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Posthuma, Ron

From: Steve Marshall [marshallsj@comcast.net]
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Subject: For today's council meeting: Wall Street Journal article on Ford's DOE funding request

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Ford Seeks DOE Funding For Electric-Vehicle Infrastructure

http://online.wsj.com/article/BT-CO-20090720-709865.html#printMode

By Mara Lemos Stein

NEW YORK (Dow Jones)--When Ford Motor Co. (F) rolls out its electric vehicles next year, it wants an infrastructure to support them, so the company is working with utilities and seeking government support to ensure that a charging network is in place.

The automaker was the lead applicant for a grant proposal under the U.S. Department of Energy's $400 million program to support the development of an electric-vehicle market through technology demonstration and education projects, said Nancy Gioia, director of Ford's sustainable mobility technologies and hybrid vehicle programs, in an interview with Clean Technology Insight. Ford's partners in the application are 15 electric utilities that cover 55 million customers, she said.

"The project would benefit from all the knowledge we have from the Ford Escape [plug-in hybrid vehicle] project, but moves well beyond that," said Gioia, referring to a project launched in 2007 involving eight utilities and the utilities-funded Electric Power Research Institute, or EPRI. That project entails placing 20 sports-utility plug-in hybrid Ford Escapes with the utilities to monitor performance and infrastructure requirements.

Under its DOE proposal, Ford and its partners would deploy 740 vehicles in four different segments: small cars, small SUVs, small business vans and large vans, with the objective of assessing and building infrastructure for the electric vehicles and ensuring grid connectivity.

"Our intent is to bring forward a very comprehensive national electrification transportation demonstration," said Gioia. "We went for the big wazoo."

The demonstration fleet is also expected to collect data from the vehicles and speed up understanding and adoption of the new technology by drivers, according to Ford.

The DOE grants come from federal stimulus funds and attracted hundreds of applicants, including many privately held developers of advanced battery technologies. The department said it expects to announce the grant recipients in July and disburse the funds in September.

The DOE funding is aimed at addressing the chicken-and-egg conundrum that comes with adoption of new technologies. Knowing that there is a market for the product is essential for automakers to justify the investment in electric vehicles and the disruption to their business model.

At the same time, drivers won't buy the new cars if a recharging infrastructure isn't available, if the batteries aren't safe and their capacity limits travel distances. There's also education required on the high cost of these vehicles: In an all-electric or PHEV, the consumer spends upfront much larger amounts than in a gasoline-engine car, but that pays for itself over time in zero or very little gasoline consumption and sharply reduced maintenance expenses, electric vehicle developers say.

"Electric transportation is a genuine alternative to gasoline, and this path of migrating to electric from gas is a tremendous opportunity to reduce [carbon dioxide] emissions and reduce dependency on foreign oil," said Tom Reddoch, executive director for energy utilization at EPRI. "But it's different, so it automatically slows people down."

Reddoch said that EPRI found that, in the existing Ford program, the battery in the PHEV Ford Escapes that allows the vehicle to run for 20 miles per charge will displace two gallons out of every three gallons of gasoline needed.

"We're beginning the process of familiarizing the public with the technology, to get an easy to charge infrastructure," said Reddoch, who believes the first wave of electric transportation will come as PHEVs, which have one battery and a gasoline tank that kicks in once the battery runs out.

One of the things that Ford and its utility partners are working on is the creation of open standards and open platforms for the charging of PHEVs and all-electric vehicles, said Gioia. The 2007 program, which started with Southern California Edison and then attracted the other utilities, will run for two more years and cost $20 million.

Earlier this year, Ford received a $10 million grant from the DOE under its Vehicle Technologies Program in support of that project. The Ford Escape PHEVs are using batteries developed by Johnson Controls-Saft Advanced Power Solutions LLC, a joint venture between publicly traded Johnson Controls Inc. (JCI) and Saft Group SA (SAFT.FR), based in Bagnolet, France.

To illustrate the importance of having utilities and automakers working together in the process of adopting electric transportation, EPRI's Reddoch gave the example of the plug design.

"At the beginning [of the project] each automaker wanted to have their own plug, with their own design, and we said we want a universal plug, one with a common interface so that wherever you go [with the car] it will be OK [to charge it]," he said.

Johnson Controls-Saft will also supply the batteries for Ford's PHEV, which Ford will bring to market in 2012, the same year that it plans to launch the next generation of its hybrid systems. Before that, though, Ford will next year roll out its Transit Connect light-duty van, the automaker's first 100% battery-powered vehicle, developed in partnership with Smith Electric Vehicles U.S. Corp. Gioia said the Transit Connect will cost between $60,000 and $65,000.

And in 2011, Ford will launch its first all-electric passenger vehicle, the Ford Focus, with a 100-mile range per charge. The car is being developed with Canada's Magna International Inc., and Ford intends to announce the battery supplier for the Ford Focus later this year, said Gioia. The car will be assembled at the same production line as its gasoline version, giving the company manufacturing scale and the

ability to produce it globally.

Last month, Ford received $5.9 billion in low-cost loans from the DOE to upgrade plants in Michigan, Ohio, Illinois, Kentucky and Missouri.

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