Japan and Europe Launch Smart Community System Demonstration Projects

Participants for a Project in Lyon, France Selected and Proposal Solicitation for a Project in Spain Announced

The New Energy and Industrial Technology Development Organization (NEDO) has selected two companies (one proposal) to entrust a Smart Community System Demonstration Project in the area surrounding the Lyon Confluence in France. This project was designed for NEDO and Grand Lyon* to collaboratively demonstrate a smart community system for the large-scale introduction of energy conservation technologies and renewable energy as well as the dissemination of next-generation cars, coinciding with urban planning in the Lyon Confluence.

In addition, NEDO has announced a proposal solicitation to select participants for a Smart Community System Demonstration Project in Spain.

*The upper tier covering Lyon and its surrounding municipalities.

1. Selection of Participants for a Smart Community System Demonstration Project in Lyon

This demonstration project is designed to conduct the following three activities:

1. Introduce energy conservation-related technologies in a new building to be constructed in the Lyon Confluence, coinciding with the area's urban planning, in order to achieve France’s energy conservation goals.

2. Introduce a billing system for EVs and a remote monitoring system for PV systems by means of information and communication technology (ICT) in the area surrounding the Lyon Confluence.

3. Review a system to audit energy use in the area surrounding the Lyon Confluence.
NEDO has selected the following participants for the project.

Participants: Toshiba Corporation, Toshiba Solutions Corporation
Duration: FY2010 to FY2015; a feasibility study will be completed by the end of FY2010.

Following an assessment of the feasibility results, the detailed contents of the demonstration project will be determined.

Reference: Outline of the Smart Community System Demonstration Project in Lyon

Task 1: Energy conservation-related technologies will be introduced at a P-plot building which will be built in the Lyon Confluence. The technologies aim at meeting one of Grand Lyon’s energy conservation goals, which is to generate more power in a building than is necessary for use there. Through the establishment, operation and evaluation of a building energy management system (BEMS) suitable for the pattern of energy use in France, the effect of the BEMS introduction will be demonstrated.

Task 2: A charging infrastructure, including a billing system and authentication system for EVs, will be established in the area surrounding the Lyon Confluence, and its compatibility and reliability will be demonstrated. In addition, a central system to monitor PV system breakdowns and the reduction of power generation will be developed and the effect of the system’s introduction will be demonstrated. Such a system is expected to be necessary for a large amount of PV power introduction. Furthermore, a system to charge a large number of EVs at the time when PV systems are fully capable of power generation will be established and demonstrated. In addition, NEDO and Grand Lyon will endeavor to demonstrate that this system can contribute to an optimized power supply and demand balance to deal with surplus electricity in the future.

Task 3: A system to audit energy use at houses and buildings using ICT will be established for improved energy conservation, and its energy saving effect will be verified in France where electricity retailing has been fully deregulated. Furthermore, the necessity of information security and needs on the demand side will be verified.

2. Announcement of Proposal Solicitation for a Smart Community System Demonstration Project in Spain

In order to establish smart community-related technologies and systems as well as demonstrate the effects of their introduction, NEDO has announced a proposal solicitation to select participants for the demonstration project.

With the aim of a smooth and efficient implementation of the project, activities
ranging from a feasibility study to demonstration research will be conducted in series under one theme. Participants in the project will launch a demonstration project in FY 2011 based on an assessment of the feasibility study's results.

This demonstration project will be conducted under the Japan-Spain Innovation Programme (JSIP)\(^2\), which is managed by NEDO and the Centre for the Development of Industrial Technology (CDTI) of Spain.

3. **Contact Persons**

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**Glossary:**

1. A smart community is a next-generation social system that comprehensively manages all types of energies, not only electricity, but also heat and waste energy, by region. The system includes transport systems as well. This is an advanced type of smart grid, which efficiently controls electricity supply and demand by means of ICT. As a key to building a sustainable society that has a stable energy supply, tackles global warming and achieves economic growth, countries around the world have been actively undertaking various efforts in the smart community field.

To create a smart community, it is important to study how a social system functions, including not only energy supply and demand and the introduction of renewable energy, but also various lifestyles. In this respect, the process of achieving a smart community goes beyond only technology development. Conducting various demonstration projects is expected to enable realization of a smart society.

2. With regard to Japan-Spain collaborative technology development projects in which Japanese companies and Spanish companies participate, when Japanese companies apply for NEDO funding and successfully obtain it, and when Spanish companies participating in the same project apply for CDTI funding and successfully obtain it, NEDO and CDTI can support the project work of each side through parallel funding. NEDO and CDTI agreed to foster cooperative research, development and demonstration of smart grid-related technologies by concluding a letter of intent in September 2010.