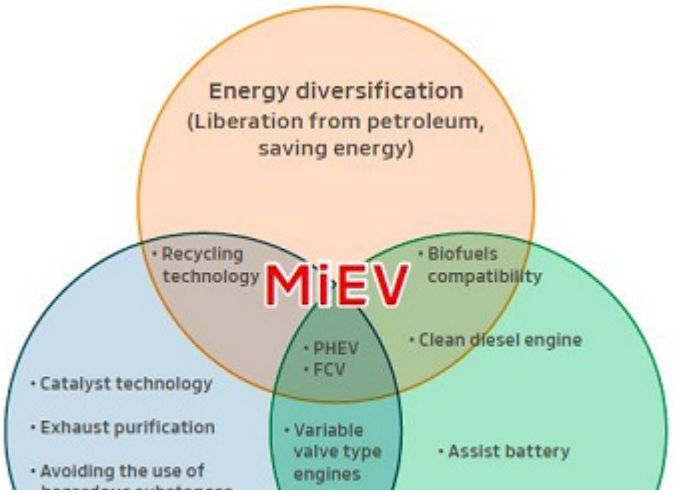
Products and Technologies / Development of Electric Vehicle Technologies

Vehicles are expected to be environmentally-friendly. This includes preventing environmental pollution and global warming, as well as diversifying energy sources from petroleum in recent years. Mitsubishi Motors strives to address these issues through initiatives such as improving the fuel economy of conventional engine-driven vehicles and developing clean diesel vehicles.

In particular, we position the electric vehicle technology incorporated in the MiEV[*1] series as our core technology for environmental friendliness, and we are committed to developing it further.



Electric Vehicle *i-MiEV*

The Electric Vehicle *i-MiEV* is powered by an electric motor, and so it emits no exhaust gases such as CO_2 while being driven. In 2009, Mitsubishi Motors released *i-MiEV* as the world's first mass-produced Electric Vehicle.
i-MiEV has built up a remarkable reputation among customers for its many advantages over conventional gasoline engine vehicles, including environmental performance, acceleration starting with maximum torque, reduced noise by the electric motor, and stability with the battery unit beneath the floor.

Electric Vehicle *i-MiEV*

Plug-in Hybrid Electric Vehicle *Outlander PHEV*

Plug-in hybrid electric vehicles are powered by electricity stored in drive batteries. They use the engine to generate electric power when the battery level is low.
The Plug-in Hybrid EV System for the *Outlander PHEV* automatically shifts to the optimum driving mode for each running condition. "EV Drive Mode" uses electric power from the drive battery and is suitable for low to medium speeds in residential and urban areas. When the battery level is low, it shifts to "Series Hybrid Mode," which generates electric power using the engine. During high-speed

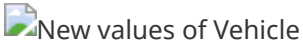
Plug-in Hybrid Electric Vehicle
Outlander PHEV

Plug-in Hybrid Electric Vehicle
Outlander PHEV

Concern over insufficient power is no longer an issue with the *Outlander PHEV*. It offers the advantages of EVs: powerful driving, superb quietness, and high stability.

New Values of Vehicle

Our EV/PHEVs are fitted with a large-capacity battery, which means that customers can connect their electrical appliances to use them even while on holiday or traveling. The batteries can also serve as an emergency source of electrical power in the event of disaster.[*2] (For the *Outlander PHEV*, a maximum of 10 days[*3] of electrical power can be provided, including electricity generated by the engine[*4].)
In addition, by adopting Vehicle to Home (V2H) technologies, which connect vehicles to the electrical supply of homes, batteries can be used for energy management or serve as an alternate power supply during power outages.
These types of electric-powered vehicles are becoming more widely adopted as vehicles that have value even when they are not being driven.



*1: Mitsubishi innovative Electric Vehicle

*2: Please follow the instructions for each vehicle when connecting appliances.

*3: Calculated based on an approximate daily electric power consumption of 10 kWh for an average household (excluding conversion efficiency such as from V2H equipment)