Unusual weather patterns caused by accelerated global warming is impacting not only human beings but also entire ecosystems, leading to an increase in epidemics, food shortages, and other problems that are a threat to our very existence.

The increasing levels of CO$_2$ and other greenhouse gases in the atmosphere, which is said to be a cause of global warming, is generally attributed to the burning of fossil fuels such as oil and coal. Although alternative energy sources are being developed, people all over the world still rely on fossil fuels. We therefore must foster the development of a society that makes more efficient use of energy and generates high added value.

As globalization progresses, the economies in emerging countries are certain to grow substantially. Because growth is impossible without energy, it is expected that the global demand for energy will increase drastically. The challenge for any energy-saving society will be to find ways to satisfy this energy demand without increasing greenhouse gas emissions.

Japan is a developed country that has attained a world-class level of energy efficiency. Although this country’s gross domestic product (GDP) increased 2.4 times from 1973 to 2007, there has been almost no change in the amount of energy consumed by its industries. With their advanced technologies and resolute desire to utilize them effectively, it is expected that Japan’s industries will not only continue to improve their own energy efficiency, but also deploy these technologies worldwide, especially in emerging markets.

Yokogawa, a leading Japanese company in the control field, has helped its customers in various industries improve their productivity. By presenting heat recovery and energy management solutions for production processes and achieving improvements in productivity, quality, and yield rate, energy efficiency can be enhanced. In this, steady control and optimum operations are essential. Yokogawa has made this possible by installing its control systems including those of the CENTUM series at over 20,000 locations worldwide and by making use of its significant application know-how acquired in a wide variety of industries.

*1 President & CEO
Moreover, through its VigilantPlant vision for the ideal plant, Yokogawa is helping its customers see clearly, know in advance, and act with agility while striving to maximize energy savings through the realization of the Energy on Demand approach of delivering the exact required amount of energy where and when it is needed.

We have also used our products to maximize energy efficiency at our own factories, and have gotten excellent results. Last year, in recognition of our many years of achievements, the Green IT Promotion Council presented Yokogawa one of its 2009 Green IT Awards, the Minister of Economy, Trade and Industry Award.

Measurement technology is becoming more important. Many new energy saving and alternate energy technologies will be developed. Yokogawa is working non-stop to assess the practical benefits of these new technologies and identify which alternate energy sources, international standards, and evaluation methods will be required.

Yokogawa’s activities in the measurement, control, and information fields cut across a wide variety of industries and technologies. We believe that Yokogawa’s mission is to use its technologies and expertise to help reduce energy consumption and protect the environment.

To take charge of Yokogawa’s efforts in these areas, a Chief Green Officer (CGO) was formally appointed in December 2009, and a Green Factory Solutions Business Center was established to focus on the energy saving business.

Although a CGO is usually only in charge of the environmental activities that take place within his or her own company, our CGO is also responsible for the contribution that we make to protecting the global environment through the presentation of product and technology solutions to our customers.

The Green Factory Solutions Business Center brings together the technologies, experience, and know-how of each Yokogawa Business Headquarters and Group company, and makes use of this to present solutions that address the specific issues that our customers face.

This special issue of the Yokogawa Technical Report focuses on energy saving and environmental conservation, and gives actual examples of how Yokogawa is helping customers reduce energy consumption at their plants.

The entire Yokogawa Group will continue to develop technologies and solutions that help to protect the global environment and reduce energy consumption, and thus create a sustainable society in partnership with our customers. I look forward to sharing our remarkable results with you.