

Israel Looks to Electric Cars

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By Barbara Kiviat and Tim McGirk/Jerusalem



The Israeli government announced a major initiative to push the nation's drivers toward electric cars on Monday, a move meant to both lessen dependence on foreign oil and address the environmental and health hazards of gas-burning vehicles.

It is not the first time a government has tried to promote electric cars on a mass scale. A 1990 California mandate requiring automakers to sell zero-emissions vehicles famously flopped. But the Israeli attempt is far more sophisticated than anything that precedes it. It aligns policy makers and a major car company with an outfit prepared to build hundreds of thousands of electric charging stations across the country. In an interview with TIME, Israeli president Shimon Peres called the project, "an experimental lab, a pilot project, before it's applied to other, bigger industrialized nations."



Traffic snakes its way from Haifa south to Tel Aviv and Jerusalem.

Automaker Renault-Nissan will manufacture the cars and Better Place, a California start-up founded by former SAP executive Shai Agassi, will build the infrastructure, which may eventually consist of 500,000 charging points and up to 200 battery-exchange stations. A pilot involving a few dozen cars will start later this year in Tel Aviv. A few hundred vehicles are expected to be on the road by 2009, with production scaled to the mass market by 2010. On Jan. 13, Israel slashed the tax rate on cars powered by electricity to 10% in order to encourage consumers to buy the vehicles once they are available.

The idea to take Israel electric was born in a white paper that Agassi, an Israeli native who now lives in the United States, wrote as part of the World Economic Forum's Young Global Leaders forum. Peres was impressed and encouraged Agassi to pursue the project as a stand-alone business, helping to introduce the software-industry executive to auto executives, including Carlos Ghosn, CEO of Renault-Nissan. The Japanese-French auto alliance has separately said that it will manufacture a hybrid by 2010 and an all-electric car by 2012.

Electric cars, which have existed for more than 100 years, are becoming all the rage - both GM and Toyota have said they will manufacture plug-in hybrids by 2010. But Agassi's plan stands out because it focuses on the infrastructure for recharging cars instead of on the vehicles themselves.

Battery technology has advanced markedly in the past few years, yet an electrically powered family-style car still can't go much farther than 100 miles on a charge, and once a battery is drained it takes hours to power back up. Agassi's solution: take the battery out of the car and make it part of the infrastructure. Agassi was being shown a battery at Tesla Motors, a California-based company developing its own electric car, when the thought struck him. "I'm looking at this thing," says Agassi, "and I'm thinking, 'Oh, I get it. This is oil. This is not the gas tank. It's the gas.'"

In practice, that means consumers will buy cars from Renault-Nissan, then subscribe to a Better Place service that includes use of a battery and electricity from charging stations. The business model, Agassi says, is similar to how a mobile phone company sells airtime. Agassi figures that if he adds electrical outlets to at least 500,000 of Israel's three to four million parking spots, people will feel like they can charge their cars whenever they need to. Since most people seldom drive more than 100 miles at a time, wiring workplaces and public spaces like shopping malls should keep most cars juiced. For longer drives, customers will be able to pull into a battery-swap station and get a fresh battery. Better Place, and not individual drivers, owns the batteries, which should keep the price of the cars comparable to gas-powered vehicles.

Even though full implementation is years away and not everyone is convinced the plan will work - Israel's chief scientist says the plan is heavy on ideas but light on R&D and existing technology - the idea has already sparked interest elsewhere. Agassi says he is speaking to 15 other countries, many of which, like Israel, relish the idea of reducing their dependency on the world's oil-producing nations. Idan Ofer, chairman of Israel Corp., the Tel Aviv-based industrial conglomerate that provided Better Place with half of its \$200 million funding, has his sights set on China. Israel Corp. already has a joint venture with the Chinese automaker Chery, and if Agassi's plan works in Israel, says Ofer, "it will work even better in China. Their pollution is killing them and the rest of us, too."