

The Truth About Hybrids

Battery Toxicity:

<http://www.hybridcars.com/battery-toxicity.html>

LCA of Hybrid Batteries

An MIT study, "On the Road in 2020," reported on a comprehensive energy life-cycle analysis for hybrid vehicles and found that 80% to 90% of all energy was used in the operation stage; 7% to 12% in the materials production stage, and the remainder in vehicle assembly, distribution, and disposal. So the extra energy used to build a hybrid is negligible over the lifetime of the car. Additionally, hybrid batteries are fully recyclable and do not use lead - one of the more toxic substances in traditional car batteries. Toyota has a comprehensive battery recycling program in place and has been recycling nickel-metal hydride batteries since the RAV4 Electric Vehicle was introduced in 1998. Every part of the battery, from the precious metals to the plastic, plates, steel case and the wiring, is recycled. To ensure that batteries come back to Toyota, each battery has a phone number on it to call for recycling information and dealers are paid a \$200 "bounty" for each battery.

The Hummer vs. Prius Myth:

http://www.pacinst.org/topics/integrity_of_science/case_studies/hummer_vs_prius.pdf

Hybrid Safety and Environmental Footprint:

Finally, the safety of hybrids was also questioned. But as was pointed out during the discussion, as technologies advance, we become more familiar and adapt to them. As the following article shows, the makers of "the jaws of life" now incorporate electrical current insulation to protect emergency crews when cutting through charged parts of vehicles <http://www.theautochannel.com/news/2005/11/02/147306.html>. Also, most hybrid vehicle manufactures have first responder specifications on how to deal with the hybrid elements in the event of an accident. So just as it is important for firefighters to know how a building is constructed before they enter it, it is now equally important to know the make and model of vehicles involved in an accident before they engage. The following article from USA Today also shows that the Army is looking at hybrid technology because of its safety features!. http://www.usatoday.com/news/world/iraq/2006-02-13-humvee_x.htm . So there are definitely two sides to every story. As the hummer vs. prius article shows, we really have to look closely at the source of information and how that information is manipulated. When looking at full life-cycle costs, it appears a hybrid-electric vehicle has a much smaller environmental footprint than traditional gas vehicles.