

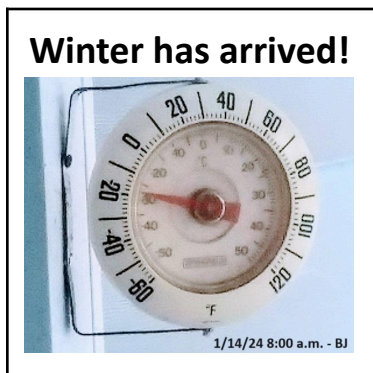


January 2024 FVEAA Newsletter

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 **January 19, 2024**
7:00 p.m. and will be **IN-PERSON** and on-line



Location:

Unitarian Universalist Society of Geneva
102 S 2nd St, Geneva, IL 60134

MAP:  **Unitarian Universalist Society of Geneva**

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

Topic: FVEAA Monthly Meeting

Time: Fri January 19, 2024 6:45 PM CT (pre-meeting setup check), Meeting 7:00 PM

Join Zoom Meeting:

<https://us02web.zoom.us/j/95901481473?pwd=UnpJVUJOUmVPOFZqR013ZFpPbzM0UT09>

Dial-in for audio-only users: Call: 312-626-6799
Enter Meeting ID when prompted: 95901481473#

Agenda

- 6:45 Virtual Meeting Starts (to test connections)
- 7:00 Introductions
- 7:40 Saieed Ahmed on his trip from Aurora to MDW, in a 2013 Leaf and a short update on his Model 3 purchase and drive home
- 8:20 Break
- 8:30 Jeff Miller discussing a client's plans to electrify everything
- 9:00 Close

President's Words

Jeff Miller

December Meeting

Thanks to everyone who ventured out to Arlington Heights to spend time with the club. Special thanks to Rich, Tracey and Bruce who worked to provide entertainment for the evening. Lastly thanks to Marty for organizing the room and doing the legwork to get things organized.

I will once again reiterate how much the board members do here. While I am the president, I only do a small fraction of the work. If it all fell on my shoulders, I wouldn't be able to do it, so I say it again, thanks to all the board members for their contributions. I would also like to thank the members for the time they contribute each year in showing up to events, and helping with all the various things that need to be done. I am honored to be the president of this organization.

January Meeting

Saieed made what seems like a trivial journey, but he did it in an older Leaf, during the winter. Come hear his tails of how and why he did what he did. Secondly, I suspect Saieed will have a few thoughts on his ongoing (as I type this) trip home from California.

Secondly, I will be giving an overview of my plans for my client's house. She wants to electrify everything, and I don't like doing work twice. I have made a plan to upgrade various elements of the house in phases to spread out the spending, and deliver the capability when it is needed. It will take a few years to get it all done, but that is good, as it allows her to maximize her tax credits.

Tesla control arm issues

<https://www.reuters.com/investigates/special-report/tesla-musk-steering-suspension/>

For years I have been tracking this issue with the Model S on the forums. Different versions have different issues, but the greater than VIN 55000 (August 2014) Model S have had persistent issues with the castings that they make the control arms out of. My analysis of a few of the failed arms is that they look to be having issues with the castings cooling before the casting process is complete. As an additional factor, the ball joints that are pressed in might also be slightly bigger than the hole they are being pressed into allows. Having an oversized ball joint, or an

undersized hole, would cause high stress in the part effectively reducing the strength and causing premature failures. There could be issues with the casting process causing this, and since it has persisted through various design changes, it seems likely actually.

The pre 55000 VIN model S cars had issues with frequent ball joint wear, but that is expected based on the fact that they were part-bin ball joints from whatever vehicles had a ball joint that was close enough.

For those that own Model 3 and Y might recall the upper control arms are made of plastic with a bit of steel, but the cup for the ball joint is plastic. As it wears out it doesn't sound the same as a normal ball joint that is a metal on metal rattle sound.

If you have an issue with suspension, and you're still under warranty, then point to this article, and let them know this is a known issue. On top of that, if your suspension fails, please report it to the nhtsa. They have a convenient form on their website to do so, and unless they have reports, they don't know to hold Tesla accountable.

<https://www.nhtsa.gov/report-a-safety-problem#index>

I highlight this because it's been a common issue since 2014, when the AWD model S was launched.

<https://www.npr.org/2024/01/16/1224913698/teslas-chicago-charging-extreme-cold>

Many articles highlighting issues around charging cold batteries in Tesla vehicles. My suggestion is if you find yourself in a situation where your Tesla battery is cold soaked at -10F, and you have limited energy to get to a charger, you are better off finding a level 2 station that you can leave it at for 4 or more hours. My experience is that the minimum battery temperature to charge at level 2 is more achievable than level 3 on a Tesla. I do suggest it's at least 6KW, but more is better. I have seen my battery heater take 10KW, so the more you have the better.

As I always suggest, charge when the battery is warm, during or immediately after a long drive.

One of my friends has a model 3, and only level 1 charging in his uninsulated detached garage. He realized that even though the car was drawing energy all night, it didn't really add much to the state of charge. At these low temps most of the energy is going to heat to keep the battery at its minimum temperature to charge. Once the sun came up and warmed his garage the car started adding more to its state of charge. Level 2 helps as you have enough power available to heat the battery and charge it.

<https://spectrum.ieee.org/flow-battery-2666672335>

High Density flow batteries may be the future. Obviously this is emerging tech, and things may not work out. If it comes to pass the way described in the article, it could be great tech in a few years.

Happy New Year to all our FVEAA members.

I want to invite everyone to a special event being held at the UUSG church (102 Second street in Geneva) where we hold our monthly meetings. On **Friday Jan 26th**, from 6 to 8 pm, Thomas Coleman, FVEAA member and chairman of Climate Reality Chicago, will give a presentation on how households can reduce their greenhouse gas emissions by making environmentally-friendly “kitchen table” choices on things like which car to buy, how to heat and cool their home, and more. He will provide current, accurate information to help attendees understand the costs and benefits of these decisions and how to implement them. The presentation will include ample time for questions and answers, and **pizza and soft drinks will also be provided**. Both the event and the pizza dinner are free of charge but **advance registration is required to attend in person**. The talk is also on zoom at: <https://us02web.zoom.us/j/87047450287>

More information and an online sign-up form are available at uusg.org/climate.

There is good and bad news on the EV Federal tax rebate program for 2024.

The good news: 1. The credit is now applied when buying the car. You don't have to wait to file your taxes to get the \$7,500 credit. 2. You no longer have to have a tax liability equal to or greater than the amount of the credit (so if you owe less than \$7,500 in federal taxes you still get the full \$7,500.) 3. If you are leasing, you should be able to benefit from the tax credit even on EV's that are not eligible. Instead of going to you, the tax credit goes to the leasing company. In most cases, it's passed along to the customer as a lease incentive.

The bad news: Only a few EV's are eligible for the full \$7,500 Federal tax credit. Just the F-150 Lightning, several Tesla models, 2022 & 2023 Chevy Bolts, and the Chrysler Pacifica PHEV are eligible. Certain variants of Rivian's R1S and R1T, plus a handful of plug-in hybrids, qualify for a \$3,750 credit. *VW says they are still submitting paperwork to get the 2023 and 2024 ID.4's eligible for the \$7,500 credit. They are optimistic they will become eligible.*

Stay charged!!



Jason Sapet, Tracey McFadden, Howard Hanson enjoying the food and the fun!



Oh, Tracey... lookin good! (?)



Maureen Stillman, Robert Schwartz and friend



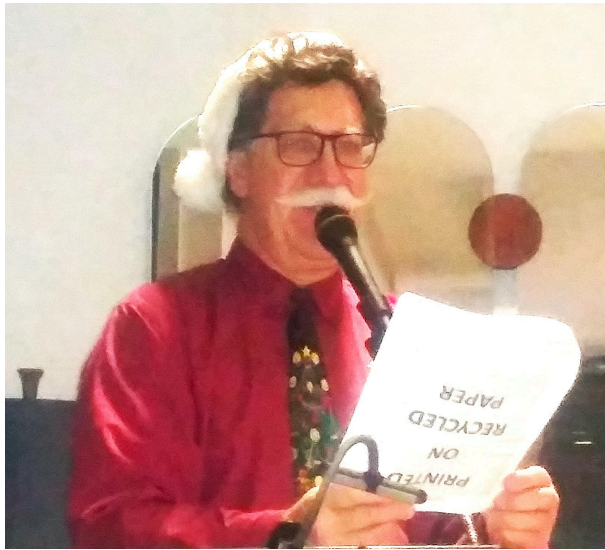
Steve Ledger and Barb



Simon Gibson and Julie



William McDaniel and spouse



Rich tries to stump us with his Christmas holiday trivia questions.



William checking out the past year events progressing on the screen

Gibson's Garage

Simon Gibson

January 2024

NACS Oops, I mean J3400

The Tesla North American Charging Standard has now been adopted by SAE...

The SAE website URL is here for those interested:

https://www.sae.org/standards/content/j3400_202312/

It is titled: NACS Electric Vehicle Coupler J3400_202312 and is actually a Technical Information Report and describes how an electric vehicle can be charged using one connector with two power conductors that can pass AC or DC power.

According to SAE, the standard "... facilitates broad interoperability for EV charging solutions by providing a unified, compact connector for both AC and DC charging."

So what does this mean for the DIY community who are struggling to create DC Fast Charging capability or older EVs that may have CCS or simply J1772? Being able to roll up to a Level 1 or 2 EVSE is relatively simple since the onboard AC charger uses a simple signaling system. Attempting to negotiate a DC fast Charging session is more complex and if the J3400 standard requires validation from each manufactured system, will this become an expensive hurdle for the DIY community and the older EVs already in use?

With the existing CCS standards communication protocols are used to communicate to the vehicle but the charging equipment should be vehicle manufacturer agnostic. In order to be able to use the Tesla Supercharger network manufacturers have to coordinate efforts with Tesla to be able to use the Tesla Supercharging network with their vehicles.

As I understand it the communications standards that Tesla uses are not that different to the CCS standards and I suspect the process ensures that a manufacturer's vehicle will communicate and the payment system is incorporated.

The other point to remember with Tesla charging, even the destination charging / EVSE, is that the Tesla onboard charging can accept up to 277 VAC which may be an issue for some onboard EV chargers. From my experience with the Tesla Wall Connector is that it will connect to a non-Tesla for AC charging but may take longer to negotiate the connection because it attempts a Tesla connection to the EV using the pilot signal before reverting to the 1kHz duty cycle to manage the maximum AC current available. Apparently in the newer Tesla models, the circuit board at the charging point is equipped to deal with CCS communication via Power Line Communication (PLC). Makes sense since CCS is a standard in Europe and elsewhere!

An informative article can be found at:

<https://insideevs.com/news/546311/how-does-tesla-charging-work/>

Upcoming EVents -

Rich Hirschberg

None to report now.

CACC Now IACT!

Ted Lowe

Our Charter Business member has broadened their focus to all of Illinois!

Illinois Alliance for Clean Transportation (IACT) (formerly known as Chicago Area Clean Cities) is a 501(c)(3) not-for-profit working to promote the use of clean fuels for clean air throughout Illinois. Our alliance includes people from private business, academia, government, scientific research and energy and environmental services. Our main goal is to help with the adoption of cleaner transportation options

FVEAA business cards available!

Ted Lowe

See one of the officers to get some cards to hand out to people at various EVents and daily life to promote EVs and our organization!

Fox Valley Electric Auto Association

PO Box 214
Wheaton, IL 60187-0214

630-260-0424
contactfveaa@fveaa.org

Free Yourself From The Pump^{fm}



Join Us and Discover How!

Check fveaa.org for
details about our
monthly meetings!



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 2024-01-17 04:58:09

Website Registered User Statistics

Statistic	Value
Total Users	110
Users Never Logged In	39
% Active Users	64.5%
Ave. Days Since Last Visit	709.4 days

FVEAA On Facebook - Join Us! Like Us!

Ted Lowe

The **FVEAA Facebook group** has 135 members as of 1/17/24! 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

We currently have **70 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 2024-01-17 04:58:09

Count of Members by Type

Membership Type	Count	Paid Up
Charter Business	1	1
Family	4	4
Individual	63	63
Lifetime	2	2
Totals	70	70

Other Statistics

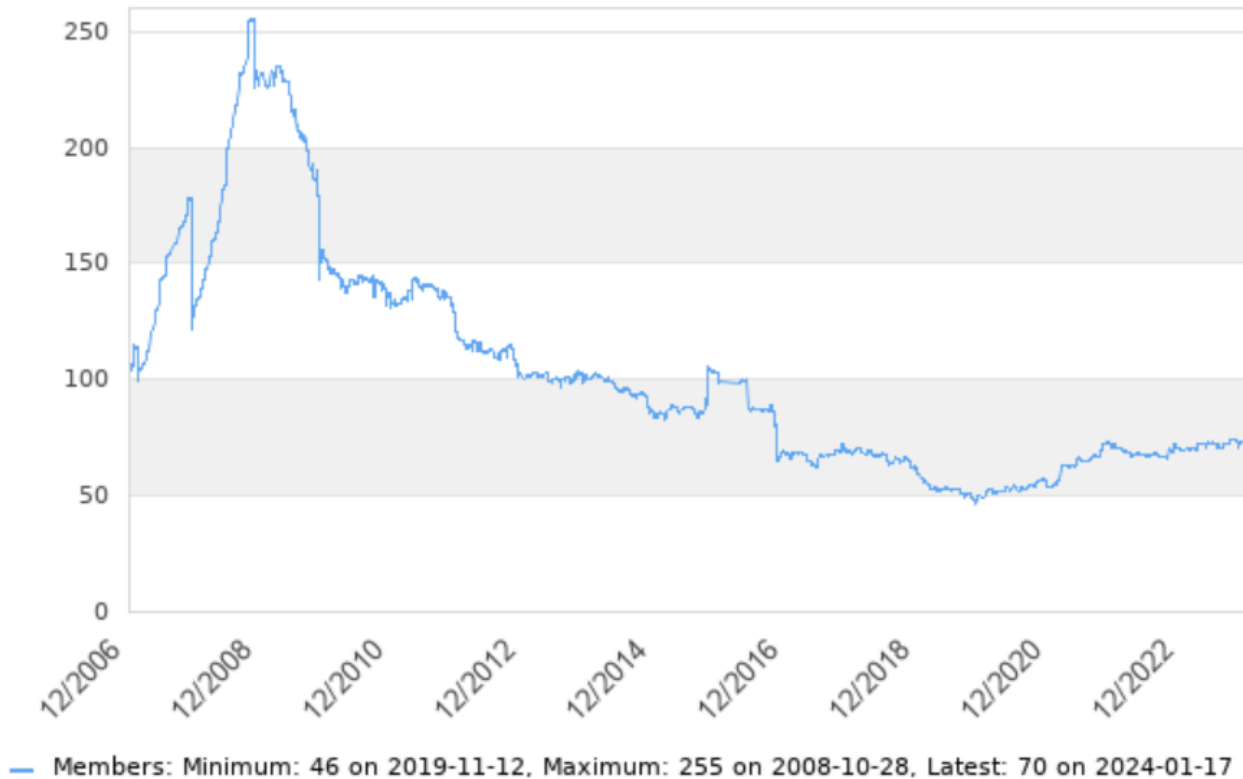
Statistic	Value
% Paid Up	100.0%
Avg. Paid Up Days	398.6 days
% With Email	97.1%

Encouraging Our Membership To Grow and Some History

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 January 17, 2024 11:55am



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!

- 6:15 The party started assembling at Marty's One Arlington location. Thanks Marty for hosting!
- Dinner - Thanks for the excellent Pizza and salad Jeff and team
 - And we appreciate everyone who brought snacks, appetizers, desserts etc.
- The Magic Banjo Buddies (?)... with Tracey in a flamboyant elf outfit and Bruce, told jokes, and played a handful of bluegrass tunes sung with alternative Christmas holiday / EV words that they wrote especially for the occasion.
- The FVEAA 2024 Year in Review Bruce prepared, played on the monitor.
- Back by popular demand, Rich Hirschberg ran the Christmas trivia game which was a lot of fun and laughs
- Great to see everyone who could make it. Have a joyous New Year everyone!

Speaking of trivia... Here is a great facebook video - gotta look at this. answering the question - **did you know there is a part of your car going faster than your car's speed?**

<https://www.facebook.com/reel/908790047082340?mibextid=xDuVscIC3dymGitT>

FVEAA Membership Application Form - Version 2023-12-04

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 (1 year), \$38 (2 years), \$56 (3 years)
Business	\$100
Premier Business	\$250
Charter Business	\$500
Youth (21 or younger)	\$10

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 Charter Business Members

Illinois Alliance for Clean Transportation (IACT)

Samantha Bingham
2 N LaSalle St #950
Chicago, IL 60602
Email: info@il-act.org
Web: <https://il-act.org>



Illinois Alliance for Clean Transportation (IACT) (formerly known as Chicago Area Clean Cities) is a 501(c)(3) not-for-profit working to promote the use of clean fuels for clean air throughout Illinois. Our alliance includes people from private business, academia, government, scientific research and energy and environmental services. Our main goal is to help with the adoption of cleaner transportation options.