

# 2005 Escape Hybrid Overview

- World's cleanest and most fuel-efficient sport utility vehicle\*
- First hybrid-electric SUV, first hybrid to offer four-wheel-drive
- Fuel-efficient, 4-cylinder gasoline engine combines with an electric drive system to deliver acceleration performance similar to that of the V-6 Escape
- Never needs to be plugged in. Reclaims energy during braking to charge its hybrid storage battery for later use

Ford Escape Hybrid is the world's cleanest and most fuel-efficient SUV\*. It combines the fuel economy and emissions benefits of a "full" hybrid with the go-anywhere capability, toughness and spaciousness of the Ford Escape, America's favorite small SUV. Escape Hybrid is the first hybrid electric vehicle to offer four-wheel-drive and towing capability of up to 1,000 pounds.

The Escape Hybrid is a "full" hybrid, meaning it automatically switches between pure electric power, pure gasoline engine power or a combined operation to maximize efficiency and performance.

Full hybrids can achieve 50 percent or more improvement in fuel economy during stop-and-go driving, when the electric motor is most efficient. In fact, the Escape Hybrid provides more than 75 percent fuel economy improvement in city driving, compared with a conventional V-6 powered Escape XLT.

Its gasoline engine and electric motor work in concert, providing performance similar to that of a V-6 engine. In less demanding situations, the Escape Hybrid can run on its electric motor alone, its gasoline engine alone or the most efficient combination of the two.

Escape Hybrid can travel more than 400 miles in city driving on a single tank of gasoline.

## **Design**

The Escape Hybrid looks like the traditional Escape, the best-selling compact sport utility, with a few key differences. The Escape Hybrid features unique badging that uses the Ford road-and-leaf insignia, with standard 16-inch wheels and a discreet air vent in the driver's side rear quarter window. Escape Hybrid is available with a special Appearance Package that features silver body-side cladding and bright trim. On the interior, Escape Hybrid features a flow-through console and unique gauges, including a "green zone" gauge that shows when the vehicle is operating in its most economical mode.

## **Interior**

Escape Hybrid's interior is nearly identical to the traditional 2005 Escape. It offers seating for up to five and includes the same 60/40 split folding rear seat. Efficient packaging of the hybrid technology (locating the battery pack below the rear load floor, for example) means that interior versatility is preserved. Even with a full complement of five passengers, cargo room behind the second row seat is still an ample 27 cubic feet.

The maximum cargo space can be expanded to over 65 cubic feet, if desired. The roof rack is capable of holding up to 100 pounds of cargo.

A unique gauge package features an economy indicator with "green zone" that shows when the vehicle is operating on battery power. A separate gauge displays levels of charge and assist for the battery pack. An optional navigation system features an Audiophile stereo system, a unique energy flow diagram that displays hybrid system operation and a fuel economy screen that displays instant and average fuel economy.

Escape Hybrid also offers an optional 110 volt AC power outlet, perfect for a television, radio, air pump, electric razor or even holiday lights at the campsite.

### **Powertrains**

The Escape's hybrid powertrain system consists of a half-dozen key components engineered to provide a seamless flow of power:

- A special 2.3-liter four-cylinder gasoline engine features Atkinson cycle combustion for improved efficiency and produces 133 horsepower at 6,000 rpm and 129 pound-feet of torque at 4,500 rpm (preliminary ratings).
- A 65-kWatt (equivalent to 87 horsepower) electric traction motor provides an added boost to the drive wheels when maximum acceleration is desired.
- A 28-kWatt (equivalent to 38 horsepower) generator motor recharges the batteries, starts the engine and helps regulate how the two propulsion channels blend together in the transaxle.
- A special electronically controlled, continuously variable transmission (eCVT) harnesses internal combustion and electric power sources to drive the front wheels in a FWD Escape or all four wheels with the optional Intelligent 4WD System™. This component is integral with the generator motor.
- A 330-volt nickel-metal-hydride battery pack located and sealed beneath the rear load floor serves as the electric powertrain system's "gas tank."
- An electronic vehicle system controller manages charging, drive assist and engine-starting functions. This device shuts the engine down during coasting and at stoplights to save fuel. It also converts the traction motor into a generator during braking to help recharge the batteries.

The combined output of both the gas and electric motors is 155 horsepower.

### **Performance**

The powertrain provides 0-60 acceleration performance comparable to the 200 horsepower V-6 engine in the conventional Escape.

The generator motor provides power boosts during heavy load situations, helping Escape Hybrid accelerate briskly to speed. In addition to fuel-free operation, electric motors deliver maximum torque at low rpm, so they are an ideal complement to gasoline engines that generate peak power at higher rpm.

The electric power-assisted steering system allowed Ford engineers to easily tune the amount of steering assist independent of engine and vehicle speed, giving the Escape Hybrid a very easy steering effort at parking-lot speeds, while retaining Escape's hallmark crisp steering feel while driving.

The optional Intelligent 4WD System, available on all Escape models, is fully computer-controlled and provides maximum traction as driving conditions vary. Its operation is so seamless that most drivers will never notice that it has engaged.

### **Energy savings**

The 2005 Ford Escape Hybrid achieves an estimated over 35 mpg on the city cycle\* - an improvement of at least 75 percent over the city fuel economy rating of 20 mpg for the conventional V-6-powered Ford Escape.

It is an extremely clean vehicle to operate, producing 97 percent less hydrocarbon and oxides of nitrogen emissions than vehicles that meet today's nationwide Tier I emissions standard. It qualifies the 2005 Escape Hybrid for the stringent Advanced Technology Partial Zero Emissions Vehicle (AT-PZEV) classification.

The Escape Hybrid also produces as little as half the amount of carbon dioxide (CO<sub>2</sub>) - a primary "greenhouse gas" - when it drifts into the Earth's upper atmosphere.

**Major Equipment and Options**

Escape Hybrid is offered in front-wheel-drive or with the Intelligent 4WD System for confident traction in all conditions. Other available packages include: Appearance: Includes silver-painted body-side cladding and wheel-lip moldings along with body-color door handles.

Leather comfort group: Leather-wrapped steering wheel and leather-trimmed seats.

Safety package: Safety Canopy™ side air curtain system and front side-impact air bags.

Options include MACH Audio six-disc in-dash CD changer, 110-volt AC plug, retractable cargo cover and a Hybrid Energy display monitor that includes a navigation system and Audiophile stereo.