## Newsweek

## These Are Not Golf Carts

Electric cars for tooling around town--a review.

George Wehrfritz NEWSWEEK WEB EXCLUSIVE Updated: 5:25 PM ET Feb 16, 2008

Electric vehicles are generally not for the open road. Their range between chargings is about 60 kilometers at most, which precludes long journeys, and they top out at around 60 km per hour, which makes them unsuitable (and illegal) for freeway use. But as early-adopters have discovered, they're practical city cruisers and loads of fun to drive. Best of all, the thrills they offer are guilt-free.

Last week I drove three slow-speed electric cars currently available in North America. Contrary to the persistent Internet buzz--much of it clearly generated by people who haven't experienced today's plug-ins firsthand--they are not glorified golf carts, but rather "real" vehicles comparable to the pint-sized Japanese imports than stormed U.S. shores in the 1960s, which, for those too young to remember life before the compact disc, were considerably more sprightly and bare-bones than today's entry-level motors.

For drivers accustomed to, say, North America's best-selling car, Toyota's Camry, the plug-ins are tiny, light and bouncy on rough roads. And they lack sound insulation, plush interiors, gaudy chrome bits or anything else non-essential that would add weight and shorten ranges. Radios, power windows and such are options--but they sip from the same power source as the drive motor, as do the headlights, windshield wipers, heaters, defrosters and turn signals. They also lack air bags and impact-absorbing bumpers, but per U.S. low-speed vehicle requirements, have three-point seatbelts and automotive safety glass.

On the upside, they're whisper quiet (which can catch pedestrians off-guard). And as with vintage British roadsters, gauges are minimal; the only one that really matters is the battery charge level. Run it too deep into the red and you're walking. Did I mention that they don't require gas or emit noxious fumes into the atmosphere? Or that the juice they require for daily commutes costs less than \$20 a month? They're green with a capital "G."

IT Sedan (Dynasty Electric Car Corp, Vancouver, Canada. <a href="www.itiselectric.com">www.itiselectric.com</a>): Shaped like a ladybug, the IT gets the plug-in style prize. The sedan version I drove was a shimmering tangerine beauty with aluminum wheels, four doors and room for four adults (really). That's a feat for a car that weighs in at just 1,400 pounds.

As the only purpose-built plug-in of the bunch (the other two vehicles reviewed below are modified versions of conventional cars), the IT shaves weight wherever it can. The dashboard is a floppy panel, the doors are featherweight fiberglass and the floor is rubberized, not carpeted. The seatbacks are comprised of mesh fabric stretched office-chair fashion over metal frames. Open the tailgate and the rear storage area looks deep enough to be resting on the ground. Indeed, the entire cabin seems sunken; it sits directly atop a low aluminum frame that allows adults (even tall ones) to sit comfortably without their heads touching the roof. Visibility and ergonomics are fantastic for such a diminutive vehicle. The IT is purposefully utilitarian.

My test track was hardly ideal. I drove the IT around Dynasty's main facility in an industrial zone outside Vancouver, where potholes, railway crossings and 18-wheelers were plentiful. And it was pouring rain. Yet their sedan was a kick to tool around in; it jumped off the line, reached cruising speed in respectable time and handled the bumps with surprising ease. The

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seats were quite comfortable--not cross-country luxuriant, but fine for commutes. The steering was a tad heavy at slow speeds because the batteries and motors are set in front above the front axle. And the car is narrow; two adults sitting up front are cozy.

In addition to the sedan, Dynasty makes a diminutive pickup, a cloth-top sport and a door-less, topless runabout perfect for holiday resorts in the tropics.

Price as tested: \$19,000

**ZENN 2.22LX (ZENN Motor Co., Toronto. www.zenncars.com**): The ZENN (for 'zero emissions, no noise") looks like the runt of a litter of Volkswagen Rabbits (no offense intended). It has boxy European styling, but with just two seats and a tiny storage area under the rear hatch. Adapted from a French diesel-powered micro-car, it's made primarily of (recyclable) plastic that comes in silver, blue or metallic green. The deluxe version features electric windows, a stereo in the dash, a huge sunroof and aluminum wheels. A cute bunny it is.

The ZENN is the commuter king of the plug-ins. It is ultra nimble, gas-engine-quick from a stop and perfect for tiny parking spaces. I drove it in a hilly Seattle neighborhood, where it accelerated to 50 kph while climbing San Franciscan slopes, and--as do all electrics--regained some of the spent energy with its regenerative braking on the down hills. The ZENN kept up with traffic on Seattle's boulevards, took railroad tracks and other bumps without undue rattling and felt very much at home in the city.

Head- and legroom are issues for very tall drivers. But for the rest, the ZENN is perfect for getting to and from work while shrinking one's carbon footprint, and it can haul a week's worth of groceries in the back.

Price as tested: \$14,500

MILES ZX40S (Miles Electric Vehicles, Santa Monica, Calif. <a href="www.milesev.com">www.milesev.com</a>): The Miles is a global car. The platform is a 1990s-vintage Daihatsu mini-car design from Japan that is still manufactured with a petrol engine in China. The company that redesigned it as a battery electric vehicle is California-based, and its namesake, Miles Rubin, once made blue jeans in Asia. The Miles is, in relative terms, the mini-van of the plug-in cars currently on the market--which is to say, large, practical and boring.

It drives great. With huge batteries and an engine more than twice as powerful as those of its rivals, it accelerates, climbs and cruises like a petrol car up to 35 mph. But it's a thousand pounds heavier than the competition, so the extra horsepower doesn't translate to a serious performance advantage. Still, the utility advantage is obvious. For anyone who shuttles kids back and forth to soccer practice, hauls dogs to the vet or likes bulk shopping, the Miles is the perfect plug-in. The company also makes a mini-truck and recently unveiled a highway-capable prototype sedan that should be on the market in a year or two.

Price as tested: around \$20,000

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