



March 17, 2023 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 **March 17, 2023**
7:00 p.m. and will be IN-PERSON and on Zoom

Location:

102 S 2nd St, Geneva, IL 60134

MAP: [Unitarian Universalist Society of Geneva](#)

Note for those needing charging: Plugshare shows 1 Tesla HPWC Destination Charger, up to 64A, and 1 ClipperCreek J1772.EVSE about three blocks east of the Unitarian facility at 15 S River Lane, behind the Police Station - near Atwater's restaurant by the river.

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 March 17, 2023 Monthly Meeting

Time: Fri March 17, 2023 6:45 PM CST (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#

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.

Agenda

- 6:45 Doors Open
- 7:00 Introductions
- 7:40 Sidney VanKuren charging station installation plans
- 8:20 Break
- 8:30 Bill Koehl on the Prairie State Power Plant

Greetings fellow EV enthusiasts,

Our January and February FVEAA meetings were well received. Attendees seemed to enjoy the new venue at the Unitarian Universalist church in Geneva for its central location and comfortable room. We will meet in the same room in March. The address is 102 South Second Street, Geneva IL 60134. Parking is on 2nd street or on James Street.

<<UPDATE on the Electric Vehicle Charging Act!! thanks to everyone who contacted their representatives. >>

<<Bruce Notes - in IL there is a new bill SB0040 that replaced HB3125 for residential charging. We need workplace charging however and that is something to press for.>>

Here is the Senate Bill and updated summary

<https://www.ilga.gov/legislation/billstatus.asp?DocNum=0040&GAID=17&GA=103&DocTypeID=SB&LegID=142908&SessionID=112>

*Electric Vehicle Charging Act
As Proposed on January 20, 2023*

SUMMARY

The Electric Vehicle Charging Act (IL SB0040) will require electric vehicle (EV) charging infrastructure in parking areas of new or renovated residential buildings. Local governments will be responsible for enforcing this act within development permits.

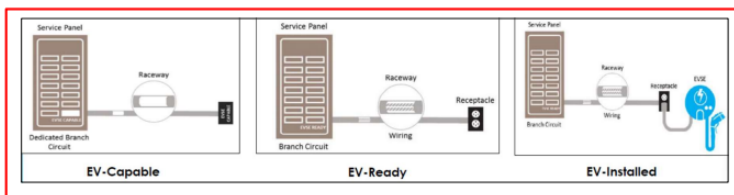
Affordable housing developments and renovations and large multi-family renovations have differing requirements. Provides the right to chargers for condominium owners and renters.

Development Type	EV Capable	EV Ready	EV Installed
Single Family	1		
Small Multi-Family Residential (2 to 4 units)	1 per unit		
Large Multi-Family Residential (5 units or more)			
1 - 6 parking spots		100%	
7 - 23 parking spots	100%	20%	
24 or more parking spots	100%	5 or more*	1 or more

* For each spot with EV Installed, EV Ready can be decreased by 2%.

DEFINITIONS

- **EV Capable:** Electric panel capacity with a dedicated branch circuit and a continuous raceway from the panel to the parking spot installed.
- **EV Ready:** Electric panel capacity and raceway with conduit to a junction box or 240-volt charging outlet installed at parking spot.
- **EV Installed:** Level 2 or 3 charging station installed at parking spot.



INFORMATION SOURCES

- <https://www.ilga.gov/legislation/103/SB/PDF/10300SB0040lv.pdf>
- <https://www.chargedfuture.com/ev-capable-ev-ready-and-ev-installed/>



Confluence Climate Consulting LLC (C³)

ConfluenceClimate@outlook.com

Global Change.
Local Action.

February Meeting

Thanks to Saieed Ahmed for presenting about gas insulated substations, and answering many questions around grid technology.

I presented on Colorado's HB22-1362.

<https://leg.colorado.gov/bills/hb22-1362>

Instead of trying to legislate the exact rules everyone has to adopt, the legislation created a board to sort out model code that every building planning office in Colorado should adopt. By making the board come up with the model, the politicians insulate themselves from all the special interests pushing for a specific line item. The local building planning offices, and their associated politicians can also likely make additions or minor adjustments to adapt the provided model to their local environment. There are also provisions for the electric utility to start installing charging stations they own.

March Meeting

Sydney VanKuren from MUSE Community + Design is going to give us an overview of the charging station installation program that Cook County is currently doing in suburban communities. Her company is working to create a report for the County summarizing where people want chargers. She will also ask us for our feedback on charger locations.

Bill Koehl will then present on his technical analysis of the Prairie State Power plant.

IRS Guidance has been updated

<https://www.irs.gov/credits-deductions/manufacturers-and-models-for-new-qualified-clean-vehicles-purchased-in-2023-or-after>

The language has been updated indicating that the full \$7500 tax credit will likely go through the year without the details about the battery being taken into account. As we discussed at the meeting, there are plenty of reasons to delay them implementing the more restrictive rules set forth in the legislation. I would imagine that in 2024 these additional details will come into play. Also in 2024 the tax credit will be done at the dealer, for better or worse.

Tesla Superchargers opening up

As many of you already know, Tesla is starting to install built in adapters at their charging stations to support J1772 CCS vehicles and fast charging. The Supercharger network is quite large, so it will likely take them years to get this deployed. There are some challenges though. Tesla has a standard charging port location of the left rear, but I can't think of any other EV's that use that location, with the possible exception being the Aptera. That means that unless the fast charging port is on the right front corner someplace, the non-Tesla vehicles won't be able to park in the "correct" spot for that station. This effectively means that a non Tesla will use two charging stalls in most situations. If the last one on the right is open, then the non-Tesla should target that station to avoid issues with other drivers. One trick that works at some stations, the stations are on a thin island in the middle of the lot, so each station can effectively be used from either side, this would be a good model for them going forward.

Tesla stations provide 400 volt service, so not optimum for the 800 Volt vehicles. However it could really benefit the Rivian vehicles. Last I heard Rivian's are still equipped with 400 volt battery packs, and on Electrify America they are limited by the 400 volt charging stations to 150

KW (roughly). In theory a 250KW Tesla Supercharger could deliver 250KW to a Rivian assuming everyone is playing nice.

I haven't looked into what Tesla requires, but what I saw made mention of a membership to get better rates. The Tesla Supercharger cost without a membership were around ten cents higher per kWh. This is a similar model to what Electrify America uses, where you pay a small monthly fee to get the best rates.

I will also mention that Electrify America is sometimes cheaper than Tesla. For that matter they seem to randomly give away energy! I picked up over 100kWh at Electrify America stations for free in my Tesla on my trip to Georgia. My Tesla is a 400V battery, so I was limited to 150KW max, and that did make a difference in how long it took to charge compared to the 250KW stations.

Articles I found interesting

<https://insideevs.com/news/655220/tesla-supercharger-membership-impact-on-rivals/>

According to the article the monthly fee to get the reduced rates on Tesla Supercharger network is \$12.99 (for non Tesla vehicles). Not sure how this works if you are a mixed household like mine, would I need to pay \$12.99 to charge my Bolt on Superchargers at the discounted rate, or does owning a Tesla get me into the cheaper rates without the monthly fee. Electrify America is \$4 a month from what I recall.

<https://www.mystateline.com/news/local-news/illinois-runs-out-of-funding-for-4000-electric-vehicle-rebate-program/>

<https://www.mystateline.com/news/local-news/new-illinois-budget-includes-20-5m-for-more-electric-vehicle-rebates/>

Gibson's Garage

Simon Gibson

As I contemplate what tools the home DIYer might have in their EV garage...

A means of lifting the vehicle safely AND, this is important, being able to support the battery pack in order to lower it safely. So four secure jacking points, per manufacturers recommended locations, that can be used to lift the vehicle. I'm thinking two scissor lifts in parallel along the length of the car. But at the same time being able to slide a table lift under the vehicle once it's raised from either the front or the rear. I'm not a fan of ramps that you drive up onto having seen a car run back down onto somebody... Or driving over the ramp and dropping the vehicle over the ramp! But I believe there are such devices available. The reason for a scissor lift is to avoid having a full height vehicle lift which is impractical in a residential home garage. The battery lift should be capable of a nominal 1500lb and support the large area of the battery pack safely.

The CANBus journey has started. I've got a small piece of hardware. Planning on monitoring some CANBus signals and unraveling the telegrams...

Talking of software. Have cars ceased to be cars and are now actually computers on wheels with manufacturers 'repairing' them with frequent updates? I'm waiting to see lines of cars at the side of the road while the computers suddenly decide they must update now...

Charging Infrastructure:

As many are aware, EV charging is one of the major stumbling blocks. Tracey forwarded a link:

Biden-Harris Administration Announces Latest Steps to Deliver a National Network of Convenient, Reliable, Made-in-America Electric Vehicle Chargers
Clearly progress needs to be made. But the regulatory agency tasked with overseeing this, setting standards, requirements and remedies, should be careful to avoid the infrastructure vendors from becoming self certified due to a lack of expertise within the regulatory agency. We need to move from Inoperable to Interoperability!

Upcoming Events - Spring 2023

Rich Hirschberg

Green Living Event – Schaumburg

Sat., April 1st and Sun., April 2nd

10 am to 5 pm

Our cost: unknown – waiting on their response

Schaumburg Convention Ctr., 1551 Thoreau Dr. North, 60173

Part of www.SchaumburgHomeShow.com

www.GreenLivingEvent.com 630.953.2500

info@GreenLivingEvent.com

**still waiting to hear back from these folks.

Money may be involved, but don't know right now

Saturday April 22 - Earth Day at Peck Farm Park

Set up by 10 a.m.

Open 11:00am to 2:00pm - ALL AGES WELCOME!

The event is FREE. Come Celebrate the Earth!

FVEAA Members: Please get people thinking about collecting items for recycling: textiles, shoes, #6 styrofoam, etc. will be collected that day. See next line.

Activities

RECYCLING OPPORTUNITIES: SHOES, COTTON CLOTHES, SMALL ELECTRONICS, HOLIDAY LIGHTS, TVs (\$25 OR \$35 DEPENDING ON TV SIZE)

FOOD VENDORS

KIDS' ACTIVITIES & CHALK ART

NATURE CRAFTS & DEMONSTRATIONS

Tree Planting - 50 TREES WILL BE PLANTED AT PECK FARM.

ARE YOU INTERESTED IN PLANTING WITH US?

REGISTRATION REQUIRED - USE CODE 2611306-01

Questions?

VISIT GENEVAPARKS.ORG OR CALL 630-232-4542

11th Annual GreenFest – Aurora

Sat., May 13th

10 am to 4 pm. Set-up: tbd

Our cost: free

Prisco Community Center, 150 W. Illinois Ave., Aurora 60505

SOOO many activities

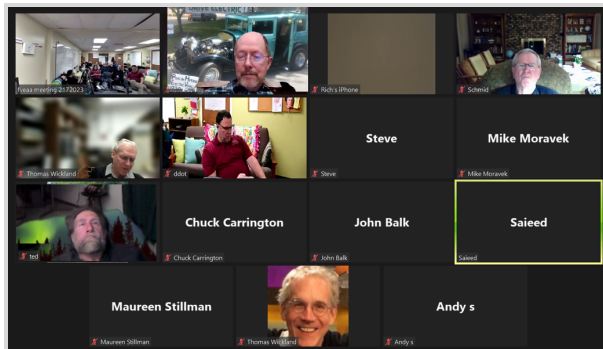
www.AuroraGreenFest.com 630.605.9244

AuroraGreenFest@gmail.com





President Jeff Miller ran the meeting and presented on EV Legislation in Colorado, and challenges for an off grid house



FVEAA On-line attendees

AIS Air Insulated Substation



GIS Gas Insulated Substation



Thanks to Saied Ahmed for an excellent presentation!

Welcome the FVEAA's new Charter Business Sponsor!

Ted Lowe

Say welcome to our new sponsor: **Chicago Area Clean Cities (CACC)**! CACC sponsored the north NDEW EEvent with the help of Rich Hirschberg and Samantha Bingham. Our website sponsor's page (<https://www.fveaa.org/sponsors>) has been updated as well as the sponsors listing in this newsletter. Thank you for your support and welcome aboard!

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 2023-03-14 04:58:11

Website Registered User Statistics

Statistic	Value
Total Users	100
Users Never Logged In	37
% Active Users	63.0%
Ave. Days Since Last Visit	543.8 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

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 2023-03-14 04:58:11

Count of Members by Type

Membership Type	Count	Paid Up
Business	1	1
Charter Business	1	1
Family	4	4
Individual	63	62
Lifetime	2	2
Totals	71	70

Other Statistics

Statistic	Value
% Paid Up	98.6%
Avg. Paid Up Days	374.3 days
% With Email	97.2%

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 March 14, 2023 10:57am



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!

- Meeting started at 7:05 p.m.
- Jeff held Introductions all around

- Presentation “Transformer Substation Separations” by Saieed Ahmed
- Saieed provided an excellent presentation on Gas Insulated Substations (GIS) including
 - Discussion of next iteration of substation design
 - Fundamental Characteristics
 - Key Differences between GIS and old Air Insulated Substations
 - Benefits / Challenges of GIS
- And a review of Electrification of ComEd’s Vehicle Fleet
- The GIS substations use pressurized Sulphur Hexafluoride SF6 instead of large air separations to insulate the substation components and prevent arcing. Insulation distances are reduced from feet to inches.
- SF6 is colorless, odorless, heavier than air, non-toxic, non flammable but ozone depleting. (so it can be dangerous if there are leaks and depletes the oxygen in the air) and looks to be the most potent greenhouse gas
- Allows substations to be small, and compact
- Alarm systems can detect if there are issues or leaks.
- Not a new technology but safer, allowing substations to be built inside regular looking buildings, instead of outside and exposed to elements or threats.
- And a bonus discussion
- Electrification of ComEd’s Vehicle fleet - they have 15 Rivian and Ford Lightnings
 - Excellent presentations, thanks Saieed!

- UPDATE ON ELECTRIC VEHICLE INCENTIVES
 - and what Colorado is up to, by Jeffrey Miller
- Colorado is working on legislation to require new residential construction to include EVSE charging in House Bill 1362
- And allows utilities to build out charging stations and set prices based on those costs.
- An acquaintance in Colorado wanted to know how an off grid house (no utility service entrances!) in Colorado can comply with pending legislation that would require new house construction to include EV charging.
- The County sets the rules but this seems like a good candidate for a local waiver, as the off-grid house would not have the electrical infrastructure to allow level 2 charging at 240VAC.
- Jeff provided insights into the topic, comparisons to old IL House Bill 3125 and recommended they also include offices, commercial businesses with parking lots.
- Well done Jeffrey!
-
- The meeting ended at 9:30 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

FVEAA Charter Business Members

<p>Chicago Area Clean Cities</p> <p>Samantha Bingham 2 N LaSalle St #950 Chicago, IL 60602 Email: info@chicagocleancities.org Web: https://chicagocleancities.org</p>	 The logo for Chicago Area Clean Cities (CACC) features a blue oval background. Inside the oval, there are stylized blue and white buildings, a yellow sun, and a white cloud. The words "CHICAGO AREA" are written in a blue arc at the top, and "CLEAN CITIES" is written in a blue arc at the bottom.
<p>Chicago Area Clean Cities (CACC) is a 501(c)(3) not-for-profit working to promote the use of clean fuels for clean air in the Chicago area and throughout Illinois. Our coalition 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.</p>	

FVEAA Business Members

<p>EV Converters LLC</p> <p>Rolly Waller 130 Windsor Park Dr, C121 Carol Stream, IL 60188 Cell: 630-865-5744 Email: rollywaller@gmail.com</p>	 The logo for EV Converters LLC features a stylized black and yellow lightning bolt on the left, a black electrical plug on the right, and the text "EV Converters LLC" in a bold, sans-serif font below them.
<p>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).</p>	