

New Participants in the Smart City Project

Global Companies Building a Next-Generation Environmental City

ITOCHU Corporation, SHIMIZU Corporation, Hitachi, Ltd., and Yamatake Corporation have agreed to participate in the Smart City Project. This new joint effort, formalized in April 2010, will accelerate the realization of Japan's first Smart City.

■ [Smart City Project]

The Smart City Project is the inaugural project of the Future Design Center Incorporated Association*, an enterprise focused on finding solutions to national problems. The project goal is to create a next-generation environmental city that can adapt to the various needs and restrictions throughout the world by pooling and sharing data generated from cutting-edge technologies owned by leading companies in different industries to create new technologies and businesses.

The goal of the project is to achieve a speedy development scenario and to create a "Social System" by linking the following 5 components together with simulation to devise the optimal configuration of facilities and measures, and estimation in the effects of implementing various scenarios at the neighborhood level that is now being developed.

- ① Regional EMS to provide visualization of local energy quantities, and offer security service to the residents
- ② Smart Buildings that automatically manage and operate the energy-related systems
- ③ Smart Houses that are compatible with electricity demand-response technologies
- ④ Next-generation vehicle infrastructure systems that include electric vehicles and ITS (intelligent transport/traffic systems)
- ⑤ Distributed power supply systems that can deliver a stable supply of electricity operating in concert with storage cells and power generation forecasting based on the weather conditions.

In Japan, the first aim is to offer a solution for the Kashiwanoha neighborhood in Kashiwa City, Chiba Prefecture. Activities abroad include proposals and discussions in both advanced and emerging nations. Various projects are progressing at different stages, with the goal of achieving early practical development and application in Japan and overseas.

■ Enhanced Alliance

The Smart City Planning, Inc. joint venture was established in September 2009, and has been jointly operated by SAP AG, SHARP Corporation, Nikken Sekkei Ltd., Hewlett-Packard Japan, Ltd., Mitsui Fudosan Co., Ltd., and e-solutions, inc. The University of Tokyo is providing technical cooperation and collaboration. Tokyo Electric Power Co. (TEPCO) is involved as an observer.

The following enterprises endorse the objectives of this project and have become official participants as of April 2010, greatly enhancing the capabilities of the organization.

- ITOCHU Corporation
- SHIMIZU Corporation
- Hitachi, Ltd.
- Yamatake Corporation

ITOCHU Corporation brings to the project the operational know-how it has gained from its electric vehicle demonstration project in Tsukuba, Ibaraki Prefecture, and its participation in Smart Community projects worldwide. SHIMIZU Corporation contributes micro-grid technologies and ultra-environmental building technologies, while Hitachi, Ltd. provides smart energy infrastructure development skills and experience, and Yamatake Corporation shares its knowledge of building automation systems. By taking advantage of the unique strengths of each of the participants and working to extract and create new technologies and businesses at the boundaries and points of intersection between the companies, which cannot be realized by any one company alone, it will be possible to accelerate the design and construction of the Smart City, thus contributing to the reduction in CO2 emissions as well as an improved quality of life.

■ New Participant Companies' Activities

ITOCHU Corporation. As part of the company's corporate mission, "Committed to the Global Good", this general trading company is focusing on energy and environment-related initiatives, including: i) emissions offset trade projects; ii) energy storage projects, such as lithium-ion batteries and electric vehicle technologies; and iii) new energy and energy conservation projects, such as Smart Grids. Through these activities, ITOCHU hopes to identify new opportunities to develop and commercialize these technologies and business models throughout the world.

SHIMIZU Corporation works on projects all over the globe in designing and constructing exceptionally high-quality buildings that contain cultural and social value and are in balance with the environment. Through this project Shimizu hopes to contribute to the realization of the next-generation environmental city with the building CO2 reduction solutions offered by the SHIMIZU Carbon Management Partnership and the micro-grid technologies which makes the fullest possible use of natural energy.

Hitachi, Ltd. seeks continuous growth through social innovation business involving "Fusions of social infrastructure and IT" and "Materials & key devices". By making use of Smart Grids as the platform that provide higher energy efficiency, reduce CO2 emissions, and hence lower the burden on the environment, the company is working on various projects which aim at realizing smart cities, The company will contribute to this project by providing development expertise in related to energy infrastructure, represented by the electrical and energy equipment and electricity grid stabilization systems.

Yamatake Corporation states the azbil group concept as to realize safety, comfort and fulfillment in people's lives and contribute to global environment preservation through "human-centered automation." Based on this concept the company aims to reduce the burden on the environment through the use of automation systems. Through this project Yamatake hopes to develop building automation systems with a low environmental burden that can be applied in situations throughout the world.

*Future Design Center Incorporated Association was founded in July 2009, under the advice and guidance of Hiroshi Komiyama, former President of the University of Tokyo, and current Chairman of the Mitsubishi Research Institute. The Future Design Center works to devise solutions to the national problems of Japan by developing cutting-edge models that can be presented to the world at large. (<http://www.fdc.or.jp/index.html>)

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