

# Re: Hydrogen Production Method Could Bolster Fuel Supplies

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quasarstrider@yahoo.com.br (quasarstrider) wrote in message news:<14a48ff9.0412020849.49e13988@posting.google.com>...

> "Tom Simonds" <[tsimonds@theworld.com](mailto:tsimonds@theworld.com)> wrote in message news:<[coj7n1\\$vcj\\$1@pcls4.std.com](mailto:coj7n1$vcj$1@pcls4.std.com)>...

>> *I have no idea why anyone would want to use electricity to produce H2*

>> *for use as a motor car fuel. Seems crazy. Use electricity to make H2,*

>> *put it into a car just to convert it back into electricity. And lose >*

>> *1/2 of your energy along the way. There are several workable schemes to*

>> *use elect. directly – skipping the H2 altogether.*

>>

>> *A light weight battery electric car today can be built that'll go 200(?)*

>> *miles on a charge. Then, put up battery changing stations on the*

>> *interstate highway system (USA) for those occasional longer trips. It's*

>> *a no-brainer. Yet another scheme is the plug-in gas electric. Runs on*

>> *power from the grid 90% of the time, uses gas only to extend its range*

>> *beyond the 100 or so miles you get out of the battery.*

>>

>> *Either of the above are far better than elect. => H2 => electricity.*

>

> *None of today's batteries has enough density to replace gasoline. Add the*

> *fact that batteries are expensive and need to be trashed every couple of*

> *years, plus long charging times and you can see why it is a losing proposition,*

> *with current battery technology at least.*

Actually, I'd expect plug-in hybrids to make a big impact. A few figures (based on high price UK petrol):

Fuel cost per 100km

Hybrid on night time electric power: 25p

Audi A2 1.2tdi (the most efficient car on the market): £3

Typical car (e.g. Ford Mondeo): £10

Emissions per 100km:

Hybrid powered from UK electricity grid: 50g / km

Audi A2 1.2 tdi: 81g / km

The majority of cars do about 30km/day. That means they can be 70–90%

electric powered.

Typical savings are £300 – £1,000 per year.

Here's an extract from The Economist, Technology Quarterly:

The next step may be the "plug-in" hybrid, which is not the backwards step its name suggests. Unlike the electric cars of the 1990s, none of today's hybrids needs to be plugged in—but if plugging were an option it would be a good idea. Andrew Frank and his team at the University of California Davis' Hybrid Electric Vehicle Centre are working exclusively on plug-in hybrids, which can operate as pure-electric vehicles over short distances (up to 60 miles, with a large enough battery pack) but can switch to a hybrid system when needed. Since the average American driver travels about 30 miles a day, plug-in hybrids could be recharged overnight, when electricity is cheaper to produce, and need never use petrol at all, except on longer trips.

According to studies carried out by the Electric Power Research Institute (EPRI), a non-profit organisation based in Palo Alto, California, plug-in hybrids could be one of the cleanest and most efficient kinds of car. In 2002, the EPRI teamed up with DaimlerChrysler to build five plug-in hybrid vans, the first of which was unveiled at a trade show in September. The larger battery packs make the upfront costs for plug-ins higher than for other hybrids. But Bob Graham of the EPRI says the added costs could be more than recouped over the vehicle's life.