Climate Change Action

In order to ensure that the next generation inherits this irreplaceable planet, Casio has established and is implementing Climate Change Action with medium- and long-term targets to be achieved by fiscal 2051.

Medium- and long-term targets

The medium- and long-term reduction targets for the Casio Group's greenhouse gas emissions, which were set based on the Casio Environmental Vision 2050 and the Casio Environmental Declaration 2020, are shown below.

Casio group's medium- and long-term targets for greenhouse gas emissions reduction

- **Medium-term target**: To reduce the total volume of global greenhouse gas emissions from business activities by **30**% compared to fiscal 2006, by fiscal 2021
- **Long-term target**: To reduce the total volume of global greenhouse gas emissions from business activities by **80**% compared to fiscal 2006, by fiscal 2051.

* Business activities: This indicates activities of production sites and offices in Japan and overseas, and does not include CO_2 emissions from logistics, product usage, or employee travel.

Managing risks and opportunities

As a result of the March 2011 Great East Japan Earthquake and the ensuing accident at the Fukushima nuclear power station, virtually all nuclear power stations across Japan have suspended operations. Japan is faced with such risks as rising electricity tariffs and power shortages in summer and winter. Moreover, the greenhouse gas emission coefficient for electricity has risen as a result of the decline in the utilization of nuclear power generation, resulting in an increase in real CO_2 emissions. This translates into greater risk of incurring emissions trading costs under the Ordinance on Environmental Preservation to Secure the Health and Safety of the Tokyo Metropolitan Area (Environmental Preservation Ordinance). Also in 2011, there was major flooding in Thailand, which may be partially attributable to global warming and upstream deforestation. Consequently, global risks have become apparent including threats to the value chain for production and parts.

In order to avoid these risks, Casio plans to expand the introduction of renewable energy, and secure alternatives in the value chain.

On the other hand, the greenhouse gas reduction effect at time of product usage offered by Casio products which promote paperless lifestyles, such as data projectors and electronic dictionaries, has been identified as a significant opportunity to address climate change over the product life cycle. Casio will work to further expand its business in these products.

In order to minimize the various risks mentioned above, and expand opportunities, Casio must contribute to the sustainability of the planet and its human societies. Casio recognizes that this is an extremely important issue for further strengthening its business foundation, and will make even more strenuous efforts in the fight against climate change.

Measures for achieving medium- and long-term targets

Casio has set medium and long-term targets for achievement by 2020 and 2050. Among the three areas that the Casio Environmental Declaration 2020 focuses on, Casio will put the highest priority on realizing a low-carbon society.

Realizing a low-carbon society

The Casio Group will provide products and services that make an even greater contribution to the reduction and absorption of CO_2 emissions. In addition to expanding products and services that use energy sources that are friendly to people and the planet, including solar, wind, and hydro power, Casio will incorporate these renewable energy sources into its own business operations.

Casio Europe has been operating geothermal cooling and heating in its office building since January 2009. In fiscal 2013, Casio will also begin investigating initiatives for the use of renewable energy including solar.

Regarding other indirect CO_2 emissions (GHG Protocol Scope 3 emissions), Casio will work to expand the scope of disclosure of other indirect CO_2 emissions generated during distribution and product usage, which it already discloses, based on the calculation guidelines being considered currently by the electrical and electronics industry associations.

Measures for 2020

Casio is studying the potential of the following initiatives to achieve the medium-term target for 2020. It will also strive to assess as quickly as possible their potential to help meet the 2050 target.

1. **Response to social environment changes after the Great East Japan Earthquake**
   - Responding to energy issues
   - Introducing renewable energy sources
2. **Environmental contribution through product usage**
   - Reducing the amount of electricity used by products
   - Minimizing and optimizing the amount of product packaging
   - Increasing the percentage of products that run on solar cells
3. **Utilizing carbon offsets**
   - CO_2 absorption effect based on the expansion of paperless products (reducing demand for logging, etc.)
   - Purchasing carbon offsets for products
   - Promoting tree planting and greening
   - Emissions trading, Clean Development Mechanism (CDM), and Joint Implementation (JI)
4. **Reduction of CO_2 emissions in various business activity processes**
   - Materials procurement, product manufacturing, transport and distribution, product usage, recycling, and disposal
   - Expansion of the scope of CO_2 emission data gathering on logistics, transport efficiency improvement, and modal shift
   - Making production facilities more energy efficient, and improving production processes
5. **Increasing the percentage of non fossil-fuels used at sites**
   - Installation of LED lighting
   - Installation of solar panels
   - Installation of highly efficient air conditioning equipment

Energy Conservation Targets by Fiscal 2016 (Power, Fuel, etc.)

Starting in fiscal 2014, Casio established the new energy conservation targets described below with a target year of fiscal 2016 in an update of its energy conservation targets up to fiscal 2013.

By fiscal 2016, the Casio group overall will reduce energy usage (crude oil equivalent kL) by 13% per unit of total floor space compared with fiscal 2011.

In setting the new target, Casio changed from establishing targets for production sites in Japan, offices in Japan, production sites outside Japan and offices outside Japan, respectively, as it did in the past, to establishing an overall Group target. Moreover, while the target for production sites was previously expressed per production, Casio has employed per unit of total floor space for the new target, which is as close as possible to an absolute target.

Casio has established energy conservation targets as a crude oil equivalency (kL) for fuel and power usage, and this has made it possible to evaluate actual energy conservation programs without relying on the CO_2 emission coefficient for purchased power.

Fiscal 2015 Performance

In fiscal 2015, output grew at production subsidiaries Yamagata Casio and Casio (Thailand), but the total amount of energy used by the Casio Group fell by 3.3%, crude oil equivalent, compared to fiscal 2014. This was due to energy-saving activities including power saving by the entire group.
Looking at energy saving per unit of total floor space, energy consumption in fiscal 2015 was reduced by 12.7% compared to fiscal 2011. This is close to the target of a 13% reduction in energy consumption by fiscal 2016.

Meanwhile, in fiscal 2015, CO_2 emissions for the entire group increased by 0.3% compared to fiscal 2014. This was due to an approximately 17% deterioration in the CO_2 emission coefficient for electricity in Japan, which is used to calculate the amount of CO_2 emissions generated per unit of electricity consumed.

Compared to fiscal 2006, the base year for the medium-term targets, emissions have been reduced by 70.9%, thereby achieving the goal for fiscal 2021. (The reduction would be 31.6%, if the base year were set according to the GHG Protocol.)

For more information, see “Reducing CO_2 emissions”, “Fiscal 2015 Casio Environmental Action Plan Performance”. (PDF / 48KB)