

Hybrid Cars – Driving Solutions

GET BEHIND THE WHEEL OF A HYBRID AND EXPERIENCE THE DIFFERENCE. UNLIKE CONVENTIONAL VEHICLES, HYBRIDS USE ADVANCED TECHNOLOGY AND SMART DESIGN TO GO FARTHER ON A GALLON OF GAS – CUTTING POLLUTION, SAVING OIL, AND SLASHING COSTS AT THE GAS PUMP.



Aerodynamic Design – improves fuel economy by reducing drag and wind resistance

Integrated Starter-Generator – Saves fuel by shutting down gas engine when idling in traffic.

Hybrid Engine – Combines small internal combustion engine with electric motor.

Variable Valve Control Engine – Improves engine performance by controlling the mix of air and fuel more precisely.

Regenerative Braking – Captures energy normally lost during braking to charge the electric motor

High-Strength, Lightweight Materials – using materials like aluminum reduces weight without compromising safety.

Continuously Variable Transmission – boosts fuel economy through better “gear ratios”

Hybrid Vehicles Cut Pollution, Save Oil, and Lower Gas Costs.

Burning gasoline emits carbon dioxide – the main heat trapping gas that causes global warming. As a result, America’s cars and trucks release more global warming pollution than the entire country of Germany. By using less gasoline, hybrid vehicles release a fraction of the heat trapping emissions.

America’s dangerous dependence on oil threatens energy security and puts our environment at risk. Hybrid technology can help make all of our cars and light trucks average forty miles per gallon within the next ten years. Taking this step would save more oil than we currently import from the entire Persian Gulf or could ever take out of the Arctic National Wildlife Refuge, combined.

Hybrid vehicles also save money at the gas pump. Over the lifetime of the vehicle, hybrids can reduce

gasoline bills by thousands of dollars when compared to similarly sized cars and SUVs.

How Do Hybrids Work?

Hybrid vehicles combine an efficient gasoline engine and an electric motor to get great fuel economy. The electric motor powers the car at low speeds, switching to the gas engine at highway speeds. To accelerate, hybrids combine the power of both the electric and gas engines. When hybrids brake, they recharge the electric motor using energy that other cars just waste. This process is known as regenerative braking. Since both the gasoline engine and the regenerative braking charge the electric motor,

hybrid vehicles never need to be plugged in! You just fill them up at the gas station like any other car – only not as often. Hybrids also use a host of other fuel-saving technologies ranging from smart transmissions to idle-off starters to aerodynamic design and better materials.

Hybrids Don’t Just Consume Energy – They Produce It!

As you drive, the gasoline engine charges the batteries – which means you never plug it in!!!

Today's Hybrids: Many Choices to Meet Your Needs

There are already several hybrids on the road today – from the two-seater Honda Insight to the 5 passenger Honda Civic Sedan and Toyota Prius Hatchback to the Ford Escape hybrid SUV – a hybrid exists to fit any need.

The next few years will see a surge of hybrid vehicles into the market, giving consumers more choices and greater opportunity to reduce our dependence on oil, slash global warming pollution, and save money at the pump. Further technological advances will improve fuel economy and lower the cost of hybrids. Hybrid technology is ready to make its appearance in the largest SUVs, vans, and pick-up trucks. America needs auto companies to put this technology to work and political leaders to make sure that we can all enjoy the benefits of hybrid vehicles.

The Biggest Single Step.

The biggest single step to curbing global warming, cutting America's oil depen-

SAVE MONEY AND CUT POLLUTION Comparing Hybrids with their All-Gasoline counterparts			
Traditional Vehicles	Hybrids Vehicles	Lifetime Fuel Savings	Emissions prevented
Toyota Camry* 27 mpg	2004 Toyota Prius* 55 mpg	2,275 gallons of gas \$3,640	32 tons CO ₂
Honda Civic DX 33 mpg	Honda Civic Hybrid 47 mpg	1,091 gallons of gas \$1,745	15 tons CO ₂
Ford Escape XLT 22 mpg	Ford Escape Hybrid 37 mpg**	2,285 gallons of gas \$3,656	32 tons CO ₂

*The Toyota Camry is a comparable vehicle to the Prius.

**estimated

dence, and saving money at the gas pump is to raise fuel economy standards. The technology exists to make all new cars, trucks, and SUVs average 40 miles per gallon within the next ten years. Taking this step would save more oil than the United States currently imports from the entire Persian Gulf, or could ever take out of the Artic National Wildlife Refuge,

combined. It would also prevent as much global warming pollution from being emitted as is released by the entire country of Mexico each year. Hybrid engines are just one of the many fuel-saving technologies that can make America's vehicles average 40 miles per gallon. Go to www.sierraclub.org/freedom to find out more about fuel-saving technology.

TAKE ACTION:

1. Tell Bill Ford To Make More Hybrid Vehicles

It's time for Bill Ford to stop dragging his feet and commit to building more clean hybrid vehicles.

Send an email to Bill Ford at www.sierraclub.org/takeaction.

2. Make Your Next Car A Hybrid.

When you to buy a new car, why not cut the pollution and high gas costs while you're at it? Driving a hybrid will help bring the next generation of clean vehicles into the mainstream. You can even get a sizable federal tax deduction. Depending on what state you live in, you might get even more.

3. Organize A Community Hybrid Car Event

Help organize a hybrid car event in your neighborhood to build excitement and demand for clean vehicles. Contact the Sierra Club at hybrid.solutions@sierraclub.org for help in organizing the event.



Explore, enjoy and protect the planet

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