

models are introduced for automakers to offer discounts to move the older models off the lot — customers aren't going to pay full sticker for the old model when the all-new model can be had for about the same price.

Again, our 2007 full-size SUVs have been selling very well, without any national rebates.

As I said in my previous post, GM, like Toyota, is a full-line automaker. We offer something for everyone. Ultimately, consumers decide what they will buy based on their own calculation of their needs, desires and budgets.

We've been improving the internal-combustion engine for close to 100 years, and we have a tremendous record of innovation. We continue to invest in future technology that promises to get the car out of the debates on oil dependence and the environment.

I again invite Mr. Friedman to come to Detroit and learn more about our research, to speak with our engineers and get a firsthand look at what we're doing to reach the goal that we both agree is desirable.

Posted by Editor at June 15, 2006 03:37 PM

[Back to top](#)

Who Ignored the Facts About the Electric Car?

By Dave Barthmuss GM Communications

The film EV Confidential: Who Killed the Electric Car? showcased the intense passion for GM's out-of-production EV1 electric vehicle. I understand why. It was great technology for its day, a great concept and a great car. GM was and is proud to have brought the electric vehicle concept as far as it did and further than any other electric vehicle project attempted by any other automaker around the globe. Sadly, despite the substantial investment of money and the enthusiastic fervor of a relatively small number of EV1 drivers - including the filmmaker - the EV1 proved far from a viable commercial success.

But the story for GM does not end with the final credits on the movie. I've been the person who has spent the last few years answering the questions of why GM discontinued the program. Although I have not seen the movie or received an advanced DVD as others have from the film's producers, I can tell you that based on what I have heard there may be some information that the movie did not tell its viewers. The good news for electric car enthusiasts is that although the EV1 program did not continue, both the technology and the GM engineers who developed it did. In fact, the technology is very much alive, has been improved and carried forward into the next generation of low-emission and zero-emission vehicles that are either on the road, in development or just coming off the production line. For example:

GM's two-mode hybrid system designed for transit busses have been placed in more than 35 cities across the U.S. and Canada. Perhaps many have seen these cleaner-burning diesel-electric mass transit vehicles. The buses use technology developed for the EV1, such as the regenerative braking system.

The Saturn Vue Green Line, which will hit showrooms later this summer, incorporates a new, more affordable gas-electric technology. The Saturn Vue Green Line will be priced at less than \$23,000 and offer the highest highway fuel economy at 32 mpg of any SUV, hybrid or otherwise.

GM is co-developing with DaimlerChrysler and BMW Group a new two-mode hybrid system for passenger vehicles. This new two-mode hybrid technology will debut next year in a Chevrolet

#### ..... **KNOW THE FACTS** .....

GM invested more than \$1 billion in the EV1 program, which included money for installing a charging infrastructure and for marketing the product.

.....  
Even with extensive publicity, award-winning advertising and customer incentives the Electric Vehicle program was not a commercially viable business.

.....  
GM leveraged advanced technology to create the

Tahoe full-size SUV, which will offer a 25 percent improvement in combined city and highway fuel economy when joined with other GM fuel-saving technologies. Technology born in the EV1 is incorporated into this new two-mode hybrid system.

GM's fourth-generation hydrogen fuel cell vehicle, which enhances the technology found in today's HydroGen3 fuel cell vehicle, (currently in demonstration fleets around the world), will be introduced later this year and will represent a leap forward toward a production ready version of a hydrogen fuel cell vehicle. For the longer term, GM sees hydrogen and fuel cells as the best combination of energy carrier and power source to achieve truly sustainable transportation. A fuel cell energized by hydrogen emits just pure water, produces no greenhouse gasses, and is twice as efficient as an internal combustion engine. Although hydrogen fuel cell technology was cast as a pie-in-the-sky technology by the moviemakers, GM is making great progress in fuel cell research and development and is on track to achieving its goal to validate and design a fuel cell propulsion system by 2010 that is competitive with current combustion systems on durability and performance, and that ultimately can be built at scale, affordably.

Add to all this GM's leadership in flex-fuel vehicles that run on clean-burning bio fuels such as corn-based ethanol and our new "active fuel management" system that shuts down half the engine's pistons at highway speeds to improve fuel economy, and we feel we are doing more than any other automaker to address the issues of oil dependence, fuel economy, and emissions from vehicles. And we are committed to do more.

Lastly, because the movie made some harsh criticisms of GM for discontinuing the EV1, let me set the record straight:

GM spent more than \$1 billion developing the EV1 including significant sums on marketing and incentives to develop a mass market for it.

Only 800 vehicles were leased during a four-year period.

No other major automotive manufacturer is producing a pure electric vehicle for use on public roads and highways.

A waiting list of 5,000 only generated 50 people willing to follow through to a lease.

Because of low demand for the EV1, parts suppliers quit making replacement parts making future repair and safety of the vehicles difficult to nearly impossible.

Could GM have handled its decision to say "no" to offers to buy EV1s upon natural lease expirations better than it did? Sure. In some ways, I personally regret that we could not find a way for the EV1 lessees to keep their cars. We did what we felt was right in discontinuing a vehicle that we could no longer guarantee could be operated safely over the long term or that we would be able to repair.

In turn, GM engineers used EV1s for cold-weather testing to continue the technology transfer to hybrids and fuel cells. We also donated them to universities and museums. In fact, we donated an EV1 to the Smithsonian and are now being wrongly accused of a conspiracy with the museum because they removed the car for renovation of the National Museum of American History. I can assure you that this is nothing more than unfortunate timing.

So as right and as good as our intentions were, we understand that the moviemakers see them as wrong. We'll accept that criticism, but don't punish GM for doing a good deed. Rather, work with us and give us credit for taking a necessary first step in developing technologies that hold the potential to change the face of automobile transportation. That's what GM engineers are doing everyday.

Posted by Editor at June 23, 2006 10:41 AM

Saturn Vue Green Line Hybrid. It will hit showrooms later this summer, incorporating a new, more affordable gas-electric technology.  
.....