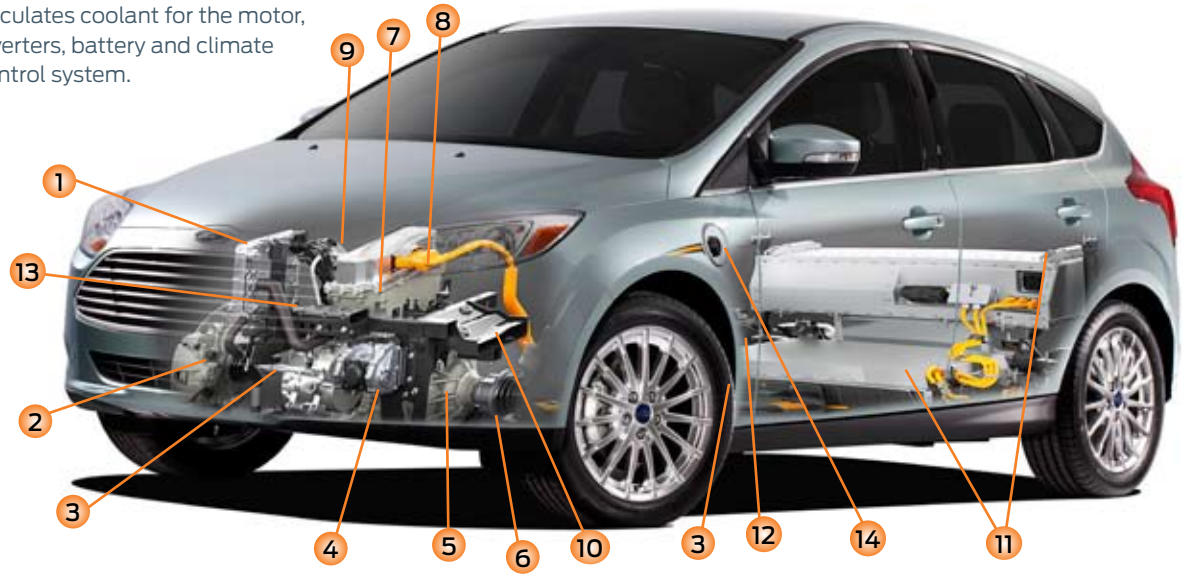
All-New Ford Focus Electric

The all-new Focus Electric, which debuts in the U.S. in late 2011 and in Europe in 2012, is one of five new electric vehicles Ford will deliver over the next two years. Below are the components that will make up the zero-emissions, gas-free Focus Electric.

1 MOTOR CONTROLLER
Monitors the motor's state and uses this information along with driver pedal demand to manage the electric signals that drive the motor.

2 HIGH-VOLTAGE ELECTRIC HVAC COMPRESSOR
Is specifically designed for electric vehicle applications, drawing energy directly from the main battery pack.

3 ELECTRIC WATER PUMPS
Circulates coolant for the motor, inverters, battery and climate control system.



4 TRACTION MOTOR
Performs the conversion between electrical and mechanical power. Electric motors have efficiencies three times higher than that of a standard gasoline engine, minimizing energy loss and heat generation.

5 ELECTRIC POWER STEERING
Is tuned to deliver the same driving dynamics as the gasoline-powered Focus.

6 TRANSMISSION
Has the identical role as in a gasoline vehicle; however, it has different design considerations due to the higher rpm range available from the electric motor and increased emphasis on efficient and silent operation. The transmission is a single-speed unit.

7 MODULAR POWERTRAIN CRADLE
Isolates the powertrain from the vehicle body, reducing noise and vibrations

8 ELECTRIC VACUUM PUMP
Provides energy-efficient power-assisted braking.

9 HIGH-VOLTAGE ELECTRIC COOLANT HEATER AND CONTROLLER
Specifically designed for electric vehicle applications, using energy-efficient technology to heat and circulate coolant. Heat also may be circulated to the battery to optimize performance.

10 POWERTRAIN CONTROL MODULE
Monitors and controls each vehicle system, and manages energy and mechanical power being delivered to the wheels to maximize range.

11 BATTERY PACK
Total energy capacity of 23 kWh with liquid coolant for thermal management; includes control module that manages temperature and state of charge.

12 AC CHARGER
Converts the AC electricity from the power grid to DC voltage required by the battery. A full battery charge can be completed in 3-4 hours and the vehicle will accommodate both 120V and 240V power sources.

13 DC-DC CONVERTER
Allows the vehicle's main battery pack to charge the onboard 12V battery to power various vehicle accessories (headlights, etc.).

14 CHARGE PORT LIGHT RING
Standard SAE J1772 Plug interface for charging. External state of charge indicator.

FOCUS ELECTRIC FACTS

Final assembly location: Michigan Assembly Plant, Wayne, Mich.

Battery cell manufacturer: LG Chem

Battery system: Lithium-ion, liquid-cooled/heated, recyclable

Total battery capacity: 23 kWh

Estimated cost to fully charge vehicle: $2 to $3 (based on nationwide average cost of $0.10 per kWh)

Wheel size: 17-inch