

## **Bigger car battery could end stop-and-go waste of gas**

A Knight Ridder Newspapers report

DETROIT – Auto makers want to put more juice under the hood to power gadgets such as fax machines, computers and microwave ovens in cars. And they have figured out a way to save gas at the same time.

Car manufacturers are close to agreeing on tripling the voltage of car batteries from 12 volts to 36 volts.

That would enable a car's battery to run more accessories with less power loss in its wiring.

A bigger battery also would allow companies to add a new electronic starting device that would automatically shut down the car's engine when it brakes and instantly turn it on when the accelerator is pressed.

That could increase gas mileage from 5 percent to 20 percent, with the average U.S. driver getting 10 percent better mileage, said Paul Nicastri, a vehicle electronics project leader in Ford's research lab.

General Motors plans to introduce a vehicle with an automatic engine shut-off this year, said Bob Purcell, executive director of GM's advanced technology vehicles.

"The [bigger battery] system with mild hybrid designs looks very promising," Purcell said. "You will see a lot of these mild hybrid applications in the next 10 years."

Europeans took the lead in this technology, but Detroit is wisely catching up, said Tom Keim, an MIT researcher who co-directs an auto maker/battery maker university consortium.

"I expect they'll eventually take over the marketplace," Keim said.

In addition to saving hundreds of millions of gallons of gas annually, the bigger battery could be used to heat fuel before starting, Nicastri said. That would reduce pollution, he added.

The instant-start function would allow auto makers to reduce engine size slightly without reducing performance. But first, everyone has to agree on the size. A 36-volt battery – which produces 42 volts while operating – is likely. That is as big as the battery can get without being hazardous to amateurs who fool around with it, Nicastri said.