Physics 100 Future Car Video (2004)

...A decade later... March 30, 2016

- The video mentions Ford research into a direct-burning hydrogen car.
- Ford Motor Company and French Renault-Nissan cancelled their hydrogen car R&D efforts in 2008 and 2009, respectively, but they signed a 2009 letter of intent with the other manufacturers and Now GMBH in September 2009 supporting the commercial introduction of FCVs by 2015

- The GM *Hy-Wire* never went into production
- It was superseded by the Sequel, which was never produced, either.
 GM instead produced the Volt and began developing electric vehicles
- GM is involved in the *HydroGen4*, which may enter production in the 2015-2020 time frame.







- You can buy two fuel cell cars in California:
- Hyundai Tucson

Toyota Mirai





The Honda FCX Clarity is currently available only in Japan.

2016 Hydrogen storage?

- The Energy Conversion Devices company, including Ovonic Hydrogen Systems LLC, which developed the hydrogen storage method mentioned in the film, filed for bankruptcy in 2012.
- A French company, <u>McPhy Energy</u>, is currently selling a metal hydride product for storing hydrogen as a solid.





- In 2016 there are 14 hydrogen refueling stations in <u>California</u> that are open, and 27 more under development. There are a smattering of other stations in the US, including Hawaii.
- There are dozens in <u>Europe</u>, but still only one in Iceland.

