MMC i MiEV Responsibility to our environment

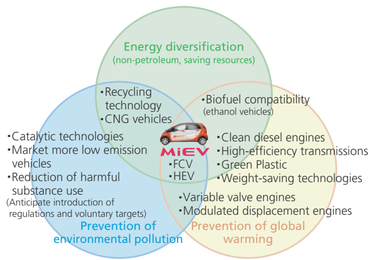
Environmental Activities

As a tool for transportation, automobiles are an indispensable element of our rich and varied modern lifestyles. However, they also have a significant impact on the environment throughout all stages of their lifecycles. Mitsubishi Motors Corporation (MMC) makes continuous efforts to reduce the environmental impact of the business processes involved, such as production, logistics, sales and recycling as well as the product itself.
In 2006, MMC announced the Environmental Initiative Program 2010. This program sets long-term and fiscal-year targets, and we are proactively implementing activities to achieve these targets.

Mitsubishi Motors
Social and Environmental Report 2008

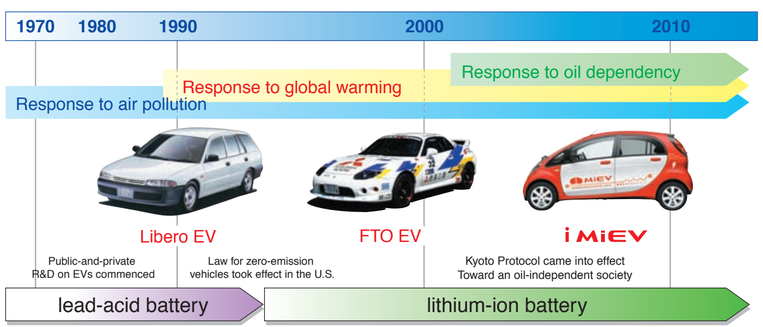
Environmental Technologies

Environmental problems that vehicle manufacturers have to resolve include the prevention of pollution and global warming, diversification of energy resources, and reducing dependence on petroleum.
In order to resolve those issues, MMC improves on conventional engines and also develops clean diesel engines and other solutions such as Green Plastics.
MMC is giving priority to promoting the development of electric vehicles (EVs), positioning them as the pinnacle of its environmental technology.



Development of Electric Vehicles

MMC was an early researcher into the potential of lithium-ion batteries, now a core technology for electric vehicles and regarded as the favorite hereafter.



Features of the i MiEV

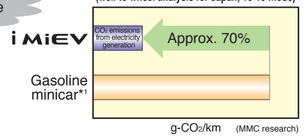
Halting Global Warming

The i MiEV is a zero-emissions vehicle. Even when taking into account CO_2 emissions at the power plants that generate the power needed for charging the car, it emits only approximately 30% of the CO_2 of a gasoline minicar.

Using an i MiEV means one ton* less of CO_2 per year in comparison with a gasoline minicar.

* One ton of CO_2 is the amount absorbed per year by 76 Japanese ceder trees.
Figures based on driving mileage of 10,000km/year.
One 50-year-old ceder tree absorbs 14kg of CO_2/year

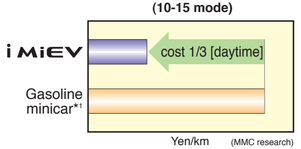
CO_2 emissions per kilometer
(well to wheel analysis for Japan, 10-15 mode)



Easy on the wallet

The cost per kilometer to drive the i MiEV is one third that of a comparable gasoline vehicle. Depending on the cost of electricity, cost per kilometer can drop as low as one ninth that of gasoline, for example when charged during off-peak or night-time hours.

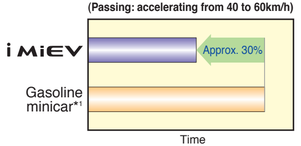
Cost per kilometer
(10-15 mode)



Strong Acceleration

Strong acceleration is achieved through a compact and highly efficient permanent magnet synchronous motor that generates high torque from a low speed.

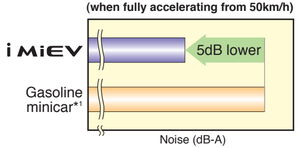
Acceleration
(Passing: accelerating from 40 to 60km/h)



Quietness That Does Not Disturb Sleep

Because the vehicle uses an electric motor free of the vertical vibration associated with gasoline engines, it runs extremely quietly.

Noise Level
(when fully accelerating from 50km/h)



Charge the Battery Anywhere

Using the on-board charger, the vehicle can be charged with a 100V or 200V power source in the home. In addition, if quick-chargers currently being developed by power companies are used, it will be possible to charge the vehicle in a short time.

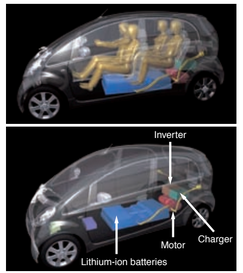
Charging Time

	Power Supply	Charging Time
Household Charger System (Full charged)	200V (15A)	Approx. 7h
	100V (15A)	Approx. 14h
Quick-charger System (80% charged)	3-phase 200V-50kW	Approx. 30min

i MiEV Four innovations

1. Optimum packaging for EVs

Based on the " i " minicar's rear-midship layout platform, i MiEV replaces the conventional engine, transmission and fuel tank with a lithium-ion battery system, motor, inverter and other EV components.
The long wheelbase, a feature of rear-midship layout, provides space for high capacity lithium-ion batteries under the floor. It also enables the motor and inverter to be installed in the space that used to house the conventional engine and transmission. i MiEV ensures ample cabin space for passengers (4-occupant capacity) and reasonable luggage compartment space in the rear. The installation of batteries under the floor makes the i MiEV 's center of gravity low, which provides a more stable driving dynamic.



2. High-capacity lithium-ion batteries

EV batteries must have high energy density, and the i MiEV utilizes high energy density lithium-ion batteries. A module consists of 4 cells, and 22 modules make one battery pack. Thanks to the structure of the modules, which allows them to be installed in either a vertical or transverse position, each high-capacity battery pack can fit under the floor. With these batteries installed, the target range is 160km (driving pattern: Japan 10-15 mode) for fleet monitoring test vehicles in 2008.

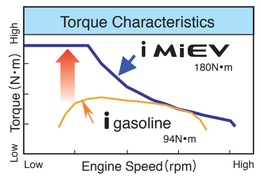
Module

Battery pack

3. Small, highly efficient motor

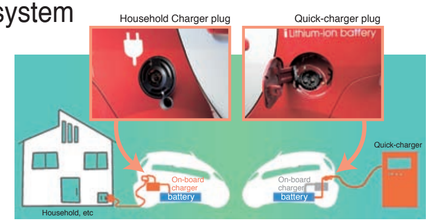
Highly efficient motor can be built smaller than gasoline engine, while still producing high torque at low revolutions.
The i MiEV 's small, light weight, highly efficient permanent magnet synchronous motor provides sportier, quieter driving and power superior to the gasoline "i" 's turbo charged 660cc engine.

Permanent magnet synchronous motor



4. Three-way battery charging system

i MiEV accepts three types of battery charging systems: The household charger system(100V,200V) for charging at home or a parking lot, and the quick-charger system for speedy charging. With the household charger system, i MiEV could be charged from either a 100V or 200V ordinary electric outlet via the household charger plug located on the right side of the vehicle.
With the quick-charger system, i MiEV could be charged in short time via the quick-charger plug located on the left side of the vehicle.



*1:"i"gasoline turbo. All data on 2008 fleet monitoring test EVs are tested by Mitsubishi Motors.