Introduction

What: Eco Experience Building

Where: Minnesota State Fair – 1265 Snelling Ave North, Saint Paul, MN
Eco Experience Building is on the north east side of fair grounds on the corner of Cooper St & Randall Ave

When: Thurs, August 25, 2022 – Mon, September 5, 2022

Eco Experience Building Daily Hours:
Thursday, August 25 – Monday, September 5
9 am – 9 pm

The Eco Experience is a huge exhibit at the Minnesota State Fair, filled with hands-on activities, demonstrations and resources. Check it out during the 12 days of the Minnesota State Fair.

Keeping our air clean is everyone’s job. The air quality exhibit features a “Green Garage” sponsored by Xcel Energy that contains displays and ideas of things people can incorporate into their garage that have a positive impact on the environment. Battery-powered equipment, including a mower, snow blower, string trimmer, chain saw, leaf blower, etc. are on display and include messaging about lower emissions, less noise and maintenance, and ease of use.

Additional messages about air quality, vehicle tampering, and electric vehicles will be part of the air quality exhibit.

On site in the Eco Experience:

- Ford F-150 Lightning
- Tesla Model 3
- Polestar 2
- Xcel Energy Electric Bucket Truck
- Charging Station demonstrations
- Green garage with EV charging setups
- Electric lawn equipment

Additional EV Fun:

- Sun, August 28, 10 am: EV Carshare Program presentation at the Sustainability Stage in the Eco Experience by Minnesota Clean Cities Coalition/American Lung staff
- Sun, August 28, Noon: EV Owners panel at the Sustainability Stage in the Eco Experience
- Mon, August 29, Noon: Xcel Energy Customized Home Energy Savings Made Easy Home Energy Squad
- Mon, August 29, 2 pm: Electric cars & school bus in MN State Fair Parade
- Wed, August 31, 2 pm: Electric cars & school bus in MN State Fair Parade
- Thur, Sept 1, 10 am: Fueling Change in MN presentation at the Sustainability Stage in the Eco Experience by Minnesota Clean Cities Coalition/American Lung staff

MN Plug-in Electric Vehicle Owners members will be onsite to answer questions and provide additional information about driving electric in Minnesota.

Short cut to Eco Experience from transit bus hub: It is a lot quicker, if not a lot shorter, to get to building if, instead of going in the main gates by the transit hub you walk to the north end of the parking lot, take a right onto Randall street and go in gate 18. Randall goes straight to our building. That avoids having to fight your way through the Sweet Martha’s cookie crowd, go past the grandstand, wind past the butterfly garden, etc. Here is a link to the state fair map: https://www.mnstatefair.org/general-info/maps/
Responsibilities

Admission to the State Fair: Any time you enter the State Fair Grounds you will be required to use a fair ticket. Volunteers will have received their tickets in the mail.

Dress Code:
- **T-shirts**: if you have from previous events; please wear. T-shirts can be found at info booth.
- Please wear your EV OWNER button. New volunteers can receive a button at the Eco Experience Information booth.
- Remember that you will be standing most of your shift so dress accordingly. Wear comfortable shoes – you are on concrete.

Shifts: Please report to the Eco Experience 15 minutes prior to your scheduled time to relieve the volunteer before you or to open the exhibit for the day. Map enclosed.

**REMINDER 1st shift Volunteers** must come in through the large garage door on the north side as the visitor doors are locked until exactly 9:00

Video Training: Be Prepared- Eco Experience: [https://www.youtube.com/watch?v=mDk4luU4bdc](https://www.youtube.com/watch?v=mDk4luU4bdc)

Volunteer duties include:
- Answer questions
- Direct guests to EVs on site
- Refill information (brochures, handouts) these are in the storage area
- Keep exhibit clear of trash and litter
- Straighten up throughout the day

Opening Tasks
- Refill any empty materials (brochures/handouts)
- Pick up any trash/cups/literature that does not belong

Closing Tasks
- Straighten up the overall exhibit
- Refill any empty materials (brochures/handouts behind curtain area)

Contact Information
In the event of an emergency or for immediate assistance, consult the staffing manager at the information booth.

In the event that you cannot fulfill your shift, or you need to leave part-way through your shift, please contact the Jukka Kukkonen listed below in the order below:

<table>
<thead>
<tr>
<th>Name</th>
<th>Cell Phone</th>
<th>Email Address</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jukka Kukkonen</td>
<td>651.428.3155</td>
<td><a href="mailto:jukka@shift2electric.com">jukka@shift2electric.com</a></td>
<td>Volunteer/Exhibit Needs</td>
</tr>
<tr>
<td>Chloe S/info booth</td>
<td>651.643.6152</td>
<td>Leave a message</td>
<td>Eco Experience Coordinator</td>
</tr>
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If you know ahead of time that you will be unable to cover your assigned shift, please update your slot on volunteer signup form, check volunteer page for a replacement and as last tactic call or email Chloe/information booth as soon as possible so we can find an alternate volunteer for your shift. Saturdays & Sundays are busy feel free to stop in to volunteer even if you don’t have a shift.
What you can see and do

Electric vehicles are in the Air Quality area this year, where there will be a 3 electric vehicles, literature and charging infrastructure.

Ford F-150 has 247-314 mile range with fast-charge capability, costs about $39,974 at base trim level.

Tesla Model 3 has a 263-353 mile range on a single charge and costs about $46,900 at base trim level.

Polestar 2 has 266-270 mile range and costs about $48,400 at base trim level

The EV Garage, where you can learn about EV charging options and ways to reduce air pollution and save money in your home garage. Turn on the electric mower to hear how quiet it is. Observe the difference in air quality between an electric and gas mower.

Charging Station available in Minnesota
As of August 23 – 572 sites have charging available at public and private sites. This includes 1,356 level 2 and DCFC until outlets. We anticipate a great increase in the coming year due to Electric Nation project, VW funding, NEVI program and EV Spot Network to name just a few programs.

Getting there:
Traffic and parking and crowds are always worse than we think they will be, so please allow plenty of extra time to get there. I highly recommend the park and ride system.

The parade goes past Eco Experience building about 2:00 making it even more difficult to get around so please allow extra time to arrive.

COVID-19 Update & Expectations:
Masks or no masks? MPCA will be following the advice of the state fair. The latest on their website is here: https://www.mnstatefair.org/updates/
Frequently Asked Questions:

What are electric vehicles?
Plug-in electric vehicles (EVs) help address many modern transportation challenges while being less expensive to operate and better performing than many gasoline vehicles. EVs dramatically lower overall emissions of harmful pollutants, including greenhouse gases. They require less general maintenance and less or no petroleum, save money, and reduce vulnerability to volatile oil prices.

Plug-in electric vehicles are typically either pure battery electric vehicles (BEVs) or plug-in hybrid electric vehicles (PHEVs). Both types of vehicle store energy from the electricity grid in on-board batteries that power an electric motor, providing propulsion.

BEVs—like the Chevy Bolt, Nissan LEAF, or any Tesla vehicle—use an electric drivetrain and can often travel hundreds of miles before re-charging

PHEVs—like the Chevy Volt, Kia Niro PHEV, Mitsubishi Outlander PHEV, or Toyota RAV4 Prime—can often travel 20 to 50 miles on battery power for everyday commutes, while retaining the use of a downsized internal combustion (gasoline) engine to travel longer distances when needed. All PHEVs are also approved to use E15, a lower carbon fuel blend of 15% ethanol and 85% gasoline.

Why are electric vehicles Clean Air Choice® options?
Depending on the model, EVs can reduce pollution by 90% or more compared with the cleanest conventional vehicles today.

All-electric vehicles produce zero direct emissions to help improve air quality, especially in urban areas. Plug-in hybrid electric vehicles (PHEVs), when operating on gasoline, produce evaporative emissions from the fuel system as well as tailpipe emissions. However, because most PHEVs are more efficient than comparable conventional vehicles, they still produce fewer tailpipe emissions even while running on gasoline.

It’s important to consider sources of electricity to power EVs. Advancements in renewable energy technology, such as wind and solar, are making sources of electricity more environmentally friendly. As our electrical grid becomes cleaner, so do EVs.

The full life-cycle greenhouse gas emissions of an EV depend on the mix of fuels used by the local power utility for electricity generation. EVs will almost always be cleaner than gasoline-powered vehicles. Electric engines are more efficient than combustion engines, lowering both emissions and fuel costs. Cost is about 2 to 3 cents per mile for electricity.

Click Evolution tool to find vehicle best for you: https://evolution.es.anl.gov/vehicle-inputs.php

Xcel Energy EV Garage will include a rotation of vehicles in the garage throughout the 12 days and Energy Resources staff to share the overview of programs and updates on EVs & EVSE.
What are other benefits?

**Cost.** When you consider purchase price and operating costs over the life of the vehicle, EVs are often less expensive to own due to lower fuel and maintenance costs

**Performance.** An electric vehicle delivers instantaneous torque and quiet acceleration

**Availability.** Dozens of EV models are now available and new ones are being introduced each year, including a growing number of trucks and SUVs. Visit [www.EVinfoList.org](http://www.EVinfoList.org)

**Important Information About Tax Credits:**
Congress recently passed new legislation—the Inflation Reduction Act of 2022—which changes credit amounts and requirements for clean energy vehicles.

Preliminary guidance from the Internal Revenue Service addresses two important issues regarding vehicles purchased in 2022:
- If you entered into a written binding contract to purchase a new qualifying electric vehicle before August 16, 2022, but do not take possession of the vehicle until on or after August 16, 2022, (for example, because the vehicle has not been delivered), you may claim the EV credit based on the rules that were in effect before August 16, 2022.
- If you purchase and take possession of a qualifying electric vehicle after August 16, 2022 and before January 1, 2023, final assembly of the vehicle had to be completed in North America, otherwise the same rules in effect prior to the enactment of the Inflation Reduction Act apply (including those involving the manufacturing caps on vehicles sold).

The Department of Energy has provided a list of Model Year 2022 and early Model Year 2023 electric vehicles that may meet the final assembly requirement. Because some models are built in multiple locations, there may be vehicles on the list that do not meet the final assembly requirement in all circumstances.

To identify the manufacture location for a specific vehicle, please search the vehicle identification number (VIN) of the vehicle on the VIN Decoder website for the National Highway Traffic Safety Administration (NHTSA). The website, including instructions, can be found at [VIN Decoder](http://vindecoder.com).

We will provide more information when IRS releases additional guidance on the credits.

**Clean Cars Minnesota Overview:**
Minnesota has now adopted clean car standards — reducing greenhouse gas emissions and increasing the choices Minnesotans have when it comes to purchasing electric vehicles. With cleaner air, more car options, and less money spent on gas, every Minnesotan benefits from clean car standards. Read the overview here. The federal Clean Air Act requires two full model years between finalization and enforcement of the rule. Minnesota’s clean car standards apply to new vehicles beginning with model year 2025 (approximately January 2024). MPCA’s proposed rule also includes an early action credit system that would encourage auto manufacturers to bring more EVs to the state sooner, starting in 2021.