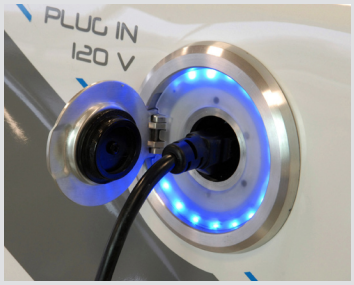
Ford's Electrification Future

Ford's electrification strategy involves three types of electrified vehicles – hybrid electric, all-electric and plug-in hybrid electric – to provide consumers with significant fuel economy improvements and reduced CO_2 emissions without compromising the driving experience

Ford's electrification strategy will deliver a suite of electrified vehicles to market by 2012, including:

- **Ford Transit Connect Electric small commercial van in 2010**
- **Ford Focus Electric passenger car in 2011**
- **Next-generation hybrid in 2012**
- **Plug-in hybrid in 2012**

The electrification strategy builds on Ford's vision for bringing affordable fuel-efficient technology to millions.

	Hybrid Electric Vehicle	All-Electric Vehicle	Plug-in Hybrid Electric Vehicle
			
	The hybrid electric vehicle combines an internal combustion engine with an electric motor and battery. Electric power is used for vehicle launch and lower-speed operation. The internal combustion engine takes over for higher-demand operation and charges the battery.	All-electric vehicles do not use a drop of fuel. Instead of an internal combustion engine, it features a high-voltage electric motor, which takes its power from a battery pack charged by plugging in to a 120- or 240-volt outlet.	Plug-in hybrid electric vehicles combine hybrid electric technology with a high-voltage storage battery like that used in an all-electric vehicle. Ford has developed what is known as a blended plug-in hybrid electric – first using the charge of the battery and then running in regular hybrid mode for the best possible fuel, smallest battery and most affordable customer solution. On startup, it operates in charge-depletion mode, providing up to 30 equivalent electric miles of range, and then switches to charge-sustaining hybrid mode for continued optimal fuel economy.
Fuel economy/range	About 70 percent better than comparable non-hybrid models. The new 2010 Fusion Hybrid achieves 41 mpg city, 8 mpg better than Toyota Camry Hybrid and over 700 miles on a tank of fuel.	Up to 100 miles per full charge for the Ford Focus Electric. Up to 80 miles per full charge for the Ford Transit Connect Electric.	Far fewer trips to the fuel station. Charge-depleting maximum fuel economy operating range of approximately 30 miles.
Engine	High-efficiency Atkinson cycle in combination with motor	N/A	High-efficiency Atkinson cycle in combination with motor
Motor	High-voltage electric motor-generator	High-voltage electric motor-generator	High-voltage electric motor-generator
Emissions	Partial Zero Emission Vehicle (PZEV)	Zero Emission Vehicle (ZEV)	Partial Zero Emission Vehicle (PZEV)
Battery type	Lithium-ion (Li-ion)	Lithium-ion (Li-ion)	Lithium-ion (Li-ion)
Regenerative braking	Yes	Yes	Yes
Charging time	Requires no electrical infrastructure connection.	The production model will be rechargeable from 220- or 120-volt outlets, with respective charging times of six and 12 hours.	Plugs in to standard 120-volt outlet. Ideal for overnight charging in non-peak usage times. Requires seven hours charging time.
Customer usage	Flexible for a wide range of customer use, with excellent urban fuel economy.	For customers with shorter, predictable daily trips of less than 100 miles total.	Real-world city driving for optimal fuel economy. Ideal for longer commutes than an all-electric vehicle.
Ford experience	Five years of production experience with the world's most fuel-efficient SUVs, Ford Escape and Mercury Mariner Hybrid electric vehicles, and America's most fuel-efficient midsize cars, Ford Fusion and Mercury Milan Hybrid electric vehicles.	Prior development and demonstration fleets, including Ford Ranger electric vehicle.	Units from a fleet of 21 Escape plug-in hybrid electric test vehicles are already in testing with the 10 utilities/research organizations and the U.S. Department of Energy.