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Panasonic Corporation
Fujisawa City
Accenture
Mitsui & Co., Ltd.
Mitsui Fudosan Co., Ltd.
Nihon Sekkei, Inc.
ORIX Corporation
PanaHome Corporation
Sumitomo Trust & Banking Co., Ltd.
Tokyo Gas Co., Ltd.

#### News Release

# Nine Leading Companies and Fujisawa City to Collaborate on Sustainable Smart Town Project

'Fujisawa Sustainable Smart Town' will Lead the World by Installing Solar Panels and Home-use Storage Batteries in Every Household

The Business Partnership will Capitalize on the Strengths of Each Company to Realize a Comfortable Lifestyle with a New Level of Safety and Security

**Tokyo, Japan** - Panasonic Corporation and eight other companies that are spearheading advanced environmental initiatives through eco-conscious urban development and smart city projects today announced they will work together to implement a smart town concept called "Fujisawa Sustainable Smart Town (Fujisawa SST)" which showcases Panasonic's "entire solutions" business model in full scale to the world. The city of Fujisawa, in cooperation with the surrounding regions, will also participate in the efforts to globally promote Fujisawa SST as a model project of an environmentally-minded city in action.

The eight leading companies are Accenture, Mitsui & Co., Ltd., Mitsui Fudosan Co., Ltd., Nihon Sekkei, Inc., ORIX Corporation, PanaHome Corporation, Sumitomo Trust & Banking Co., Ltd. and Tokyo Gas., Ltd. in alphabetical order.

Panasonic and Fujisawa City in Kanagawa Prefecture, situated about 50 km west of Tokyo, reached a basic agreement last year to build a smart town on the vacant lot of Panasonic's former factory site as they announced on November 17, 2010. With an aim to open the new town in the fiscal year ending in March 2014, the business partnership of these nine companies and one city will collaborate to build an innovative smart town deploying services and energy systems based on Panasonic's Eco Ideas for green lifestyles. The developers, manufacturers and service providers will work closely

together throughout every phase of the project, from the master planning stage to actual operation of the town that will have about 1,000 households.

Panasonic will apply its "comprehensive solutions for the entire house, entire building and entire town" to Fujisawa SST, combining its energy technologies and a safe and secure environment. The company will effectively create an advanced model of a town demonstrating efficient use of energy by promoting widespread use of energy-saving devices and proposing new solutions that integrate measures for energy creation, storage and management. Specifically, the company plans to preinstall its solar power generation systems and home-use storage battery systems across the town, including homes, various facilities and public zones, which would be the first of its kind in the world. Panasonic intends to replicate Fujisawa SST as a business model in other parts of Japan and overseas.

## **■**Roles and Responsibilities for Each Business Partner

The partners of the Fujisawa SST project will lay out plans to carry out their responsibilities for materializing the concept described in the following pages.

#### **Accenture**

- Creates the smart town concept, and design and promote the service model.
- Supports construction of a smart town platform in light of global trends.
- Supports overseas expansion and marketing by using its experience in smart city and grid projects abroad.

# Mitsui & Co., Ltd.

- Builds infrastructure and develop city blocks and real estate from a global perspective.
- Provides energy management services, taking trends of smart cities overseas into consideration.

## Mitsui Fudosan Co., Ltd. / Mitsui Fudosan Residential Co., Ltd.

- Develops infrastructure entailed by the development projects such as land readjustment.
- Participates in the sales of residential homes and lots.
- Formulates planning, design, and development rules for building the town.
- Formulates service frameworks for operation and maintenance of the town.

#### Nihon Sekkei, Inc.

- Creates plan for optimal deployment of new energy devices and corresponding space design.
- Proposes a landscape design appropriate for a smart town.
- Formulates town guidelines, etc. for the maintenance of the smart town.

# **ORIX Corporation**

 Considers a one-stop service business that provides a variety of services that will increase the value of the town and an eco-conscious, comfortable and safe lifestyle.

Creates a low carbon footprint town through mobility sharing.

# **PanaHome Corporation**

- Develops infrastructure entailed by the development projects such as land readjustment.
- Participates in the sales of residential homes and lots.
- Formulates planning, design and development rules for building the town.
- Creates a framework for service business aimed at operation and maintenance of the town.

# **Sumitomo Trust & Banking Co., Ltd.**

- Designs smart town evaluation indicators (to determine environmental real estate values).
- Plans environmentally-conscious loans designed exclusively for the Fujisawa SST.
- Provides town cards, account settlement services and eco-point management to support an eco-conscious, comfortable lifestyle for the inhabitants. Provides leasing and financing programs (for secondary batteries, etc).

# Tokyo Gas Co., Ltd.

- Introduces its latest "Ene-Farm" household fuel cell systems.
- Proposes ideas for ecologically-sound and comfortable living by utilizing Ene-Farm.
- Promotes smart energy networks.

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There are five pages following this press release, outlining the Fujisawa SST project.

# - Fujisawa Sustainable Smart Town Project -

# ■ Vision and Background

Global demand for the development of new cities, mainly driven by Asia, is expected to reach 3,100 trillion yen by 2030, prompting numerous projects in cities throughout the world for the development of smart cities and eco cities aimed at achieving low carbon societies.

Currently, many projects are being launched as pilot projects or technical demonstrations to verify their feasibility. However, in order to promote the full-scale deployment of smart cities and eco cities on a global scale, it is important to provide consumers with solutions for achieving a new lifestyle as well as enhancing home's value and economic merits through the development of ecology-minded towns.

Furthermore, after the Great East Japan Earthquake, there is renewed attention for energy infrastructures that are safe and secure with solar power generation systems and storage battery systems installed on a community basis.

Against such a backdrop, this project aims to realize Panasonic' concept of a safe, secure and sustainable smart town that embraces nature to the fullest extent as well as produces energy for local use in the town. At the same time, the project looks to create a smart town that is connected to the power and data networks right from the start, allowing for optimal control without burdening the residents. Through these initiatives, the town as a whole aims to reduce carbon dioxide emissions by 70 percent, compared to the 1990 levels.

Panasonic will bring together its know-how built up through participation in eco and smart city projects in Japan and overseas to implement its "entire solutions for the town" in the Fujisawa SST project, and contribute to the realization of low carbon lifestyles throughout the world by promoting this business model.

#### ■ Overview

# 1) Master planning for providing eco-conscious, comfortable lifestyle and services after the development and sales

The Fujisawa SST project will adopt city block designs that take into consideration "how to achieve a natural environment that is in harmony with the people's lifestyles" and "how to provide more efficient services in the area" in order to improve the town's value over time even after the development and sales of residential homes and lots.

#### < Items Under Consideration>

- Organic city block plans that incorporate nature and energy systems, and designs that match the landscape.
  - Create a "green axis" by establishing parks and planting vegetation along the main roads and form "wind paths" that take into consideration the wind direction in Fujisawa.
  - Achieve a solar panel design that blends with the town's lush green landscape.
  - Develop basic specifications for homes with ample space for installing storage battery equipment and other energy systems.
- Creation of new space and synergies for electric vehicles, garages and homes to promote electric vehicle sharing.
  - Design parking spaces that enable easy car sharing for the reduction of carbon footprint in the transportation sector.
     (Plans may include some homes with spacious yards without a garage and parking areas for every ten to twenty homes for car sharing use, etc.)
- Designing of a new method to assess the value of environmental real estate in smart towns.
  - -Develop real estate assessment indexes that facilitate market acceptance of environmentally-conscious urban development as real estate value.

# 2) "Town that is connected from the start" through the optimal design and introduction of infrastructures and equipment in all city blocks

Fujisawa SST will be a "town with power and information networks that are connected from the start," employing optimally designed infrastructure based on Panasonic's comprehensive solutions (MARUGOTO solutions) in all city blocks. The comprehensive solutions include those for the entire home, the entire store, the entire welfare facility and the entire public facility.

#### <Items Under Consideration>

- Introduction of comprehensive solutions for the entire home
  - Combining comfort and high environmental performance by packaging systems, mainly consisting of energy generating devices (solar power generation, home fuel cells such as ENE FARM), energy storage devices (storage batteries, heat-pump hot-water system, etc.), energy saving devices (air conditioners, lighting, etc.), SEG (Smart Energy Gateway), and in-home displays.

- "Evolving Systems" with future network compatibility in mind including smart home appliances.
- In emergency, the town supports itself with energy that meets its basic needs by employing Panasonic's self-controlled, collaboration control system called SEG. SEG enables optimal energy management in accordance with the customer's energy usage by controlling energy creation, storage and saving devices using Panasonic's proprietary integration technology.
- Introduction of comprehensive solutions for the entire store
  - Introduce energy creation, saving and storage equipment for the four domains of wind, light, heat and water, enabling energy efficient use of the devices for the entire stores. (Field testing underway at the Panasonic store for employees in Okegawa City, Saitama Prefecture)
- Introduction of comprehensive solutions for the entire public facility
  - Create a town that can exhibit its strengths even during a disaster by installing the maximum number of solar panels in public spaces such as parks, shared parking areas and along roads, and by introducing storage battery systems for community in public meeting places.
  - Create a "safe and secure" living environment by introducing and optimally controlling LED lighting and security cameras.
  - Ensure "comfortable" mobility by introducing a charging infrastructure for EV and PHEV vehicles called Eco-Cycle Pack (electric bicycles and solar charging station for bicycles).

In addition to the above, the group will also consider providing comprehensive solutions for the entire welfare facility for the elderly.

# 3) Create a service model that enables a next-generation lifestyle unique to a smart town

Fujisawa SST provides services that meet the needs of society, inhabitants and businesses, now and into the future.

#### < Items Under Consideration>

Energy Services

Initially install the minimal level of residential storage battery systems for emergency use in each home and then provide diagnostic and maintenance services that allow for adding storage capacity according to future changes, such as in household composition and in the system for selling excess electricity from

solar power generation.

# Mobility Services

Economical eco-car and electric bicycle sharing programs for suburban style household use that contribute to reducing the town's carbon footprint.

# Security Services

Optimally control lighting, sensors and surveillance cameras to watch over the entire town.

- Achieve an optimum layout of appropriate lighting and cameras based on the flow of people and cars.
- As a future plan, introduce comprehensive security solutions for the entire town, enabling to share information amongst all town residents regarding suspicious individuals and whether residents are home or away.

#### Healthcare Services

Support easy, healthy and comfortable everyday living for residents.

- Provide services that offer facilities and equipment that help seniors lead a comfortable life.
- Create an environment that encourages walking (through an optimal spatial design of the entire town including its facilities and streets)
- Provide services in cooperation with administrative agencies and medical facilities.

# Community Platforms that Support the Above Services Provide a portal/terminal service that enables one-stop access to the applications needed to use the various services.

- Visualization of energy linked with SEG.
- Make available a push-type information distribution service in the comfort of their own home. (To manage reservations, access information on special offers available for a limited time, etc.)
- In the future, connect household devices based on SEG to utilize data and link with various services.

In addition to the above, financial services, asset management services, and club services will be examined as well.

# ■ Development Schedule for the Fujisawa SST Project

The Fujisawa SST project aims to open the town in the fiscal year ending March 2014 and work to have every home occupied by 2018, the year of Panasonic's

100<sup>th</sup> anniversary. In the next six months, the project calls for establishing basic designs for infrastructures and smart houses in line with its main concept, finalizing basic specifications for the systems and products to be introduced and designing the service models.

In Japan, Panasonic will work to apply the business model to the surrounding areas through cooperation with the City of Fujisawa, and promote the model for an urban development to rebuild areas affected by the March earthquake. Panasonic will also push ahead with the master plan and solution proposals in coordination with global projects the company and some of the eight business partners are individually pursuing overseas, such as "Sino-Singapore Tianjin Eco-City" project in China and the "Delhi-Mumbai Industrial Corridor (DMIC) Project" in India.

# ■ Overview of the Fujisawa SST Project Plans



Plan Overview	
Development Address	4-1, 6-chome, Tsujido-motomachi, Fujisawa City, Kanagawa Prefecture
Land Area	Approximately 19 ha
Planned Land Use	Approximately 1,000 residential homes/commercial facilities/public facilities
Planned Population	3,000 people (1,000 households)
Schedule	Open the town in the fiscal year ending March 2014
Total Project Cost	Approximately 60 billion yen