A Sustainable Environment: Our Obligation to Protect God's Gift

by
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Are Hybrids Really Our Answer to Energy Woes?

A few months ago, I learned of a two-year study by a market research firm to determine the true cost of owning and driving automobiles of various sizes and styles and from various manufacturers. This would be a very interesting study as Americans are becoming increasingly interested in fuel economy and global warming. It seems that more and more people are making automobile choices based on fuel economy, but to a lesser extent on emissions. People that purchase automobiles based on fuel economy are concerned only about the quantity of fuel (energy) that will be necessary to drive the automobile during the time they own the car. But what about all the energy required to manufacture the car and eventually to dispose of it?

CNW Marketing Research Inc. spent two years collecting data on the energy necessary to plan, build, sell, drive and dispose of a vehicle from initial concept to its eventual disposal in a scrap yard. In the environmental industry, this type of study is known as a life cycle analysis (LCA), or can also be named "dust-to-dust". In its 458-page report titled: "Dust to Dust: The Energy Cost of New Vehicles From Concept to Disposal", the authors looked at really fine detail such as plant to dealer fuel costs, employee driving distances, and electricity usage per pound of material used in each vehicle. These data became part of the extensive analysis along with the better-understood energy usage of electricity consumed in the assembly plant. The authors also collected data for each model on its expected life in years and miles. Applying the appropriate cost for fuel, the data were then converted to "dollars per lifetime mile", a more understandable term for consumers. A better term for this end result is "Energy Cost per mile driven".

It is not surprising that the most energy expensive vehicle sold in the U.S. in 2005, based on this total life cycle analysis, is the Maybach (by Mercedes Benz), which would cost $11.58 per mile over its expected life of 257,000 miles. At the other end of the spectrum is the Toyota Scion xB at $0.48 per mile, which is also not too surprising.

What is really interesting is that driving a hybrid vehicle costs more in terms of overall energy consumed than comparable non-hybrid vehicles. According to this study, the Honda Accord costs $2.18 per mile while the hybrid equivalent costs $3.29 per mile, about 50% more. The same difference is true with the Ford Escape costing $1.95 per mile while the hybrid version costs $3.18, again over 50% more. One of the reasons hybrids cost more than the non-hybrids is the manufacture, replacement and disposal of such items as batteries, electric motors, lighter weight materials and the complexity of the power package. Perhaps when more hybrids are built these costs may decrease the difference between hybrids and non-hybrids.

The real surprise of this study is the result of the total energy cost of the sport utility vehicle. These SUVs have been targeted by many consumers and environmentalists because of their lower fuel economy and/or perceived inefficiency as a means of transportation. For 2005, the industry average of all vehicles sold in the U.S. was $2.28 per mile. However, the Hummer H3, probably considered being among the least efficient had a total energy cost of $1.95, about 15% below the industry average. Even some of the more popular SUVs have surprisingly low total energy costs: the Lincoln Navigator has a cost of $2.62 per mile, the Toyota Land Cruiser is $3.18, and the Ford Expedition is $3.06 per mile, all less than the Honda Accord hybrid.

The authors of the report believe that for consumers concerned about fuel economy because of family budgets or depleting oil supplies, it is perfectly logical to consider buying high-fuel-economy vehicles. But if the concern is the broader issues such as environmental impact of energy usage, some high-mileage vehicles actually cost society more than conventional or even larger models over their lifetime.

A report like this requiring collection of data for two years is extremely costly to prepare. The big question is which organization, if any, paid CNW Marketing Research to conduct this research. Could it have been a company like the General Motors Cadillac division that manufactures no hybrids and no fuel economy cars, a company that sells the “environmentally obnoxious” Escalade EXT, a car that has a total energy cost of $2.05 per mile, 10% below the industry average of all cars? Just wondering!