

# Environmental Conservation

At COP3 held in Kyoto in December 1997, targets were set by industrialized countries for the reduction of greenhouse gas emissions. The Japanese government has embraced Japan's goal of a 6% average cut in emissions between 2008 and 2012, compared with 1990 levels. Natural gas—one of the cleanest burning of all fossil fuels—is seen in many quarters as an important energy source for achieving this. As part of its ongoing environmental stewardship and to show leadership in environmental management, Tokyo Gas formulated a new environmental policy in June 2000. Our basic aim is the continuous reduction of the environmental impact of energy use by our customers as well as by our own business activities.

## The Environment-Friendly Strengths of Natural Gas

Natural gas is a clean energy resource. Compared with oil and coal, natural gas, when burned, produces less emissions of carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>), both of which are major factors in global warming, and NO<sub>x</sub> contributes to acid rain. Furthermore, it produces no sulfur oxides (SO<sub>x</sub>). Comparatively, this makes our business activities environmentally conscious, as clean-burning natural gas is our primary energy resource. We intend to continue contributing to sustainable progress in society through efforts to promote greater use of natural gas and our wide-ranging environmental conservation activities.

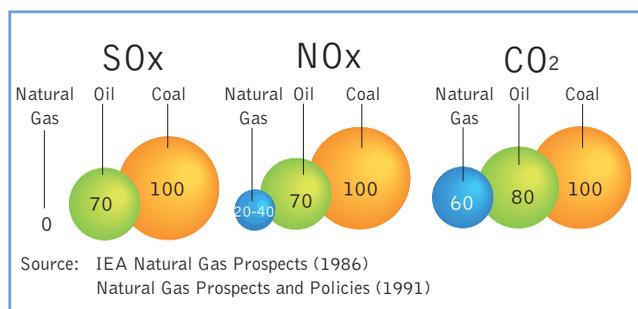
## ISO Certification

Obtaining ISO certification has been positioned as a high management priority. In March 1997, both the Negishi and Sodegaura LNG terminals obtained ISO 14001 certification; these facilities were the first in Japan's gas industry to obtain this international certification, which attests to the high quality of our environmental management systems. The Ohgishima LNG Terminal followed suit in January 2000, meaning all our LNG terminals are ISO 14001 certified. In March 2000, the Shinjuku District Heating and Cooling Center became the first district heat supplier in Japan to attain ISO 14001 certification. The Makuhari District Heating and Cooling Center did likewise in January 2002.

## Recycling Initiatives

Recycling and decreasing waste volumes are other ways we reduce the environmental impact of our activities. We are building a proprietary system called SRIMS (Saving Recycling Innovative Model System) to facilitate the efficient collection, separation, management and disposal of used gas

## Comparison of Emissions by Fuel (When Burned) Coal=100



equipment, pipes and other industrial waste. In a similar vein, we are radically reducing the amount of earth removed from pipeline construction sites.

## Countermeasures Against Soil Contamination of Sites of Former Gas Manufacturing Plants

Since fiscal 1999, Tokyo Gas, has in accordance with guidelines stipulated by Japan's Ministry of the Environment, been continuously carrying out voluntary site inspections and surveys of company-owned land, namely sites of former gas manufacturing plants, where there is a possibility of soil contamination. Completed in June 2002, the surveys found soil contamination at 26 out of 30 sites. Tokyo Gas is prepared to do the necessary remediation measures in respect of these sites.

## Development and Application of Technologies to Reduce Environmental Impact

Tokyo Gas feels that it is our mission to reduce the environmental impact of our customers when they utilize energy. Gas cogeneration systems and

## Overview of Tokyo Gas' Environmental Accounting

### Investments and Expenses for Environmental Preservation by Tokyo Gas

#### Tokyo Gas Operation

- Pollution prevention
- Global environmental preservation
- Resource recycling
- Environmental management
- Other measures

#### Customer Utilization

- Environmental R&D
- Recycling of used gas appliances

#### Contributions to Society



### Environmental Preservation Benefits

- Reduction in substances with environmental impact (emissions in relevant units)
- Reduction of waste
- (Reference) Reduction of substances with an environmental impact at customers' level

### Actual Economic Benefits

- Cost savings
- Profits on sale of items of value derived from ordinary business activities

## Overview of Tokyo Gas' Environmental Accounting

Environmental accounting results for the year ended March 31, 2002 show that the parent company invested approximately ¥1.2 billion and incurred expenses of roughly ¥5.3 billion for environmental preservation. There are two central features of Tokyo Gas' environmental accounting. One is the extremely low environmental impact of gas production, supply and other activities due to the completion of a switch to natural gas. The other is an emphasis on research into methods to reduce the environmental impact of gas utilization by customers, mainly through the development of highly efficient gas appliances and systems such as micro cogeneration systems. More detailed information concerning Tokyo Gas' environmental accounting is contained in our Environmental Report 2002.

gas-fired air conditioning are just a few of the many technologies that are being widely adopted to increase energy efficiency. In the fuel cell field, Tokyo Gas is developing an on-site fuel cell generation system that boasts high generation and energy efficiency and emits almost no atmospheric pollutants. High hopes are held for the use of fuel cells in future residential cogeneration systems. Natural gas vehicles (NGVs) are also playing an integral role in reducing the environmental impact of transportation. The Japanese government has set a target of having 1 million NGVs on Japan's roads by 2010. In addition, with an eye on the future, we are also seeking new, environmentally friendly forms of energy, such as methane hydrate.

## Environmental Communication and Information Disclosure

Since 1994, we have been publishing an environmental report, fulfilling our social responsibility to make public information about our environmental activities. Moreover, in 1996 we started posting environmental information on our website ([http://www.tokyo-gas.co.jp/env/index\\_e.html](http://www.tokyo-gas.co.jp/env/index_e.html)).

