

Contributing through Our Business



MEW is active in a wide range of sectors, one of which is the lighting product sector, where we are one of the world's leading manufacturers. As a step toward realizing social sustainability in the lighting products industry, we have taken time to consider how we are trying to contribute to society, the role we want to play from now on, and a vision of our future profile and the society of the future.

Responding to social trends in the lighting business

Our business concept in the lighting sector was to offer optimal solutions in response to social trends: protecting the global environment, creating amenity, preventing crime and accidents, promoting hygiene and health, and so on. Traditionally, the most important function of lighting is to enable things to be seen clearly. Recently however, other, psychological functions, such as promoting a sense of relaxation, have received attention. Light has an ambient design function: it not only provides brightness but also soothes and lifts the mental state. We hope to be able to create products that, without impairing the traditional function of lighting, respond to social trends and change our society for the better.

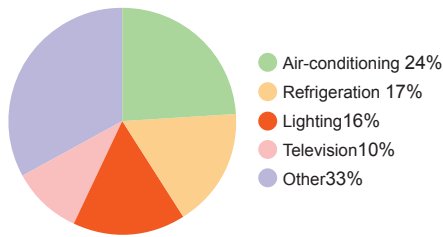
Towards a new and brighter society

At present, around 16% of the electricity consumption of a Japanese household is used for lighting. Lighting products are also used widely in schools, hospitals, office blocks, and other buildings as well as roads, tunnels, and other locations and provide peace of mind, security, and amenity in our everyday lives.

The energy efficiency of current lighting products has improved greatly compared with ten years ago. The durability of bulbs and elements has also increased as longer-life products have been developed. We believe however that the future will bring a world where conventional concepts of long life and energy efficiency will be revolutionized, greatly reducing environmental burden: this will involve, for instance, lighting products that never need replacement of a spent bulb or element and lighting products that run on solar power or other natural energy sources with no need for power supply from a conventional socket. The advent of this new and brighter world is no longer just a dream.

Among the items we have identified at MEW in response to this move toward higher efficiency and longer life are LED lights and electrode-free lights. We are now engaged in the development of innovative technology in these areas.

■ Household electricity consumption (FY2001)



Source: The Energy Conservation Center, Japan



LED light (left); electrode-free light (right)



Tree-planting at Ocher Plateau in China

Next-generation brightness

·LED lights (EVERLEDS)

LED stands for light-emitting diode, which is a kind of luminescent semiconductor. When the LED was first invented, partly because the amount of light produced by a single diode was small, it was thought that it would be a long time before they could be used as sources for lighting. In 2003, however, we succeeded in developing a high-output LED unit, opening the way for their use as lighting sources. Nowadays, their light output efficiency is superior to that of incandescent lamps and they are used as background lighting in stores and other places where ambient design is important, in traffic signals, vehicle tail lights and many other locations.

Among the advantages of LEDs is that they can be turned on without using the environmentally hazardous substance mercury, have long life at around 12 years, and are around one-fiftieth of the size of incandescent lamps, making possible completely new concepts in lighting. For instance, unlike lighting fixtures that have to be mounted on ceilings to allow regular replacement of the element, they can be designed to match the form of the architectural space. For instance, they could evolve as light panels or in slimline, compact and other formats usable as "luminescent architectural materials." Bedrooms designed for optimal sleep and bathrooms that promote deeper relaxation are among the many new and previously unknown dreams of spatial ambient design that we will be promoting, with due attention to further increasing efficiency and energy saving.

·Element-free lighting (EVERLIGHT)

We are used to the idea that the light bulb invented by Edison eventually runs out and has to be replaced. This is because, after repeated turning on and off over a long period, the electrode or filament of electric bulbs and mercury lamps becomes worn out. Electrode-free lights are a new form of light that do not use filament or electrode and need no replacement for around 15 years. Furthermore, they achieve a light output efficiency of around twice that of the mercury lamp. With these advantages of long life and high efficiency, they are used in applications that include road lighting, security lights, and tunnel lighting. These lights ensure the safety of pedestrians and traffic, making them an extremely useful form of lighting.

·Tree-planting activities in tandem with sales promotion of environmentally conscious products

Between September 2004 and March 2005, we implemented a promotional campaign through which we made contributions to the tree-planting activities of the non-profit organization Green Earth Network according to the number of units sold of the Smart Lighting Eco series and other MEW environmentally conscious products. So far, around 100,000 pine saplings have been planted on a 30-hectare site on the Ocher Plateau, China. In the present fiscal year too, we will continue with this campaign to encourage the wider use of environmentally conscious products and increased environmental protection.

Grand Prize awarded at 14th Global Environment Awards (April 2005)

Sponsored by Fujisankei Communications Group, the Global Environment Awards celebrate enterprises that are engaged in enthusiastic environmental conservation activities aimed at the development of industry and coexistence with the environment. At the 14th awards, MEW received the Grand Prize, given to the most outstanding enterprise, in recognition of its allround environmental activities including its new activities to create a "brighter society."



Award ceremony, April 2005
 Left: Teruyuki Ouchi, Chairman of World Wide Fund for Nature Japan
 Right: Hisashi Hieda, Fujisankei Communications Group representative
 Center: Koichi Hatanaka, MEW President