

Future Cars & Future Technology

Cars in the future will evolve to run cleaner and faster than ever before, because technologies are being continuously developed by automakers, engine manufacturers, and component suppliers. While more mainstream technologies like hybrid cars and hydrogen fuel cells continue to push the edges of today's car technology, all new innovations will be introduced in the future, which also contribute to better fuel economy, lower greenhouse gases and improved tailpipe emissions.

Alternative Fuels:

■ Hybrids

Hybrids combine two or more different propulsion systems, typically a gasoline engine and one or more electric drive motors. Most hybrids on the road today compliment their gas engines by charging a battery when breaking. Engines running on diesel or other alternative fuels can also be used in hybrids. A hybrid drive is fully scalable, which means the drive can be used to power everything from small commuter cars to large buses and even locomotives. Hybrids get more MPG or miles per gallon than most non-hybrids, and usually have very low tailpipe emissions.

■ Electric Cars

Electric cars produce zero localized emissions since they're propelled by electric motors that run on batteries charged at home, or special electric vehicle charging stations. Car manufacturers are actively developing a new generation of electric cars using technologies and lessons learned from electric vehicles developed in the 1990s. Electric cars are extremely efficient and run for pennies per mile, much cheaper than any other alternative fuel.

■ Ethanol

Ethanol (ethyl alcohol) is the same type of alcohol found in alcoholic beverages. As a fuel, ethanol can be used in more than 30 flex fuel vehicle models that have been designed to run on alcohol, gasoline, or any combination of the two fuels from the same tank. Most ethanol today is produced from corn or sugar cane, although this will change as cheaper cellulosic ethanol made from fast growing woody grasses and other biomass becomes a reality.

■ Hydrogen Cars & Hydrogen Fuel Cells

Hydrogen cars are among the cleanest cars on the road, emitting oxygen and water vapor only. Hydrogen is the cleanest burning of all liquid and gaseous alternative fuels.

■ Natural Gas

Natural gas is a clean-burning alternative fossil fuel that can easily power internal combustion engine vehicles. The domestic abundance of natural gas makes it a highly attractive alternative fuel option.

■ Plug In Hybrids

Plug in hybrids boast great potential for improving fuel economy. Plug in hybrid technology allows gasoline-electric hybrid vehicles to be recharged from the grid and run many miles on battery power alone. A gas engine provides additional driving range as needed after the battery power is gone. Plug in hybrids may never need to run on anything but electricity for shorter commutes. The combination of gas and electric driving technologies can already achieve up to 150 mpg.

■ Biodiesel

As a leading alternative fuel, biodiesel can be made from various sources including soybeans and biomass. Biodiesel can be used in most diesel powered cars without modification.

■ Air Powered Cars

Air powered cars are relatively new to the green car scene. Compressed air is currently being explored as a viable 'alternative fuel' to efficiently power car engines with little or no environmental impact.