

**Joint Public and Private Action for Regional Disaster Prevention
between Shikama-cho, Miyagi Prefecture and the Tohoku Factory**

Selection for the 3rd United Nations World Conference on Disaster Risk Reduction Study Tours

An initiative of Sekisui House, Ltd. to take joint public and private action with Shikama-cho*1, Miyagi Prefecture with the aim of working together to build a disaster-resilient town has been selected as one of the stops on the study tour conducted as a related project of the 3rd United Nations World Conference on Disaster Risk Reduction to be held in March 2015.*2

During the study tour, Shikama's disaster-tough information sharing system, as well as the Sekisui House Tohoku Factory's *Smart energy system* that will be able to secure energy for public and private sector use in the event of a disaster, will be introduced. Efforts aimed at the development of a disaster-resilient town, such as advanced housing disaster prevention technologies to mitigate and prevent disasters, will also be introduced.

3rd United Nations World Conference on Disaster Risk Reduction is a conference where representatives from countries around the world discuss international disaster prevention strategies. Around 5,000 people are scheduled to attend, including the heads of U.N. member states, international organizations and NGOs.



Study Tour Information

Tour Name	Joint Public and Private Action for Regional Disaster Prevention and Advanced Disaster Prevention Technology for Housing – Working Together to Build a Disaster-Resilient Town
Location	Sekisui House, Ltd. Tohoku Factory*3
Outline	Display and explanation of smart energy systems that secure energy for public and private sector use and advanced disaster prevention technology for housing, held at the Tohoku Factory, the town's designated evacuation area.

Features

1. Disaster-tough information sharing system utilizing the regional WiMAX high-speed wireless communication all across Shikama-cho
2. *Smart energy system* that secures energy and supplies it to the emergency response headquarters and evacuation shelter even in the event of a disaster
3. Designated evacuation area and disaster prevention stockpiling set up at the Tohoku Factory based on a Disaster Prevention Agreement. Developing a disaster-resilient community through coordination between residents and local organizations in addition to the town.
4. Support systems and advanced disaster prevention technology for housing to swiftly provide safety and security to customers and the local community

Sekisui House, Ltd. concluded a Disaster Prevention Agreement with Shikama-cho in September 2013, and in May 2014 unveiled a Future Disaster Prevention Factory Development Plan to enhance the disaster prevention capabilities of its production plants with the aim of offering safety and security to customers and local communities. As a specific initiative aimed at building an advanced model of public and private coordination, disaster prevention drills were conducted on a joint basis on October 19. The development of a *Smart energy system* able to secure energy even in the event of an emergency is also proceeding.

Moving forward, Sekisui House aims to further deepen disaster prevention coordination with towns, residents and regional organizations, help improve the disaster prevention capabilities of the region as a whole, and build an advanced model for joint public and private action.

*1 : Population of Shikama-cho is 7,351 as of September 2014

*2 : Organizer: United Nations Dates: Saturday, March 14, 2015 to Wednesday, March 18, 2015

*3 : Ohara-8, Shikama-cho, Miyagi Prefecture

For reference. <http://www.wcdrr.org/home> <http://www.bosai-sendai.jp/en/>

For further Information, please contact

Sekisui House, Ltd.

Public Relations Dept.

info-ir@qz.sekisuihouse.co.jp

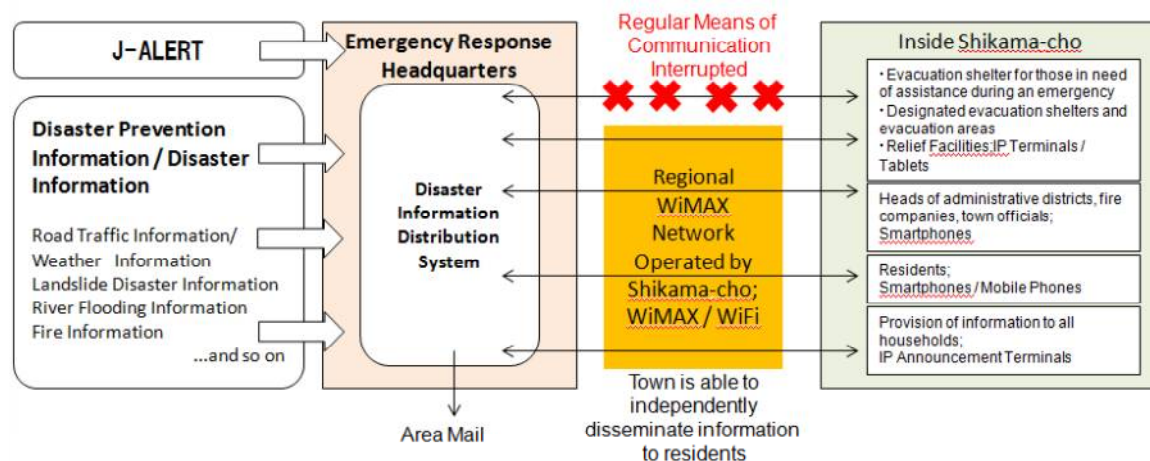
<http://www.sekisuihouse.co.jp/english/sr/2014.html>

1. Disaster-tough information sharing system utilizing regional WiMAX high-speed wireless communications ;Shikama-cho Initiative

Shikama-cho is developing a disaster-tough information sharing system that will allow the town to disseminate information to residents independently even if the usual means of communication are disrupted. A high-speed, high-capacity data communication function called Regional WiMAX is being utilized. Various disaster prevention and disaster information from the national government and Miyagi Prefecture can be consolidated at the town level and distributed in bulk to residents and public facilities.

This disaster-tough information sharing system will be explained during the study tour.

Schematic Diagram of the Disaster-Tough Information Sharing System



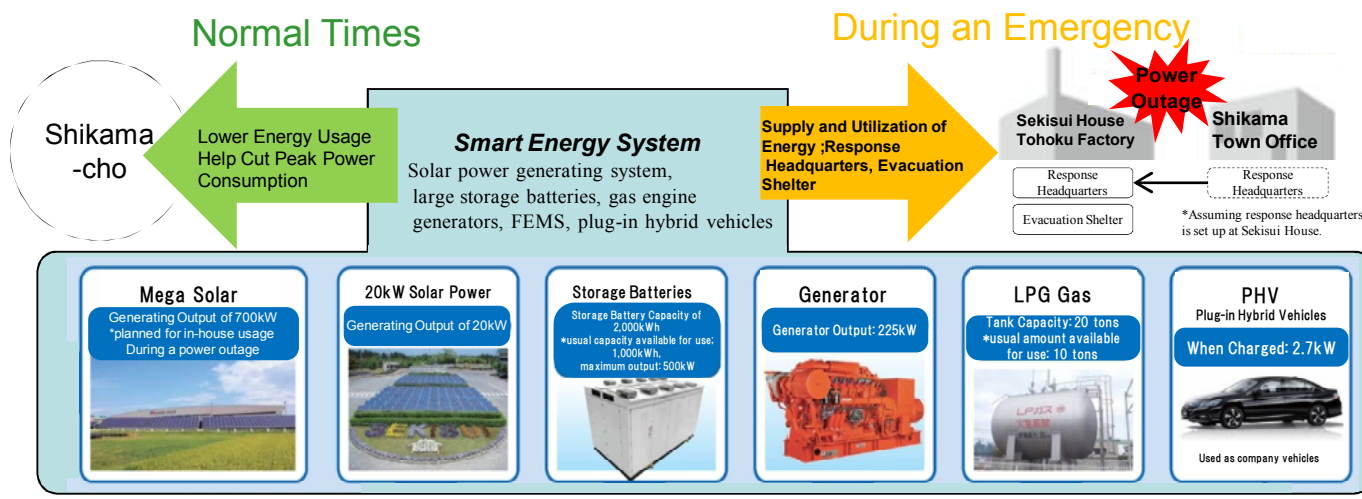
2. Smart energy system that secures energy and supplies it to the emergency response headquarters and evacuation shelter even in the event of a disaster ;Sekisui House Initiative

Smart energy system is being built at the Sekisui House Tohoku Factory. As the system is able to reduce contracted power by 700kw, during normal usage it will help to reduce peak power usage in the region. In addition, through the introduction of an energy management system, energy usage of major equipment in the factory will be visualized, leading to further reductions in energy usage.

During an emergency, power can be supplied to the office building and building utilized as an emergency shelter from three power sources, namely storage batteries, generators and solar power generators. Through the supply of electric power, it will also be possible to supply water and gas. Furthermore, if Shikama's emergency response headquarters is set up at Sekisui House, the secured energy will be utilized for public and private sector needs. Plugin hybrid vehicles will be used as sources of power during an emergency and as means of transportation during the initial response phase. These initiatives will speed up initial responses during a disaster and allow homeowners and local residents to be given prompt support.

During the study tour, the main equipment making up the smart energy system will be displayed and explained.

Schematic Diagram of the Smart energy system



3. Designated evacuation area and disaster prevention stockpiling set up at the Tohoku Factory based on a Disaster Prevention Agreement. Developing a disaster-resilient community through coordination between residents and local organizations in addition to the town.

Based on the disaster prevention agreement concluded with Shikama-cho in September 2013, Sekisui House's office building and *Sumai no yume kojo in Tohoku**4 will be utilized as an evacuation shelter in the event of an emergency. The facility secures evacuation space to sleep 250 people and stockpiles seven days' worth of emergency supplies. Practical disaster prevention drills are systematically held on a regular basis in conjunction with residents and regional organizations, with the aim of fostering a strong community that helps one another, during everyday life as well as during emergencies. On October 19, Shikama-cho Comprehensive Disaster Prevention Training was conducted, with 19 institutions and more than 2,000 town residents taking part. During the study tour, the evacuation shelter and emergency stockpiles will be displayed and explained.



In September 2013, conduct signing ceremony for the Disaster Prevention Agreement

Right : Takuya Ito Shikama mayor
Left : Toshinori Abe President & COO



In October 2014, Conducting drills to set up the evacuation shelter where 250 people can live for seven days



Emergency stockpiles are distributed and secured throughout the factory for home owners, disaster victims and evacuees

4. Support systems and advanced disaster prevention technology for housing to swiftly provide safety and security to customers and the local community

Since its founding, Sekisui House has embraced the concept of "customers first" in anticipation of natural disasters in Japan, which is well known for its earthquakes and typhoons, and continued to work on the development of disaster-resilient homes that are able to protect the lives and livelihoods of occupants. We have endeavored to provide prompt support to customers and local communities when disasters strike.

During the study tour, we will introduce the systems that deliver swift support to customers and the local community, as well as advanced technologies for homes that secure living spaces in the event of a major disaster and allow occupants to live independent lives. Green First Hybrid, disaster prevention smart home that automatically links three batteries*5 allowing occupants to live independently even during a disaster, as well as disaster prevention smart town initiatives that tackle community development from the perspective of disaster prevention, will also be among the advances displayed and explained during the study tour.

Some of the advanced home disaster prevention technologies to be introduced during the study tour

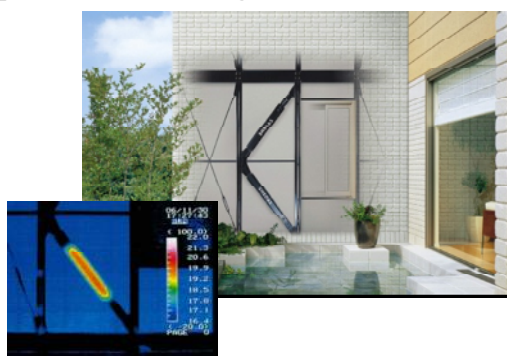


Photovoltaic power systems

Fuel cells

Storage cells

The home is equipped with the world's first three-battery automatic linking system. Green First Hybrid is a disaster prevention smart home capable of energy independence even during a disaster.



This system converts seismic motion energy into thermal energy and absorbs it. This reduces building deformation due to the shaking caused by an earthquake by around one half. The SHEQAS seismic response control system also performs strongly against repeated earthquakes.

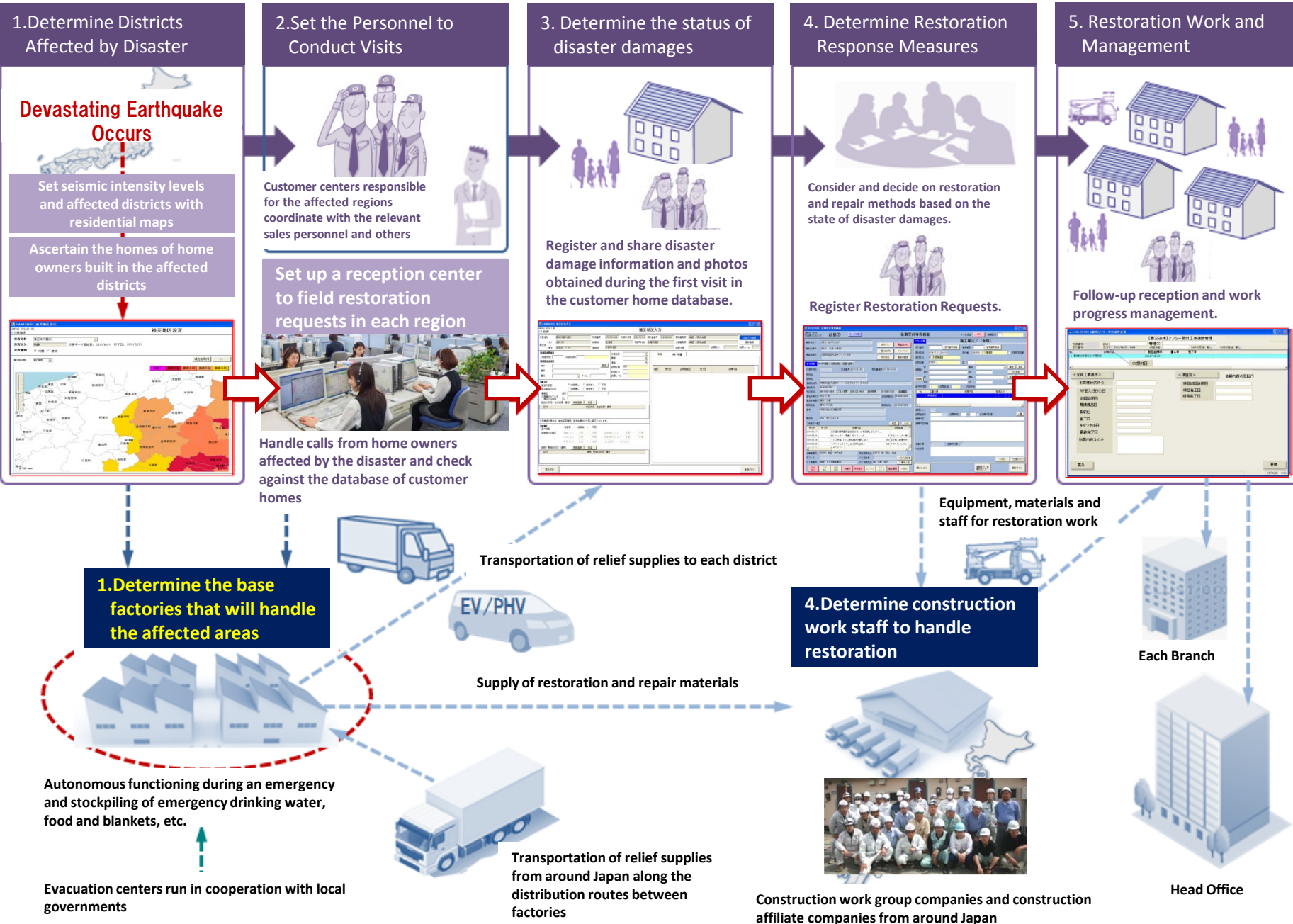


Some of the home disaster prevention technologies will be showed through experiments during the tour.

*4 : Approx. 3,180m²

*5 : Photovoltaic power systems , fuel cells and storage cells

Customer data management system and independent restoration bases that quickly support home owners around Japan in the event of a disaster



Activities case in the Great East Japan Earthquake



When a disaster strikes, production plants acting as recovery centers consolidate relief supplies. The supplies are then delivered to home owners and local residents in the disaster-affected region.

Study Tour Location

Sekisui House, Ltd. Tohoku Factory

Address:

Ohara-8, Shikama-cho,
Miyagi Prefecture

*Approx. 45 minutes by car from Sendai

*International conference participants and registered members of the press are eligible to take part.

