

Towards Sustainable Low-Carbon Society through ICT

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Amid advances in information technologies and market globalization, social and economic environments around the world are experiencing rapid change. In this volatile climate, the Mitsubishi Electric Group will continue its innovation based on a global perspective of looking towards the future.

The Mitsubishi Electric Group is engaged in activities based on its corporate statement "Changes for the Better." This statement expresses our commitment to continuously adapt and evolve in the unwavering pursuit of excellence. I believe that for the Mitsubishi Electric Group to evolve, each individual must realize that continuous change is the well-spring of new value. With this assured, we can look forward to a bright and prosperous tomorrow.

Over the past 90 years, the Mitsubishi Electric Group has offered products with high quality and reliability for business users and consumers all over the world.

As part of these activities, the Mitsubishi Electric Group has strived to contribute towards a sustainable low-carbon society with the establishment of its "Environmental Vision 2021," which aims to reduce group-wide CO₂ emissions from product usage by 30% and total CO₂ emissions from production by 30% by 2021, as well as its environmental statement "Eco Changes."¹ To reduce CO₂ emissions from production, the company is in the midst of promoting improvements in production lines at facilities both inside and outside Japan. For lowering emissions from product usage, for example, we offer energy savings using power devices, which is the field I personally was previously in charge of. Through these initiatives, we will promote environmental management with a long-term vision.

As a company that conducts business activities around the globe, I believe that great responsibility lies with the Mitsubishi Electric Group to provide technologies, products and services worldwide that contribute to preserving the environment. Our goal is for every employee in the Mitsubishi Electric Group to advance step by step towards showing deep empathy for nature, attaining proper understanding of biodiversity and having a strong determination to protect the environment.

In order to realize a sustainable society worldwide it is necessary for every region and country to take the global environment into consideration and seek sustainable development. In this process, ICT will be expected to play an even more important role.

The total amount of Internet traffic, however, is expected to show an annual growth² of 40%, and in 2020, with an explosive amount of information and data being transmitted by information equipment, the total energy consumption in this equipment is expected to double³ that of those in 2005. These conditions make it important for us to promote both "Green of ICT," reducing energy consumption in information and communications equipment and "Green by ICT," which seeks lower energy consumption in society as a whole by using this equipment.

In the aspect of "Green of ICT," the Mitsubishi Electric Group will develop and provide systems and equipment that consume lower amounts of material or energy, including optical communication devices (WDM, PON, etc.) that process and transmit data efficiently and other large-volume and high-speed communications equipment, as well as products like femtocell base stations which help alleviate congestions in wireless communications traffic. In fact, as a result of the Mitsubishi Electric Group's efforts to continuously reduce energy consumption in PON-ONU, we have achieved a 70% energy reduction over our first model, together with a smaller size which helps save resources. We will continue efforts to further promote such improvements. As per "Green by ICT," we offer products such as home gateway devices, which help save energy in homes.

Based on its achievements, the Mitsubishi Electric Group has proactively participated in standardization activities in a variety of study areas of the ITU. It has contributed to the development of, for example, standards in next-generation mobile communications (IMT-Advanced), optical access networks (ICT in the home, etc.), satellite communications (antenna parameters and quasi-zenith satellites, etc.), video and voice coding and many others.

The Mitsubishi Electric Group will continue its efforts in developing technology and launching products that achieve "Green of ICT" and "Green by ICT," and will also proactively participate in future standardization activities inside and outside Japan. With the determination to always strive to achieve "something better," as represented in our corporate statement "Changes for the Better," we endeavor to contribute to the realization of a sustainable low-carbon society through ICT.



Notes:

^{*1} "Eco Changes" is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses for homes, offices, factories, infrastructure and even outer space, we will strive to contribute to the realization of a sustainable low-carbon society.

^{*2} Ministry of Internal Affairs and Communications (MIC): estimate of Internet traffic in Japan (February 2010)

^{*3} MIC: Results of CO₂ reduction by using ICT in 2020 (in Japan) (May 2010)

Terms:

WDM: Wavelength division multiplexing

PON: Passive optical network

ICT: Information and communications technology

IMT: International mobile telecommunication

ONU: Optical network unit

