

the United States. Comparable figures would be 80 minutes for the United States, 70 minutes for the United Kingdom and 45 minutes for France.

energybiz: What are you doing to improve reliability and grid security?

KATSUMATA: We are trying various measures such as system configuration, operation, and maintenance. Transmission lines basically consist of two circuits per route. The metropolitan area is operated as a radial grid and routes have two power sources—500-kilovolt substations—in case of severe contingencies. The company has a vertically integrated power supply system and operates integrally from power generation and transmission to distribution. We can speedily respond if a problem arises.

energybiz: Utilities in the United States and Japan have an aging work force. How are you dealing with the problem?

KATSUMATA: Since 1999, we have been restraining the number of recruits to secure the minimum number needed to sustain a stable organizational operation. We also are mounting efforts to secure excellent employees by holding nationwide seminars.

For our senior staff, we believe that it is important to provide diverse tasks. Furthermore, new ideas such as shorter working hours, telecommuting and commission-based compensation are under consideration.

energybiz: You had a series of problems related to your operation of nuclear facilities that required you to close 17 reactors for inspection and eroded public trust in your company. What caused the problem? What has been the solution?

KATSUMATA: The issue of greatest concern involved onsite employees involved in the inspection and repair of our nuclear power plants. The field staff believed that if they would report problems to the government it would have resulted in a prolonged shutdown. An incorrect notion arose that if there were no problems with safety, it was fine to not report any trouble to the government. That is why misconduct and cover-ups occurred.

The inspection system within the company did not perform satisfactorily. Internally, a lack of openness and poor information flow prolonged such problems. We have made the following promises. Now we are committed to perform highly transparent operations at power plants. We review rules, regulations and manuals and make sure they are clearly understood. We have been conducting education and training regarding business ethics.

energybiz: How fast is demand for electricity growing in your service territory?

KATSUMATA: Since the 1990s, due to the prolonged sluggish economy and energy conservation, growth of demand for electric power began to show a decelerated trend. The average annual growth rate from fiscal 1980 to 1990, and fiscal 1990 to 2004 was 5.3 percent and 1.9 percent, respectively.

energybiz: How do you plan to keep electric rates down for your consumers and commercial and industrial customers?

KATSUMATA: All of us have worked hard on operational efficiency for some time. The retail electricity market was liberalized in March 2000. We have lowered the electricity rate by 25 percent in since 1996.

We plan to further lower the electricity rate for all customers in April by promoting further operational efficiency and cost-reduction measures while striving to provide better services so that customers can choose our optional services.

energybiz: Many utilities in the United States are installing “smart meters” that allow the companies to closely monitor energy usage and spot outages. What is TEPCO's approach to metering?

KATSUMATA: We check meters every month for approximately 27 million customers. Manual meter reading is used for general household customers as well as customers with a contract demand of less than 500 kilowatts. Our automatic meter-reading system has been adopted for large customers with a contract demand of more than 500 kilowatts. Our automatic meter-reading system has two main types: a wired system and a wireless system.

energybiz: Utilities are spending significant sums of money on information technology to better manage their businesses and employees and to improve services to customers. What is TEPCO's approach to IT?

KATSUMATA: We have been working hard to formulate our in-house business process as a system to improve our customer service and operational efficiency. Since the later half of the 1990s, we have been proactively encouraging reforms in working style in the office by utilizing personal computers and reforms in business processing in the fields of sales, power generation, distribution and general management.

energybiz: What is TEPCO's approach to IT when it comes to customer service and customer information systems?

Fact Box

TOKYO ELECTRIC POWER CO.

Consolidated Revenues:

>> \$43 billion
Net Income

>> \$1.9 billion
Employees:

>> 38,510

Power Plants:

>> 190, generating
62,825 megawatts

Transmission:

>> 24,738 miles

Distribution:

>> 630,511 miles



**WE WOULD LIKE TO SHARE OUR TECHNOLOGIES
AND EXPERIENCE WITH ELECTRIC POWER COMPANIES
OF THE UNITED STATES.**

KATSUMATA: Our Total Customer Service System, for which an integrated customer database was built, was initiated at all offices in 2004. This has enabled us to innovate in areas of customer contact, business management, marketing and sales.

energybiz: How much will TEPCO spend on capital investments in the next few years?

KATSUMATA: We strive to make up and maintain facilities systematically and efficiently to meet increasing demand in the midst of significant changes such as the development of a liberalized electricity market. However, we advocate restraining investment by designing and engineering facilities to secure flexibility.

In our 2005 management plan, we budgeted an average capital investment of ¥620 billion (\$5.3 billion) during the three years from fiscal 2005 to 2007, and this is approximately 40 percent of the peak period level in fiscal 1993 (¥1,680 billion or \$14.3 billion).

energybiz: What are the largest investments the company will be making?

KATSUMATA: Major large-scale capital investments that are currently under way for power plant construction include the following: Kannagawa Hydroelectric Power Station (2,820 megawatts), Kawasaki Thermal Power Station (capacity: 1,500 megawatts), and Nishi-jobu Trunk Line as a 70-mile distribution facility.

We have plans for the future construction of nuclear power plants; two plants in Fukushima Prefecture with a capacity of 1,380 megawatts each, scheduled to commence commercial operation after 2011, and two plants in Aomori Prefecture with a capacity of 1,385 megawatts each, scheduled to start commercial operation after 2013.

In addition, we have newly invested in the data communication business, energy-related and environmental business, living environment and lifestyle business, and overseas business.

energybiz: How hard is it for TEPCO to raise capital from equity, bonds and other sources? Have economic problems in Japan for the last 10 years hurt TEPCO?

KATSUMATA: Our long-term bonds have received high ratings of Aa3 from Moody's, and AA- from Standard & Poor's. We do not have any difficulty raising funds from external financial sources.

Since we maintain a rating of high standards, we have never experienced any difficulty in raising funds due to the prolonged sluggish economy of our country.

energybiz: What has been TEPCO's experience with wind power and other renewable sources of energy?

KATSUMATA: At a total of 57 locations, including our headquarters building, we have installed photovoltaic power generation systems with a total capacity of 599 kilowatts. In addition, we installed a 500-kilowatt wind power farm on Hachijo Island, small-scale wind power facilities in three locations and a 3,300-kilowatt geothermal generation system on Hachijo Island.

Eurus Energy Holdings, one of our group companies, is the largest domestic developer in this field, and it is one of the world's leading service providers of wind power generation. It operates wind power generation of 242 megawatts at 10 domestic locations. Overseas, it generates 863 megawatts in five countries, including the United States.

We purchase renewable electric power from our customers and devote ourselves to the diffusion and promotion of natural energy in Japan. We purchased 91.9 million kilowatt-hours of electricity generated by photovoltaic power plants, and 76.7 million kilowatt-hours of electricity generated by wind farms in 2004.

energybiz: Do you admire any American utilities?

KATSUMATA: We have an office located in Washington, and we interact with many other companies. The executives of our company and those of PJM Interconnection, which controls a network twice the size of ours, routinely visit each other.

AEP is an affiliate of E7, which is an organization jointly established by major electrical power companies of the G8 countries. In addition, we communicate with many electrical companies in the United States such as Excelon, TVA, Consolidated Edison, Southern California Edison, and Pacific Gas and Electric.

energybiz: What do you have to tell American utility executives about your experiences complying when the Kyoto Agreement?

KATSUMATA: The issue of global warming is a long-term challenge that must be addressed beyond the period of the Kyoto Protocol. We intend to place greater emphasis on fighting global warming in the future. We would like to share our technologies and experience with electric power companies of the United States. ☺

News Flash >>

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TEPCO WASTE TO ENERGY

Tokyo Electric Power has announced it will participate in a joint venture to develop a biogas facility in Thailand. Cassava Waste To Energy, the joint venture, starting in December will gather methane from the waste of tapioca starch factories and then sell it back to the factories as biogas, JCN Newswire reported.

CARBON TRADING

Japanese companies and the government of Japan will set up a carbon dioxide credit exchange by mid-2006 Kyoto newswire reported. Under the Kyoto Protocol, Japan must cut its greenhouse-gas emissions between 2008 and 2012 by 6 percent, compared to 1990. Recently, however, such emissions have been increasing.