

Electric vehicle trends, expectations aired at session

Public will begin to shift mindset away from gas

By Jonathan Richie
OSHKOSH HERALD

More electric vehicles are coming to Wisconsin due to several federal and state actions. An Oshkosh company is offering helpful information for people interested in educating themselves about the market and what to know about charging.

Community residents and Oshkosh Chamber of Commerce members were at the Shea Electric & Communications facility on Atlas Avenue during a rainy evening to learn more about electric vehicles (EVs).

Dan Shea of Shea Electric & Communications said one big thing consumers will need to do is shift their mindset from filling up to topping off. This means drivers will focus on topping batteries off and not focus on driving until the car needs to be filled with gas.

Shea explained that EVs are "coming like a freight train" due to changing federal regulations. He added that the Wisconsin electric grid can handle the increase of EVs needing to be charged.

Shea Electric is an electrical contractor that has one of the few EV charging stations in Oshkosh. He explained there are three levels of charging, spanning from 120 volts to up over 400 volts.

Shea said there is a good chance that in the future, but not in the near future, there will be a sin tax on gasoline similar to taxes for cigarettes and alcohol.

Rob Dresen of Homan Automotive also spoke at the chamber event about what the consumer can expect when purchasing, driving and maintaining an EV. He said that

as a kid he had a radio-controlled car – the RC10.

"So now I drive basically the same thing, but bigger," Dresen said when describing his electric Mustang.

Similar to how Shea said the EV mindset needs to change from filling up to topping off, Dresen told the audience that instead of miles per gallon the electric car owner will need to think in terms of miles per kilowatt-hour (kwh).

His car gets 3.5 miles per kwh and the battery has storage of 91 kwh.

"I can drive 300 miles for \$11," Dresen claimed.

Overall, he said owning an EV, if you understand how to maximize the battery, "ain't that bad."

Other benefits for owning EVs include no oil changes and a smaller carbon footprint.

Dresen was asked about that footprint and said the carbon expenditure is larger to build an EV compared with a gas-powered car.

"But two to three years into driving the EV, it will become carbon neutral," he said.

Dresen was also asked about safety of EVs compared with other cars. He said EVs have five-star safety ratings and larger crumple zones, which are designed to have the energy from a crash stay in the front end and not transfer to the occupants, because there aren't all the internal combustion engine parts.

The downside for safety is that if a battery sets on fire, local authorities don't have an easy remedy for putting out the flame.

"If you put water on a battery fire, that will make it worse," Dresen said.

Dresen added that the average internal combustion engine car is owned for 3.7 years and the average Tesla for about seven years. Part of that is the warranty that comes



People get a look at electric vehicle charging units at Shea Electric last week.

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with gas-powered cars.

One of the current negatives of EV ownership is maintenance because it can take sometimes two months for a Tesla to get fixed due to the lack of servicing outlets.

Dresen said he doesn't advise people to do their own maintenance because of the complexity of the system. The diagnostic machine for an electric vehicle can cost up to \$15,000.

When asked about how winter affects the battery, he said the key is conditioning it so that it's warmed up and at 100% charge.

"The car and battery are more efficient when it's warm," Dresen said. He said it takes about seven minutes for his car battery to condition in the morning and can be done in the garage while being charged because there are no emissions.

Shea spoke briefly about the state's plan to add EV charging to the state's infrastructure – mainly through alternative fuel corridors that would run along major interstate roads like I-41 and I-39. The state's plan includes other alternative fuel corridors along state highways 29 and 8 in northern Wisconsin.

The Wisconsin DOT 96-page infrastructure plan outlines several goals for electric vehicle charging stations. One is to have 85% of the Wisconsin State Highways system within 25 miles of a National Electric Vehi-

cle Infrastructure (NEVI) compliant fast-charging station.

According to the plan, published in September, there were 306 total public charging stations, 164 charging stations within a mile of an alternative fuel corridor, and only four NEVI-compliant charging stations. Data from 2022 states that Wisconsin had 9,339 electric vehicles registered with the DOT and 193 in Winnebago County.

The state estimates by 2027 the total number of electric vehicles registered in Wisconsin could top 217,000, just over 4% of all vehicles. The report estimates there could be more than 1.86 million registered EVs in Wisconsin or 31% of all vehicles by 2050.

Shea stated that most charging will be at home for people commuting to work and driving around town for running errands. These charging corridors will be used for people making trips across the state.

Dresen said one thing that comes with EV ownership is range anxiety.

"It's not about the distance I have left. It's the worry about, 'Do I have enough time to get where I'm going, recharge and then get back?'"

After the presentation, there were several EVs that people were able to test drive to get a feel for how they handle. There is a charging station at Shea Electric.

