# Contacts :

London Yuki Maeda Hitachi Europe Ltd. +44-1628-585714 Yuki.Maeda@Hitachi-eu.com

# Mitsubishi Heavy Industries, Hitachi and Mitsubishi Corporation Launch Smart Community System Demonstration Project in Malaga, Spain

- Target on Promoting Creation of Next-generation Transportation Infrastructures -

**Tokyo, April 25, 2013** – Mitsubishi Heavy Industries, Ltd. (MHI: TSE/7011), Hitachi, Ltd. (Hitachi: TSE/6501) and Mitsubishi Corporation (MC: TSE/8058) today annouced that three companies launched operation of a demonstration system encompassing 200 electric vehicles (EV), 9 high-speed EV charging stations and an EV management center, as part of the Smart Community System Demonstration Project in Malaga, Spain in which the three companies are participating under consignment by the New Energy and Industrial Technology Development Organization (NEDO). The demonstration project, which will be conducted through March 2016, targets the establishment of a next-generation transportation infrastructure that is expected to enable significant reductions in carbon dioxide ( $CO_2$ ) emissions. MHI, Hitachi and MC will contribute to the project through provision of Japan's advanced technologies in transportation and power systems.

In celebration of the launch of the demonstration system, a ceremony was held in Malaga on April 25. Attendees included Crown Prince Felipe representing the Spanish Royal Family, Malaga Mayor Francisco de la Torre Prados, NEDO Chairman Kazuo Furukawa, and representatives of MHI, Hitachi, MC and the other companies and organizations participating in the project.

The demonstration project has two overriding aims: to create an EV infrastructure incorporating high-speed EV chargers, an EV management center and other facilities necessary for promoting the adoption of EVs; and to demonstrate the viability of their operation as a new business. Also to be demonstrated are a power management system indispensable to achieving stable power supplies to EVs, an information and communication technology (ITC) platform enabling the EV infrastructure to be linked with the power grid, and a new comprehensive service system based on data collected at the EV management center.

The demonstration project involves the introduction of about 200 EVs in total mainly composed of i-MiEV EVs made by Mitsubishi Motors Corporation (MMC). High-speed EV charging stations to supply power to the EVs have been set up at 9 locations (23 chargers) in and around Malaga variously equipped with 3 standard CHAdeMO chargers (supplied by MHI), 4 storage battery type chargers effective for coping with unstable power supplies (MHI), and 4 chargers capable of charging up to 4 EVs simultaneously (Hitachi). The total system will be operated and managed by the newly completed EV management center. Project participants – EV users – have been recruited from interested drivers who will be using their vehicle in diverse ways, and a system has been completed for collecting useful data.

For the participants' enhanced convenience and optimized guidance to charging stations, drivers will be provided with optimal navigation services based on information relating to congestion at the charging stations and transportation information (probe data) from in-vehicle units. Using their smartphones drivers will also be able to access detailed information concerning distance to their nearest charging station, electricity usage volume, etc. Through these services the project operators will seek to alleviate impact on the power grid stemming from the use of the high-speed charging facilities. IC cards will be used to manage the participants in terms of confirming their qualification to use the charging stations, etc. Application of the ICT platform will enable collection of data from the charging stations, in-vehicle units and smartphones, for centralized management of participants' information and utilization status. Through these various initiatives the demonstration will be targeted at promoting the adoption of EVs and the establishment toward infrastructures. creating of ΕV next-generation transportation infrastructures.

As a core partner in the demonstration project, MHI will leverage its abundant track record in intelligent transport systems (ITS) and supply the EV management center, EVs, in-vehicle units and high-speed charging stations. The company will also be in charge of verifying the EV infrastructure and the power management system responsive to fluctuations in supplies of renewable energies. Hitachi, which has rich experience in information and communication systems and power management systems, will provide the ITC platform as well as demand-side management linked to the high-speed charging stations and power management system. MC will study the feasibility of expanding projects of this kind to other regions.

Through their involvement in the demonstration project, MHI, Hitachi and MC will create a new business model leveraging their superior energy-saving and low-carbon technologies, and promote their smart city business model as a global standard. In collaboration with their respective partner companies, they will also accelerate expansion of smart city projects globally.

# About Mitsubishi Heavy Industries

Mitsubishi Heavy Industries, Ltd. (MHI), headquartered in Tokyo, Japan, is one of the world's leading heavy machinery manufacturers, with consolidated sales of 2,820.9 billion yen in fiscal 2011, the year ended March 31, 2012. MHI's diverse lineup of products and services encompasses shipbuilding, power plants, chemical plants, environmental equipment, steel structures, industrial and general machinery, aircraft, space rocketry and air-conditioning systems.

# About Hitachi, Ltd.

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, is a leading global electronics company with approximately 320,000 employees worldwide. Fiscal 2011 (ended March 31, 2012) consolidated revenues totaled 9,665 billion yen. Hitachi is focusing more than ever on the Social Innovation Business, which includes information and telecommunication systems, power systems, industrial, transportation and urban development systems, as well as the sophisticated materials and key devices that support them. For more information on Hitachi, please visit the company's website at <u>http://www.hitachi.com</u>.

# About Mitsubishi Corporation

Mitsubishi Corporation (MC) is a global integrated business enterprise that develops and operates businesses across virtually every industry including industrial finance, energy, metals, machinery, chemicals, foods, and environmental business.

MC's current activities are expanding far beyond its traditional trading operations as its diverse business ranges from natural resources development to investment in retail business, infrastructure, financial products and manufacturing of industrial goods.

With more than 200 Offices & Subsidiaries in approximately 90 countries worldwide and a network of over 500 group companies, MC employs a multinational workforce of nearly 60,000 people.

# # #