

## Special Feature 1

Environmental commitment is written specifically into the Mitsubishi Estate Group's mission statement. The Medium-Term Management Plan, "Action 2010," further commits the company to reducing the environmental impact of its business. Mitsubishi Estate aims to lead the way in sustainable urban development.

## Environmental Initiatives in the Otemachi, Marunouchi and Yurakucho District

# Creating a pleasant environment for work and relaxation

### Developing urban environments that will have appeal for generations to come

Mitsubishi Ichigokan was completed in 1894, becoming the first office building in the Marunouchi area. Over the century since its completion, Marunouchi grew steadily to become one of Japan's leading business centers. Then, in 1998, Mitsubishi Estate launched the ambitious Marunouchi Redevelopment Project. In the first stage, the Marunouchi Building was opened in 2002, followed by the Shin-Marunouchi Building in 2007. As the redevelopment continued, more and more people were drawn to Marunouchi for purposes other than business.

"In urban development, constant progress is the key to creating communities that will remain attractive for generations to come. Since the Marunouchi Building opened, some other landowners have also rebuilt their buildings, resulting in a major transformation of Marunouchi. I believe that this development—from a business district into a community that fosters knowledge and human interaction—has enhanced the district's value as a community," says Junichi Tanizawa, General Manager, Commercial Asset Development Department, Mitsubishi Estate.

The second stage of the Marunouchi Redevelopment Project, launched in 2008,



**Junichi Tanizawa**  
General Manager, Commercial Asset Development Department,  
Mitsubishi Estate Co., Ltd.

aims to expand the area covered by the urban development and to deepen the district's cultural, artistic and historical functions. As a first step, the Marunouchi Park Building was completed in 2009, and the Mitsubishi Ichigokan was opened as a museum in April 2010 after a devoted effort to restore the building to its original appearance in 1894. More than a century after its construction, the Mitsubishi Ichigokan has been reborn as a symbol of Marunouchi's progress. As the owner of about one-third of the 120 hectares of land in the Otemachi, Marunouchi and Yurakucho district, Mitsubishi Estate looks forward to another 100 years of transforming the district into an attractive community for people from all walks of life.





**Lush green of the Ichigokan Plaza**  
 Courtyard between the Marunouchi Park Building and the Mitsubishi Ichigokan Museum. Songbirds can be heard in the trees.



**Micro-misters**  
 Water is automatically sprayed in an ultra-fine mist when the temperature rises, cooling the surrounding air temperature as it evaporates.



**Rooftop greenery**  
 Air temperature goes down as plant and soil moisture evaporates, and the greenery also helps shield the building from heat.

## Urban development guidelines ensure harmony of the Otemachi, Marunouchi and Yurakucho district

In 1988, Mitsubishi Estate and other companies and organizations owning land in the district formed the Otemachi Marunouchi Yurakucho District Redevelopment Project Council (OMY Council), which has 70 members today. Initially, the landowners met together to discuss their vision for the future of the district mainly in terms of renovation of buildings and other infrastructure. Today, however, the Council also serves as a knowledge base on topics such as area management and environmental issues, helping owners better respond to contemporary needs.

In 1996, the OMY Council, the Tokyo Metropolitan Government, Chiyoda Ward, and JR East formed the Advisory Committee on Otemachi-Marunouchi-Yurakucho Area Development as a forum in which to discuss and share ideas on the district's future. This resulted in the development of the City-planning

Guidelines in 2000. The district's development has followed these guidelines, creating functional pedestrian networks and consolidated green areas. This public-private

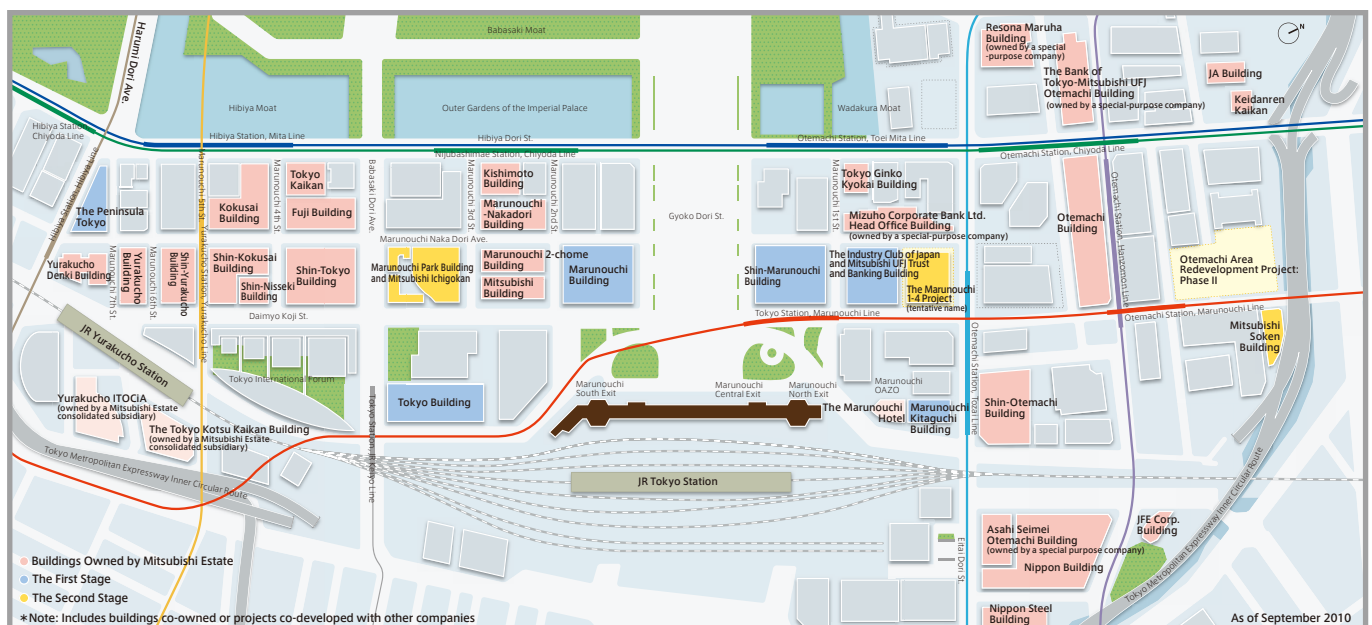


Marunouchi Naka Dori Avenue

partnership has resulted in a collaborative approach to urban development.

Tanizawa says, "We don't think in terms of trade-offs or sacrificing comfort for the sake of reducing environmental impact. Basically, we have always believed that CO<sub>2</sub> emissions can be reduced while also providing people with pleasant environments that are conducive to productivity. Our goal is to create a neighborhood that visitors enjoy so much that they want to come work here."

Mitsubishi Estate organizes environmental events and initiatives in the Otemachi, Marunouchi and Yurakucho district. The Water Sprinkling Project and the Eco Kids Expedition, which draw more participants every year, are well-established summer events in the district now. The Morning EXPO, launched in 2006, grew in April 2009 to become the Marunouchi Morning University, where anyone can attend one-hour courses before the workday begins and enjoy new opportunities for interaction. Eco Musubi, an eco-point system started in October 2009, enables users to accumulate points when they use Suica and PASMO rechargeable transport-fare smart cards to buy food and make other purchases in the district. The points can then be exchanged for various eco-friendly products. In addition, a portion of purchase value is automatically donated to support eco activities in the district. Users are delighted with this easy way of contributing to environmental causes.



## Ecozzeria provides environmental information about the Otemachi, Marunouchi and Yurakucho district

Since the Marunouchi Building opened, the Marunouchi area has been becoming a more and more lively urban center where all sorts of people gather not just on weekdays, but also on weekends and holidays. “The Otemachi, Marunouchi and Yurakucho district is more alive than ever, but anytime people gather, it impacts the environment,” explains Shigeru Inoue, Deputy General Manager, Area Planning Office, Mitsubishi Estate. The inclusion of stores and restaurants in addition to offices has made buildings multi-functional, but this increases the number of floors and elevators, and requires more lighting and air conditioning on nights and weekends. “This means we must totally embrace the concept of sustainable development to build a low-impact urban development,” says Inoue.

In fall 2006, the OMY Council formed the Environmental Vision Study Group, and established the Environmental Vision for the Otemachi, Marunouchi, and Yurakucho District (OMY Environmental Vision) in collaboration with environment and energy experts and government officials. The Association for Creating Sustainability in Urban Development of the Otemachi, Marunouchi and Yurakucho District (Ecozzeria Association) was established in 2007. The association's activities invite the participation of landowners in the district as well as building tenants and people who work in the district. The Ecozzeria Association provides information on the environment and holds various events to foster environmental awareness. Its efforts



**Shigeru Inoue**  
Deputy General Manager, Area Planning Office,  
Mitsubishi Estate Co., Ltd.

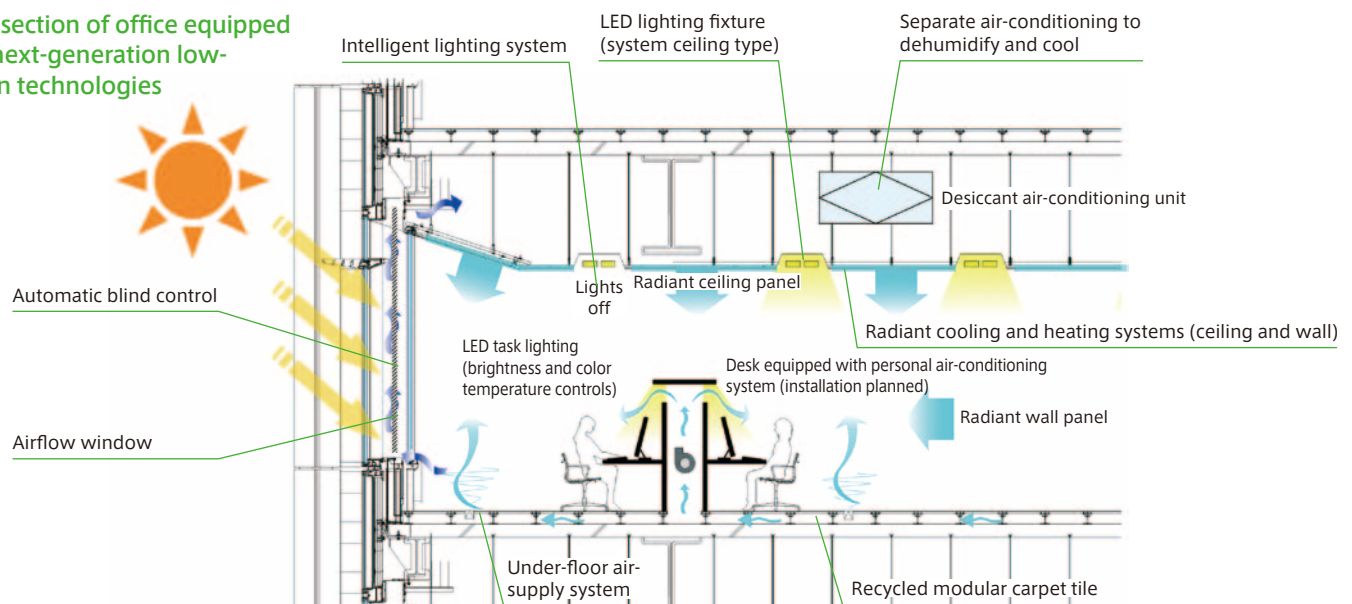
are all guided by the recognition that improving environmental performance requires not only renovation of buildings and adoption of cutting-edge environmental technologies, but also user awareness and action.

The Ecozzeria office on the tenth floor of the Shin Marunouchi Building is serving as a model for validation of the benefits of next-generation low-carbon technologies. Since October 2009, Ecozzeria has been testing various eco technologies, including radiant cooling and heating systems, and intelligent lighting which enables brightness and intensity to be adjusted to create a pleasant workspace. Mitsubishi Estate will continue to design and propose the offices of the future—workspaces that help to reduce CO<sub>2</sub> emissions while simultaneously raising productivity and comfort.



The Ecozzeria office is validating next-generation low-carbon technologies.

### Cross-section of office equipped with next-generation low-carbon technologies



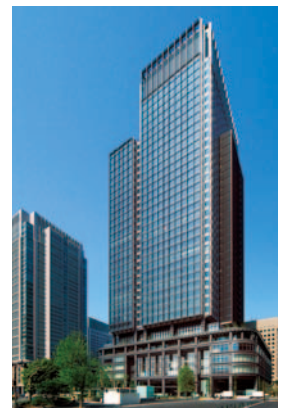
## Linking urban and rural development using Fresh Green Power

In April 2010, Mitsubishi Estate started using a new environmental electric power supply system called Fresh Green Power. Conventional "green power" involves the purchase of Renewable Energy Certificates (RECs) which attest that power was generated using renewable energy sources such as wind, sunlight and biomass. The purchaser actually uses the conventional energy grid, but is considered to be using green energy.

The newly introduced Fresh Green Power system transmits green power directly to the purchaser from the generation facility. A power producer and supplier (PPS) established by Idemitsu Kosan Co., Ltd., supplies the Shin Marunouchi Building with electricity generated using windmills in Aomori Prefecture's Rokkasho village and water energy in Hokkaido. The green power is sent from Aomori and Hokkaido prefectures through the transmission and distribution networks of Tohoku Electric Power Co., Inc., and Tokyo Electric Power Co., Inc., directly to the Shin Marunouchi Building. The building is thus using actual green power generated in rural areas, not just deemed to be using it. If all electric power consumed in the Shin Marunouchi Building were sourced from Fresh Green Power, CO<sub>2</sub> emissions would be reduced by about 20,000 tons a year to one-third of their original level.

"The Shin Marunouchi Building is equipped with a 20kW solar panel, but the power output is small compared to the building's total energy use. There are limits to how much renewable energy can be sourced locally due to the limited space available for solar panels and storage facilities. This led us to explore the potential to affiliate with other regions, and we decided to adopt Fresh Green Power after discussions with the Tokyo Metropolitan government and Idemitsu Kosan. I hope that Tokyo and the rural areas can continue to build relationships for their mutual benefit," says Inoue.

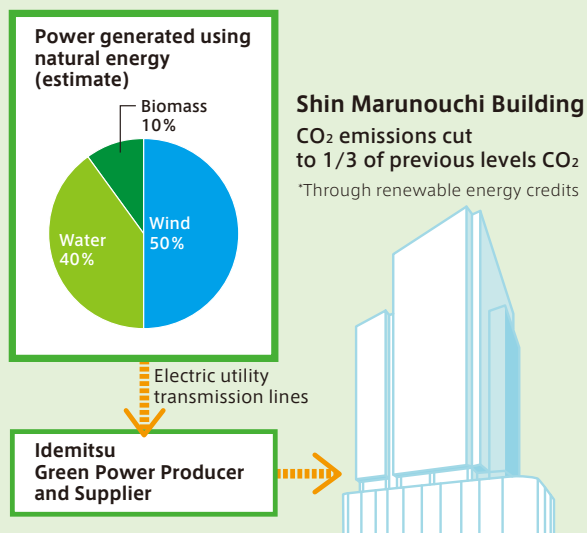
Other initiatives include the Group's adoption of three i-MiEV electric vehicles manufactured by Mitsubishi Motors, in September 2009. These cars are utilized in the Otemachi, Marunouchi and Yurakucho district and around the Yokohama Landmark Tower by employees and executives. Both rapid and conventional charging stations are being installed steadily in both areas, which will help to encourage the utilization of electric vehicles in Japan.



Shin Marunouchi Building

### Fresh Green Power changes Shin Marunouchi Building's energy profile

Fresh Green Power supplies the Shin Marunouchi building with a blend of energy generated by water and wind.



### ● Voice ●

#### High expectations for Fresh Green Power

Tokyo has been stepping up its efforts to introduce and popularize renewable energy, and last fiscal year we began offering a subsidy for the purchase of solar energy equipment. However, it is difficult to expand the use of renewable energy within the city alone, which makes affiliations with outlying regions essential. I am very pleased by the success of the cutting-edge initiative of the symbolic Shin Marunouchi Building using Fresh Green Power.

We are now looking into the possibility of a scheme by which new windmills would be constructed in rural areas using citizen contributions or through the initiative of a local company whenever new buildings are built in the city center. We are striving not only to lower the carbon footprint of urban centers, but also to build bridges between areas to benefit regional economies.



**Junichi Uratani**  
Director in charge of Renewable Energy, Urban and Global Environment Division, Bureau of Environment, Tokyo Metropolitan Government