

20 October 2009

NISSAN AND SUMITOMO TO INITIATE “SECOND-LIFE” BUSINESS FOR ELECTRIC-CAR BATTERIES

“4R” business model protects the environment and delivers energy-storage solutions

TOKYO (October 20, 2009) -- Nissan Motor Co., Ltd., and Sumitomo Corporation today announced joint plans to initiate a business venture to “Reuse, Resell, Refabricate and Recycle” lithium-ion batteries previously used in electric cars, giving them a “second-life” as energy-storage solutions in markets worldwide.

The “4R” business model defined by the two companies is designed to capitalize on the supply of reusable lithium-ion batteries as electric cars achieve widespread marketplace acceptance. Today there is no existing supply of large-capacity reusable batteries, but by 2020 in Japan, the demand for “second-life” batteries is expected to reach the equivalent of 50,000 electric-cars per year at the minimum, as demand grows for an increasing range of energy-storage solutions.

“We recognize Nissan’s unique responsibility as the first company in the world to commit to delivering affordable zero-emission mobility,” said Nissan Chief Operating Officer Toshiyuki Shiga. “Consumers are excited by the promise of all-electric, zero-emission cars, but they also want assurances that lithium-ion batteries can be reused and recycled. In fact, our batteries are not only reusable, they also contribute as a solution to energy storage. We are pleased to have found a business partner in Sumitomo.”

Nissan has committed to bringing electric vehicles to the mass market by fiscal year 2012. As consumers increasingly choose zero-emission cars, demand for second-life batteries is expected to grow as the supply of reusable batteries from electric cars rises. Even after the end of normal vehicle life, the high-performance lithium-ion batteries used by Nissan will retain 70 to 80 percent of residual capacity and can be reused and resold to various industries as a solution to energy-storage.

“As a company that handles initiatives from natural resources and battery materials to building an infrastructure for electric vehicles, we are quite pleased to announce our work with Nissan to create a new market with second-life batteries,” said Kazuo Ohmori, Sumitomo Corporation Executive Vice President. “In coming years, our social commitment is to contribute to the substantial reduction of carbon dioxide. I believe this new potential venture could help us fulfill our social commitment.”

The 4R battery venture is a win for both companies. For Nissan, it will enable high residual values for electric-car batteries and support the company’s ongoing commitment to reducing the environmental impact of automobiles. For Sumitomo, second-life batteries will augment a wide range of its existing businesses, such as raw materials supply, car leasing, logistics and recycling.

Today’s announcement commits both companies to a joint feasibility study to establish a framework for a new joint-venture company, which is expected to be operational by late 2010, in Japan and the United States. In Europe, Nissan will proceed to explore the 4R business model with its Alliance partner, Renault. A task force from Sumitomo and Nissan will work to finalize details such as the shareholding structure, capital investment, business structure and other operational concerns for the joint venture.

The 4R pillars for the second-life battery business are:

Reuse: Start second-life use for batteries with approximately 70 to 80 percent capacity;

Resell: Resell the batteries for various applications;

Refabricate: Disassemble the battery pack and then repackage and customize to fit the client’s needs; and

Recycle: Implement end-of-life recycling to salvage raw materials.

Second-life batteries present an ideal solution to the renewable-energy sector, allowing energy to be stored for later use. Such ecological application of second-life batteries would contribute to a net reduction of CO2 beyond what is achieved by the all-electric, zero-emission car.

By 2020 in Japan, second-life batteries are expected to be in high demand for applications such as:

Energy storage with photovoltaic solar panels for residential and industrial needs;

Back-up power supplies;

Uninterruptable Power Supplies (UPS);

Load leveling for the electricity grid; and

Leveling of energy from both photovoltaic solar and wind power.

Nissan has an existing joint-venture company with NEC Corporation - Automotive Energy Supply Corporation (AESC) - to mass produce high-performance lithium-ion batteries.

With the new 4R business to be established, Nissan is fully engaged in the entire value chain of the battery, which is the most expensive component critical to power all-electric, zero-emission cars.

“This direct management of the battery’s entire value chain is important to ensure that our EV customers do not bear the cost of the battery,” said Hideaki Watanabe, head of Nissan’s Zero Emission Business Unit. “Nissan is exploring several options including battery lease or credit model based on a monthly payment scheme. With this proposition, the total running cost, which equals the monthly battery payment plus the cost to charge the battery, is comparable to the cost to refuel a similar gasoline-powered car. Ultimately, this is a compelling economic proposition for a zero-emission car that meets all your driving needs.”

Nissan's mission to be a global leader in zero-emission mobility is being built upon a wholly integrated business approach that includes the following:

Affordable, innovative and well-equipped cars featuring the latest technologies;

Lithium-ion battery development and production leadership, through our partnership with NEC and our joint venture, AESC;

Public- and private-sector partnerships (with more than 30 MOUs announced globally to date) to create the incentives, deploy the infrastructure, educate the public, create excitement and accelerate demand for zero-emission cars;

Demonstrable consideration for the entire zero-emission experience -- including the reuse, resale, refabrication and recycling of the lithium-ion batteries that make zero-emission mobility possible, which we have announced today in our agreement with Sumitomo.

On August 2, Nissan unveiled LEAF, the world's first affordable all-electric, zero-emission car. LEAF is slated for introduction in Japan, the United States and Europe in late 2010, spearheading Nissan's commitment to be a global leader in zero-emission mobility. Global mass marketing for LEAF will follow in 2012.

Nissan Motor Company is a global automotive company with vehicle sales of 3.411 million in 2008. Nissan is present in all major auto markets worldwide, selling a comprehensive range of cars, pickup trucks, SUVs and light commercial vehicles under the Nissan and Infiniti brands. Under its Recovery Plan, Nissan is committed to manage through the global financial and economic crisis by focusing on preserving cash, improving profitability and pursuing deeper synergies within the Renault-Nissan Alliance. For long-term sustainability and growth, Nissan aims to achieve zero-emission vehicle leadership and quality leadership.

Sumitomo Corporation is a company involved in multifaceted businesses such as trading, distributing variant products and services as well as investing in business globally. The global network and the relationship of trust with business partners and customers enable us to make value in business in various industries.

Nissan Motor Co., Ltd. is a global auto-manufacturer with operations spread across 16 countries and its Nissan and Infiniti branded vehicles are sold in more than 160 countries worldwide.

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 Nissan Green Program 2010 based on the "Blue Citizenship" spirit by introducing effective technologies, products and services into the market.

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