



## Canada putting up roadblocks to low-speed electric autos

**Ontario, home to a top manufacturer, curtails such vehicles in the name of safety**

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Terry and Carol James would like to dump their gasoline-powered car. Carol has asthma and isn't keen on contributing to downtown smog, and Terry believes the future depends on cleaner transportation.

"My wife refuses to buy another car unless it's all-electric," says Terry, who argues that rising interest in electric cars could prove fertile ground for job creation in Ontario's struggling manufacturing sector.

But the electric car the James' want to purchase – a low-speed vehicle manufactured by Toronto-based ZENN Motor Co. – can't be legally driven on public roads. And even though such vehicles are permitted on city streets in more than 40 U.S. states, both the federal government and Ontario have no intention of giving these quiet, cute and emission-free vehicles a green light.

"The situation is so ridiculous," Terry says. "They can be used almost everywhere else but they can't be used here. You can ride a bicycle on our roads. You can ride a moped ... and yet I can't buy a car? It's not safe enough, they say. There's something really bizarre going on."

In fact, any remaining hope that low-speed vehicles, or LSVs, will be permitted in Ontario were crushed in December when Transport Canada proposed – in the name of driver safety – to amend the definition of LSVs in a way that would limit their use to military bases, university campuses, retirement communities and other "planned" environments.

Ultimately, jurisdiction lies with the provinces. But Ontario's Ministry of Transportation, when contacted by the *Star*, seemed to agree with Ottawa's leaning. Ministry spokesperson Bob Nichols said the province has concerns about allowing LSVs in "mixed traffic" environments. He emphasized that a five-year pilot project launched in fall 2006 to study LSVs is focused on "controlled" locations such as parks – not downtown streets.

Plans to redefine LSVs have sparked outrage among manufacturers of these vehicles and put



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ZENN (zero emission, no noise); Price: \$14,000; Range: Up to 60 km; Speed: 40-50 km/h

Transport Canada at the centre of an email protest. The debate is thick with irony: some of North America's leading manufacturers of low-speed vehicles are based in Canada.

Companies such as ZENN Motor, Vancouver-based Dynasty Electric Car, and market newcomer Electrovaya of Mississauga say they're manufacturing in Canada, creating jobs in Canada, but aren't allowed to sell to Canadians who want to drive these electric vehicles in their own communities. In many respects they represent the future of transportation, and a stepping-stone to highway-speed made-in-Canada electric cars.

"We're not asking for these cars to be driven on the 401 highway," says Ian Clifford, co-founder and chief executive officer of ZENN, which has been forced to sell its \$14,000 vehicles almost exclusively through 31 retail locations in the U.S. "What we're asking for is a top speed of 40 km/h on a 50 km/h or under road. The last time I checked, the average speed in downtown Toronto was about 20 km/h."

Former U.S. vice-president Al Gore, during a visit to Toronto last April, ribbed Premier Dalton McGuinty about the importance, from a climate-change perspective, of allowing low-speed electric cars on public roads. In June, McGuinty told the *Star* the cars should be permitted and he would work toward that goal. Since then, little has happened.

Having faced one bureaucratic roadblock after another, a frustrated Clifford has all but given up. With a much larger U.S. market beckoning, Canada has become a distraction. "What a waste of energy and valuable time," he says.

Demand for low-speed vehicles is real, and poised to grow. There are more than 200,000 already driving the streets of Europe and worldwide sales exceed 600,000 annually, though traditionally the more open "golf cart" versions have dominated the market.

ZENN and its Canadian rivals are looking to redefine the market by, in a word, "pimping" the low-speed ride. The cars are totally enclosed, come with heating and air conditioning, are equipped with seatbelts, and some sport sunroofs.

By most measures, they're just like any other car: rear- and side-view mirrors, brake lights, turn signals, head lights, front and back windshield wipers, and stylish colours. Some models even use regenerative braking to help recharge the battery while driving. The ZENN, which stands for zero emissions, no noise, exceeds Transport Canada's LSV safety standards. .

"While the LSV category has existed in legislation for 10 years, the recent surge in gasoline prices in the U.S. and 'need to be green' has accelerated interest in the category," Marvin Wolff, a financial analyst with Paradigm Capital, wrote in a research report on ZENN. No longer just for gated communities, "the urban commuter market is now receiving attention."

The idea being promoted by LSV manufacturers is that households should have a conventional vehicle for long-distance trips and a lower-speed electric vehicle for booting around town, shopping for groceries, or going to work.

Vehicles typically drive up to 60 kilometres before their battery packs, in most cases lead-acid batteries, need to be recharged by plugging into an electric outlet. That's plenty of range for the day-to-day travels of most drivers, particularly urban dwellers.

The cars are also dramatically cheaper. ZENN says the fuel efficiency of its car is equivalent to one litre of gasoline for every 100 kilometres travelled – about two cents worth of electricity per kilometre.

Sankar Das Gupta, chief executive of Electrovaya, which recently launched its Maya300 LSV, points out that the vast majority of households in the U.S. have two or more vehicles. There's no reason, he says, why one of those couldn't be a slower-moving city car.

"The teenager could also drive it and the parents would know it isn't being driven too fast," he

says.

It turns out nearly 35 per cent of U.S. households have three or more cars – the single largest group among American car owners, according to a recent survey by Experian Automotive. That's part of the reason why major U.S. urban centres, such as Milwaukee, are embracing the city car concept.

"It's absolutely critical we move forward with technologies such as this," says Tony Zielinski, an alderman in Milwaukee, which last month passed an ordinance allowing LSVs on downtown streets. "If you work in the city and live in the city, this might be a viable option."

So why is Transport Canada a holdout? The department is worried about the ability of LSVs to blend in and keep pace with passenger cars, particularly larger vehicles such as SUVs and trucks. LSVs, according to their class definition, are also not required to have front and side airbags, side-impact reinforcement or meet any crash-test standards. This means drivers of the cars are at greater risk if they collide with a larger vehicle.

Transport Canada has also raised concerns about the vehicle's safety in winter driving conditions experienced in cities such as Toronto.

But it's debatable whether airbags are necessary in low-speed crashes, and many argue the problem isn't that LSVs are too slow but that larger vehicles go too fast on city roads. Besides, Clifford points out, nobody is banning bicycles, motorcycles and scooters from the streets.

And while driver safety is important, Clifford adds that pedestrian and cyclist safety is equally important. Would a cyclist rather be sideswiped by a Hummer or a ZENN?

Maryse Durette, a spokesperson for Transport Canada, says the problem with LSVs is that, unlike a bicycle or scooter, they look too much like cars. "When you see a ZENN you wouldn't consider it a motorcycle or a bike."

The implication is that drivers of passenger and commercial vehicles will adjust their driving behaviour accordingly when they see a cyclist, but are less likely to do the same if they see a ZENN because it's assumed it can operate like a regular car. Durette says the issue needs to be studied more thoroughly.

"This is all nonsense," Clifford says. "They just need to talk to California or New York and they'll get all the data they need."

Zielinski, meanwhile, says he's confused by Canada's reluctance. Transport Canada's position, he adds, "doesn't pass the smell test."

Milwaukee has winters similar to Toronto. Does it not care about driver safety? Are Manhattan, San Francisco, Los Angeles, the entire states of Florida and Texas, and more than 30 communities in Wisconsin not concerned about safety?

"Everything is a balancing test," says Zielinski. "No matter what piece of legislation you introduce, no matter what the benefits, there's always going to be naysayers and nitpickers opposed to it because they're opposed to change. That's dangerous from a governmental perspective."