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## **NISSAN READIES ITS ELECTRIC VEHICLE PLATFORM -ALL-ELECTRIC CAR GOES TO MARKET IN U.S. AND JAPAN IN 2010-**

Nissan Motor Co., Ltd. has previewed its electric vehicle EV platform on a Tiida-based prototype to demonstrate the superior driving pleasure of a pure zero-emission vehicle. It also showcased a sophisticated EV-IT system developed to support electric driving 24/7 (24 hours a day, 7 days a week).

### **Newly developed EV platform**

The dedicated EV platform is comprised of a highly rigid body, high-performance motor, compact lithium-ion battery with high power output and energy capacity, delivering outstanding driving performance and safety, while offering a quiet and peaceful driving experience – a unique feature of a fully-electric drivetrain.

The in-house developed electric motor delivers 80kW/280Nm for high response and powerful acceleration. Nissan's unique motor control also contributes to the vehicle's seamless acceleration.

The 24kWh laminated compact lithium-ion battery pack is placed under the vehicle floor for more efficient packaging, without compromising cabin or cargo space. The battery layout also allows smooth underfloor air-flow which helps reduce drag. Additionally, the regenerative brake system employed to recharge the battery during deceleration and braking extends the driving range to more than 160km\*1 under a full charge.

High durability is achieved by employing an additional frame for the battery pack to significantly improve the rigidity of the platform. The combination of a high rigidity platform and electric powertrain minimizes vibration and external sounds to produce a quiet and pleasing drive.



*EV prototype based on the newly developed EV platform*

### **EV-IT support function**

Nissan has developed an sophisticated IT system for its zero-emission EVs, connecting the vehicle's on-board transmitting unit to a global data center\*2 to support EV driving 24 hours 7 days a week.

Usability and convenience for EV driving is achieved via the following:

### **Maximum range display**

- With a simple touch of a button, the navigation map shows the driving radius within range under the current state of charge.
- The system can calculate if the vehicle is within range of a pre-set destination.

### **Update on charging stations**

- The navigation system points out the latest information on available charging stations within the current driving range.
- Detailed information for each charging station will also be displayed.

### **Timer function**

- The timer function enables the air-conditioner or battery charging to begin at a specified time. The air-conditioner can be pre-set while the vehicle is plugged-in to cool the cabin to a desirable temperature before driving begins, without taxing the vehicle's battery. Meanwhile, the battery charging can be set to start at a specified time at night to benefit from more favorable electricity rates.

### **EV remote control and monitoring function**

- The driver can monitor the state-of-charge of the EV via an online website and a cellular phone. For example, when the battery is fully charged, a message alert is sent to the cellular phone. Additional remote control functions range from switching the charging system ON/OFF or setting the air-conditioner timer.

To be a leader in zero-emission mobility, Nissan is progressing its development for electric vehicles and the key components. The all-electric vehicle slated for launch in 2010 will have a unique design and body. Nissan plans to unveil the design of the production EV at its new Global Headquarters Opening in Yokohama on August 2nd. A Nissan Zero-emission Website ([www.nissan-zeroemission.com](http://www.nissan-zeroemission.com)) will also go live on Aug. 2nd.

Nissan has been addressing a wide range of actions under "Blue Citizenship" which represents the company's desire to protect the blue planet and to be a corporate citizen that can live symbiotically with people and society. These efforts range from such global issues as the environmental protection to contribution to communities, promoting diversity and making personal mobility available to as many people as possible. Nissan continues promoting the development of zero-emission vehicles based on the "Blue Citizenship" spirit by introducing effective technologies, products and services into the market.

\*1: US LA4 mode. Actual range may vary depending on driving style and conditions.

\*2: Global data center: A globally common platform to provide identical telematics services via mobile network by connecting internet and vehicle IT system.

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