in to our website already, please check your email for instructions and login to check it out! Please let me know if you have any questions. Thanks!



## FVEAA Web Report

as of 2022-02-15 04:58:10

### Website Registered User Statistics

Statistic	Value
Total Users	87
Users Never Logged In	33
% Active Users	62.1%
Ave. Days Since Last Visit	373.4 days

FVEAA On Facebook - Join Us! Like Us!

Ted Lowe

The FVEAA Facebook group has 119 members as of 1/17/22! 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 supplements 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/>

Here is the **FVEAA's Facebook Page**. Like Us!

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

### FVEAA On YouTube - Check out our videos!

Ted Lowe

The **Fox Valley Electric Auto Association** has a YouTube channel! Subscribe to us and check out our videos! We've had this channel for many years but we're going to start using it more to attract new members and promote EVs. Please let me know if you have some FVEAA-related videos to post.

[https://www.youtube.com/channel/UCg\\_Pgp6q-HEuMICWMO2akPw](https://www.youtube.com/channel/UCg_Pgp6q-HEuMICWMO2akPw)

### Membership Update

Ted Lowe

We currently have **67 active paid-up** members. Many members have taken advantage of the multi-year renewals offered by the new website! **Please renew & recruit new folks!!!**



## FVEAA Membership Report

as of 2022-02-15 04:58:09

### Count of Members by Type

Membership Type	Count	Paid Up
Business	1	1
Family	4	4
Individual	62	60
Lifetime	2	2
Totals	69	67

### Other Statistics

Statistic	Value
% Paid Up	97.1%
Avg. Paid Up Days	363.6 days
% With Email	95.7%

### Encouraging Our Membership To Grow and Some History

Ted Lowe

**We are growing!** 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 any time, 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 255 members in October 2008 when gas was nearing \$5 per gallon. We were also attending lots more

invitational EVents with our converted EVs. The first Tesla Roadster was just coming into being. **Let's get out there and grow the FVEAA!!!**

### FVEAA Paid Up Members as of February 15, 2022 12:50pm



#### Monthly Treasurer Reports

Ted Lowe

As Treasurer, I am publishing a brief Treasurer's Report to our forums around the time our monthly newsletter is published.

I am publishing our various cash balances (Money Market, Checking, PayPal) to this location:

[FVEAA Committees](#) > [Finance](#) > [Treasurer Reports](#)

This area of the forums can only be seen by FVEAA members. As an IL Non-Profit corporation, we have no requirement to publish our assets or financial statements publicly.

Feel free to contact me if you have any FVEAA financial matters to discuss.

#### 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):

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

**THANK YOU for your continued support of the FVEAA!**

- **President Jeffrey Miller started the meeting at 7:08 p.m.**
- **Attendees introduced themselves all around**
- **Of note, our most distant attendee was Pat Quinn zooming in from Tucson**

### City of Naperville - EVSE Ordinances

- Bruce Jones presented on progress with the City of Naperville to amend their ordinances for electric vehicle charging stations (Electric Vehicle Supply Equipment)
- It is important to amend our ordinances to install EVSEs for new construction especially for multifamily housing, and businesses so that those who come to Naperville to work can charge their electric vehicles
- Naperville could see 30,000 EVs by 2030 so need to be prepared.
- On 12/21/2021 he presented to the Transportation, Engineering and Design group on coming incentives, EV trends, experiences with EVSE installations and how to amend our ordinances
- Based on experience helping Kane County amend their ordinances about 10 years ago
- And developing an Ordinance Tool kit for the Three River Cities project for Austin Energy
- The City is now awaiting word from Springfield on House Bill 3125 which could provide a similar set of requirements for installing EVSEs at all new construction

### Break

### Heat Pump Mini Splits

- Ian McLeod gave us a very informative presentation on “Heat Pumps? Sure!”
  - from analysis paralysis to screw it, let’s do it!
- (First time in FVEAA history we’ve had a presentation on heat pumps!)
- Ian described the new Fujitsu heat pump technology he installed in Spring of 2021
- He has a 1600 sf + 600 sf Rogers Park basement house originally built in 1892!
- He installed the system in three phases over time allowing him to learn and get a feel for the system capabilities.
- From Ian McLeod to Everyone - This is some detailed information on the Fuji units we have.
  - <https://ashp.neep.org/#!/product/30812>
- Household install cost
  - Stage 1 – 1 x 15,000 BTU Fujitsu unit \$5000
  - Stage 2 – 1 x 15,000 BTU Fujitsu unit \$9600 (pads and frame done by me)
  - Stage 2a – 9,000 BTU Gree - \$2500 materials – 20 hours - \$1000 HVAC tools
- The bottom line is, heat pump technology like Fujitsu mini-splits can keep a well insulated house warm in the Winter in this Chicago climate.
- There are times when having a backup or supplementary heating system may be a good idea - to handle extreme weather events. You don’t necessarily want to design your system to handle the full extremes due to expense.
  
- Other links on heat pumps from attendees:
- Heat Pumps: the Future of Home Heating
  - <https://www.youtube.com/watch?v=7J52mDjZzto> pt2
- The Future of Heat Pumps is Underground (and other places, too!)
  - <https://www.youtube.com/watch?v=7zrx-b2sLU>

Thanks Ian!!

The meeting adjourned at around 9:30

**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**

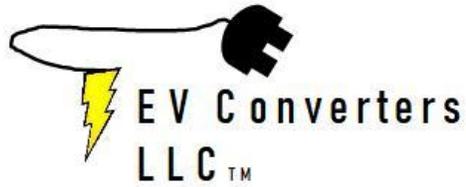
**Wheaton, IL 60187-0214**

Attn: Membership

**FVEAA Business Members**

**EV Converters LLC**

Rolly Waller  
130 Windsor Park Dr, C121  
Carol Stream, IL 60188  
Cell: 630-865-5744  
Email: rolywaller@gmail.com



EVC will become a Franchisor (when the US government approves the conversion rebate) to appoint Franchisees (eg, service stations, oil change shops, transmission shops, independent mechanics, etc.) to convert Internal Combustion Engine (ICE) vehicles to electric vehicles (EV).