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CHARGE IT? The pros and cons of new electric cars

By Stephen Bitsoli Macomb Daily Staff Writer

If the high price of gas is making you long for an electric-powered vehicle, an EV, one you can just plug into a wall socket to charge, the good news is that there are EV conversion kits for sale, as well as actual assembly kits, clubs and even conversion services.

The bad news is that they're not cheap or easy to find, and they often have limitations car-loving Americans aren't willing to accept.

David Wright, commissioner of the Ann Arbor Energy Commission, said EVs are "definitely cool," and the amount of energy you need to charge your car costs less than an equivalent amount of gasoline. The problem is most batteries only hold enough power to drive about 30 miles before recharging, and recharging isn't as fast as refueling. Other EVs have significant speed limitations.

"Automakers have made consumers believe they have to be able to go 100 miles per hour, 300 miles on (one fueling) and fill up in five minutes," said Richard Marx, president of EnVironmental Transportation Solutions, LLC in Grosse Pointe Woods (ecovelectric.com or 313-717-4321). "These are luxuries that we don't need."

Marx, who worked on General Motors' electric car program, said a more daunting problem is safety issues, both electrical and highway. Hobbyists need "regulations, requirements and knowledge on how to meet requirements." For example, many hobbyists don't drive in A Porsche converted to plug-in electric by former Detroit Jeffrey Reiss and Cool Green Car.net.

the rain because the cars might short out, Marx said, but they can be built so that's not a problem.

Speed and range limitations aren't inevitable. Former Detroit Jeffrey Reiss of Birmingham's New Detroit Motor Co. (www.newdetroitmotors.com or 561-352-9993) is in Florida converting high-end gasoline-fueled cars to plug-in electric, including a Porsche that can drive 150 miles on a single charge, recharges in two hours for a cost of \$5, and goes from 0 to 50 miles per hour in three seconds.

The key is Reiss uses lithium ion batteries, which are expensive and not yet widely available. Currently, most EVs use less expensive golf cart-type lead acid batteries or camera-type nickel metal hard drive batteries, said Larry L Tuttle, organizer for the recently formed Michigan chapter of the Electric Auto Association (michiganeaa.org, larrytuttle@gmail.com or 734-995-9904). Both types have problems of weight and how much energy they can store as well as safety issues. In an accident, Marx said, flooded lead acid batteries could leak and spray acid.

Marx doesn't think the conversion market will take off until affordable lithium ion batteries are available in the mass market, and that may take five years or more.

Reiss' luxury car conversions start at about \$29,000, but John Mogelnicki of Detroit Electric Vehicles (www.detroitev.com or 248-568-7107) also has started converting gasoline cars to electric cars (a PT Cruiser is a current job) for an average cost of about \$10,000, not inclusive of labor. He's also assembling a kit with which home mechanics could probably do it by themselves in about six months.

None of these costs include the car to be converted, and Tuttle said auto manufacturers won't sell the car frame alone, so you need a spare car on which to work. That's why most conversions are done by car hobbyists, such as the members of the EAA.

Tuttle said there are three reasons the membership is interested in electric car conversions: because it will save fuel, help the environment — most Michigan EAA members are idealists, Tuttle said — and “because it’s cool.”

The members aren’t experts. In fact, one reason they joined, Tuttle said, is to learn from and help each other. Tuttle is about to start his own conversion job using a kit.

Finding a kit might be difficult unless you have access to the Web. A random check of local auto part stores found none, though special orders may be possible.

Mogelnicki is working with Fran Hall of Race Car Replicas: Superlites Series in Clinton Township (www.superlitecars.com or 586-329-1573) to offer EVready car frames, including a Roadster for about \$35,000 and a Coupe for \$85,000. They plan to start taking orders in January.

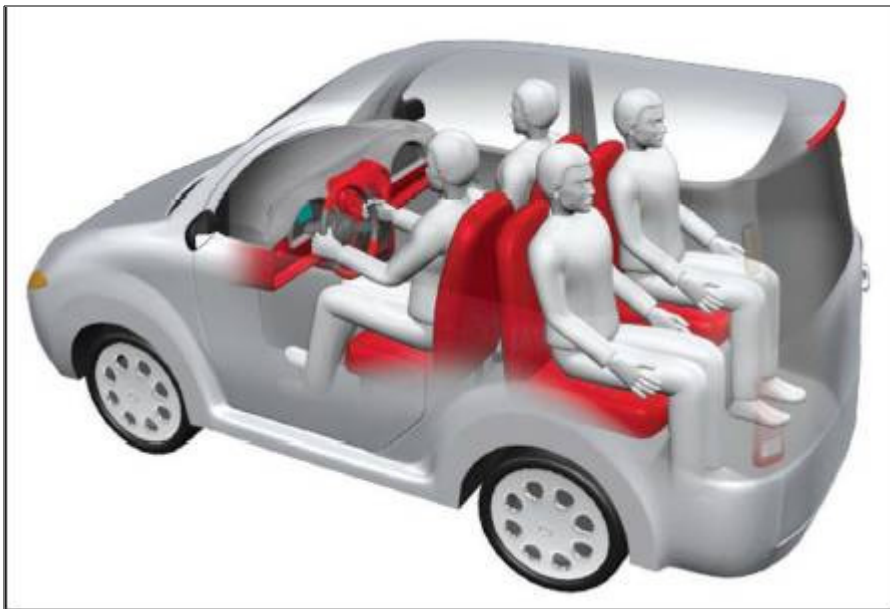




Macomb Daily staff photo by David Dalton Fran Hall of Race Car Replicas in Clinton Township with a Superlite Coupe replica. He and John Mogelnicki now are converting one to plug-in electric and will begin taking orders next month.



One of Cool Green Car.net's electric cars re-charging.



An artist's rendering of an EcoVElectric car from EnVironmental Transportation Solutions in Grosse Pointe Woods.