



Ford Technology Increases Fuel Economy

With higher gas prices already a reality and further increases a possibility, Ford Motor Company vehicles are ready for these trying times with an array of available technologies that help maximize fuel economy. Here is a look at 12 key fuel-saving technologies and strategies – many introduced since the last gasoline crisis in 2008 – that are available today in Ford and Lincoln vehicles.

Technology	What it does	Potential fuel savings	First introduced	Availability
EcoBoost	Combines turbocharging and direct injection to produce, for example, the power of a V8 with the fuel economy of a V6 or the power of a V6 with the fuel economy of a 4-cylinder	Up to 20 percent compared to the larger engine	2009	Ford Taurus, Ford Flex, Ford F-150, Lincoln MKS, Lincoln MKT
Gasoline direct injection	Delivers a fine mist of fuel directly into each combustion chamber of each cylinder	Up to 20 percent	Aggressive implementation since 2009	Ford Taurus, Ford Flex, Ford F-150, Ford Focus, Lincoln MKS, Lincoln MKT
Six-speed automatic transmissions	Compared with traditional four-speed automatics, the extra gears improve acceleration at launch and fuel economy while cruising at highway speeds	Up to 6 percent vs. four-speed automatics	Since 2008, Ford has accelerated implementing six-speed automatic transmissions across the lineup. By the end of 2012, 98 percent of Ford's North American transmissions will be advanced six-speed gearboxes	Available in nearly all products
PowerShift transmission	Combines the best features of automatic and manual transmissions to improve performance and fuel economy	Up to 6 percent	2010	Ford Fiesta, Ford Focus
Auto Start-Stop	Automatically shuts down the engine when the vehicle is at idle – at a stoplight, for example – and quickly restarts the engine when the driver wants to move off	Up to 5 percent in mixed driving conditions; up to 10 percent city driving and in heavy traffic with frequent stops	2005 in Ford Escape Hybrid; will debut in non-hybrid products in North America in 2012	Ford Fusion Hybrid, Ford Escape Hybrid, Lincoln MKZ Hybrid
Twin independent variable camshaft timing (Ti-VCT)	Adjusts cam timing to provide optimum performance and fuel economy	Up to 4.5 percent vs. non-Ti-VCT engines	2009	Ford Mustang, Ford Edge, Ford Explorer, Ford Focus, Ford Fiesta, Ford F-150, Lincoln MKX
Electric power-assisted steering (EPAS)	Uses electric motor rather than engine-driven hydraulic gear, which saps power from the engine. This helps improve fuel economy	Up to 4 percent vs. hydraulic systems	2007	Ford Focus, Ford Mustang, Ford Fiesta, Ford Fusion, Ford Fusion Hybrid, Ford Taurus, Ford Flex, Ford Escape, Ford Escape Hybrid, Ford Explorer, Ford F-150, Lincoln MKZ Hybrid, Lincoln MKT
Active grille shutters	Uses vents to automatically control airflow through the grille to the cooling system and engine, which aids fuel economy	Up to 2 percent	2011	Ford Focus
Tire Pressure Monitoring System (TPMS)	Measures pressure in all four tires and warns of low or underinflated tires, which degrades fuel economy	Up to 2 percent	2008	Standard on all products except heavy trucks
Aggressive Deceleration Fuel Shut-off (ADFSO)	Helps maximize fuel efficiency by temporarily interrupting fuel delivery and consumption when the vehicle normally slows down while maintaining normal engine operation	Up to 1 percent	2008	Ford Flex, Ford F-150, Ford Expedition, Ford Escape, Lincoln Navigator, Lincoln MKS
Piston-cooling jets	Sprays oil on the underside of the pistons and enables faster oil warm-up and a higher compression ratio, contributing to greater overall engine efficiency	Up to 1 percent	2009	Ford F-150, Ford F-Series Super Duty, Ford Mustang, Ford Explorer, Ford Edge, Lincoln MKX
Polished valvetrain buckets	Reduces friction, which in turn aids fuel economy	Up to 1 percent	2010	Ford Edge, Ford Mustang, Ford F-150, Ford Explorer, Lincoln MKX