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For Immediate Release

Sumitomo Forestry Co., Ltd.

A housing builder first!*¹ A home that can power a home from an electric vehicle

Launching New Smart Solabo, which Proposes Efficient Energy Use

Sumitomo Forestry Co., Ltd. (President and Representative Director: Akira Ichikawa; Head Office: Otemachi, Chiyoda-ku, Tokyo) announced that it will launch the new Smart Solabo on July 6, 2012. Based on energy-use proposals to suit all lifestyles, Sumitomo Forestry offers a diverse lineup of eco-friendly equipment, including a solar power generation system, residential storage battery, and V2H (vehicle to home) system*² that can be added to the company's basic model energy-saving, wooden houses, which take advantage of the elements of nature.

*1: Sumitomo Forestry is the first housing builder to equip a detached house product with an electric power supply system that accepts electricity from Nissan Leaf's large-capacity lithium-ion battery (as of July 1, based on an in-house survey)

*2: The system enables electricity to be taken from an electric vehicle's large-capacity lithium-ion battery, via a power distribution board, for use as household electricity.

Sumitomo Forestry is working to develop a life cycle carbon minus (LCCM) house to achieve negative CO₂ emissions throughout the life cycle of the house. Through the development of houses that use wood, a recyclable natural resource, Sumitomo Forestry aims create a LCCM house by realizing efficient energy consumption in the daily lives of homeowners and via the optimal management of energy use.

In 2007, Sumitomo Forestry launched MyForest-Solabo, the company's first house product equipped with a solar power generation system. Following this, Sumitomo Forestry began to actively employ a variety of eco-friendly devices, including Ene-farm residential fuel cells and HEMS (home energy management system). Sumitomo Forestry is constantly offering homes equipped with cutting-edge, eco-friendly devices, such as the Smart Solabo, which was launched in February 2012. This product comes with a 12 kWh residential storage battery system, which is one of the largest of its type for household use.

This time around Sumitomo Forestry is rolling out the new Smart Solabo. The company is adding to its lineup of eco-friendly devices with the V2H system—Sumitomo Forestry is the first in the detached housing industry to utilize this system—and a 4.8 kWh capacity residential storage battery system that can be used in conjunction with the solar power generation system. By proposing a combination of these diverse devices to suit a family's lifestyle and wishes, Sumitomo Forestry can offer a more sophisticated model that provides better energy usage efficiency.

Sumitomo Forestry plans to use Smart Solabo as a general name for its lineup of homes equipped with eco-friendly systems. We plan to actively recommend these systems to customers and aim to boost the number of homes equipped with eco-friendly systems to 60% of total wooden house sales.

Homes, the infrastructure of our lives, are being required to play a larger role given energy concerns, the

nationwide movement to cut back on electrical power usage after the Great East Japan Earthquake, and the environmental awareness to prevent global warming. In addition, demand for smart houses is expected to gradually increase driven in part by policies such as the introduction from July this year of feed-in tariff for renewable energy, and subsidies for the purchase of energy-saving equipment such as solar power generation systems, residential storage battery systems, and HEMS.

Sumitomo Forestry aims to respond to these needs by offering an extensive lineup of housing products that are gentle on the environment and household budget owing to enhanced energy usage efficiency, and which also function to withstand natural disasters.

■ Product profile

- (1) Product: Smart Solabo
- (2) Release date: July 6, 2012
- (3) Sales area: Nationwide (excluding Okinawa and some regions)
- (4) Structure: Multi-Balance Construction Method, Big-Frame Construction Method, Two-by-Four Construction Method

System options

- (1) Solar power generation system
- (2) Ene-farm, residential fuel cells
- (3) Residential storage battery system: two types, 12 kWh and 4.8 kWh storage capacity
- (4) HEMS (home energy management system)
- (5) V2H system

■ Product features

(1) Built from wood, a natural material that is gentle to the environment
Domestic timber is actively used for building Sumitomo Forestry Home houses, which utilize wood, to substantially reduce CO₂ emissions, from the material procurement stage to the construction stage, as opposed to steel frame or concrete structure housing.

(2) Reduces energy consumption by using the elements of nature
The Ryouonbou natural heating and cooling design concept boasts a higher level of insulation and airtightness than next-generation energy conservation standards, and utilizes natural energy sources—sun, wind, and greenery—in the home. This design approach achieves a home that is cool in the summer and warm in the winter, without having to excessively rely on air-conditioning and heating systems.

(3) Creates energy
Smart Solabo employs a solar power generation system, which produces electricity from sunlight, and Ene-farm residential fuel cells, which creates electricity from a chemical reaction between hydrogen extracted from gas and oxygen in the air. Furthermore, using both of these systems, the W power generation system, substantially increases the amount of power produced while considerably reducing CO₂ emissions. Also, through dual usage, the Ene-farm system compensates for the solar power generation system, which

is easily impacted by weather conditions, thereby ensuring that the amount of power generated remains stable.

(4) Stores energy

Two types of residential storage battery systems are employed now that a new type was added to the Smart Solabo. The first is a large capacity 12 kWh high-performance lithium-ion battery made by 4R Energy, the same as used in the Nissan Leaf electric vehicle, and is one of the largest household storage batteries. The second is a 4.8 kWh capacity storage battery made by Sharp Corporation. The two types of storage batteries enable residents to store electricity and use it when necessary.

The average household uses 8–10 kWh per day. The 12 kWh storage battery harnesses enough electric power for roughly 24 hours of continued usage or for about two days if electric power is used conservatively. The new 4.8 kWh capacity battery is effective for situations such as using electricity during short periods of time or during rolling blackouts. Used in combination with solar power generation will facilitate the storage of surplus electricity that can be used and thereby enhance energy self-sufficiency.

During the day when electric power demand rises, mainly due to the use of air conditioners in the summer and heaters in the winter, the system enables residents to reduce their electric power costs by using electricity stored during the midnight power service. Also, this system realizes a reduction in environmental impact, mainly by contributing to cutting energy consumption in peak periods.

Potential use as an emergency power source

During power outages, the stored electric power can be used as an emergency power source. The storage battery can be charged using the solar power generation system facilitating longer usage. In light of this, it can also be used to deal with prolonged power outages.

(5) V2H (vehicle to home)

This is the first detached house product that employs the V2H system (developed by Nichicon Corporation), which allows an electric vehicle, a product for which demand is expected to grow in the future, to be used as a household storage battery. When not in use, the homeowner's car can be used to supply electricity to the home for use as household power or as a reserve power source.

Also, large-capacity electric vehicle batteries can be used as an emergency power source during blackouts.

*Only compatible with the Nissan Leaf.

(6) Uses energy wisely

Residents can perform a real-time check of electric power consumption in the home, including a breakdown of electricity being used from the power grid, solar power generation system, and storage battery. The volume of energy consumption is believed to be reduced by 15% just by being able to visualize the electric power being consumed*. The system makes it easy to identify energy wastage, helps to efficiently save electricity, and enhances environmental awareness.

*Based on the results the Ministry of Economy, Trade and Industry's 2009 smart house demonstration project report.