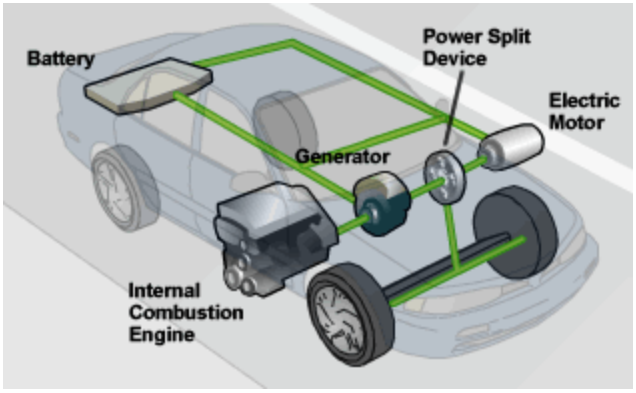

From outside most electric cars look exactly like fossil fuel-powered cars. An electric car lacks a tailpipe and gas tank, but the overall structure is basically the same. Under the bonnet, instead of a huge engine all you will see is an electric motor and its controller. The electric motor needs no oil, no tune-ups, and since there is no tailpipe emissions, it does not necessitate any smog checks.

The electric vehicle power source is the battery which acts as a "gas tank" and supplies the electric motor with the energy necessary to move the vehicle. This gives the car acceleration. When the vehicle is idle there is no electrical current being processed, so energy is not being used up. The controller acts as a regulator, and controls the amount of power received from the batteries so the motor does not burn out. This battery powers all of the electronic devices in the car, just like the battery in a gas-powered car. Everything else in the electric car is basically the same as its gas-powered equivalent: transmission, brakes, air conditioning, and airbags. Since electric vehicles use an electric motor, the driver can take advantage of the motor's momentum when pressure is applied on the brakes. Instead of converting all the potential energy in the motor into heat like a fossil fuel-powered car does, an electric car uses the forward momentum of the motor to recharge the battery. This process is called regenerative braking.

References:

1) http://www.electricvehiclesmalta.eu/e-driving/how-do-electric-vehicles-work
2) https://www.fueleconomy.gov/feg/hybridtech.shtml