News Release

April 26, 2013

Yokohama Smart Community

Completion of the Yokohama Smart Community "Smart Cell"

- Operation of "Smart Cell," an investigative/experimental model home for a next-generation community, has been launched -

April 26, 2013: Yokohama Smart Community (represented by Hitoshi Arima, inaugurated in June 2011) has launched the operation of "Smart Cell", an investigative/experimental house that will serve as a next-generation community model.

Objectives of the Smart Cell project include providing and creating opportunities for research and experiments on future community models. Such models will be used to establish society systems that will conserve resources, cultivate art and culture for the well-being of residents and promote energy recycling in order to minimize the burden on the environment. This is a large-scale project implemented with the cooperation of businesses and institutions that support the concept of Yokohama Smart Community. These corporations and entities are providing funding, building materials and equipment in order to build a model house for the future. Yokohama Smart Community also seeks to contribute to the economic development of the City of Yokohama.

Hitoshi Arima, the Representative Director of Yokohama Smart Community stated, "We would like to create an attractive model that reflects concepts from a wide range of areas such as the environment, architecture, furniture, home electronics, broadcasts, distribution, health care, food, energy equipment, art and culture." He also expects to develop a model that will create business opportunities by broadcasting the outcome of this project both internationally and domestically, and suggesting methods that address future needs and other issues.

Summary of Smart Cell Project

Objective: Building a model house that embodies the concept of Yokohama Smart Community

Location: tvk Housing Plaza Yokohama
(Exhibition space: approximately 100 tsubo)
Visible from train on the Tokaido Line

Structure: Smart Cell main building:
2-story, approx. 60 ㎡ (18 tsubo = 36 tatami mats)
1st floor exhibition space: Approx. 40 ㎡ (12 tsubo = 24 tatami mats)
Information and exhibition of vision and concepts
2nd floor exhibition space: Approx. 20 ㎡ (6 tsubo = 12 tatami mats)
Exhibition of smart technologies/PR (products, brochures, videos) of participating companies

Concept of Smart Cell Project

Based on the belief that “it is important to learn from nature in order to establish a truly rich and fulfilling human life,” Yokohama Smart Community zeroed in on plant cells and applied that mechanism to the structure of the model house in order to create an autonomous and sustainable building. The house was designed based on the concept of plant cells to present a vision for the future that stems from nature and natural life forms. The main building of the project has already been completed as a research and experiment facility. It will provide a space to study the requirements of a future community and to discuss/experiment with not only the house structure, but also ways of living and coexistence of homes within a community. In this project, two more buildings will be built on the same premises, including a health-care-focused house and a small-scale plant production facility, in order to study the coordination and mechanisms of energy and information. The two-story main building (total of 60㎡) consists of a first floor (approx. 40㎡) used for information and concept exhibition space, and a second floor (approx. 20㎡) for exhibition of smart technologies and PR (products, brochures and videos) of participating companies.

Participation and/or support is provided by the following corporations and entities:

Supported by:

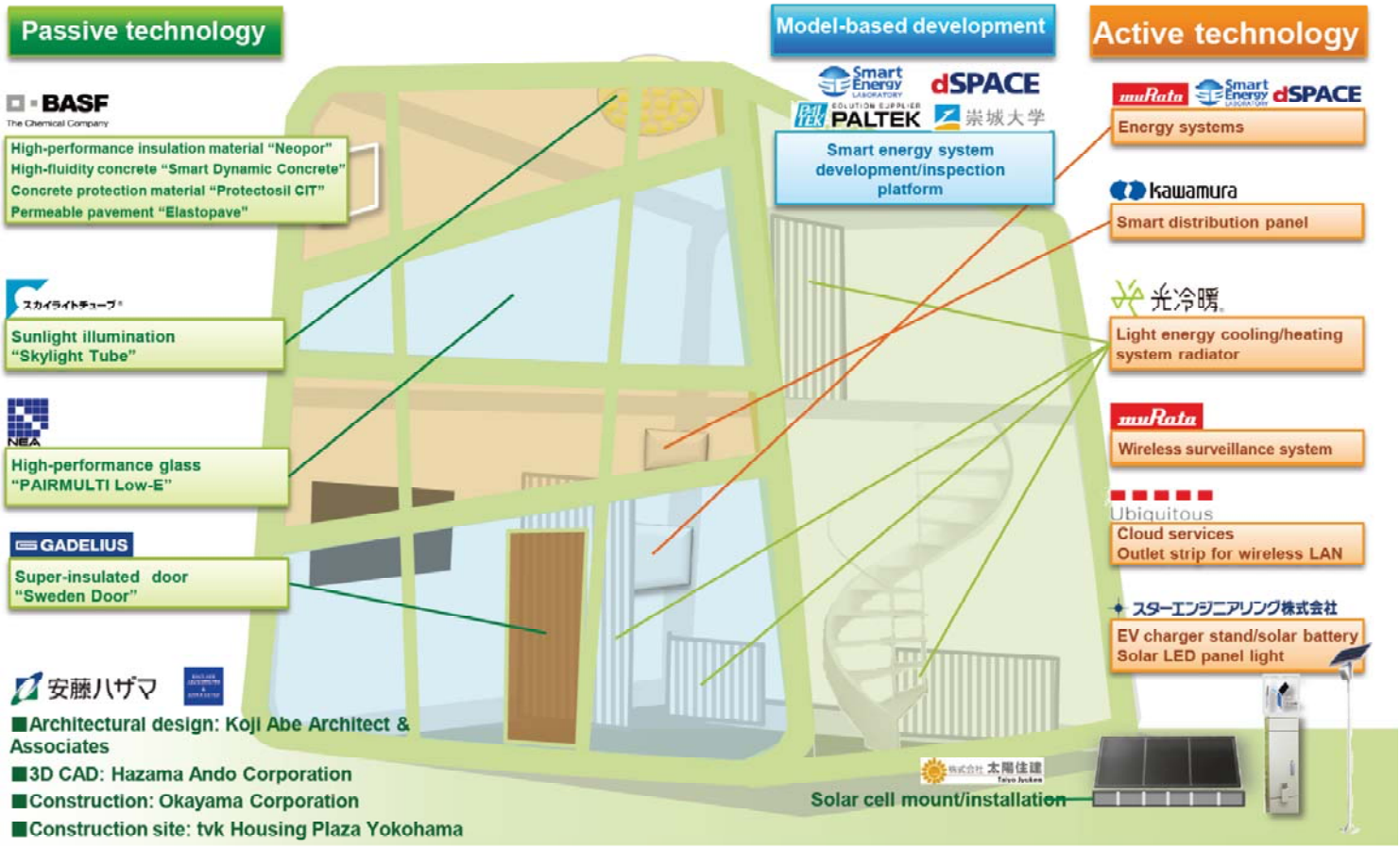
City of Yokohama
Television Kanagawa Inc.

Participants:

Anny Group (light energy cooling/heating system)
iTest
KOJI ABE ARCHITECT & ASSOCIATES
HAZAMA ANDO CORPORATION
Inosho K.K.
Gadelius Industry K.K.
Kawamura Electric Inc.
STAR ENGINEERING Co., Ltd.
Smart Energy Laboratory
Taiyo Jyuken
dSPACE Japan K.K.
NIPPON SHEET GLASS ENVIRONMENT AMENITY CO.,LTD
PALTEK Corporation
BASF Japan Ltd.
Murata Manufacturing Co., Ltd.
universalhome Inc.
Ubiquitous Corporation

YOKOHAMA SMART COMMUNITY

Smart Cell Technology Lineup



Passive technology

Passive is an antonym for active. In a narrow sense, passive technology means a method to limit the amount of energy required to maintain habitability by non-motorized natural power (such as through the use of insulation and natural drafts). In a broad sense, it means an approach to limit energy consumption by actively reconciling with the environment, such as adhering to an environment-friendly lifestyle by adapting to the characteristics of a region.

Active technology

Active technology is an approach whereby you try to obtain the same output to maintain a living environment/status such as illumination, temperature and humidity using less energy. Methods to limit energy consumption include use of high-efficient or power-saving equipment as well as the generation or flexible sharing of energy.

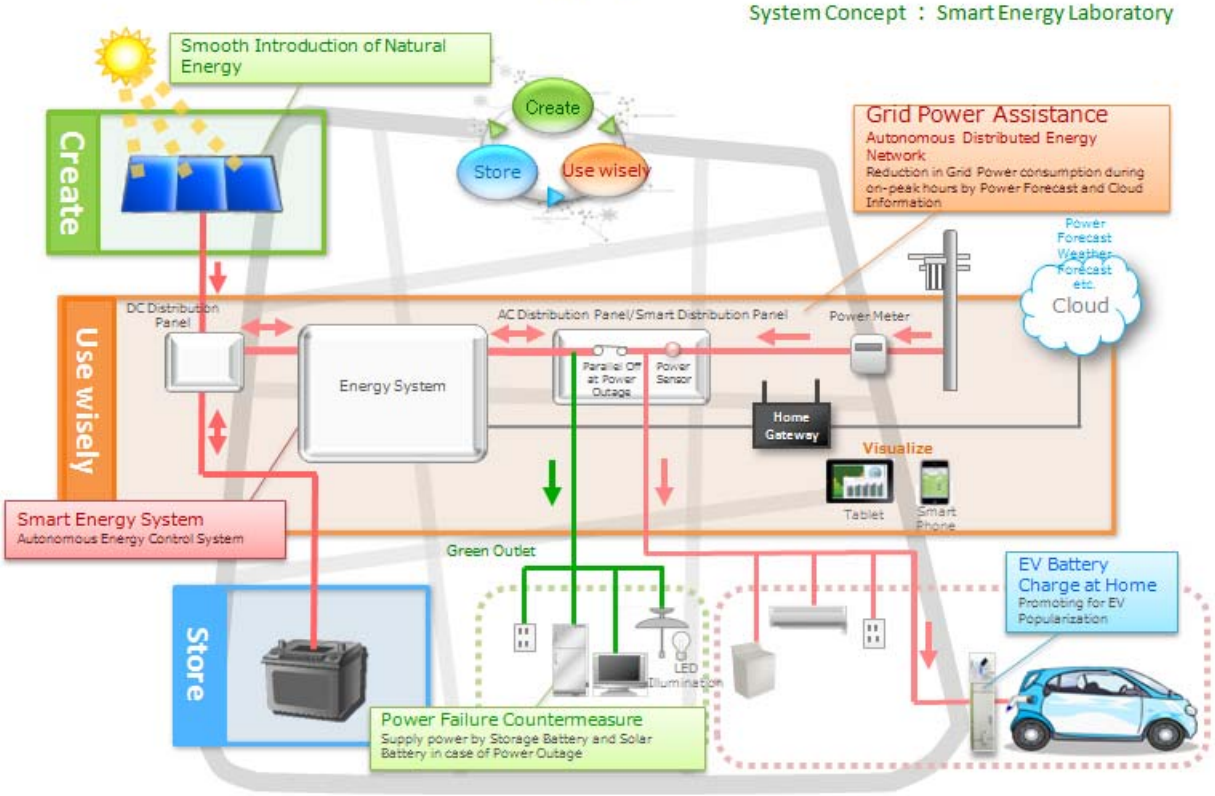
Model-based development

This is a method used to develop systems that are complicated and require a high degree of safety, such as automobiles and aircraft. It is now applied also to supporting the development of the latest and most environmentally-friendly energy systems.

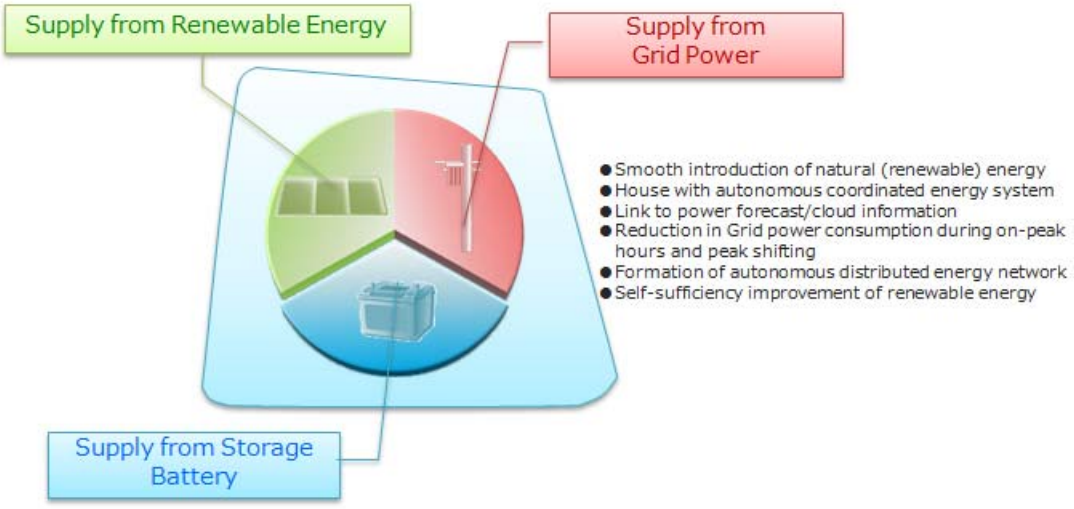
Energy System Structure

● Autonomous Coordinated Energy System

System Concept ： Smart Energy Laboratory



● Towards Organic Coodination of Distributed (off-grid) Power Source and Grid Power Source



- Smooth introduction of natural (renewable) energy
- House with autonomous coordinated energy system
- Link to power forecast/cloud information
- Reduction in Grid power consumption during on-peak hours and peak shifting
- Formation of autonomous distributed energy network
- Self-sufficiency improvement of renewable energy

[About Yokohama Smart Community]

In June 2011, businesses and institutions who believed that “it is important to learn from nature in order to establish a truly rich and fulfilling human life,” got together and inaugurated the “Yokohama Smart Community” in order to showcase technologies that allow natural energy to be incorporated effectively for everyday living.

With respect for nature and human beings, the organization has been carrying out the following research and study from the standpoint of science and technology as a “supporter” of human life:

- ・Efficient use of natural energy
- ・Countermeasures to power outage and reduction of burden on power lines
- ・Information sharing between homes on energy usage
- ・Creation of autonomous and recycling-oriented compact communities that can coexist with nature
- ・Painting visions of the future beyond market and industry
- ・Evolving projects that can be sustained for “100 years”

For details: http://www.smartenergy.co.jp/yokohama/

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1: About this news release

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