

Preventing Global Warming

Global warming has become one of the most serious environmental issues of the 21st century. The Kyoto Protocol that went into effect in February 2005 obliges Japan to reduce its collective greenhouse gas emissions by 6% compared to 1990 levels by the period of 2008 through 2012. However, the volume of greenhouse gases emitted by Japan has risen by 8.3% compared to 1990. Looking ahead to the end of this century, achieving the targets of the Kyoto Protocol is just the first step. It is necessary for us to consider what action to take over the long term.

Measures to Control CO₂ Emissions in Buildings

The volume of construction-related CO₂ emissions is substantial both before and after construction, encompassing all stages from the production of construction materials to the operation of buildings. Kajima makes a concerted effort at conservation and green procurement during the production process, transport and other stages.

As a construction company, Kajima has a unique responsibility with regard to energy conservation in the operation of buildings. This is because the effectiveness of its energy conservation will be revealed over the decades that the building will be used.

Kajima pursues sustainable design and a wide range of technological development, designing and proposing buildings with energy-saving features that on average exceed the standards set under Japan's Law Concerning the Rational Use of Energy by more than 20%. Kajima has also placed a greater priority on communication with customers and society to promote eco-friendly construction that provides more than just energy conservation by making effective use of the Comprehensive Assessment System for Building Environmental Efficiency (CASBEE) system.

New Energy Initiatives

Kajima utilizes its collective strength to apply total engineering solutions to new energy fields such as wind and solar power generation, getting involved in everything from site surveys to planning, design, construction, procurement and installation.

In the area of wind power, Kajima has a strong engineering track record in the design and construction of wind farms. It is now also developing concrete towers that will make possible large-scale windmills on towers over 100 meters tall, and drawing on its extensive experience in the design and construction of wind farms in the pursuit of construction technologies for ocean-based wind power generators.

For solar power, Kajima is collaborating with manufacturers to develop solar modules integrated with construction materials, and pursuing development of its own solar power generation simulation technologies to provide optimal systems with superior function and design.

Projects Utilizing CDM

The Clean Development Mechanism (CDM) is a system that allows industrialized countries to receive credit toward their emissions reduction commitments under the Kyoto Protocol by operating projects that reduce greenhouse gases in developing countries. Projects utilizing this mechanism help Japan meet its emissions volume requirements, and improve the environment in developing countries.