

## Feature 2: Enhancing our Eco-Car Lineup

Our corporate tagline, “Drive@earth,” aims to convey the goal of symbiosis between people and the environment to realize a sustainable society, as well as the goal of building cars that deliver driving pleasure and are at the same time environmentally responsible. To put these objectives practice, we are developing our own advanced technology, known as “@earth TECHNOLOGY.” In particular, Mitsubishi Motors is striving to become a unique provider of eco-cars, contributing to the environment by providing four types of eco-cars: vehicles with highly efficient gasoline engines, vehicles with clean diesel engines, electric vehicles (EVs) and plug-in hybrid EVs (PHEVs). By offering a diverse lineup, we aim to provide models that are optimally suited to market conditions in all of the world’s regions.

### ►Employing our advanced environmental technology to provide gasoline-fueled vehicles with the highest levels of fuel economy available

In Europe and other areas, demand for eco-cars is rising, due to increasingly stringent regulations on CO<sub>2</sub> emissions. Against this backdrop, in 2012 we began rolling out the *Mirage*, which is produced and was launched first in Thailand. Already introduced in ASEAN countries, Japan, Europe and Australia, we plan to launch the model in North America in autumn of 2013. To enhance fuel economy, the *Mirage* employs a variety of weight-reduction approaches and is aerodynamic. Mounted with a newly developed 1.0-liter, three-cylinder MIVEC engine and having an idling stop function, the *Mirage* achieves fuel efficiency of 27.2 km/liter (per the JC08 fuel-economy test cycle), making it the most fuel-efficient registered gasoline-powered car in Japan. The manual-transmission European version of the new car (five-speed manual transmission model) delivers CO<sub>2</sub> emissions of only 92 g/km.

### ►Clean diesel engine that delivers both environmental performance and operating economy

Mitsubishi Motors’ clean diesel engine debuted with the *Pajero*, which launched in 2010. This introduction was followed by the

*Outlander*, launched in Europe in 2012, and the *Delica D:5*, introduced in Japan in 2013.

Emissions of nitrous oxides and particulate matter—both factors in atmospheric pollution—are substantially reduced on the *Delica D:5*, which complies with Japan’s 2009 Post New Long Term emissions regulations for environmental performance. Achieving both environmental performance and robust operating economy, the model has JC08 fuel-economy test cycle fuel efficiency of 13.6 km/liter and delivers maximum torque of 360 N-m (36.7 kg-m) at between 1,500 and 2,750 rpms.

### ►Steadily introducing new models as vanguard EVs

Mitsubishi Motors introduced the world’s first mass-produced EV, the *i-MiEV*, to the market in 2009. Since that time, we have rolled out the model in various parts of the world, including Japan, Europe, North America and Asia. The second phase of this launch, in 2011, was the introduction of the *MINICAB-MiEV VAN*, a mini-car class commercial EV. The third wave came in 2013, with the launch of the *MINICAB-MiEV TRUCK* in the minicar class. Delivering solid “zero-emission” environmental performance, smooth and robust performance and operating economy, these models are quiet, comfortable and economical in a way unique to EVs.



*Delica D:5*



*Mirage*



2.2-liter common-rail-type DI-D clean diesel engine



*MINICAB-MiEV VAN*



Outlander PHEV, which uses a plug-in hybrid EV system

### ►New Outlander PHEV

In January 2013, Mitsubishi Motors introduced the *Outlander PHEV*, which uses a plug-in hybrid EV system based on the Company's existing EV technology. The *Outlander PHEV* makes use of EV technology cultivated for the *i-MiEV*, four-wheel-drive technology developed for the *Lancer Evolution*, and SUV know-how generated through the *Pajero*. The result of EV technologies steadily cultivated in-house, the *Outlander PHEV* is the industry's first plug-in hybrid SUV. Offering the superb performance and quietness of an EV, the model also delivers the driving stability characteristic of a 4WD vehicle and the flexibility of use that an SUV offers.

The *Outlander PHEV* key characteristics are fuel economy and driving comfort. The model automatically selects the optimal travel mode from the three available, given travel conditions and battery charge remaining.

### The three drive modes

#### • EV Drive Mode

EV Drive Mode is an all-electric mode in which the front and rear motors drive the vehicle using only electricity from the drive battery. With zero on-road gasoline consumption and zero CO<sub>2</sub> emissions the driver can enjoy quiet and very eco-friendly performance in this mode.

#### • Series Hybrid Mode

In Series Hybrid Mode the gasoline engine operates as a generator supplying electricity to the electric motors. The system switches to this mode when the remaining charge in the battery falls below a predetermined level and when more powerful performance is required, such as accelerating to pass a vehicle or climbing a steep gradient such as a slope.

#### • Parallel Hybrid Mode

The system switches to Parallel Hybrid Mode when the vehicle reaches high speeds. In this mode the high-efficiency gasoline engine provides most of the motive power, assisted by the electric motors as required, such as when more powerful performance is required to accelerate or climb a slope.

### Basic Performance

Plug-in cruising range	60.2 km
Combined cruising range	897 km
Plug-in hybrid fuel efficiency (Fuel efficiency*)	67.0 km/L

\* Representative fuel efficiency figure based on a combination of the vehicle's fuel efficiency when driven in all-electric mode, called the plug-in fuel efficiency, and when driven in hybrid mode, called the hybrid fuel efficiency (measured via Japan's JC08 mode) using the plug-in mode contribution rating (utility factor).