

Automotive News

COMMENT

There was no conspiracy to kill GM's EV

There were just no batteries available to make it feasible

Gary Witzenburg | |

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General Motors' EV1, like all battery electric vehicles before and since, expired because of a toxic combination of physical and marketplace realities. The idea of some sinister conspiracy involving automakers, lawmakers and "Big Oil" is absurd.

Why should an automaker care what form of energy powers its vehicles as long as it's readily available, affordable, safe and reliable while providing the performance, efficiency and range that customers demand?

If any automaker could offer vehicles that operate on a form of energy that does any of those things better than - and the rest at least as well as - a tank of gasoline, why would it not gleefully do it?

As manager of vehicle test and development for GM's Advanced Technology Vehicles from early 1991 through 2000, I was intimately involved with the ultrahigh-tech car called EV1.

I was there that cold December morning in 1992 when our passionately dedicated leader, Ken Baker, emotionally told us that our program was being put on the shelf.

I was there when new GM CEO Jack Smith hosted all 400 of us for lunch to apologize and explain why he had reluctantly decided to table our program as he struggled to save the corporation. He had already canceled or delayed some volume programs and said this was his last and perhaps most difficult such decision. I was privileged to sit at his table, and he could not have been more sincere.



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A new life

Three-quarters of our team was reassigned, but about 100 remained to continue development. Because of my media experience, my tiny proving-grounds team planned and executed a series of press drives using three of our seven "Proof of Concept" prototype cars. That brought a bunch of positive stories, most agreeing that our car, if produced, would be the best-ever EV.

Then we managed the critically important job of "burning in" 50 more prototypes that would be lent to consumers in a dozen U.S. cities. That innovative and risky "PrEView Drive" program accumulated valuable real-world experience and reams of data on how the cars performed, how people used them and what they liked and disliked.

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-- Gary Witzenburg

Our new leader, Bob Purcell, revived our program with the mission from Jack Smith and the board of directors to "make a business of it."

If California was determined to mandate EV sales, GM was determined to find a way to make them profitable.

The plan was to lead the industry in EV technology and market it to other automakers that chose not to invest hundreds of millions to develop their own. That is exactly Toyota's plan for its hybrid technology.

When we shipped the first production EV1s to California dealers, we knew the market for an expensive two-seater with very limited range would not be strong. But we knew from PrEView Drive that people loved our cars and learned to live with their limitations.

Why it failed

We also knew that long-term success would depend on battery technology. If our 1,100-pound lead-acid pack was a gas tank, it held a mere half-gallon of gas-equivalent energy. Our car had to be incredibly efficient to run the 70 or so miles a good driver could squeeze out of it.

We worked hard to develop nickel-metal hydride batteries - much more expensive but with about twice the energy capacity - for our 1999 EV1. That extended the range to as much as 140 miles.

But the lithium polymer chemistry being worked on by 3M Corp. and others, which promised both cost and range competitive with a tank of gas - the ultimate key to market acceptance and GM's EV business plan - never panned out.

I understand why those who had EV1s loved them and hated to give them up. And I understand why GM could not leave potentially dangerous 312-volt-powered cars out there as they aged or commit to providing parts and service for years to come, as required by law.

Just don't let anyone tell you that GM wanted that program to fail. You don't table it, revive it, then do everything we did and invest what I estimate to be at least \$1 billion on something you don't want to succeed.

From the CEO down to those of us who worked so hard to make it happen, everyone at GM desperately wanted the EV1 to work.

If road-going EVs are ever to succeed in sustainable numbers, they will have to have safe and affordable onboard battery energy equivalent to petroleum energy. No amount of wishful thinking or good-intentioned legislation will alter that reality.



Gary Witzenburg is an automotive writer and former General Motors engineer.

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