Plugged into public's push for cleaner world

by Mike Lee

Maybe the electric car isn't dead after all.

Nearly four years after General Motors canceled its pioneering EV-1 program, pilot projects and commercial production of electric vehicles are gearing up in San Diego County and beyond.

PLUGGED IN - Pat Cadam (left) and Nick Rothman install a lithium ion battery pack in the trunk of a Toyota Prius in San Diego to convert the standard hybrid to a plug-in vehicle. CNS Photo by Jim Baird.
PHOENIX RISING - Phoenix Motorcars, an Ontario, Calif., manufacturer, plans to deliver fully electric trucks to commercial customers this year. CNS Photo courtesy of Phoenix Motorcars.The latest electric cars plug into conventional power outlets. Some of them - including two that will be unveiled in San Diego - can travel farther than their ill-fated predecessors because they have back-up gasoline engines.

Boosters said the cars, called plug-in vehicles, can get 100 miles per gallon and recharge on about the same amount of energy it takes to run a hair dryer for five hours.

They also note that the United States has more than enough electricity to recharge the cars at night, and utilities are responding by proposing lower fees for that time period.

"When I was in junior high school, this was (the kind of technology) that we talked about at the lunch table. ...This is yesterday's tomorrow," said Bill Hammons, president of the Electric Vehicle Association of San Diego.

Numerous businesses, from startup firms to major automakers, aim to capitalize on the public's growing appetite for environmentally friendly technology. The companies also want to stay ahead of regulations targeting greenhouse gas pollution.

In San Diego, for example, vehicle emissions account for more than half of the city's output of carbon dioxide and other gases that contribute to global warming.

"Everybody's attention is on this because they finally see it as a viable option," said Bryon Bliss, vice president of marketing for Phoenix Motorcars, a vehicle manufacturer in Ontario, Calif.

The company plans to deliver fully electric trucks to commercial customers starting this year. The retail cost will be about $45,000.

Technicians working for San Diego Gas & Electric Co. recently converted a Toyota Prius hybrid into a plug-in car in front of fleet managers and hybrid enthusiasts. A pair of plug-in vehicles was showcased to the public at San Diego Regional Transportation Center.

"It's here. It's not something at a science fair that you'll see in 20 years," said Ricardo Bazzarella, director of engineering for A123Systems of Massachusetts.

The company built the lithium ion battery packs for SDG&E's cars. Each pack, which costs about $12,500, takes a few hours to install in conventional Priuses.

Bazzarella wants to push that cost below $10,000 before his business sells the kits to the public early next year.

Electric vehicles remain too expensive for the general public, but cheaper batteries would change the dynamic. Another obstacle is that plug-in hybrids are available only as after-market conversions.

On the upside, electricity is 50 percent to 75 percent cheaper than gasoline as a source of vehicle power. In addition, energy experts said electricity is typically far more environmentally friendly than gasoline.

A recent study for the U.S. Department of Energy said the nation's electricity infrastructure is underused most of the time. The study said the existing power system could recharge about three-quarters of all the cars, pickup trucks and SUVs now on the road.

The idea is that most people would plug in their vehicles at night, when power use is lowest.

But some individuals are most excited about the possibility that homeowners could use rooftop solar panels to recharge their plug-in hybrids, effectively powering their vehicles with sunlight.

"A lot of people (are) waking up and realizing that our cars could be a lot better with existing technology and existing infrastructure," said Felix Kramer, founder of The California Cars Initiative, a Palo Alto-based group that promotes plug-in hybrids.

SDG&E's vehicles are part of a year-long study to determine the practicality of plug-in hybrids.

The utility will assess the gas mileage, electricity use, driver's experiences, safety and operating costs of the two cars. For comparison purposes, it's gathered information on the Priuses' performance under various

driving conditions before they were altered.

"We want a real slice of life so that when we release the data in early 2008, it will mean something to the consumer," said Joel Pointon, manager of clean transportation services for SDG&E.

Despite all the sunny predictions, it remains unclear what ecologically friendly fuel will capture the American market. Hydrogen, ethanol and electricity are among the potential ways to reduce the country's dependence on oil.

"What past experience has really shown is that it's difficult, if not impossible, to pick a winner ... because technology changes over time," said Don Anair, clean vehicles engineer for the Union of Concerned Scientists in Berkeley, Calif.

Anair and others said plug-in hybrids have an advantage because they seem to be a logical next step to conventional hybrids.

"We are in a plug-in society, ... so to me it's a natural thing to be able to plug in your car," Bazzarella said.

Plug-in technology also appears to have piqued interest among major automakers. Several of them are developing electric models.

Ford recently pledged to work with power company Edison International to "unleash the potential of plug-in technology for consumers," the partners said in a joint statement.

Beyond the environmental benefits, there appear to be good business reasons for automakers to embrace more efficient vehicles, according to a study released yesterday by the Consumer Federation of America.

"Great and growing concern about gasoline-related issues helps explain the overwhelming public support for automakers being required to make more fuel-efficient vehicles," said federation spokesman Jack Gillis. "U.S. automakers can no longer defend their lack of fuel economy progress by (claiming) they just give consumers what they want."

Union-Tribune librarian Denise Davidson contributed to this report.

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