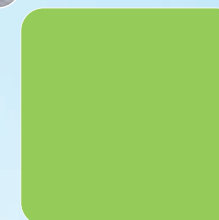


OSAKA GAS GROUP CSR REPORT 2011

OSAKA GAS GROUP CSR REPORT 2011



Osaka Gas Co., Ltd.
4-1-2, Hiranomachi, Chuo-ku,
Osaka 541-0046, Japan
For inquiries, contact the CSR & Environment
Department on +81-6-6205-4833
<http://www.osakagas.co.jp/indexe.html>



Nada Hama Biotope at our Himeji LNG Terminal, where preserving Nuphar japonicum, one of the endangered species rated by the Ministry of the Environment.

■ CSR of the Osaka Gas Group

Conduct advanced CSR activities based on ISO 26000 in order to raise value for all stakeholders — P 9

■ Feature 1

Support for Areas Affected by the Great East Japan Earthquake, Earthquake Measures at Osaka Gas, and Efforts to Achieve Stable Energy Supply — P 11



■ Feature 2

30 Years of the Small Light Campaign — Employee Goodwill Supports the Community — P 15



■ Editorial Policy and Scope of the Report — P 3

■ Outline of the Osaka Gas Group — P 5

■ Message from Management — P 7

■ CSR Management — P 57

CSR promotion system — P 57

Dialog with experts — P 58

Corporate Governance — P 59

Risk Management — P 60

■ Environmental Performance Data — P 61

■ Third Party Review — P 65

■ Third Party Verification — P 66

Inclusion in SRI Indices

As of the end of March 2011, Osaka Gas is included in the following socially responsible investment (SRI) indices.

- Dow Jones Sustainability Asia Pacific Index
- FTSE4Good Index Series
- ECPI Ethical Index Global (E. Capital Partners Indices)
- Ethibel Sustainability Index
- KLD Global Climate 100 Index (KLD Research & Analytics, Inc.)
- Morningstar Socially Responsible Investment Index (MS-SRI)

The Ten principles of the UN Global Compact, and sections of this report related to it

| Principle | UN Global Compact | Related pages |
|-----------|--|---------------|
| 1 | Businesses should support and respect the protection of internationally proclaimed human rights; and | P.49-52 |
| 2 | make sure that they are not complicit in human rights abuses. | |
| 3 | Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; | P.56 |
| 4 | the elimination of all forms of forced and compulsory labor; | P.49-52 |
| 5 | the effective abolition of child labor; and | |
| 6 | the elimination of discrimination in respect of employment and occupation. | |
| 7 | Businesses should support a precautionary approach to environmental challenges; | P.25-44 |
| 8 | undertake initiatives to promote greater environmental responsibility; and | P.25-44 |
| 9 | encourage the development and diffusion of environmentally friendly technologies. | |
| 10 | Businesses should work against corruption in all its forms, including extortion and bribery. | P.49-52 |

The UN Global Compact

The UN Global Compact, an initiative started in 1999, asks signatories to embrace, support and enact, within their sphere of influence, a set of core values in the areas of human rights, labour standards, the environment and anti-corruption.



Osaka Gas Group CSR Charter

Creating value for customers

Harmonizing with the environment and contributing to realizing a sustainable society

Being a good corporate citizen contributing to society

Complying with laws and regulations and respect for human rights

Management policy of human growth

CSR Indicators — Target and Result

Overall satisfaction rate — P 19 (%)

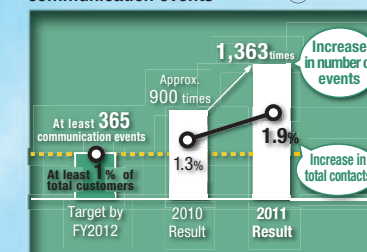


Environmental Management

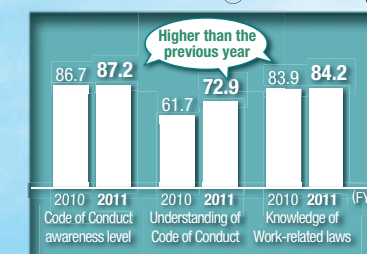
Efficiency — P 25 (yen/1,000 m³)



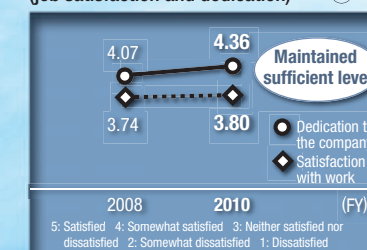
Number of contacts and communication events — P 45



Employee scores on compliance awareness — P 49 (%)



Employee opinion survey (job satisfaction and dedication) — P 53



Efforts

- Providing Customers with Safety and Peace of Mind — P 21
- Incorporating Customer Comments in Products and Services — P 23
- Creating New Value for Customers — P 24

- Osaka Gas Group Environmental Efforts — P 27
- Aiming for a Low-Carbon Society — P 28
- Resource Recycling — P 34
- Biodiversity — P 35
- Developing Environmental Technologies — P 36
- Environmental risk measures, environmental management system, etc. — P 37

- Overview of Osaka Gas Social Contribution Activities — P 46
- Social Contribution, Communication with the Public — P 47
- Activities at Affiliated Foundations — P 48

- Compliance Promotion — P 50
- Action on Human Rights — P 51
- Efforts Throughout the Supply Chain — P 52

- Maintain Employee Numbers and Diversify Our Workforce — P 54
- Balancing Work and Family/Improving Occupational Health and Safety — P 55
- Human Resource Development/Communication Between Employees and Company — P 56

I
Creating value for customers



Osaka Gas takes part in more overseas projects Diversification of LNG suppliers — P 21



51.1% rate of penetration for gas alarms — P 22



Urbanex: Strengthens ties between tenants — P 23



More customers using Rakutoku lease program — P 24

With efforts based on Osaka Gas Group CSR Charter, we raise our corporate value for all stakeholders.

II
Harmonizing with the environment and contributing to realizing a sustainable society



Sales of ENEFARM residential fuel cell cogeneration system reach 3,700 units — P 30



Living experiment begins in Smart Energy House — P 30



Motto Save service adopted in large commercial facilities — P 32



Senboku LNG Terminal achieves a 100% usage rate of cryogenics — P 33



Osaka Gas joins children in Green Wave UN global campaign — P 35



Symposium on the theme of the environment and green innovation — P 37

III
Being a good corporate citizen contributing to society



Subsidy program to celebrate 30th anniversary of the Small Light Campaign — P 17



Environment and energy education reaches cumulative total of more than 110,000 students — P 47



Energetic Kids Baseball Camp held — P 47



Event held to teach disaster prevention measures in a fun way — P 48

IV
Complying with laws and regulations and respect for human rights



Training held for compliance promotion leaders — P 50



Human rights lectures for division heads and managers — P 51

V
Management policy of human growth



Driver safety course held at Safe Driving Training Center — P 55

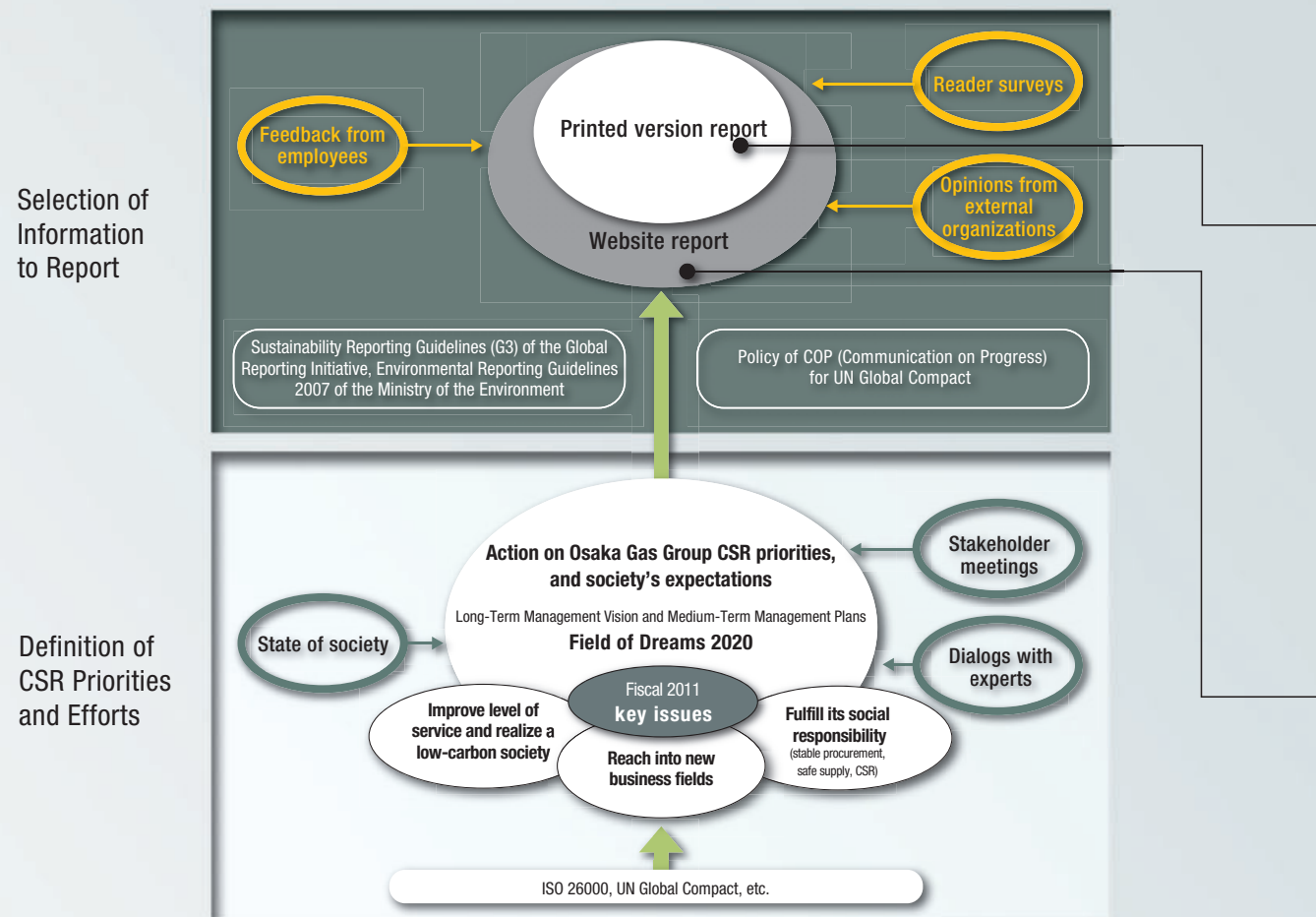


President workplace tours held at total of 13 divisions and affiliates — P 56

Performance in CSR rankings in FY2011

| Medium | Marks for Osaka Gas |
|--|--|
| “Leaders” announced by the UN PRI (Principles for Responsible Investment) (April 2010) | Selected among 44 companies being praised for their high-quality reports for UN Global Compact |
| The 2nd Survey on Corporate Action and Management Systems for Climate Change by Integrex Inc. (September 2010) | 1st (among 111 companies in the material/energy sector) |
| Carbon Disclosure Project (October 2010) | 1st among 10 Japanese utilities for climate change-related information disclosure score |
| Japanese 100 companies ranked by CSR, by Nippon Foundation CANPAN (October 2010) | 17th |
| Toriodos Sustainable Equity/Bond Fund (November 2010) | Selected as a constituent of the Fund (Ranked 3rd among the gas utilities) |
| Nikkei Environmental Management Survey (October 2010) | 1st (Electricity/gas sector) |
| Toyo Keizai Inc’s CSR Ranking (February 2011) | 35th (among 1,132 companies) |
| FTSE4Good ESG Ratings | Selected among 14 Japanese companies in the Regional Leaders |

This report covers the Osaka Gas Group's top priorities and activities in the light of the opinions of stakeholders and guidelines such as ISO 26000



CSR Report Media

Osaka Gas Group's Actions Introduced by a Range of Media

For specialists, corporate customers, suppliers, investors



CSR Report

Report of CSR activities undertaken by the Osaka Gas Group
This year, we featured our safety measures prepared for the earthquake, and our employees' social contribution activities.

For general customers



CSR Report: digest version

An easy-to-read, abridged version of the CSR report for the public (Japanese version only).

For all stakeholders



Website

The website provides a wealth of information that carries information that cannot be included in the printed version.

Other corporate information media



Corporate Profile

An introduction to the businesses of the Osaka Gas Group (Japanese version only)



Annual Report

A summary report of the businesses and financial results of the Osaka Gas Group

Deciding Priorities

Materiality of initiatives and its report is decided based on Dialogs with Experts and Questionnaires

The Osaka Gas Group believes that to carry out CSR it must manage its business incorporating the opinions of society. To this end, we look at the current state of society and listen to the voices gathered from dialogs with experts and stakeholders to find out what people expect of us and thus what we should be focusing on and how this should be reflected in our day-to-day business. We have used as reference the international CSR initiatives, such as the UN Global Compact, which we have been a part of since 2007, ISO 26000, which went into effect in November 2010.

The Osaka Gas Group continuously releases information on these activities to the public. When selecting items and their priority to put in this report, we used as reference feedbacks from readers and the opinions of various external organizations.

Response to Suggestions and Feedback from the 2010 CSR Report

Japan has almost no self-sufficiency in energy. Fossil fuel supplies are getting tighter. I want to know what Osaka Gas is doing to procure a stable supply of natural gas and other forms of energy.

Considering rising interest in the wake of the recent earthquake, we reported on our efforts to help get gas supplies back to the affected areas, as well as efforts on energy security including measures and systems for ensuring stable procurement and safe supply.

Osaka Gas is doing a variety of social contribution activities, though, I would like to see examples of the employees who are actually in the community conducting these activities.

On the occasion of the 30th anniversary of the Small Light Campaign of employee volunteer activities, we gave a detailed report of the highlights of the past 30 years and recent activities.

I want to know Osaka Gas's strategies on reducing CO₂ emissions from both the energy supply business and the consumers' sites.

In a new section (page 27-28) on the Osaka Gas Group's environmental efforts, we report on our strategies to contribute to the realization of a low-carbon society.

Scope of This Report

Organization • This report covers the Osaka Gas Group consisting of Osaka Gas Co., Ltd. and its affiliated companies. Some information, as noted in this report by phrases such as "Osaka Gas" or "the company," refers exclusively to Osaka Gas Co., Ltd. Environmental performance data represents Osaka Gas and 82 affiliated companies. Overseas and tenant locations where it is difficult to collect data are not included.

Reporting Period • While the most recent data covered in this report represents FY2011 (from April 1, 2010 to March 31, 2011), some sections refer to efforts in FY2012.

Publication • July 2011 (Next edition is scheduled for July 2012.)



For an explanation of words marked with this symbol, see the Glossary inserted in this report.



The content of this report can also be viewed on our Web site.
http://www.osakagas.co.jp/csr_e/index.html

Third Party Verification

To ensure reliability, third party had verified the reliability of the data and other content of the report.

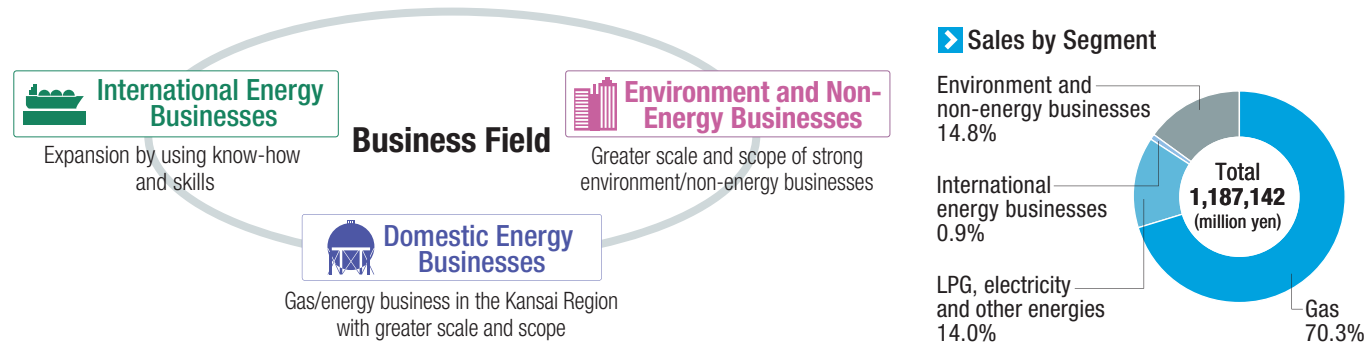
The environmental performance data underwent third party verification by Bureau Veritas Japan Co., Ltd. As well, the Osaka Gas Group contracted with the Institute for Environmental Management Accounting (IEMA) for a third party review which includes assessment and recommendations as well as simple audits.

The third party review and result of verification are placed on page 65 and 66, respectively.

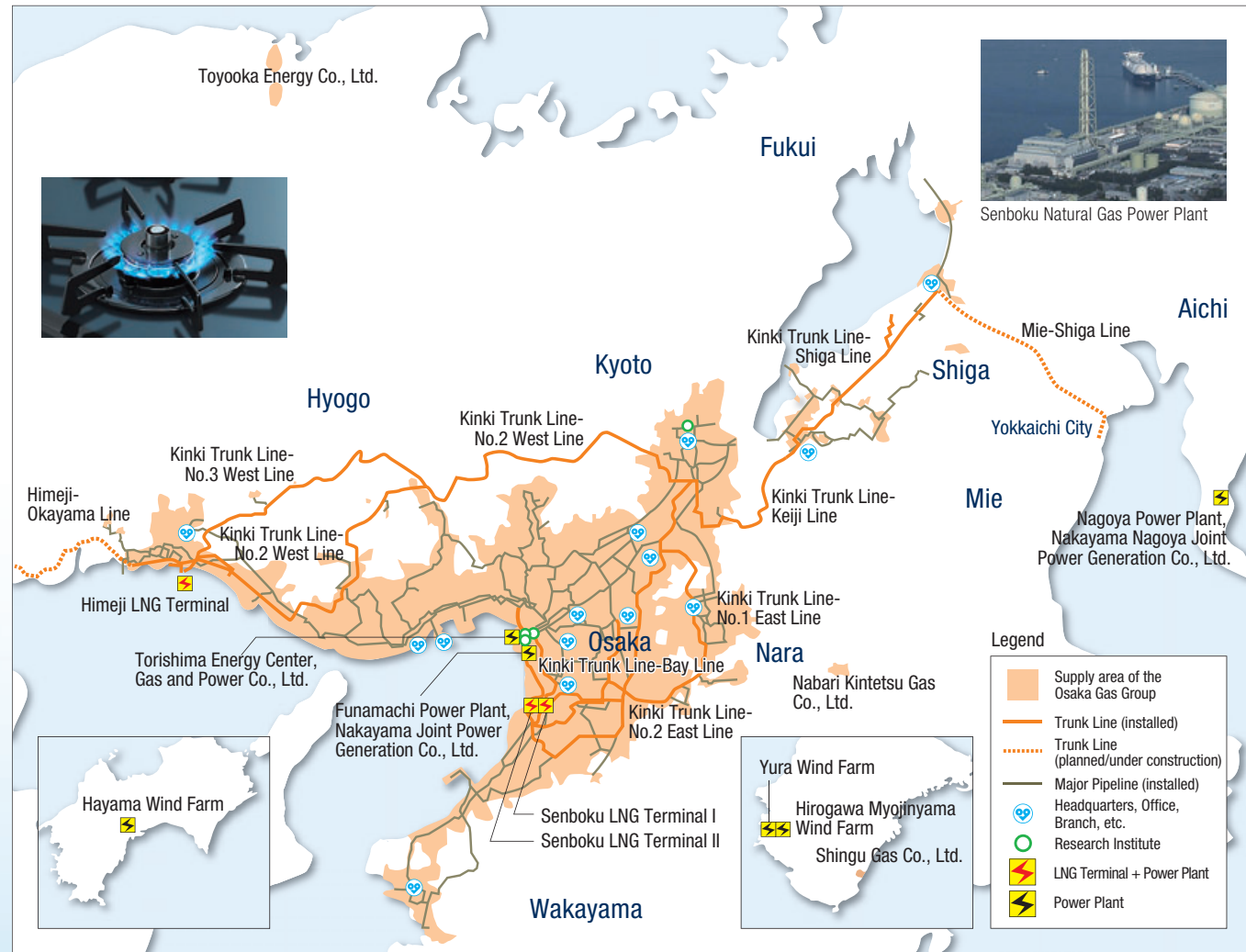
Guidelines Referred to

- ISO 26000
- Sustainability Reporting Guidelines (G3) of the Global Reporting Initiative
- Environmental Reporting Guidelines 2007 of the Ministry of the Environment
- UN Global Compact COP (Communication on Progress) Policy

Outline of the Osaka Gas Group



Osaka Gas Group Business Area



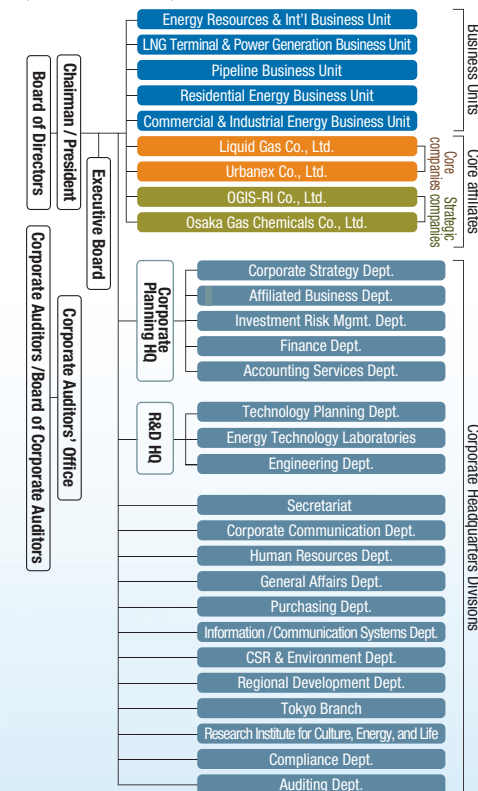
Corporate Profile of Osaka Gas

(As of March 31, 2011)

| | |
|----------------------------|---|
| Head Office | 4-1-2, Hiranomachi, Chuo-ku, Osaka 541-0046, Japan |
| Establishment | April 10, 1897 |
| Commencement of operations | October 19, 1905 |
| Number of employees | (Non-consolidated) 5,800 (including operating officers, directors and temporary employees, and excluding employees temporarily transferred to affiliated companies) (Consolidated) 19,684 |
| Capital | 132,166 million yen |
| Major business fields | (1) Manufacture, delivery and sale of gas (2) Delivery and sale of LPG (3) Generation, delivery and sale of electric power (4) Sale of gas appliances (5) Installation of gas pipes |

Osaka Gas Group Management Structure

(As of June 29, 2011)



Note: Organizations other than core affiliates are Osaka Gas Co., Ltd. organizations.

Business Fields of Affiliated Companies

Industrial gas/LPG/LNG business (Liquid Gas Group)

Involved in the production and sale of various types of high-pressure gas and high-purity methane, the on-site hydrogen business, the transport and sale of liquefied natural gas (LNG), and the sale and maintenance of liquefied petroleum gas (LPG). The group is also steadily expanding into new business fields, such as low-temperature grinding using ultra-cold liquefied nitrogen and the development of industrial gas application technologies.



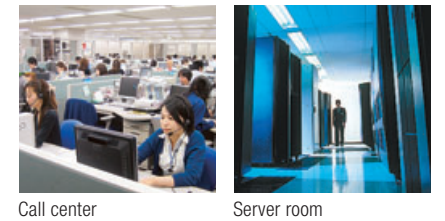
Real estate business (Urbanex Group)

This group meets customer expectations by leveraging and increasing property value through development, operation and management of real estate including office buildings, rental/condominium apartments, commercial facilities with ample amenities, and large-scale urban development projects.



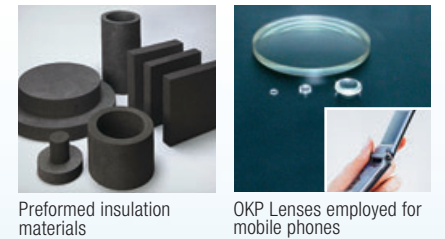
IT business (OGIS Research Institute Group)

Drawing upon expertise gained through supporting the IT strategy of the Osaka Gas Group, which acts as the lifeline for approximately 7 million households, as well as survey and development capabilities for advanced technologies including Object/UML, this group offers proven service capabilities, from consulting and computerization strategy planning to the design, development, operation and management of information systems and seamlessly delivers optimal solutions to customers as a total solutions provider.



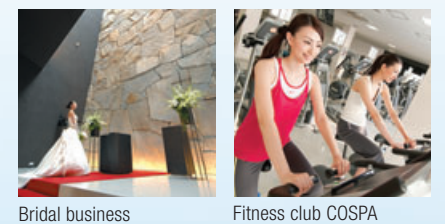
Advanced materials business (Osaka Gas Chemicals Group)

Exploring the infinite possibilities in developing new materials and discovering new applications in the field of carbon and chemical materials, this group supplies a broad range of customers with fine materials used for liquid crystal displays and camera lenses for cell phones and other devices, carbon fiber, activated carbon, and preservatives as well as products that use these materials.

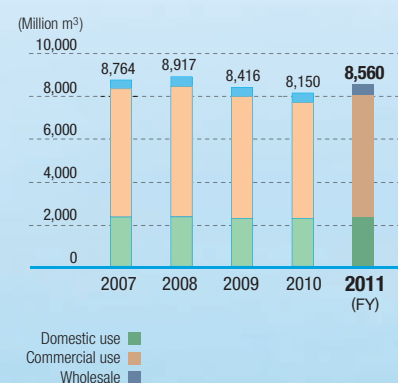


Life service and outsourcing service business

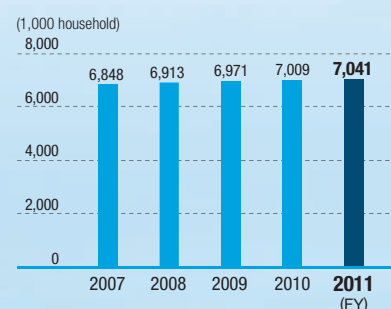
We pursue comfort and security by taking on diverse roles in consumer and industrial settings, including security services, temporary staffing, commissioned research and consulting, market research, leasing and credit, and operation of wedding halls, fitness clubs, private nursing homes and group homes.



Gas Sales by Volume



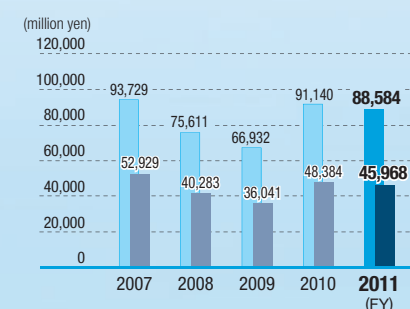
Number of Customers



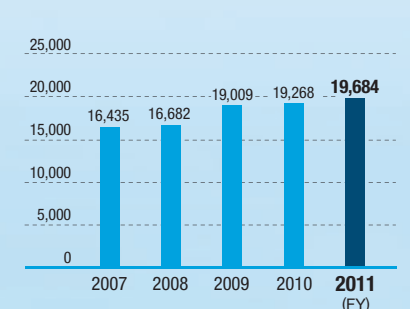
Operating Revenues



Operating Profit and Net Income



Number of Employees



To remain a company of choice, through contributing new value toward comfortable lifestyles and prosperity of businesses of our customers and society

I should like to begin my message by expressing my sympathy to those in the North-eastern region of Japan who have been affected by the devastating earthquake and tsunami last March. May I extend my best wishes to the people and the region for their early recovery.

Results and achievements during the past year on the basis of Field of Dreams 2020

The Osaka Gas Group has been arduously in action in implementing Field of Dreams 2020, our long-term business vision up to the year 2020, to achieve its continued growth so that we will remain the corporate group of choice by all our stakeholders.

In the Field of Dreams 2020 formulated in March 2009, Osaka Gas Group seeks to achieve strong growth in the following three business domains; (1) domestic energy business, (2) international energy business along the natural gas value chain, and (3) environment and non-energy business. We made a steady progress during the past year including:

- Increase in the sale of ENE-FARM (a residential fuel cell co-generation system)
- stable operation of Senboku Natural Gas Power Plant all year round
- equity participation in Sagunto LNG receiving terminal in Spain
- equity participation in Shuweihat S2 independent

- water and power project in UAE
- use of the biogas from the Kobe city sewage plant as our feed stock

All these results helped us to make a positive step forward towards achieving our long-term vision.

Key Actions in 2011

Since last autumn, Japanese economy has been facing a persistent slump due to, among others, the appreciation of yen, although a sign of recovery in some sectors of the economy seemed to appear at the beginning of the year. The economic uncertainty can worsen as the change in the government's policy, our consumers' behavior and the industrial structure resulting from the devastating earthquake in March. Under these circumstances, it is a big challenge of Osaka Gas management to respond flexibly to market changes, while at the same time, maintaining our mission of safe and reliable energy supply. It is the most important task of the Osaka Gas Group, I believe, to maintain our service to be the best choice for our customers and society so that we can realize our sustainable growth.

With our renewed resolution to achieve our goals, I make 2011 "a year for *boost-up*" to accelerate the following four key initiatives;

- to improve customer satisfaction and to contribute to realizing a low-carbon economy
- to enhance investments for business growth and expansion

- to ensure safety and reliability in our energy supply and to attain higher level of CSR
- to activate Smart Work project for more quality and efficiency of our performance.

Through these initiatives, we intend to reach a higher level of corporate social responsibility of the entire group.

Towards higher practice in CSR

The Osaka Gas Group CSR Charter clearly defines the directions of our corporate activities. We are determined to enhance the level of our CSR and to make best effort for realizing a sustainable society. To be specific, we focus our efforts in the following five key areas; i) creating value for customers, ii) harmonizing our business with the environment, iii) enhancing communication with the society, iv) complying with laws, and v) respecting human rights.

We will offer advanced solutions on broad lines of products and services in meeting customers' and societal needs, which help make customers' households more comfortable, customers' business more efficient and, eventually pave the way for a low-carbon economy. Of course, it is the cornerstone of an energy company to maintain and improve steadfastly the reliability and safety in energy supply, on which our every activity is built. In this regard, we are engaged in a full review of actions to keep the integrity of our production and distribution facilities, particularly in the wake of the natural disaster in March, and update our preparedness against natural disasters.

We will continue to disclose our business activities and to listen to the voices of our stakeholders and the needs of the community at large, and further our such engagements to sustain the environment and community as "green corporate offices" to reduce environmental impacts, bio-diversity programs at our LNG terminals, and the "Small Light Campaign," a charity which has been running within Osaka Gas for 30 years for community contributions.

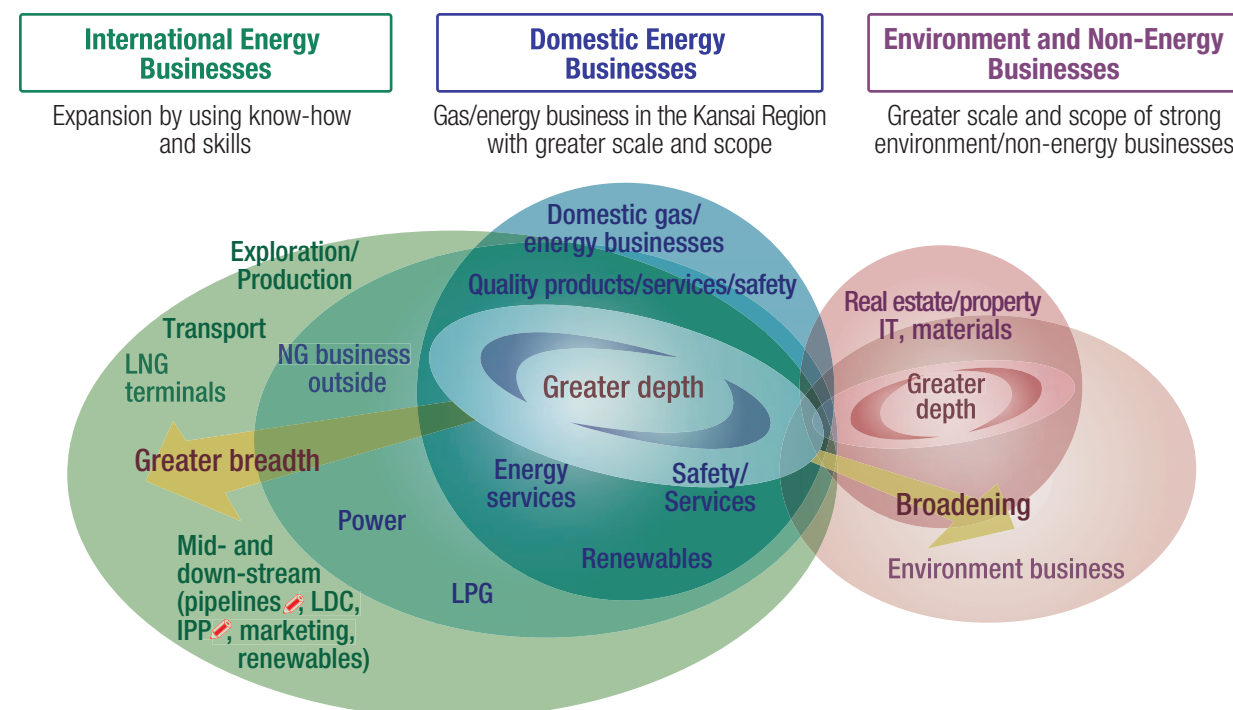
In closing

Osaka Gas was honored to have been chosen as one of the Leaders by the investors' group representing PRI (Principles for Responsible Investment) for its activities report on the UN Global Compact in 2010. We will always be aware of and abide by the 10 principles as stipulated in the Global Compact concerning the four areas of human rights, labor, environment and anti-corruption. While we continue to listen to the voices of our customers, our society and all other stakeholders, Osaka Gas Group will make a sure and incessant progress as the corporate indispensable to households, offices, factories and the society as a whole. "Boost-up!"

July 2011

Hiroshi Ozaki
President

Long-Term Management Vision and Medium-Term Management Plans Field of Dreams 2020

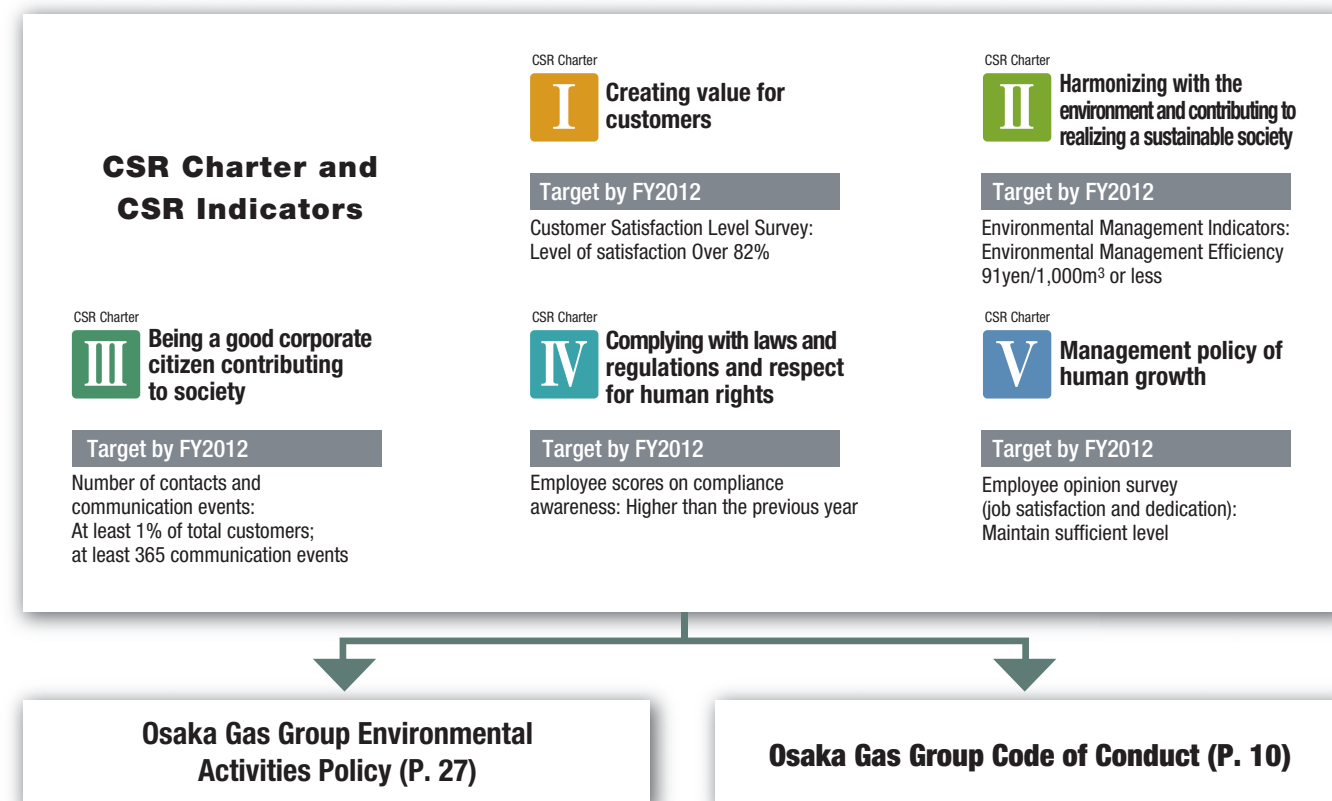
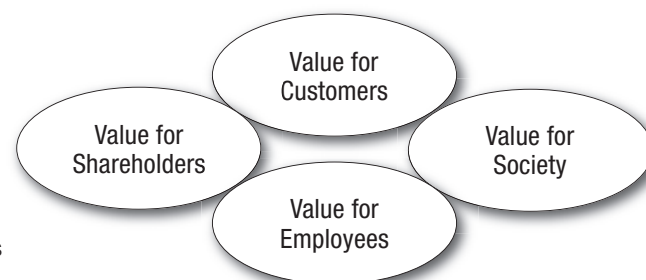


Conduct advanced CSR activities based on ISO 26000 in order to raise value for all stakeholders

Group Management Principles

Value Creation Management

Giving top priority to maximizing the value for customers, the Osaka Gas Group pursues its management principle, Value Creation Management, to enhance value for all stakeholders, including customers, shareholders, society, and employees through fair and transparent business activities.



CSR Management of Osaka Gas Group

In 2006, the Osaka Gas Group formulated the five principles of the Osaka Gas Group CSR Charter to ensure sustainable development through fulfilling our CSR. As well, in June 2007, we became the first utility in Japan to join the UN Global Compact. In 2008, we revised the Osaka Gas Group Code of Conduct (formulated in 2000 to guide the conduct of all employees and management) to be in line with the 10 principles in four areas of the UN Global Compact.


In 2009, bearing in mind the Field of Dreams 2020, CSR indicators were set for each of the five principles of the CSR Charter to guide us in achieving our goals. The opinions of external stakeholders were taken into account in identifying these indicators.

Revision of the Osaka Gas Group Code of Conduct

In November 2010, the ISO published ISO 26000, an international standard providing guidance for social responsibility. It offers guidance to social entities in identifying social responsibility and in putting it into practical application. Ahead of the release of ISO 26000, the Japan Economic Federation revised its Corporate Code of Conduct. Against the background of developments like these, in July 2011, we revised the Osaka Gas Group Code of Conduct to reflect several key points: respect for international norms including the laws of each country and region and human rights amidst global business activities; and promotion of action based on social responsibility in the supply chain.

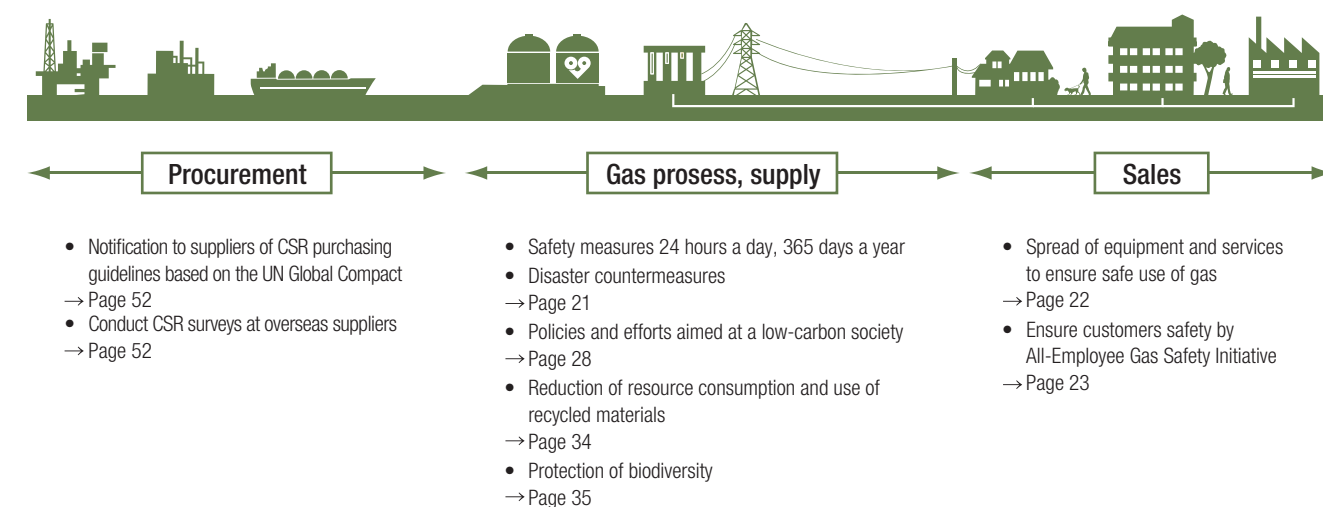
The following page shows how the 18 items of the Osaka Gas Group Code of Conduct cover the UN Global Compact and ISO 26000.

Osaka Gas Group Code of Conduct (revised in July 2011) and its coverage for the UN Global Compact and ISO 26000

| UN Global Compact | | ISO 26000: Core subjects | Osaka Gas Group Code of Conduct |
|--|--|---|---|
| | | Organizational governing (See Corporate Governance on page 59) | |
| Human Rights | Principle 1 Businesses should support and respect the protection of internationally proclaimed human rights; and | Human rights Osaka Gas Group Code of Conduct 1 3 4 5 13 | 1 Respect for human rights |
| | Principle 2 make sure that they are not complicit in human rights abuses. | | |
| Labor | Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; | Labor practices Osaka Gas Group Code of Conduct 2 3 4 5 13 | 2 Creating pleasant work environment |
| | Principle 4 the elimination of all forms of forced and compulsory labor; Principle 5 the effective abolition of child labor; and Principle 6 the elimination of discrimination in respect of employment and occupation. | | |
| Environment | Principle 7 Businesses should support a precautionary approach to environmental challenges; | The environment Osaka Gas Group Code of Conduct 3 4 5 6 13 | 3 Compliance with laws and regulations ★ |
| | Principle 8 undertake initiatives to promote greater environmental responsibility; and Principle 9 encourage the development and diffusion of environmentally friendly technologies. | | 4 Personal and professional lives ★ |
| Anti-Corruption | Principle 10 Businesses should work against corruption in all its forms, including extortion and bribery. | Fair operating practices Osaka Gas Group Code of Conduct 3 4 5 7 12 ~ 18 | 5 Respect for international rules and regulations as well as international norms including human rights ★ |
| | | | 6 Considerations to the environment |
|  <small>Note: In June 2007, Osaka Gas became the first utility in Japan to join the UN Global Compact.</small> | | Consumer issues Osaka Gas Group Code of Conduct 3 4 5 8 9 10 13 | 7 Compliance with anti-monopoly laws and practice fair transaction |
| | | Community involvement and development Osaka Gas Group Code of Conduct 3 4 5 11 13 | 8 Provision of products and services ★ |
| | | | 9 Ensuring safety of products and services |
| | | | 10 Interacting with customers |
| | | | 11 Contributing to society ★ |
| | | | 12 Associating with business partners |
| | | | 13 Developing our partners' understanding on our code of conduct ★ |
| | | | 14 Use of information and information systems |
| | | | 15 Disclosure of information ★ |
| | | | 16 Management of intellectual property |
| | | | 17 Prohibiting association with anti-social forces |
| | | | 18 Appropriate payment of taxes and accounting practices ★ |

★ Revised item

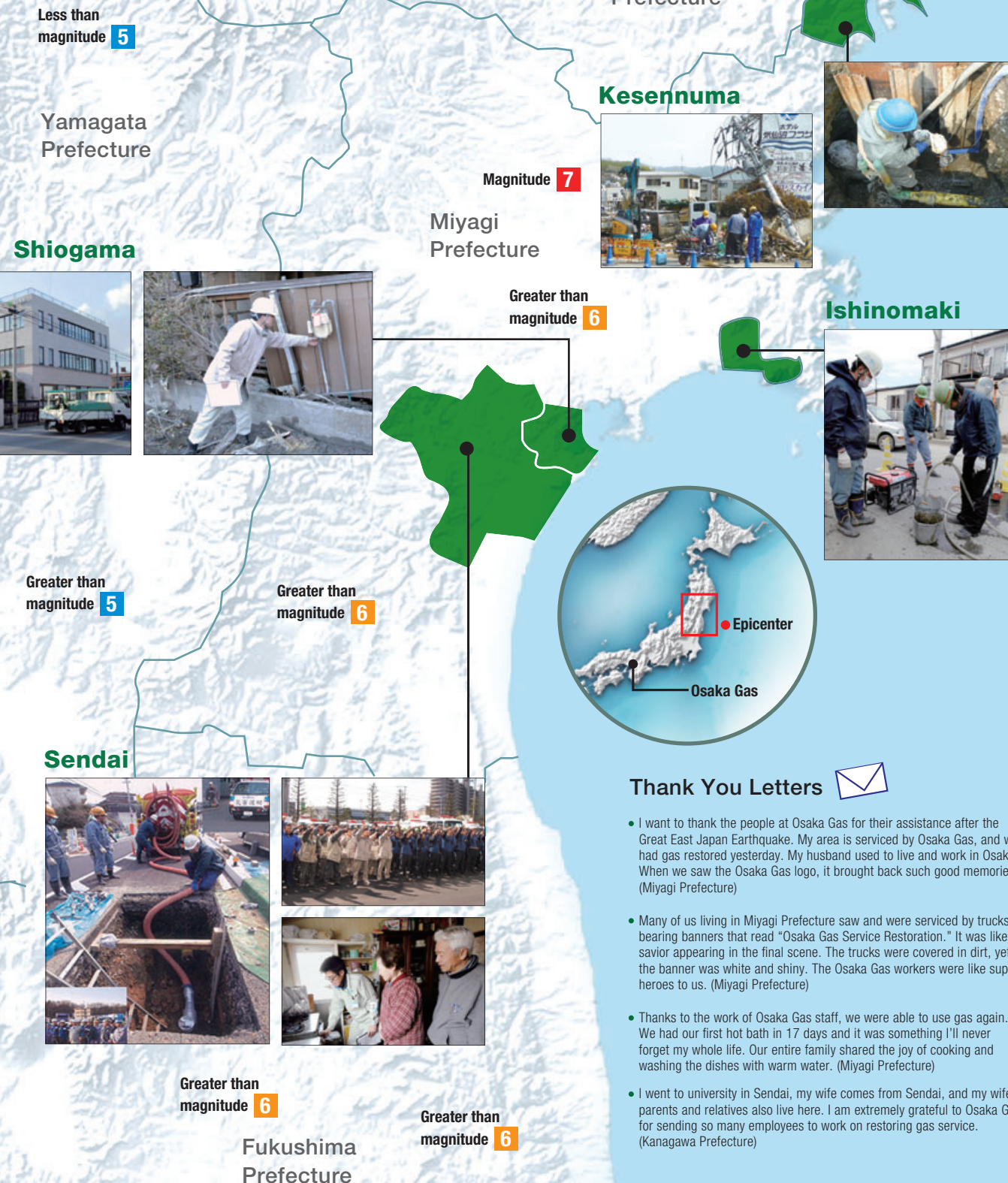
Examples of Osaka Gas Group CSR Activities throughout the Value Chain



Support for Areas Affected by the Great East Japan Earthquake, Earthquake Measures at Osaka Gas, and Efforts to Achieve Stable Energy Supply

A major earthquake and tsunami struck Japan on March 11, 2011. Here we report on our efforts to restore gas service to the affected areas, as well as our regular disaster prevention measures, and efforts to ensure a stable supply of energy.

Areas Where the Osaka Gas Group Helped Restoration



Thank You Letters

- I want to thank the people at Osaka Gas for their assistance after the Great East Japan Earthquake. My area is serviced by Osaka Gas, and we had gas restored yesterday. My husband used to live and work in Osaka. When we saw the Osaka Gas logo, it brought back such good memories. (Miyagi Prefecture)
- Many of us living in Miyagi Prefecture saw and were serviced by trucks bearing banners that read "Osaka Gas Service Restoration." It was like a savior appearing in the final scene. The trucks were covered in dirt, yet the banner was white and shiny. The Osaka Gas workers were like super heroes to us. (Miyagi Prefecture)
- Thanks to the work of Osaka Gas staff, we were able to use gas again. We had our first hot bath in 17 days and it was something I'll never forget my whole life. Our entire family shared the joy of cooking and washing the dishes with warm water. (Miyagi Prefecture)
- I went to university in Sendai, my wife comes from Sendai, and my wife's parents and relatives also live here. I am extremely grateful to Osaka Gas for sending so many employees to work on restoring gas service. (Kanagawa Prefecture)

Helping Restore Gas to Disaster-Stricken Areas

Working with Gas Companies around the country

On March 11, 2011, a magnitude 9 earthquake occurred off the coast of Sanriku, Miyagi Prefecture. With the earthquake and subsequent tsunami the entire coast from Tohoku to Kanto incurred major damage.

There were a total of 470,000 homes that gas service went off in the Tohoku and Kanto areas.

Immediately after the earthquake we conducted facility inspections and checked on the safety of our employees. We also set up emergency task forces at the Osaka Gas Headquarters, business locations, and LNG terminals. On request from the Japan Gas Association (JGA)*1, we sent six employees to Sendai City to see what type of work was needed to restore gas service. On the morning of March 13, we established the Headquarters Relief Task Force, which was headed by our company president. Following a request from the JGA, we sent our first group of five employees to restore gas service, and they worked with the initial six employees to determine what was needed and work out a restoration plan.

The Osaka Gas Group worked with other companies, which were also requested to help by the JGA, and worked to restore gas at approximately 330,000 homes in Miyagi Prefecture. On March 23, the day gas restoration was to be undertaken at homes in the Sendai area, we sent a gas pipe repair crew of 534 people including employees of contractors. Following this, we started full-scale dispatch of restoration staff to repair gas pipes and turn on the gas. A total of 1,307 from Osaka Gas and its contractors came in Sendai, Shiohama, Ishinomaki and Kesennuma, and helped gas utilities of those areas restore their service in cooperation with people from gas companies all over Japan.

The Osaka Gas Group also provided disaster victims with a total of 634 gas burners and 3,506 gas canisters for the burners through the Sendai Municipal Gas Bureau. We also installed five shower units for people staying in the evacuation center.

As of May 3, 53 days after the earthquake and tsunami struck, 330,000 households were able to use gas*2.



Shower unit installed in the evacuation center

*1 JGA: Industry association made up of gas businesses across Japan. As a general incorporated body, it works to contribute to advancement of the gas business, as well as the promotion of industry and culture.

*2 Cleaning up of the rubble went on in Ishinomaki City, and the restoration work of the JGA task force continued until May 17. On May 18, the task force was disbanded.

Using Experience Gained During the Great Hanshin Earthquake

After the Great Hanshin Earthquake in January 1995, Osaka Gas worked to prevent secondary damage from fires by turning off gas supplies to approximately 860,000 households (maximum) in its service area. At that time, through the JGA approximately 9,700 employees (maximum) of gas companies around the country were dispatched for support and completed restoration work in 85 days.

We believe that this experience allowed us to quickly restore gas service following the Great East Japan Earthquake.



Gas service restoration work during the 1995 Great Hanshin Earthquake

Supporting the Stricken Areas With Osaka Gas Group Relief Money and Other Means

Osaka Gas donated relief money of 100 million yen to the Japan Red Cross to rebuild the disaster-stricken areas and aid victims of the disaster. As well, Osaka Gas Group employees donated approximately 33 million yen (as of April 2011) to the Japan Red Cross and the Central Community Chest of Japan.

Major Support Activities by Companies of the Osaka Gas Group

| Company name | Type of support |
|----------------------------------|--|
| Liquid Gas Co., Ltd. | On request from the Japan Community Gas Association (JCGA) and Tokyo Gas Energy Co., Ltd., it donated surgical masks, toilet paper, bottled water, and other supplies. |
| OGIS Research Institute Group | Helped in set-up of on-site information system, managed monetary donations, provided blueprints for a workflow system to be used in times of earthquake relief. |
| Osaka Gas Chemicals Group | Provided partner companies in the stricken areas with products like paint for protecting wood. |
| Osaka Gas Auto Service Co., Ltd. | Provision and maintenance of work vehicles to help with on-site recovery. |
| Osaka Gas Engineering Co., Ltd. | Helped in getting manufacturing equipment back on line in the stricken areas. |
| L-net Co., Ltd. | Collected donations via on-line courier services and newsletter services. |

Feature 1 Support for Areas Affected by the Great East Japan Earthquake, Earthquake Measures at Osaka Gas, and Efforts to Achieve Stable Energy Supply

Osaka Gas Earthquake Measures

Osaka Gas has three basic kinds of disaster measures: prevention measures, emergency measures, and restoration measures.

By examining the current measures for the case of earthquake and tsunami disasters, we will strive to create lifelines that can continue functioning during times of disaster.

Prevention Measures Always be Prepared for Earthquakes

Facilities having high level of earthquake resistance are installed to minimize damage to gas production and supply facilities.

LNG Tanks designed to be Earthquake-Proof

We prepare LNG tanks for earthquakes with multiple safety measures. Hundreds of steel stakes are driven into solid earth. On top of these is a foundation on which the tank sits. As well, the tanks have a double-shell construction, and around the perimeter is a levee to prevent liquid flow.



Use of Earthquake-Resistant Polyethylene Pipes

When installing new low-pressure pipelines, we use highly flexible polyethylene pipes. Polyethylene pipes boast high resistance to earthquakes and corrosion, and showed minimal damage during the Great Hanshin Earthquake.



Automatic Shut-Off of Gas

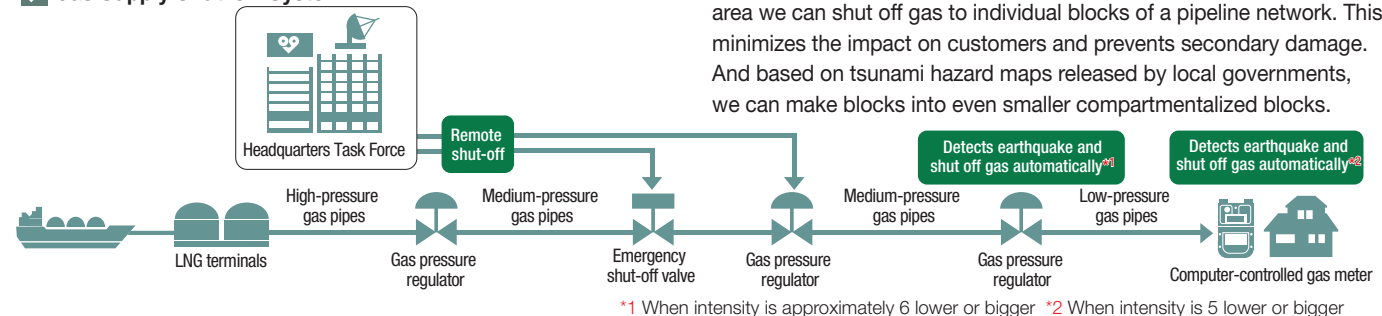
Computer-controlled gas meters monitor the gas flow around the clock. If an earthquake or large gas leak is detected, gas flow is automatically shut off. These automated gas meters are installed at all households in the Osaka Gas service area have.



Emergency Measures Preventing Secondary Damage During an Earthquake

If a gas leak occurs following an earthquake, to prevent secondary damage, there is a system for automatically stopping gas flow and for sending emergency response teams to the site.

Gas Supply Shut-Off System



Gas Supply Shut-Off System

After an earthquake, in order to quickly assess damage to gas supply facilities, there are earthquake detectors and remote monitoring devices on main facilities. We are also expanding installation of earthquake detection and gas shut-off devices and remote shut-off devices so that when there may be damage to gas pipes over a wide area we can shut off gas to individual blocks of a pipeline network. This minimizes the impact on customers and prevents secondary damage. And based on tsunami hazard maps released by local governments, we can make blocks into even smaller compartmentalized blocks.

Restoration Measures Restoring Gas Supply as Soon as Possible

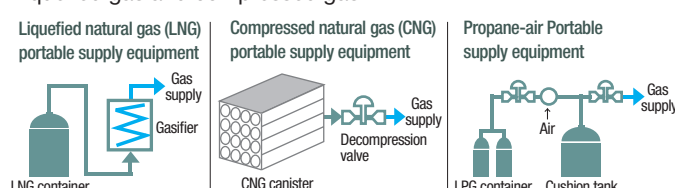
To get gas service restored as soon as possible after a shut-off, we strive to develop and introduce a variety of technologies and enhance response capabilities.

Boosting Earthquake Measures, Including Restoration

Every September, at Osaka Gas is Earthquake Measures Month, when we carry out measures that include conducting drills and revising our procedure manuals. Especially important are our earthquake drills, which better prepare the entire company for a disaster.

Back-Up Supply Equipment

When gas supply is shut off, as a means of getting back-up gas to public facilities, Osaka Gas will use alternate energy sources produced by the portable supply equipment with fuels including liquefied gas and compressed gas.



Osaka Gas Group Efforts Towards Stable Energy Supply

The Great East Japan Earthquake raised people's desire to ensure a stable and safe supply of energy. The Osaka Gas Group is working earnestly to respond to customer concerns.

Stable Procurement of Natural Gas

Natural gas, the raw material for the gas Osaka Gas supplies, enables a highly stable supply of energy since with its plentiful reserves it is in far greater abundance than fossil fuels.

Currently, Osaka Gas purchases LNG from six countries and is diversifying its range of suppliers in order to ensure stable procurement. (See page 21.)

Stable Supply of Gas

To ensure a stable supply of gas, a computerized system projects and controls the production and supply volume for LNG terminals.

The LNG terminals receive these orders and the central control room runs and monitors the production process. Besides producing according to orders, the terminals also detect irregularities and accidents early on to prevent the problem from spreading.

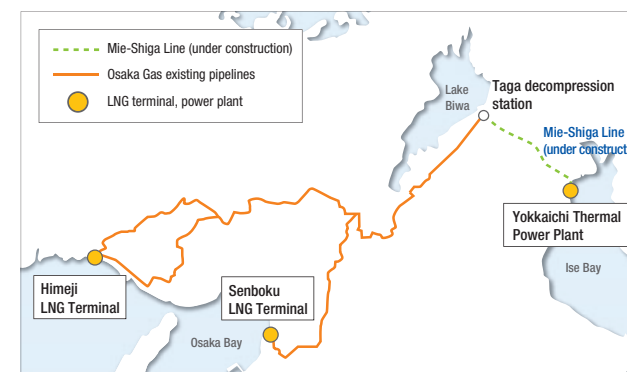
The gas sent from the terminals travels through an extensive network of pipes in the Kansai district. To check that gas is being produced and supplied according to plan, remote monitoring devices conduct comprehensive and concentrated control in real time including checking the pressure at main supply bases and the amounts of gas in gas holders.

This production and supply process ensures a stable supply of gas.

Joining Pipelines with Other Energy Companies

Osaka Gas and Chubu Electric Power Co., Inc. are in the process of constructing pipelines that join Osaka Gas's Kinki Trunk Line-Shiga Line and Chubu Electric's Yokkaichi Thermal Power Plant (scheduled for completion in 2014).

By joining pipelines with other energy companies, we can ensure greater gas supply stability and supply capacity.

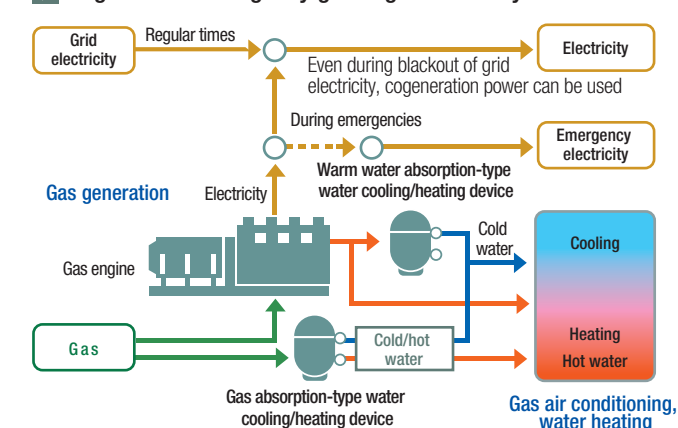


Spread and Expansion of Gas Cogeneration and Gas Air Conditioning

Osaka Gas strives to spread and expand the use of gas cogeneration systems, which realize energy efficiency by using the heat given off during power generation to heat water. Besides contributing to reducing peak load of electricity demand, cogeneration systems help assure energy security for customers when they can operate during power blackouts.

We are also working to spread the use of commercial gas air conditioning systems, which consume minimal energy and are effective in contributing to reducing peak load of electricity demand during the summer.

Regular and emergency gas cogeneration system



Efforts in the Electricity Business

For the Osaka Gas Group, the electricity business is the second pillar of our energy business after gas. In fiscal 2010, we started operations at the Senboku Natural Gas Power Plant, our main power plant (1.109 million kW). We are also in the business of renewable wind energy and have three wind farms.

In Japan, the Osaka Gas Group has a capacity of about 1.8 million kW, and the operation of these power plants enhance the stable supply of electricity.



Senboku Natural Gas Power Plant

30 Years of the Small Light Campaign—Employee Goodwill Supports the Community



The Osaka Gas Group's Small Light Campaign began in 1981 and this year celebrates its 30th anniversary.

It is our wish that each act by an individual Osaka Gas employee, no matter how small, adds up to solving a range of problems in local communities.

30 Years of the Small Light Campaign

April 1981

Small Light Campaign initiated

August 1981

Osaka Gas invited residents of children's homes to the international exposition in Kobe



October 1981 -

Used book bazaar held

December 1982 -

Began donation of Braille calendars and books to school for the blind

August 1986 -

Start of Midosuji Fureai Bazaar

March 1987 -

Start of Tomoshibi Children's Theater



July 1992 -

Start of volunteer experience seminars

January-February 1995

Volunteer activities following the Great Hanshin Earthquake



Preparing hot meals
Cumulative total of 520 volunteers take part in making 34,000 bowls of pork soup and 42,000 cups of ginger water

Collection of Relief Money
Total of 27.2 million yen, including approximately 8.8 million from the alumni association, was donated as relief money

Support of crew installing temporary shower/bath facilities
12 alumni, six employees (cumulative total of 450)

September 1996

Osaka Gas honored with Health and Welfare Minister Award for volunteer activities

January 1997 -

Osaka Gas took part in heavy oil cleanup following oil tanker spill off Fukui Prefecture



January 1998 -

Start of healing music concert series

October 2005
To mark 25 years of the Small Light Campaign, Osaka Gas had program for financial support of citizens' groups that help children



August 2007 -

Start of Tomoshibi cooking for children

September 2010

To mark 30 years of the Small Light Campaign, Osaka Gas had program for financial support of citizens' groups that help children

Each Small Act Adds Up to Big Things

Launched in 1981, the International Year of Disabled Persons, the Small Light Campaign is a community service activity carried out with donations from the companies in the Osaka Gas Group and employees. In the campaign's 30 years, our activities have included the support of groups such as residents of children's homes, the elderly and disabled, and victims of natural disasters. Also under the campaign, Osaka Gas strives to be a good corporate citizen by working with local citizens to protect the environment and foster Kansai region culture so that people everywhere can enjoy a life that is comfortable and fulfilling.

The basic philosophy behind the Small Light Campaign is that each of us takes an interest in things close to us and have the will to earnestly solve the various problems that we see in our community. What makes this campaign special is that this philosophy guides employees in continuously planning and taking part in volunteer activities.

Examples of the campaign include an in-house volunteer group for sign language and Braille, and a group of alumni and local citizens who make sweets to take to children's homes. It is our wish that each act by an individual Osaka Gas employee, no matter how small, adds up to solving a range of problems in local communities.

The symbol for the Small Light Campaign is a suzuran

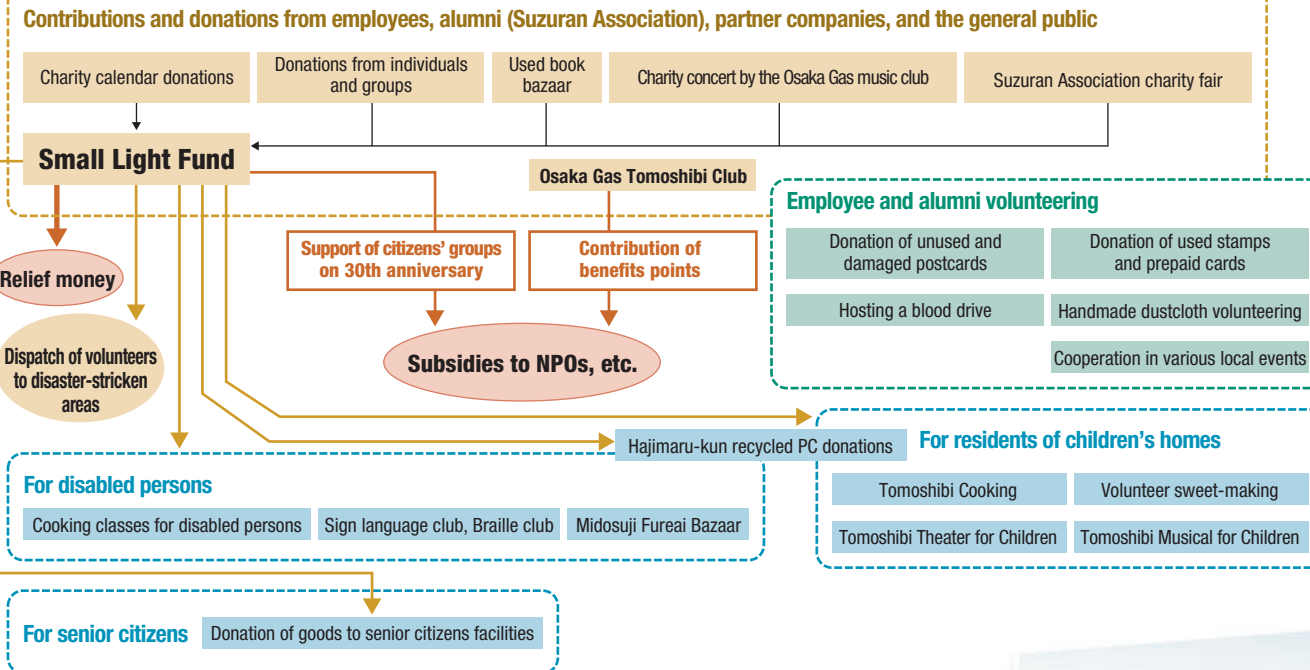
(lily of the valley) flower, which resembles a lantern cover of an old-fashioned gas lantern. Such a glass cover was used to ensure the gas lamp's flame would not extinguish. The suzuran represents much goodwill and love.

We will continue to do our best to light the fire so that the flame of the Small Light Campaign continues burning bright.

Main Relief Money and Donations from the Small Light Campaign

| Year | Donated to | Amount |
|------|--|------------------|
| 1995 | Great Hanshin Earthquake | 27.2 million yen |
| 1996 | Construction of children's hospital in Nepal | 3.8 million yen |
| 1999 | Earthquakes in Turkey and Taiwan | 400,000 yen |
| 2000 | Earthquake in Tottori Prefecture, volcano eruption and earthquake on Miyake Island | 500,000 yen |
| 2002 | Restoration of Hozenji Yokocho alley after the fire | 15.6 million yen |
| | Flooding in Niigata Prefecture and Fukui Prefecture | 500,000 yen |
| 2004 | Earthquake and typhoon in Niigata Prefecture | 8.5 million yen |
| | Indian Ocean Earthquake | 4.98 million yen |
| 2005 | Earthquake in Fukuoka Prefecture | 300,000 yen |
| | Earthquake in Pakistan | 1 million yen |
| 2006 | Earthquake in Java, Indonesia | 300,000 yen |
| 2007 | Earthquakes in Ishikawa Prefecture and Niigata Prefecture | 500,000 yen |
| 2008 | Cyclone in Myanmar, earthquake in China | 600,000 yen |
| 2009 | Earthquake in Haiti | 300,000 yen |
| 2011 | Great East Japan Earthquake | 33 million yen |

How the Small Light Campaign Works



Preparing meals at sites stricken by the Great Hanshin Earthquake



Restoration support after the Great East Japan Earthquake

Major Activities in Fiscal 2011

As a Good Corporate Citizen

A New Program for Supporting Children Initiated, in addition to a Fund by Employees' Benefit

In 1981, when the Small Light Campaign was launched, the Small Light Fund was established to take donations from employees and use these for a variety of support activities including helping disaster victims and helping solve social problems.

To celebrate 30 years of the Small Light Campaign, in 2010 Osaka Gas carried out a program under which it used money from the Small Light Fund to provide subsidies to citizens' groups that help children. Osaka Gas provides subsidies to groups that help children with serious diseases or with physical or mental disabilities, and this program is run with cooperation from the Osaka Voluntary Action Center. Groups applied to Osaka Gas for funding under this program and after a strict screening process 14 groups were chosen to receive funding. For a period of three years starting in fiscal 2011, each group receives up to 500,000 yen for the three years.

Besides the Small Light Campaign, in 2009, Osaka Gas established the Osaka Gas Tomoshihi Club under its in-house employee benefits system to give employees the opportunity to make contributions. The points that employees receive each year under the company benefits system can be donated to the charity organization of the employees' choice. In fiscal 2011, a total of 2.846 million yen in donations was collected and given to charity groups.



Continuing to Carry Out a Range of Volunteer Activities

Again in 2010, Osaka Gas carried out a variety of volunteer activities with the goal of meeting the expectations of local communities. The range of activities included picking up litter in communities and offering a variety of support to children, disabled persons, and senior citizens.

The activities of employee volunteers to help clear the rubble are continuously carried on in the affected areas of the Great East Japan Earthquake.



Used book bazaar

The Tomoshihi Musical for Children



With Children

Entertaining the Young with Musicals and Performing Arts

Since 1987, Osaka Gas has been inviting residents of children's homes to the Musical and Theater events for children annually.

The Tomoshihi Musical for Children is a Christmas event held every December where children can enjoy shows such as full-scale musicals on the theme of love, dreams, and courage, and keyboard harmonica performances. In fiscal 2011, we invited a total of 157 children and staff members of 13 children's homes in the prefectures of Osaka, Hyogo, and Nara. Employees and Osaka Gas alumni helped guide the participants at the events. Following the shows, there was time for singing Christmas carols and taking photos.

The Tomoshihi Theater for Children is held in the summer. This is a show entertains children with a full-scale performing art on stage. The performances by the Hyogo Prefectural Piccolo Theater troupe are a big hit with the children.

With Senior Citizens

Donating Necessities Purchased with Proceeds from Self-Made Handicrafts Sale

To help senior citizens enjoy an active life, Osaka Gas has charity donations and works with a variety of NPOs to hold regular events.

For example, the Osaka Gas Suzuran Association, made up of Osaka Gas alumni, has since 1990 been holding fairs at which it sells paintings and calligraphy made by its members, with the proceeds used by the Small Light Campaign to buy necessities for senior citizens facilities. In fiscal 2010, the 20th Suzuran Association Fair was held in October. The event generated 490,000 yen, which was part of the total of 1.089 million yen from the Small Light Fund that was donated to 15 groups including the Council of Social Welfare and a number of senior citizens' facilities.

With Disabled Persons

Cooking Classes Help Participants Enjoy the Kitchen

The Osaka Gas Cooking School holds gas cooking lessons for groups supporting visually impaired persons so that they can enjoy the kitchen and have a more fulfilling diet. The menu for the classes is decided together with the Osaka Municipal Welfare Association for Visually Impaired, which also prints out the recipes in Braille. Participants touch and confirm the ingredients with their hands.

Cooking lessons were held twice in fiscal 2011, with a total of 80 participants including assistance staff. Using the latest glass-top cookers and ovens, participants prepared and tasted fresh vegetables and other seasonal foods. Participants praised the event for giving them an opportunity to learn how to cook and enjoy the fun and good taste of food with other people.



Cooking lesson



Charity donation from the Suzuran Association

Osaka Gas Volunteer Club

Tomoshihi Braille Club

In 1982, the year after the start of the Small Light Campaign, Braille lessons were held for employees, and from these lessons arose a volunteer group called the Tomoshihi Braille Club.

Major regular activities include making Braille calendars, and translating assigned reading books and popular books into Braille so these can be donated to the Osaka Prefectural Special Needs Education School for the Visually Impaired and other schools.



Printed material in Braille

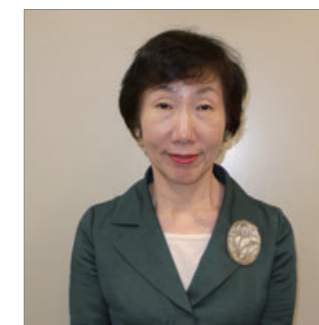
A Word from a Stakeholder

Keep Fostering Active Citizens

It impresses me that the Osaka Gas division in charge of the Small Light Campaign is called the "Active Citizen Division." The essence of social contribution is to have all employees be "active citizens," and I feel that in today's corporate society, to use such a direct expression shows the company's determination and pride. This has given me even greater respect for the 30 years of grassroots activities of Osaka Gas.

Following the Great East Japan Earthquake, I was truly moved by the spirit of self-reliance and mutual assistance shown by the disaster victims, and many people found hope in the sight of all the work done by companies in Japan and other countries and by citizens in helping restore the stricken areas. At the same time, I could see that building a relationship of trust is something that proves valuable once an emergency like this occurs. Osaka Gas is in charge of managing lifelines and it constantly works to build ties with the community. I hope it continues to pursue even closer ties of communication with communities. By showing the world that it conducts work built on dreams and aspirations, and that it helps communities, Osaka Gas can give courage and hope to the children who will lead the future.

I urge Osaka Gas to continue conducting activities from the heart and fostering active citizens both in the company and in the community.

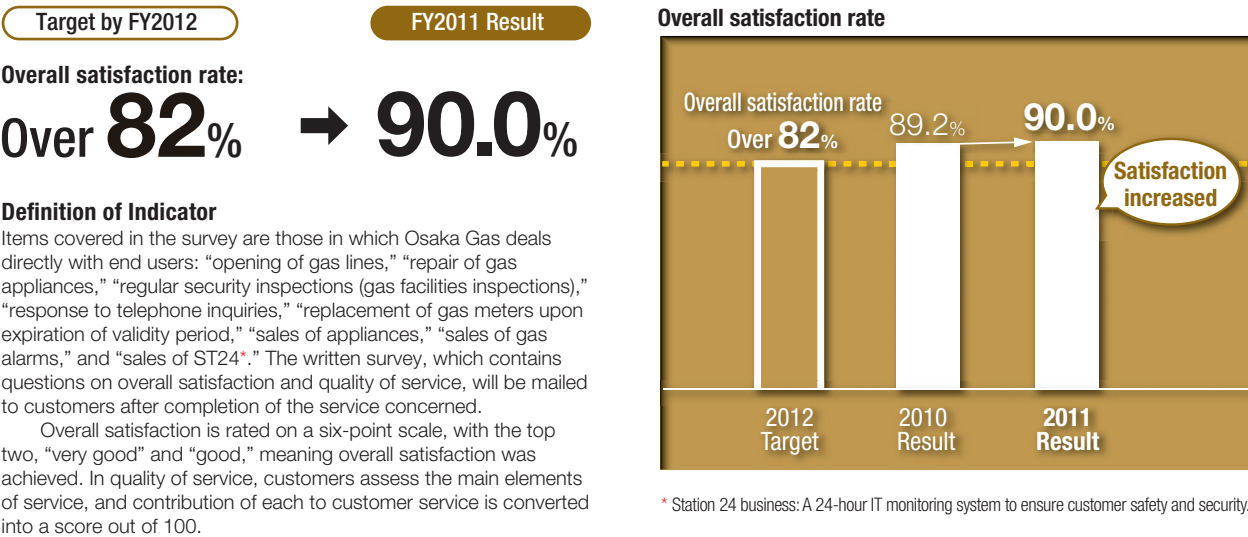


Japan Philanthropic Association
Yoko Takahashi, Director

Creating value for customers

The Osaka Gas Group is committed to making its positive contribution to realizing higher level of comfort and development of business activities of its customers. The group intends to achieve this objective through its provision of reliable and safe supply of natural gas and other energy services with improved level of services for its customers. We also seek to grow together with customers and society at large by creating new products and services to enhance our value for customers and pursuing opportunities for further growth of our businesses.

Target and Result **CSR Indicator- Customer Satisfaction Level Survey: Level of satisfaction**



Overview of FY2011 Result

In fiscal 2011, factors like the strong yen slowed down the speed of recovery and resulted in continuing uncertainty about the economy. In addition, the Great East Japan Earthquake is causing major changes. While striving to cope with this situation, we are proceeding with business based on our Field of Dreams 2020 in order to raise value for customers.

In the three business fields in which Osaka Gas aims to achieve major growth under Field of Dreams 2020, in fiscal 2011, we were able to move steadily forward through a number of successes: greater market penetration of our ENEFARM residential fuel cell, uninterrupted operation of the Senboku Natural Gas

Power Plant, participation in the Sagunto LNG receiving terminal in Spain, participation in the Shuweihat S2 power and water project in the U.A.E., and the start of a project to introduce biogas from a sewage plant to our pipeline network for provision to customers.

The Osaka Gas Group's fundamental mission is stable procurement and safe supply of energy. In this respect, although we had in place a number of disaster measures in the form of both systems and equipment, following the Great East Japan Earthquake, we examined our measures against earthquakes/ tsunamis, and carried out revisions accordingly.

Improvement Measures Based on Opinions and Requests Gathered from the Fiscal 2011 Survey

(1) Opinions on bank account transfer payment form

Customer comments

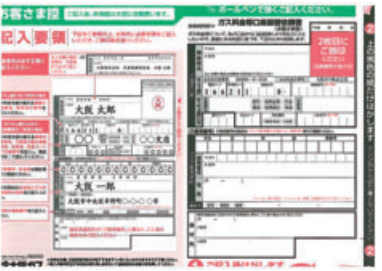
"I had to ask Osaka Gas again to send an appropriate form for the bank account transfer payment for paying gas bills, because it was different for financial institutions, such as one for the post office and one for another bank—."

"I mistakenly filled in the wrong form for the bank account transfer payment."

Improvements Based on Customer Comments

We changed the bank account transfer payment forms so that it is applicable for both cases of post office account and other banks.

Since there is now only one form, whichever financial institution the customers choose for payment, they don't have to worry about filling in the wrong form.



(2) Opinions on changing the date of regular safety inspections (gas equipment inspection)

Customer comments


"I tried to phone to change the inspection date, but the line was often busy."

"Because I can't get home until late at night, I would like to be able to change the date online."

Improvements Based on Customer Comments

We came up with a number of ways for customers to contact us at any time.

In addition to the previous methods—by phoning an operator, by voice guidance on the phone, and online—customers can now change the date online using their mobile phones to read a bar code.





Customer Comments on Opening of Gas Lines

- When Osaka Gas came to open the gas lines, their staff kindly answered questions not just about using the water heater but also about other things like draining water from the washing machine. We were moving to a new area but Osaka Gas's kindness helped make the transition easier.
- We had no gas appliances in the house to do an ignition test, but the service person ran back to his office to get a gas cooker to do the test. Now that's service.

Improvements Based on Customer Comments

The quality of work during service calls is constantly being improved

We continue to work on improving the quality of service, including sensitivity of service people to solve customers' problems, but also accurate and polite explanation, technical expertise, and quality of work.





Customer Comments on Appliance Repair

- When they fixed our gas cooker, the service personnel made it easy to understand by giving a detailed explanation of the problem and what to be careful of.
- When service personnel were fixing my rice cooker, I mentioned that the light was off in my gas oven, so they arranged to have that fixed too. It's really helpful that we can casually mention a problem and they will immediately get to work on it.

Improvements Based on Customer Comments

The quality of work during service calls is constantly being improved

We continue to work on improving the quality of service, including sensitivity of service people to solve customers' problems, but also accurate and polite explanation, technical expertise, and quality of work.





Customer Comments on Sales of Appliances

- After my water heater was installed, service personnel telephoned to make sure I knew how to use it.
- When I was having renovations done on my home, Osaka Gas had kept me inform with the progress of installation of appliances.

Improvements Based on Customer Comments

The quality of work during service calls is constantly being improved

We continue to work on improving the quality of service, including sensitivity of service people to solve customers' problems, but also accurate and polite explanation, technical expertise, and quality of work.



Providing Customers with Safety and Peace of Mind

In Procurement, Manufacturing, and Supply

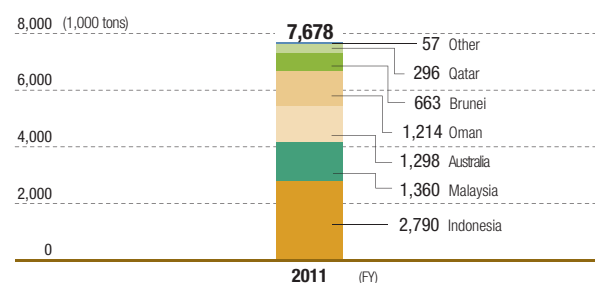
Stable Procurement Through More Diversified Sources

While reserves of oil are concentrated in the Middle East, natural gas, the raw material for the gas Osaka Gas provides to customers, can be found around the world. Natural gas's reserve-production ratio is also much longer* than that of oil. These factors make natural gas an advantageous source of energy.

In 1972, Osaka Gas began importing LNG (liquefied natural gas) from Brunei, and today we also import from Indonesia, Malaysia, Australia, Qatar, and Oman. In 2012, we will begin purchasing natural gas from Sakhalin, Russia. We have also signed a supply contract with a company in Papua New Guinea to further diversify our supply sources and ensure an even more stable supply. We are also entering the upstream stage of the natural gas business by acquiring drilling rights to overseas gas fields and obtaining the rights to LNG receiving terminals.

*Source: BP Statistical Review of World Energy 2010

Amount imported by Osaka Gas



Safety Measures at LNG Terminals

The LNG tanks and other major equipment at our LNG terminals employed advanced earthquake-proof technologies in order to minimize damage when an earthquake occurs. (See page 13.) There are also gas and flame detectors located in key areas of the LNG terminals. From central control rooms, the LNG terminals are monitored and operated 24 hours a day, 365 days a year so that irregularities and accidents can be prevented or detected early on before they spread.

At the Senboku and Himeji terminals, 140 disaster drills are held each year to ensure employees are prepared for emergencies. The drills give practice dealing with the most unexpected situations and employees are not told what the drills will be about beforehand. This ensures that terminal employees are always aware of safety and have the ability to keep the facilities safe in any emergency.



Central control room at an LNG terminal

Safety Measures During Distribution

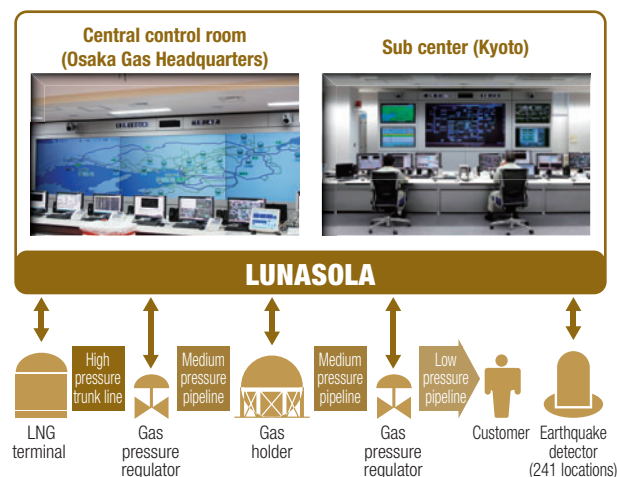
Osaka Gas delivers gas to its customers via pipelines. This means that it is crucial to keep these pipes safe and properly maintained.

We are constantly replacing old metal pipes with pipes made of polyethylene, which is durable and earthquake resistant.

If by any chance a gas pipe should be damaged by an earthquake or other causes, devices installed in each block of the pipeline network (a small area within a district of the network) automatically shut off the gas to the damaged block.

Every single section of the pipelines from the LNG terminals is monitored and controlled every day around the clock. This makes Osaka Gas prepared at all times to dispatch emergency teams when a gas leak is detected.

LUNASOLA: Supervisory Control and Data Acquisition (SCADA) system



Emergency / Earthquake Response System Covers Whole Gas Service Area

In case of accidents or natural disasters occur, a system that initiates an emergency response as soon as possible is crucial.

In September 2006, Osaka Gas created the wide area comprehensive safety system. This system puts all functions for dealing with a gas leak, such as receiving a report of the leak and sending an emergency team, in the central control center, from where orders are sent to whichever of the 47 safety centers in the service area is closest to the gas leak. Under this system, central control center staff, with their wealth of knowledge, technological expertise, and authority, can carry out emergency response faster and more effectively than ever.

There are phone lines to take calls about gas leaks every day around the clock. After reports are received, Osaka Gas works closely with the police and fire departments to quickly examine the scene of the gas leak.

Consumption Stage

Products and Services Ensure Safe Use by Customers

Osaka Gas strives to bring customers products and services that ensure they are using gas safely.

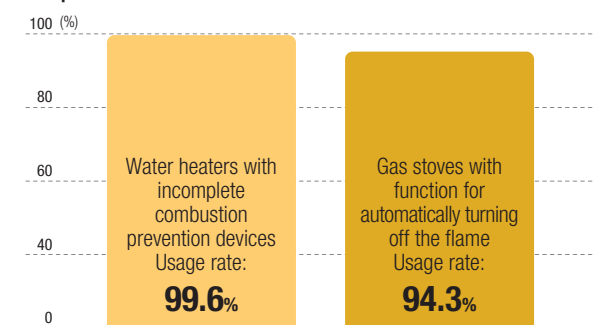
Osaka Gas would like to take out of use all old gas appliances with no safety mechanisms from the market. In particular, we are visiting customers using old appliances without incomplete combustion prevention devices, such as small tankless gas water heaters and wire-mesh gas stoves, and recommending they upgrade to safer gas appliance. We also offer to bear a part of the cost to ease the financial burden on the customer.

To prevent cases of CO poisoning at restaurants, we inspect commercial cooking equipment and if necessary provide the customer with CO sensors free of charge.

With the aim of eradicating gas fires originating from gas stoves, starting in April 2008 we have equipped all products with a function that automatically turns off the flame when the user forgets to. We have been working to spread the use of this product, called the "Si Sensor-Equipped Cooking Stove."

In Osaka Gas's service territory, 86.9% of gas stoves had this safety feature in 1999, and in 2010 this figure was 94.3%.

Usage rate of water heaters with incomplete combustion prevention devices



TOPICS

30 Years of the Piko Piko Residential Gas Leak Detector

In the 30 years since Osaka Gas released the Piko Piko residential gas leak detector in 1980, we have continued to enhance safety functions like incomplete combustion detection and fire detection so that more people can enjoy safe use of gas. In May 2010, the Piko Piko celebrated 30 years of sales.

Piko Piko is currently in use at approximately 2.63 million*1 households in the Osaka Gas service area, with gas leak detection devices in 51.1%*2 of homes.

*1 As of end of March 2011

*2 As of end of March 2011; percentage of customers using gas with gas leak detection devices include those of other companies.



30-year anniversary logo

Quality Control of Appliances

Continuous Efforts to Improve Quality

To ensure that our gas appliances are completely reliable, we are constantly improving their quality based on an ISO 9001 - quality management system.

First, to prevent problems from occurring, we have strengthened our design safety standards, as well as our review of the design and development stages. We also look at gas appliances that customers are actually using by gathering data of problems and analyzing them regarding which parts break down and how often and when problems occur. Any problems discovered are immediately fed back into the design and development process in order to improve the products.

Responses when problems occurred

Prompt Disclosure and Inspection/Repair of Products

When there is a product accident or other problem with a gas appliance that Osaka Gas sold, installed, or repaired, we immediately inform the media and place notices in newspapers and on our Web site. And we inspect the product in question and if necessary repair it or replace parts.

In fiscal 2011, we implement the following three measures with respect to product accidents or other problems. We also announced extensions of warrantee periods for certain water and space heaters.

Fiscal 2011 Measures for Product Accidents and Other Problems

1. Rice cooker (July 9, 2010)

Due to rusting of the gas connector, which could lead to gas leaks, special inspections were carried out and gas connectors were provided free of charge.

2. Gas leak inspections (September 24, 2010)

During regular safety inspections, it was determined that gas leak inspections were not properly conducted for certain customers who had had adjustment done on the gas leak alarm function of the computer-controlled gas meter upon request. For these customers we conducted emergency gas leak inspections.

3. Inspections and improvements for water and space heaters (February 3, 2011)

It was determined that a breakdown of an electric circuit was causing the bath temperature to rise above the set temperature. Emergency inspections were carried out and work was done on the parts in questions free of charge.

Creating value for customers

Safety Activities

Ensuring Customer Safety Through Company-Wide Safety Actions

All employees of the Osaka Gas Group engage in safety actions because we believe that ensuring safety is a fundamental of the gas business. Through these safety actions, all employees aim to respond appropriately to customer concerns and ensure that all gas leaks and unsafe appliances are found and dealt with.

The company intranet has information for all employees on safety function and safe use of gas and gas appliances. At the end of June 2007, we distributed a pocketbook on safety and security to not only Osaka

Gas employees but also employees of installation contractors and service shops.

We also provide customers with information that helps them properly understand safe use of gas.



Poster calling on all employees to take action for safe use of gas

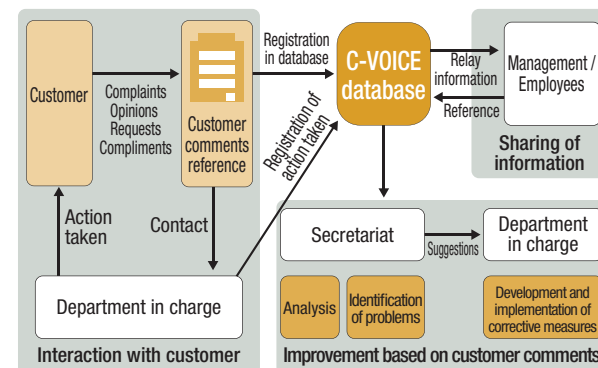
Incorporating Customer Comments in Products and Services

Information Sharing System

Share Customer Comments throughout the Osaka Gas Group

C-VOICE is a database for gathering customer opinions and requests and sharing them across the company to improve our work processes, products and services.

Overview of C-VOICE



TOPICS

Affiliate Urbanex Co., Ltd. Supporting Tenant Relations

Urbanex coordinates a tenants association in the Ogimachi Medics Mall (Kita-ku, Osaka), a building housing medical-related businesses. The association strengthens ties between the tenants and helps create an atmosphere conducive to medical services.

In October 2010, a consultant specializing in medical business customer relations gave a presentation for the tenants association on the topic patient and employee satisfaction for the sake of making patients feel comfortable. All attendees were pleased with the presentation.



Improving Products and Services Based on Customer Comments

Osaka Gas has striven to improve its products and services based on customer comments.

For example, we have a one-stop service for responding to gas leaks that covers everything from receiving the call to finding the cause and replacing the gas leak detector. Another example is a method for replacing gas meters without having to go into the customer's home.

TOPICS

My Select Series of Gas Stoves are "Made to Order"

In October 2010, Osaka Gas introduced the My Select series of gas stoves, which allow customers to choose the color and size of the stove top, and the functions of the stove.

Stove tops come in seven colors of two sizes each for a total choice of 14, while there are two types of main unit, one with advanced functions and another with simple functions. With so many designs to choose from plus two levels of functions, customers will enjoy deciding which one to choose.



Creating New Value for Customers

Keep Blue with Gas

Keep the Earth Healthy, Enhance Customers' Lives

In April 2009, Osaka Gas adopted a new slogan, "Keep Blue with Gas." This represents our desire to ensure that the Earth continues to be blue and beautiful, and that our customers continue to enjoy a comfortable life.



generation systems and offering the Kuru Piko service for dispatching staff to the site when gas leaks or fires are detected. As of April 2011, there were 94 Kurashi Plus service companies in the Osaka Gas service area.



Making It Easier to Try New Equipment

More Products Available Through Rakutoku Lease

In March 2010, Osaka Gas began the "Rakutoku Lease" service, which allows customers to lease the latest SI Sensor Equipped Cooking Stove (built-in type) for just 1,390 yen a month, or a gas oven (built-in type) for just 2,050 yen a month.

In March 2011, the Rakutoku Lease service was expanded to include more products, including water and space heaters and the gas hot water bathroom heater and dryer (with mist sauna function).



Customers Can Sign Up for Web Site

Web Site Offers Information Customers Need

In 2009, we opened the "My Osaka Gas" web site for convenience of the customers who have purchased Osaka Gas products and services.

Besides giving customers information such as gas bill and payment records and schedules for visits by service personnel, the site offers a variety of lifestyle information and give-aways. Customers can also register to receive the email magazine, with announcements from Osaka Gas and the Osaka Gas Group companies, and information on events and campaigns related to particular interests.



"My Osaka Gas" Web site

Service Shops

Kurashi Plus Service Shops

The Kurashi (living) Plus Osaka Gas service shops partner with us to act as the contact point between Osaka Gas and its end users. These shops carry out a wide range of services including getting customers registered for Osaka Gas services, sales and repair of gas appliances, renovation of kitchens and bathrooms, and sales of home fire alarm systems.

In 2009, these shops began selling solar power

TOPICS

Boosting Convenience With Integrated Customer Consultation - Osaka Gas Opens a Call Center for Customers using Industrial Air Conditioners

Customer inquiries for the commercial air conditioning equipment sold by Osaka Gas used to be handled by each regional maintenance service company. This made it difficult to quickly grasp customer needs and relay them to the relevant departments.

This is why we established the Commercial Air Conditioning Call Center as a comprehensive point for inquiries in Osaka Gas in January 2011. Expert operators give thorough diagnosis of customers' inquiries regarding repair, inspection, and contract renewal, thus giving customers high-quality service every day around the clock. Information on customers is shared with the technical divisions and

regional sales managers, so that we can promptly respond in case of product breakdown, as well as help customers continue to get the most pleasant use out of their gas air conditioning products.





Harmonizing with the environment and contributing to realizing a sustainable society

Addressing the issues of the environment both at regional and global levels is of paramount importance for the Osaka Gas Group, which is engaged in wide-ranging energy services. The Group, being seriously aware of the impacts of its business activities on the environment, seeks to harmonize its businesses with the environment and to realize efficient utilization of energy resources, thereby contributing to achieving a sustainable society.

Target and Result **CSR Indicator: Environmental Management Indicators: Environmental Management Efficiency**

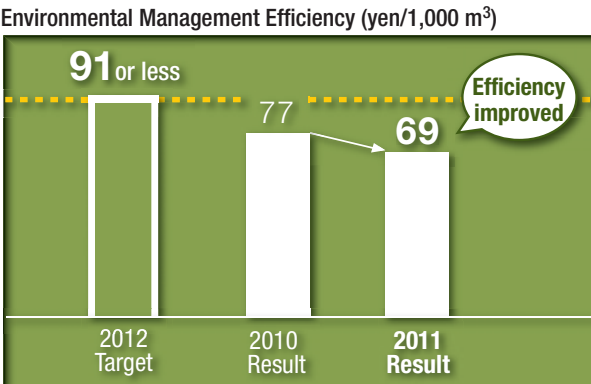


Definition of Indicator

Osaka Gas uses environmental management efficiency as an indicator to assess progress in environmental management in a continuous, integrated manner.

This indicator, environmental management efficiency, is the total monetary value of six environmental impacts: greenhouse gas emissions, NOx emissions, COD*¹, final disposal of general and industrial waste, final disposal of excavated soil*², and chemical substance emissions. This allows us to quantitatively measure how much we are reducing environmental impact.

In fiscal 2010, we added chemical substance (xylene, toluene) emissions to the previous five impacts, bringing the total to six, and we added methane*³ to a category called greenhouse gas emissions, which previously includes only CO₂.



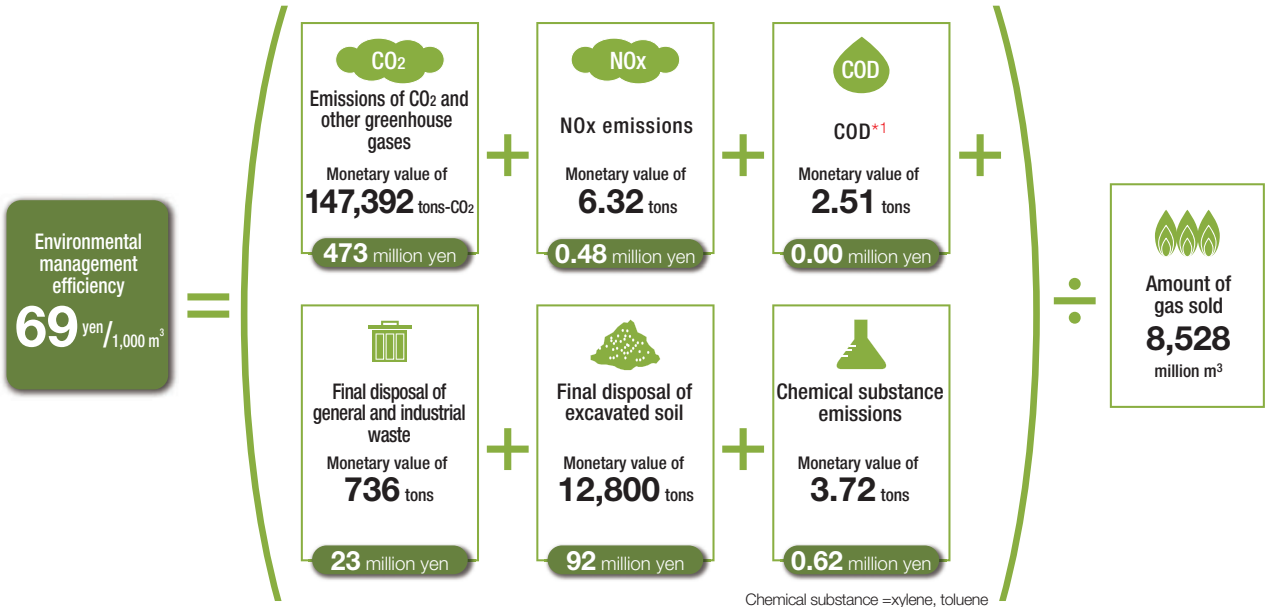
The smaller the figure for environmental management impact, the greater the reduction of environmental impact per amount of gas sold.

*¹ COD: Chemical oxygen demand. An indicator of water quality. Increase in COD indicates an increase in the amount of pollutants in the water. Here it represents the volume multiplied by the wastewater amount.

*² Excavated soil: Soil and asphalt waste generated during burying or relocating of gas pipes under the road.

*³ Methane (CH₄): A key component of natural gas, it is generated from landfills of organic waste, the bottom of swamps, the bodily waste of livestock, the anaerobic decomposition of sewage sludge, etc. It is one of the six greenhouse gases designated for reduction under the Kyoto Protocol.

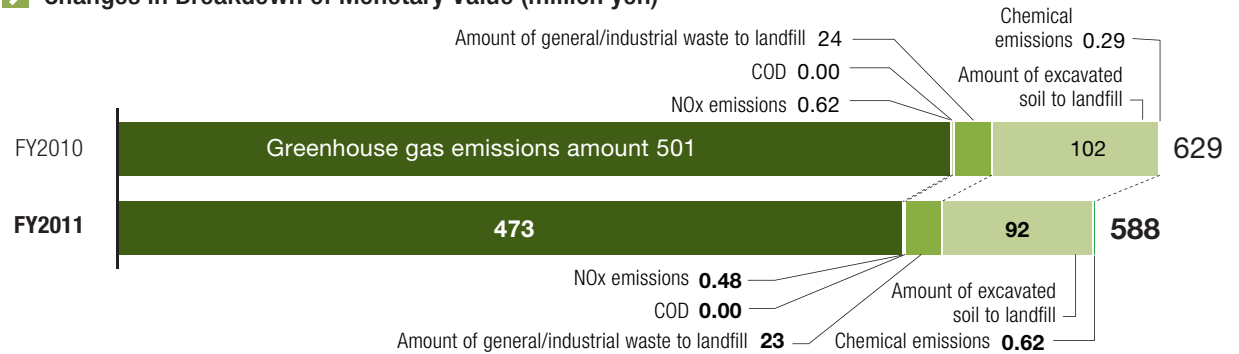
FY2011 Breakdown of Environmental Management Efficiency



Breakdown of Environmental Management Efficiency

| | FY2010 | | FY2011 | |
|---|-----------------------------|-----------------------------------|-----------------------------|-----------------------------------|
| | Environmental impact (tons) | Monetary equivalent (million yen) | Environmental impact (tons) | Monetary equivalent (million yen) |
| GHG (Greenhouse Gas) emissions | 156,241 | 501 | 147,392 | 473 |
| NOx emissions | 8.09 | 0.62 | 6.32 | 0.48 |
| COD | 3.10 | 0.00 | 2.51 | 0.00 |
| Final disposal of general and industrial waste | 808 | 24 | 736 | 23 |
| Final disposal of excavated soil | 14,200 | 102 | 12,800 | 92 |
| Chemical substance (xylene, toluene) emissions | 1.78 | 0.29 | 3.72 | 0.62 |
| Total | — | 629 | — | 588 |
| Amount of gas sold (million m ³) | 8,119 | | 8,528 | |
| Environmental management efficiency (yen/1,000 m ³) | 77 | | 69 | |

Changes in Breakdown of Monetary Value (million yen)



Calculation Method for Environmental Management Efficiency

As shown in the equation on the left, environmental management efficiency is the total monetary value of all environmental impacts divided by the amount of gas sold. It is expressed in yen/1,000 m³. The data used for calculation of the monetary value of environmental impact is cited from LIME 2*⁴, developed by Japan's National Institute of Advanced Industrial Science and Technology (AIST).

*⁴ Life-cycle Impact Assessment Method based on Endpoint Model
See http://www.jemai.or.jp/lcaforum/db/01_06.cfm

Overview of FY2011 Result

At Osaka Gas LNG terminals, by raising generation amount using LNG cryogenics, the amount of power purchased decreased. As a result, CO₂ emissions decreased despite production volume was up due to increase in gas sales. We also strove to minimize and reuse excavated soil from pipe construction in order to reduce final disposal of waste.

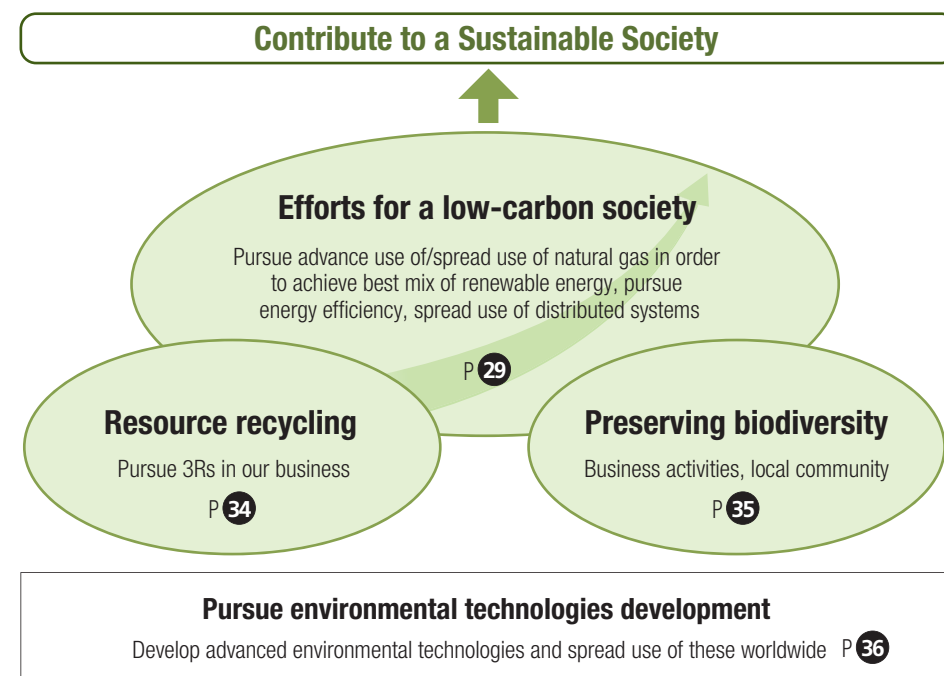
As a result, environmental impact (in monetary value), the numerator in the environmental management efficiency equation, was 588 million yen, down 7% from the previous year.

Volume of gas sold, the denominator in the environmental management efficiency equation, increased 5% over the previous year, resulting in a large improvement in environmental management efficiency: from 77 yen/1,000 m³ the previous year to 69 yen/1,000 m³.

Harmonizing with the environment and contributing to realizing a sustainable society

Osaka Gas Group Environmental Efforts

The Osaka Gas Group carries out environmental protection activities based on the CSR Charter and the Environmental Activities Policy.

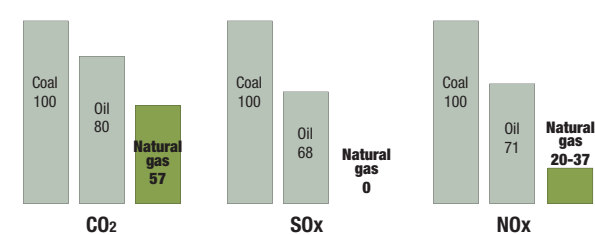


Contributing to a low-carbon society is a top priority of the Osaka Gas Group. Under the "Field of Dreams 2020", Long-Term Management Vision and Medium-Term Management Plans, we aim to reduce greenhouse gas emissions on the customer side by 13 million tons by 2020, spread the use of natural gas, develop and spread the use of technologies like fuel cells, spread energy

saving services, and introduce renewable energy.

We are also striving to reduce greenhouse gas emissions from business activities and formulate medium-term targets for the 3Rs. In fiscal 2011, we formulated the Osaka Gas Group Biodiversity Policy as a basis for efforts in this area.

Comparison of emission levels of combustion products of fossil fuels



Sources: International Energy Agency (IEA): Natural Gas Prospects to 2010 (1996)
Institute of Applied Energy (IAE): Report on Thermal Power Plant Atmospheric Impact Assessment Technology Demonstration Surveys (March 1990)

Natural gas, the raw material for the gas we use, releases fewer CO₂ emissions and has less environmental impact compared to other fossil fuels like oil and coal.

Natural gas also releases no SO_x (sulfur oxide), the cause of air pollution and acid rain, and far less NO_x (nitrogen oxide), the cause of problems like photochemical smog.

Aiming for a Low-Carbon Society

Efforts on Customer Sites

Natural gas is a clean energy that emits the least CO₂ during combustion of all fossil fuels. The Osaka Gas Group is doing everything it can to contribute to realization of a low-carbon society by working to spread the use of environmentally friendly natural gas, develop highly efficiency equipment and systems, boost energy efficiency, spread the use of distributed systems using fuel cells and cogeneration, and spread the use of renewable energy.

Spread of distributed energy systems P 29

Energy (electricity, heat) is provided on-site as it's needed. In unison with grid-connected electricity, distributed systems offer stable supply and low CO₂ emissions.

- Natural gas cogeneration system
- Residential gas cogeneration system, ECOWILL
- Residential fuel cell cogeneration system, ENEFARM
- Smart Energy House
- Smart Energy Networks
- Technological developments towards a hydrogen society

Reduction in customer CO₂ emissions (2010 - 2021) :

13 million tons

Improving Energy Efficiency Through Energy Services P 32

By conducting IT-driven energy diagnoses and using our wealth of experience and know-how, we offer ways for customers to improve their overall energy efficiency.

- ENELOOK PLUS for residential customers
- Motto Save for buildings
- ENEFLEX, a service for providing data on equipment operation over the Internet using a remote monitoring system

Using Renewable Energy P 31

We're striving to expand the use of renewable energy by combining it with highly efficient natural gas equipment to achieve reductions in energy consumption.

- Double power generation using solar power
- SOLAMO® water and space heater using heat-collecting panels
- Kobe Biogas project
- Wind farms

Spread Use of Natural Gas, Develop Advanced Uses P 29

We will strive to spread the use of natural gas, the fossil fuel with the lowest CO₂ emissions, as well as develop advanced natural gas equipment and systems in order to help reduce our customers' CO₂ emissions.

- Eco-Jozu® residential high-efficiency water heater
- Regenerative burner system for high-efficiency industrial furnaces
- XAIR high-efficiency gas air conditioning

Note: Eco-Jozu® and SOLAMO® are registered trademarks of Tokyo Gas.

- Centered on natural gas, we are pursuing the best mix of energy and energy supply (distributed systems and grid-connected systems).
- We are aiming to reduce greenhouse gases, achieve a stable supply of energy, and stimulate dynamics of societies.

Efforts in Business Activities

By using cryogenic power generation at our terminals, we are reducing the amount of electricity we purchase. We are also pursuing high-efficiency power generation using natural gas as a fuel. And by equipping office buildings with the latest technologies, we are reducing CO₂ emissions.

Environmental Contributions in Local Communities and Around the World

We contribute to the environment improvement on a local level by activities such as environmental education for children. We develop technologies for making use of previously unused coal mine gas and associated petroleum gas at extraction sites in order to help reduce greenhouse gas emissions around the world.

Harmonizing with the environment and contributing to realizing a sustainable society

Aiming for a Low-Carbon Society Efforts on Customer Sites

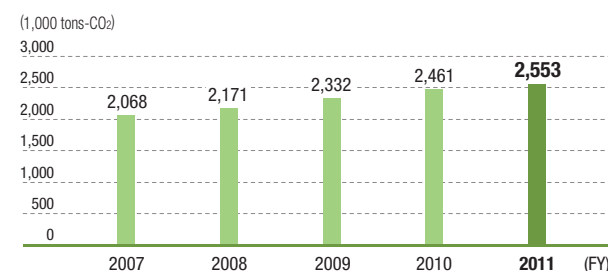
(1) Spreading Use, Developing Advanced Uses of Natural Gas

Commercial Customers' CO₂ Emissions curbed by 2.55 million tons

The Osaka Gas Group strives to help commercial and residential customers reduce their CO₂ emissions and energy use by providing them with a variety of energy-efficient products and services and by developing and spreading the use of renewable energy solutions.

By providing commercial customers with energy-efficient equipment such as cogeneration systems, gas air conditioners, and high-performance industrial furnaces, in FY2011, we have helped them curb CO₂ emissions by approximately 2.55 million tons against fiscal 1999, reduced by 92 thousand tons from the previous year.

Customer CO₂ Reductions (against FY1999) (excluding residential use)



Development and Provision of High-Performance, Energy-Efficient Burner Systems

The Osaka Gas Group has developed 1,400 types of industrial burners, and has pursued the development of high-performance control systems and burner energy efficiency in order to help customers in a variety of industries and businesses reduce their CO₂ emissions.

Of particular note is our regenerative burner system for incinerator systems that can efficiently collect waste heat. This system can retrieve preheated air of at least 1,000°C from 1,200°C exhaust for energy savings of 35% to 50%.



Regenerative burner system

High-Efficiency Gas Air Conditioning System

There are two types of gas air conditioning systems: a gas absorption-type water cooling/heating systems for large buildings and commercial facilities, and a gas engine heat pump (GHP) for individual use such as offices.

Gas absorption-type water cooling/heating systems are air conditioning systems that provide hot and cold water for heating and cooling using gas as a fuel and using water, not CFC, as the refrigerant.

GHPs run a compressor with a gas engine collecting heat from outside to use inside for heating, and collecting heat inside and sending it outside to provide cooled air inside the building.

GHP XAIR Ultra-High-Efficiency Gas Engine Heat Pump

In April 2011, Osaka Gas released the ultra-high-efficiency GHP XAIR. The Annual Performance Factor, or the annual energy efficiency was a maximum of 5.7 equivalent, which was the highest efficiency for air conditioners for small- and medium-sized commercial buildings.



High-Efficiency Residential Hot Water Heaters

The Eco-Jozu® residential high-efficiency water heater utilizes the heat previously wasted in conventional water heaters. By cutting unnecessary heat emissions, it saves energy, and reduces CO₂ emissions.

The water heating efficiency of Eco-Jozu® is 95%, compared to 80% for conventional water and space heaters, and space heating efficiency is 89%, compared to 80% for conventional systems.

These dramatic energy savings lead to an approximate 13% reduction in CO₂ emissions over conventional systems.*

As of fiscal 2011, a cumulative total of 310,000 units of the Eco-Jozu® have been sold over 10 years.

* Compared to Osaka Gas previous equivalent products. Calculated using data of conventional water and space heater and Eco-Jozu® with gas consumption amount of 806 m³/year and 702 m³/year respectively.



(2) Spread of Distributed Systems

Osaka Gas is striving to spread the use of natural gas cogeneration systems, which achieve dramatic energy savings. These systems run on natural gas, which has a low environmental impact, and produce energy when it's needed, and they effectively use the waste heat for water heating. This makes the system both environmentally friendly and economical.

Commercial and Industrial Cogeneration Systems

Since releasing the first commercial-use micro-cogeneration system* in 1998, we have expanded our commercial- and industrial-use product lineup and, as of the end of March 2011, have 4,089 units installed in various facilities.

* Micro-cogeneration: Gas cogeneration system of up to 100 kW generation capacity.

Residential Cogeneration Systems

Osaka Gas sells the ECOWILL residential gas engine cogeneration system and the ENEFARM residential fuel cell cogeneration system.

ECOWILL is a cogeneration system running on a gas engine, and, as of the end of March 2011, a cumulative total of approximately 70,000 units had been sold.

ENEFARM, a residential polymer electrolyte fuel cell (PEFC) cogeneration system, extracts hydrogen from natural gas and reacts it with oxygen in the air to generate electricity, while at the same time using the heat given off for water and space heating. Since going on sale in June 2009, it has proven popular with 3,700 sold as of the end of March 2011.

We are currently developing a residential solid oxide fuel cell (SOFC) cogeneration system, which boasts even higher power generation efficiency. The goal is to have this system on the market within a few years.



A Word from a Stakeholder

Pioneering an Environmentally Friendly Housing Market with ENEFARM

Our company is working to get business back on track through the Green First Strategy aimed at selling more green homes.

Through Green First, we hope to provide environmentally friendly homes that are comfortable, economical, and where people can live in safety and peace of mind.

Green First models already account for over 70% of sales of detached homes. We are the first company in the industry to sell 10,000 detached homes with built-in solar power generation systems, and we are the leading seller in Japan of homes with built-in ENEFARM residential fuel cells.

Our company will continue to use ENEFARM to contribute to the creation of an environmentally friendly society.



Masahiro Tomonari
Osaka North Branch Manager
Sekisui House, Ltd.

Smart Energy House

Osaka Gas is working on the development of the Smart Energy House, which runs on three batteries—a residential fuel cell, a solar power system, and a storage battery—and uses IT to achieve “smart” management to create, store, and use electricity and heat, thus offering

comfortable and environmentally friendly living. To achieve practical use as early as possible, in February 2011, a verification test on two types of houses for technological assessment and living experiment was begun.

In the technological assessment house, a load simulating device is used to assess and verify the basic technologies developed during the R&D stage, such as optimal control of the three batteries and automatic energy-efficient control of the power consuming equipment. Once technological assessment is complete, the basic technologies are tested one-by-one in the living experiment house in order to verify their effect under actual living conditions. In the living experiment house, the goal is to have the CO₂ reductions from solar power generation cancel out the CO₂ emissions resulting from the electric vehicle and other appliances that the residents use.



Technological assessment house
(on Osaka Gas premises in
Osaka City)



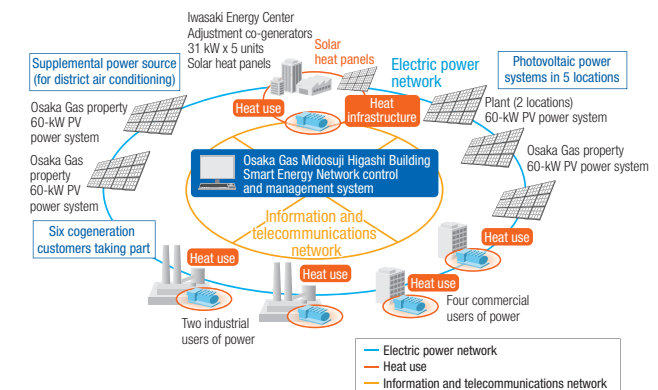
Living experiment house
(in Nara Prefecture)

Smart Energy Network

A smart energy network is a next-generation energy system that achieves optimal balance of energy demand and supply by connecting power grid with gas cogeneration systems and solar power generation devices so that the generated heat and electricity can be shared among multiple parties that need it. For example, by using a gas cogeneration system to make up for fluctuations in the output of solar power generation, maximum use can be made of renewable energy and energy savings and CO₂ emission reductions can be achieved.

Osaka Gas is taking part in a verification project with Tokyo Gas Co., Ltd. to optimize the combination of multiple energy sources through distributed energy systems. With the cooperation of nine customers we are testing the viability of a smart energy network community in West Japan.

Overview of Pilot Project for Smart Energy Network



Under the pilot project, large-capacity cogeneration systems at customers having the greatest demand for heat and solar power generators and other cogeneration systems scattered in the area trade electricity as needed.

Harmonizing with the environment and contributing to realizing a sustainable society

Participation in Verification Project for Hydrogen Filling Stations

If fuel-cell-driven vehicles are to achieve widespread use, there must be stations that provide the hydrogen needed to run these vehicles.

Starting in fiscal 2012, Osaka Gas will take part in a project on technological feasibility of a regional infrastructure scheme for hydrogen supply sponsored by the New Energy and Industrial Technology Development Organization. Part of this project will be implemented at a filling station on an Osaka Gas's premises in Osaka City.



Hydrogen filling station at Osaka Gas

(3) Renewable Energy

Reducing CO₂ Emissions with a Solar Power Generation System

When generating power for the home using solar power, a natural energy source, less CO₂ is emitted than when consuming fossil fuels. Above all, it reduces purchase of power from the grid, generated at power plants where greater amount of CO₂ is emitted. The Osaka Gas Group is working towards a low-carbon society by aggressively promoting the use of solar power systems, as well as the combination of these with the ENEFARM fuel cell cogeneration system and the ECOWILL gas engine cogeneration system in order to further reduce CO₂ emissions. By spreading the use of this double power generation, we are working to achieve the best mix of energy.



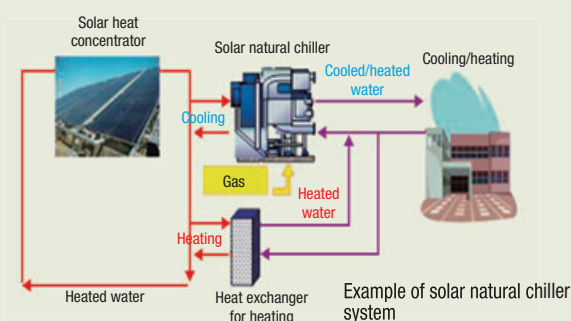
TOPICS

Developing the Solar Absorption-Type Water Cooling/Heating Systems

Osaka Gas is teaming up with Tokyo Gas Co., Ltd., Toho Gas Co., Ltd., Kawasaki Thermal Engineering, SANYO Electric Co., Ltd., and Hitachi Appliances, Inc. to jointly develop a commercial air conditioner that uses solar heat for cooling. The product uses solar heat whenever possible, and makes up for heat shortages on rainy days with gas efficiently for a system.

Compared with conventional gas air conditioning systems not using solar heat, this system requires 24% less primary energy a year for cooling and heating, and it emits 21% fewer CO₂ emissions (approximately 34 tons).

(Note: Calculation based on model for building with 4,000 m² equivalent of floor space.)



Example of solar natural chiller system

SOLAMO® Water/space Heater Utilizing Solar Heat

Osaka Gas, Takagi Industrial Company, Ltd., and Asahi Kasei Homes Corporation jointly released the SOLAMO® gas water heating system in May 2010. This system involves installing heat collecting panels on the roof of a detached house to collect solar heat to use for water and space heating.

Compared to conventional water heaters, this system dramatically reduces annual CO₂ emissions.

Effective Use of Biogas

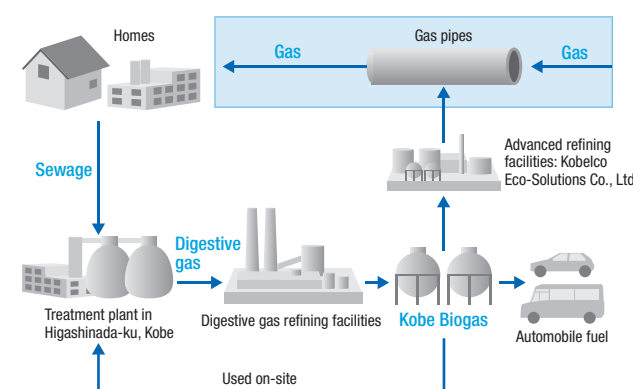
Kobe Biogas Supplied Through Gas Pipes

Biogas is a flammable gas generated during fermentation of sewage sludge, food waste, bodily waste of livestock and other organic waste. It is mainly generated at wastewater treatment plants and food plants. The main component of biogas is methane, and the effective use of biogas as renewable energy is expected for realizing low-carbon society. Osaka Gas has therefore formulated the Biogas Purchasing Scheme, which details the conditions for purchasing biogas as regular gas.

In September 2010, Osaka Gas, Kobe City, and Kobelco Eco-Solutions Co., Ltd. began trial operation of a project to take biogas produced at a treatment plant in Higashinada-ku, Kobe and mix it with gas for provision to customers. This biogas comes from sewage sludge, and it is refined so that it can be used the same as regular gas.

This is the first time in Japan that such gas will be supplied directly through gas pipes. This project will help determine the economic feasibility and operation methods of such a business, and will lead to the more effective use of biomass resources.

▶ Trial project for supplying biogas via gas pipes



Note: Digestive gas is made by anaerobic fermentation in sewage sludge where no oxygen exists. It is mainly composed of methane and CO₂.

Pursuing Wind Power Business in Japan and Other Countries

In Japan, Osaka Gas runs the Hayama Wind Farm in Kochi Prefecture (20,000 kW) and the Hirogawa Myojinyama Wind Farm in Wakayama Prefecture (16,000 kW). These wind farms contribute to a total reduction of about 60,000 tons-CO₂ emission a year. In addition, in June 2011, we acquired a wind farm in Yura, Wakayama Prefecture (10,000 kW), which will begin operation in September 2011.

In Australia, a country that is aggressively adopting renewable energy, we are investing in the Hallet 4 wind farm. The project will have 63 wind turbines (with a combined capacity of 132,000 kW) in South Australia and went into operation in June 2011.



The Hirogawa Myojinyama Wind Farm in Wakayama Prefecture

Dye-Sensitized Solar Cell Offer Low-Cost Production

Osaka Gas is working on development of a dye-sensitized solar cell, a technology garnering significant attention as a low-cost successor to silicon solar cells. In this type of solar cell, the incoming light generates electrons, which pass through the electrolyte to generate electricity. This type of solar cell generates electricity using a mechanism similar to photosynthesis in plants. Dye-sensitized solar cells use inexpensive and plentiful titanium as the electrode material. Because simple and conventional technology can be employed in production, costs are significantly lower. And because of its resistance to oblique light and clouds, it can be used in new applications such as on the walls of houses.

(4) Improving Energy Efficiency Through Energy Services

Motto Save Realizes Energy-Efficient Operation

Energy-efficient equipment shouldn't just be used—it should be used effectively. Creative Techno Solution Co., Ltd. and Osaka Gas offer a service, Motto Save, that provides energy measurement and control services for mid-size buildings, hospitals, and factories. The system keeps track of electricity and gas usage data, and then offers the customer energy-saving solutions. Customers can also monitor their energy use in real time with their computers. This inexpensive system allows data to be exchanged with other companies' systems, measuring equipment to be easily upgraded, and a range of system expansion options to be taken advantage of.

This system is being used in Q's Mall in Abeno, Osaka, a large shopping complex that opened in April 2011 that is one of the largest shopping centers in Osaka Prefecture.



Motto Save screen image

Osaka Gas: An Energy Provider Helping Customers Reduce Energy Use and CO₂ Emissions

Osaka Gas offers energy utility equipment for heat, electricity, and water, as well as comprehensive energy services, not just energy. It provides various services as a one-stop service provider; from every step of installing facilities including financing, to providing the latest technologies in combustion and energy efficiency, as well as providing optimal operation and maintenance that uses IT monitoring.

As an example of how we assist with financing, we have started Eco Wave, a unique business scheme whereby customers use energy-efficient, low-CO₂-emitting appliance owned by Osaka Gas. The customers pay only for the energy they consume and don't need to pay the startup costs for facilities, and they save on energy costs. As of the end of March 2011, there were 842 Eco Wave customers.

TOPICS

ENELOOK PLUS Making Energy Use Visible in Apartments

In October 2010, Osaka Gas began offering its ENELOOK PLUS service for newly built apartment buildings. This service helps users reduce energy use by showing them exactly how much electricity, gas, and water they are using.

With ENELOOK PLUS, customers can use their PC or mobile phone to access a dedicated website that shows at all times how much energy is being used. There is also advice on cutting energy use and setting energy use targets, as well as energy use reports by email. Customers can thus save energy in an enjoyable way.

Customers can also use their mobile phone to heat up the bath water and turn on appliances like air conditioners and floor heaters. They can also remotely shut off their gas.



ENELOOK PLUS screen image

Harmonizing with the environment and contributing to realizing a sustainable society

Efforts for a low-carbon society

Efforts to Reduce Osaka Gas Group Greenhouse Gas Emissions

Expanding Utilization of Cryogenics at Gas Terminals

Liquefied natural gas (LNG), is a liquid of -160°C that when gasified to become natural gas has the cryogenic energy to take the heat from the surrounding air and produce a cooling effect.

At Osaka Gas, we use this cryogenic energy in a number of ways. For example, we freeze air to produce liquefied nitrogen and liquefied oxygen, and we freeze carbon gas to produce liquefied carbon and dry ice. As well, we use LNG cryogenics for cryogenic power generation. In fiscal 2011, we began supplying LNG cryogenic energy for the cooling process of an adjacent petrochemical plant, thus contributing to the reduction of energy use and CO₂ emissions at nearby plants as well as at our own.

Thanks to these efforts, the Senboku LNG Terminal I achieved a 100% usage rate of cryogenics in fiscal 2011. Increasing use of cryogenics leads to a reduction in energy use and CO₂ emissions.



Cryogenic power generation plant

Senboku Natural Gas Power Plant Up and Running

In fiscal 2010, Osaka Gas started operations at the Senboku Natural Gas Power Plant (four turbines, 1.109 million kW), a key plant for the company's energy business.

The Senboku Natural Gas Power Plant runs on natural gas and it is powered by gas turbines using the combined cycle method for high energy efficiency, making it an environmentally friendly power plant. The



Senboku Natural Gas Power Plant

heat of the exhaust gas from the turbine is used to generate steam, which drives a steam turbine to generate electricity. The Senboku Natural Gas Power Plant uses a 1,300°C-level gas turbine, which results in an extremely high power generating efficiency of 57% (LHV basis*).

* LHV = Lower heating value. The amount of heat generated by complete combustion of the combustion gas, minus the latent heat of vaporization of the water vapor generated in the process.

Pursuing Energy Efficiency in Osaka Gas Buildings

Company-Wide Green Building Project

The Osaka Gas Group is carrying out the Green Gas Building Project to save energy in its company office buildings.

Making use of the expertise we have built up in office energy efficiency management, we are formulating energy-saving action and renovation plans as well as compiling and reporting on data for each of our buildings.

T O P I C S

Green Gas Building Project Realized Through Behavior Observation Method

When Osaka Gas renovated its office in Takatsuki City, Osaka Prefecture, it not only installed energy-efficient equipment; it incorporated the behavior observation method in the design process.

Before the building was designed, tenants were observed and given questionnaires so that anything preventing energy efficiency could be analyzed to determine its cause. As a result, it was discovered that major factors preventing energy efficiency included a difference in sensitivity to heating and cooling due to work style and gender; and tenants lack of interest in energy efficiency. Based on this, plans were made to install movement sensors that detect people in a room and adjust air conditioning accordingly, and a system for advising tenants on energy efficiency. Other measures included installing energy-saving equipment like a solar power generation system and a gas heat pump with power generating function. The result was a 25% reduction in CO₂ emissions.



Osaka Gas building pursuing the Green Gas Building Project

Resource Recycling

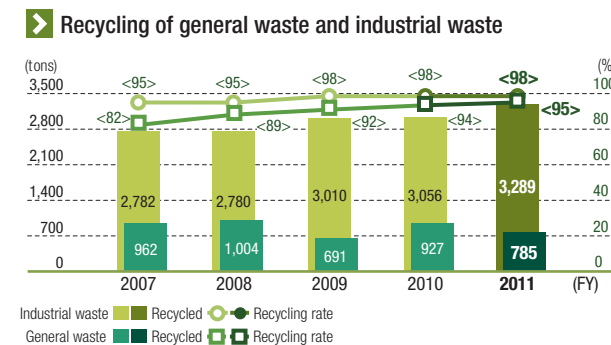
Efforts to Reduce Waste at Osaka Gas

Progress Towards Medium-Term Target for Waste Reduction

In fiscal 2011, the rate of final disposal of waste* at LNG terminals was 0.6% (amount generated: 266.91 tons, final disposal: 1.62 tons); this was 0.3 points up from the previous year. One of the reasons why is that the demand of the sediment left over is decreased by the recession. We will hereafter do everything possible to reduce incinerator garbage so that we can reduce final disposal of waste.

Osaka Gas waste other than that at LNG terminals was 3,137 tons generated and 59 tons of final disposal, about the same as the previous fiscal year and a 2% rate of final disposal, also on par with the previous year. The amount of general waste generated was 775 tons and the final disposal amount was 43 tons, a large decrease from the previous fiscal year. This allowed us to once again reach our medium-term environmental target.

* Final disposal of waste: Waste disposed of at authorized landfill sites.



Recycling Excavated Soil

Reusing Excavated Soil from Gas Pipeline Construction

The Osaka Gas Group works to reduce the amount of excavated soil and waste asphalt generated as a result of gas pipe installation. Ways to achieve this include the Vermeer method, which requires soil excavation of only two points, and the shallow pipe installation method.

In fiscal 2011, these methods allowed us to reduce the amount of excavated soil generated by 660,000 tons compared to what would have been generated using conventional methods. The excavated soil was recycled as much as possible and we achieved a fiscal 2011 recycling rate of 90%. Final disposal was 13,000 tons, down 1,000 tons from the previous fiscal year.

➤ Methods for Reducing and Recycling Excavated Soil

| | |
|-----------------------------------|--|
| Vermeer method | Only both ends of the buried section of the gas pipe are excavated. Minimizes excavated soil and limits disturbances to traffic around the site. |
| Shallow pipe installation method | Gas pipes are buried shallow, which greatly reduces the amount of soil dug up and the amount of pit sand needed to re-bury the pipes. |
| Soil and asphalt recycling system | This system facilitates the reuse of waste asphalt and excavated soil as either regenerated roadbed material or improved soil. |

T O P I C S

Regenerated Roadbed Material From OG Road Co., Ltd. Certified as an Recycled Product

When digging up roads to install underground gas pipes, old roadbed material and excavated soil that is no longer of good enough quality to be used as road material or to protect pipes must be thrown away. OG Road Co., Ltd. uses technology for recycling road waste in a soil and asphalt recycling system. Using this system, OG Road takes industrial waste materials like asphalt and concrete rubble to make environmentally friendly regenerated roadbed material that is ideal for protecting gas pipes and supporting roads.

Ever since September 2004, this material has been recognized by the Osaka Prefectural government as a certified recycled product. It is also sold at the Naniwa Eco Shop, a government-private enterprise online store specializing in recycled products. It is used not only for gas pipe installation but for water and sewage pipe installation work as well.



Regenerated roadbed material is an officially certified product

Product Recovery and Recycling

90% of Used Gas Appliances Recycled

In fiscal 2011, 2,496 tons of used gas appliances were collected and 90% of this was used as recycled metal. Collected residential gas air conditioners and clothes dryers were recycled under the Home Appliances Recycling Law, which was enacted in April 2001.

Recycling of Used Gas Pipes

Recycling 100% of Used PE Pipe Waste

The polyethylene (PE) pipes waste material generated at work sites is mainly used as covers to protect gas pipes and as post markers to indicate the location of supply pipes. In fiscal 2011, 212 tons of PE pipe waste was generated and all was reused. Metal pipes, such as steel and cast-iron pipes, are sold to steel manufacturers and recycling companies, who use them as raw materials for products.

Reusing Gas Meters

Repairing Gas Meters More Often to Get 60 Years of Use

After 10 years in use, gas meters are repaired (taken apart, fixed, and inspected) to make them perform as well as new ones. They are then installed at customer sites. After reassessing the life expectancy of gas meters using durability and other tests, in fiscal 2010 we began repairing gas meters twice instead of just once, and now they last 60 years.

Harmonizing with the environment and contributing to realizing a sustainable society

Environmental Risk and Chemical Substance Management

Chemical Substance Management

Legal Compliance and Proper Management

There are very few hazardous chemicals handled by Osaka Gas during the processing and supply of natural gas.

The Osaka Gas Group will continue to manage and reduce the amount of chemicals it uses under the policies shown below.

1. Comply with laws and environmental regulations concerning the use of chemical substances.
2. Use ISO14001-compliant and other environmental management activities to step up management and decrease emissions of chemical substances.
3. Disclose information on chemical substance management in the CSR Report and on our Web site.

No legal violations occurred in fiscal 2011.

Soil and Groundwater Conservation

Former Coal Gas Production Sites Cleaned Up

Osaka Gas conducts continuing voluntary inspections of former coal gas production sites to determine the risk of soil pollution.

When substances (cyanide, benzene, etc.) are discovered that exceed the standards of the Soil Contamination Countermeasures Law, we follow the guidance of the local government in disposing of contaminated soil and carrying out on-site encapsulation*.

* Rather than excavate the contaminated soil, it is treated on-site.

Green Purchasing and Green Distribution

Green Purchasing

Furthering Green Purchasing through Cooperation with Business Partners

Based on its Green Purchasing Guidelines (formulated in 2000, revised in 2005), Osaka Gas strives to work with its business partners in purchasing products and installation contracts that have minimal impact on the environment.

In 2005, we launched the Green Partner Initiative to evaluate the environmental efforts of suppliers of our piping material. Companies that meet our evaluation standards are registered as Green Partners. As of fiscal 2011, all 18 relevant suppliers are registered.

We continue to purchase environmentally friendly products, including Forest Stewardship Council (FSC) certified paper and carbon offset products.

Green Distribution

Low-Pollution Vehicles Reduce Air Pollutant Emissions

Osaka Gas established its Green Distribution Policy in 2001 and in January 2002 we began green distribution. Through the use of natural gas vehicles, hybrid cars, and other low-pollution vehicles in business activities, we are reducing the amount of air pollutants we emit.

We are also asking our business partners and affiliates to use low-pollution vehicles when delivering or making sales calls to Osaka Gas bases.

Communicating Our Environmental Efforts

Participation in Environmental Exhibits

Biwako Environmental Business Exhibition

In October 2010, Osaka Gas had a booth in the 2010 Biwako Environmental Business Exhibition in Shiga Prefecture.

The lively event welcomed approximately 37,000 visitors and Osaka Gas had exhibits and presentations covering its environmental products and its efforts to foster biodiversity.



Osaka Gas explains the environmental benefits of natural gas

Environmental Education

2011 Environmental Symposium

As part of its Environmental Month, Osaka Gas holds the Environmental Symposium at the beginning of June each year for educational purposes.

In 2011, approximately 270 attended the symposium on the theme of the environment and green innovation.

For the symposium, we implemented the carbon offset for consumed electricity of the building through the Green Building through the Green Power Certificate.



Keynote speech by Akihiro Sawa
The 21st Century Policy Institute,
Japan Business Federation

Environmental Management System

Environmental Management System

Continued Certification for Company-Wide Integrated ISO 14001

All business locations of Osaka Gas are certified for ISO 14001. In fiscal 1998, business units of Osaka Gas started efforts to acquire certification for ISO14001, a standard for international environmental management systems (EMS).

As a result, the entire company was covered by seven EMSs by fiscal 2006. From fiscal 2007, we started integration of all the EMSs across the company to enhance company-wide environmental management. Osaka Gas was accredited integrated certification in December 2007. In 2009, Osaka Gas underwent and passed the audit held once every three years for renewal of certification.

In fiscal 2011, based on the integrated company-wide system, we boosted legal compliance, accelerated actions to reduce environmental impact, and worked towards a "paper-less office" through use of IT. In addition to regular audits, new sites underwent extraordinary audits and received high marks in receiving certification: the Senboku Power Generation Center including the Senboku Natural Gas Power Generation Co., Ltd. and the Trunk Line Construction Project Division (Himeji, Okayama Prefecture).



ISO 14001 external audit

Osaka Gas ISO 14001 certification dates

| Business unit | Date |
|---|----------------|
| LNG Terminal & Power Generation Business Unit | October 1997 |
| Engineering Department (Construction sector) | March 2001 |
| Head Office Building | September 2001 |
| Energy Technology Laboratories | July 2002 |
| Pipeline Business Unit | May 2005 |
| Commercial & Industrial Energy Business Unit | February 2006 |
| Residential Energy Business Unit | March 2006 |
| Integrated certification accredited | December 2007 |
| Renewal of integrated certification | October 2009 |

86 Affiliates in Japan Complete EMS Building and Certification

As of the end of March 2011, all 86 affiliates in Japan had received certification for 90 EMS.

The EMS standards introduced by Osaka Gas Group include ISO 14001 and the Eco Action 21 Guidelines of Japan's Ministry of the Environment, as well as the Osaka Gas EMS (OGEMS®), a voluntary EMS that functions similar to Eco Action 21. We also have group-wide rules for the introduction and implementation of EMSs

EMS standards Osaka Gas Group certified for

(As of March 31, 2011)

| Standard | Feature | Total |
|--|--|----------------------|
| ISO 14001 | An international EMS standard set by the ISO (International Organization for Standardization). The aim of the standard is to continuously improve the level of environmental management through the PDCA cycle of Plan, Do, Check, and Act. | 19 |
| Eco Action 21 | A standard for EMSs based on the Eco Action 21 Guidelines of Japan's Ministry of the Environment. By integrating an EMS, environmental performance evaluation, and environmental reporting, Eco Action 21 makes it possible for even SMEs to voluntarily carry out aggressive environmental efforts and to make and publicly release environmental activity reports on the results of these efforts. | 3 |
| Kyoto Environmental Management System Standard | Standard aimed mainly at SMEs, established by the Kyoto Local Agenda 21 Forum, which is made up of municipal government, businesses, and citizens. The content is expressed in simple language and achieving the standards is a straightforward, two-step process. | 3 |
| Osaka Gas Environmental Management System (OGEMS®) | Based on Eco Action 21, this standard was established by Osaka Gas in 2005 for its affiliates. The secretariat is represented by Osaka Gas's CSR and Environment Department, and it carries out all procedures from consultation on system introduction to certification. | 65 |
| Cumulative total | | 90 (86 companies) |

Support for EMS Implementation

General Training and E-Learning

In fiscal 2007, the Osaka Gas Group started e-learning to give all employees the necessary knowledge on basics of environmental issues, and on Group environmental measures, targets, and activities.

There is also group training, divided by job description and company division, for raising employees' environmental awareness.

In fiscal 2011, about 7,500 employees took e-learning and about 5,400 participated in the group training.



E-learning

Harmonizing with the environment and contributing to realizing a sustainable society

Medium-Term Environmental Targets and FY2011 Results

Overview of Fiscal 2011 Results

In fiscal 2011 we made good overall progress towards achieving our medium-term environmental targets (excluding certain indicators). Of particular note was the reduction of CO₂ emissions in our gas business by increasing the operation rate of LNG cryogenic power generation at our terminals. On a per-unit basis, we made dramatic improvements over the previous year. We are also on the way to achieving targets for waste.

In our power generation business, the Senboku Natural Gas Power Plant was in operation for the full fiscal year, helping improve our CO₂ per-unit emissions. In our heat supply business, however, our per-unit performance worsened due to a decrease in demand for heat. In the area of waste recycling, we still need to increase our recycling ratio and are working in earnest on this.

Reduction of Environmental Impact at Osaka Gas: Targets and Results (for Gas Business)

Third-party verification completed

Osaka Gas underwent third party verification by Bureau Veritas Japan Co., Ltd.

| Item | | Indicator | FY2012 Targets | FY2011 Results | |
|--|--|---|--|----------------|-------------|
| Improvement of Environmental Management Efficiency | <div>Cash equivalent of total environmental impact<ul style="list-style-type: none">Greenhouse gas (CO₂, methane) emissionsNOx emissionCODFinal disposal of general/industrial wasteFinal disposal of excavated soilChemical substance emissions</div> <div>Total individual environmental impacts in cash value per 1,000 m³ of gas sold is calculated.</div> <div>/Amount of gas sold (yen/1,000 m³)</div> | | 91 or less | 69 | |
| | Reduce CO ₂ emission | | CO ₂ emission per 1 m ³ gas sold ¹ (g-CO ₂ /m ³) | 17.9 | 16.9 |
| | Waste reduction and recycling promotion | LNG terminals | Percentage of final disposal (general and industrial waste) | 0.5% | 0.6% |
| | | Offices and laboratories | Percentage of final disposal (general waste) | 9% | 5.5% |
| | | | Percentage of final disposal (industrial waste) | 3% | 1.9% |
| Reduce final disposal of excavated soil | | Percentage of final disposal (improved percentage of recycling and efficient utilization) | 4% | 1.4% | |
| Efficient utilization of water | | Water usage (general and industrial water) (10,000 m ³) | 160 | 146.4 | |

Reduction of Environmental Impact in the Osaka Gas Group: Targets and Results

Third-party verification completed

Osaka Gas underwent third party verification by Bureau Veritas Japan Co., Ltd.

| Item | | Indicator | FY2012 Targets | FY2010 Results |
|---|-----------------------------------|---|---------------------|----------------|
| Reduce CO ₂ emission | Electricity business | Strive to reduce CO ₂ emission intensity at transmission point by about 15% of FY2009 level in FY2021. | — | -27.9% |
| | District cooling/heating business | Energy efficiency ² (reduce energy intensity from base year, FY2009) | Reduced by about 1% | 6.5% |
| | Other businesses | CO ₂ emission factor ³ (CO ₂ emission/sales) (tons-CO ₂ /million yen) | 0.75 | 0.59 |
| Waste recycling promotion at core affiliates ⁴ | | Percentage of final disposal (general waste, industrial waste) | 10% | 27% |

Note: Targets for FY2013: 1 17.8 g-CO₂/m³ 2 Reduced by about 4% 3 0.75 tons-CO₂/million yen 4 Liquid Gas, Urbanex, OGIS Research Institute and Osaka Gas Chemicals (excluding CF Materials Division).

Environmental Accounting

Environmental Investment and Expenses Increased

In environmental conservation costs, because facilities investment has come full circle and efficiency has been raised, the investment amount was down from the previous year.

In internal economic benefits, operation of cryogenic power generation¹ at LNG terminals was increased and

the amount of excavated soil was minimized, resulting in expenses on par with the previous year.

We will continue to ensure we use expenses effectively by following our environmental efforts converted into monetary terms.

Environmental conservation cost

| Item | | | Investment (million yen) | | Expense (million yen) | |
|---|----------------------------------|---|--------------------------|--------|-----------------------|--------|
| Contents | | | FY2010 | FY2011 | FY2010 | FY2011 |
| In-company activities | Global environment | Energy saving equipment | 624 | 113 | 812 | 643 |
| | Pollution prevention | Air and water pollution preventing equipment | 10 | 3 | 73 | 38 |
| | Resources recycling | Excavated soil recycling, waste management | 38 | 53 | 239 | 172 |
| | Environment management | Green purchasing, environmental education, EMS development, environmental organizations | 77 | 23 | 6,019 | 4,241 |
| | Conserving resources, other | Greening at plants, compensation for environmental preservation | 1 | 1 | 363 | 33 |
| Environmental impact reduction at customers | R&D | R&D of environmental impact reduction technologies, environment-conscious products | 610 | 591 | 1,012 | 2,496 |
| | Recycling of used gas appliances | Collection and recycling of gas appliances | 0 | 0 | 73 | 83 |
| Philanthropic activities | | | 4 | 6 | 222 | 64 |
| Total | | | 1,364 | 791 | 8,813 | 7,769 |

Internal economic benefits

| | Economic benefits (million yen) | |
|--|---------------------------------|--------|
| | FY2010 | FY2011 |
| Saving through reduction and recycling of excavated soil | 4,133 | 4,009 |
| Sales of valuable resource (LNG cryogenic energy) | 172 | 160 |
| Cost reduction through energy / resources saving | 311 | -33 |
| Total | 4,616 | 4,137 |

Environmental conservation results

| | Per output ¹ | | | Total amount | | | Reduction ² | | |
|--|-----------------------------------|--------|--------|-------------------------------|--------|--------|-------------------------------|--------|--------|
| | Unit | FY2010 | FY2011 | Unit | FY2010 | FY2011 | Unit | FY2010 | FY2011 |
| NOx (LNG Terminals) : NOx emissions in the gas business | mg/m ³ | 1.44 | 0.74 | tons | 8.09 | 6.32 | tons | 24.12 | 22.57 |
| COD (LNG Terminals) : COD for all LNG terminals | mg/m ³ | 0.38 | 0.29 | tons | 3.1 | 2.5 | tons | 9.71 | 8.95 |
| CO ₂ (LNG Terminals) ¹ | g-CO ₂ /m ³ | 13.38 | 11.44 | thousand tons-CO ₂ | 109 | 98 | thousand tons-CO ₂ | 15 | 33 |
| CO ₂ (Other sites) ¹ | g-CO ₂ /m ³ | 5.48 | 5.50 | thousand tons-CO ₂ | 44 | 47 | thousand tons-CO ₂ | 30 | 31 |
| Final disposal of excavated soil | t/km | 18.44 | 17.64 | thousand tons | 14 | 13 | thousand tons | 68 | 66 |
| Final disposal of general waste | g/m ³ | 0.01 | 0.02 | tons | 42 | 145 | tons | 1,164 | 1,235 |
| Final disposal of industrial waste (including used gas appliances) | g/m ³ | 0.08 | 0.07 | tons | 675 | 599 | tons | 4,767 | 5,108 |

(Note) FY2011: The amount of gas sales was 8,528 million m³ and the total length of newly installed gas pipes was 726 km.
1 CO₂ emissions associated with purchased electricity are calculated using the average factor of thermal power plants (0.69 kg-CO₂/kWh).
2 NOx, COD, CO₂, industrial waste, and general waste per 1 m³ gas sold was calculated. Final disposal of excavated soil per 1 km of new gas pipeline was calculated.
3 For NOx and COD, the difference from the regulated value was calculated for each facility. For CO₂, industrial waste and general waste, the difference in the factor (amount per 1 m³ gas sold) from the FY1999 level was multiplied by the amount of gas sold during the year under review. For final disposal of excavated soil, the reduction in offshore landfill disposal was calculated based on the amount of reduction in excavated soil and the amount of soil recycled.

(Social benefits of environmental conservation in monetary value)
We converted the social benefits of environmental conservation accruing from the reductions in total environmental impacts into monetary value. We calculated the monetary value of the reduction in final disposal of excavated soil using a factor determined by the Contingent Valuation Method (CVM). (In the CVM, we calculate the value of environmental conservation activities by surveying residents about how much they would be willing to pay for certain environmental conservation benefits). We define the monetary benefit of environmental conservation as this factor multiplied by the amount of reductions. For other environmental impacts, we have suitable factors for the monetary value of environmental values on the basis of some research into the costs of environmental damage etc. We have calculated monetary values for the environmental conservation benefits by multiplying these factors by the reductions in the individual environmental loads of Osaka Gas.

Social benefits

| Social benefits (million yen) | |
|-------------------------------|--------|
| Social benefits | |
| FY2010 | FY2011 |
| 9 | 8 |
| 15 | 13 |
| 54 | 115 |
| 105 | 110 |
| 1,503 | 1,458 |
| 4 | 4 |
| 146 | 157 |
| Total | 1,835 |
| | 1,864 |

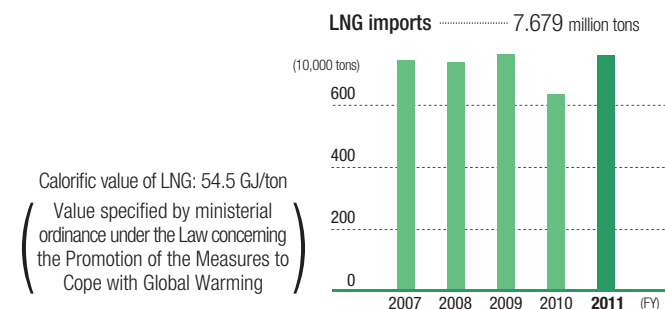
Harmonizing with the environment and contributing to realizing a sustainable society

Environmental Impact from Business Activities (Fiscal 2011)

Third-party verification completed

Osaka Gas underwent third party verification by Bureau Veritas Japan Co., Ltd.

Overseas (LNG imported by Osaka Gas)

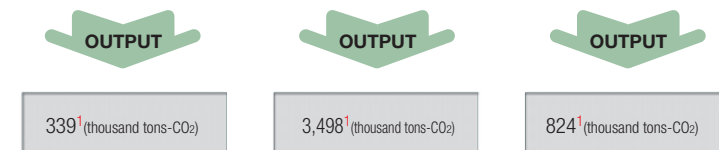
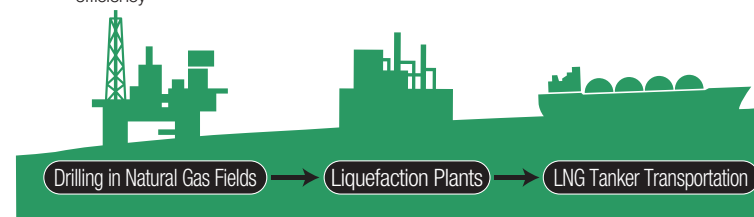


Reduction in Environmental Impact from Drilling Sites and Gasification Equipment

- Natural gas, which has a low environmental impact, is the fuel used to generate electricity needed at the extraction sites of natural gas fields.
- Using waste heat recovery to raise power generating efficiency

Reduction in Environmental Impact During Shipping

- Natural gas is used as the fuel for shipping.



¹ These values are estimated using the table below as reference.

LCA comparison of GHG emissions among fossil fuels

The table below compares total greenhouse gas emissions (specifically CO₂ and methane, expressed in CO₂ equivalent), from drilling to combustion, for various fossil fuels according to the LCA method². LNG is clean energy that emits less GHG than any other fossil fuel.

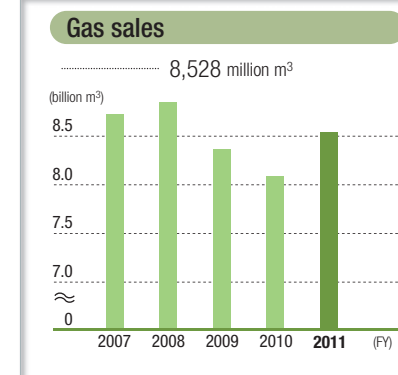
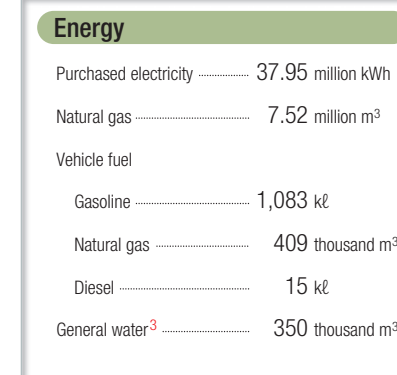
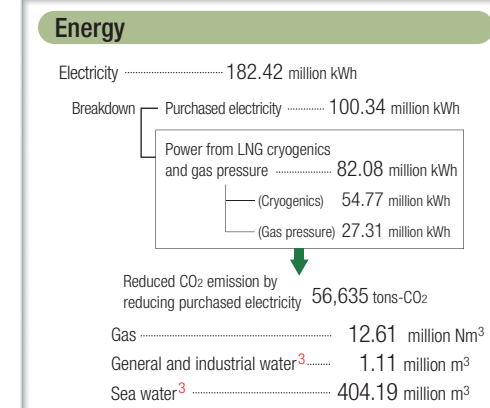
Comparison of greenhouse gas emissions (g-CO₂/MJ, HHV)

| | Coal | Oil | LPG | LNG |
|----------------|--------------|--------------|--------------|--------------|
| Production | 4.58 | 4.06 | 4.94 | 9.17 |
| Transportation | 1.71 | 0.79 | 1.80 | 1.97 |
| Infrastructure | 0.11 | 0.08 | 0.11 | 0.04 |
| Combustion | 88.53 | 68.33 | 59.85 | 49.40 |
| Total | 94.93 | 73.26 | 66.70 | 60.58 |
| Ratio | 157 | 121 | 110 | 100 |

² LCA (Life Cycle Assessment): A comprehensive quantification method of survey, analysis, and evaluation of the amount of environmental impacts of products and services. The assessment covers all the related processes from resource extraction to waste disposal including production, transportation, consumption, and recycling for the products and services.

Sources: Future Forecast for Life Cycle Greenhouse Gas Emissions of LNG and City Gas 13A (Energy and Resources, Vol. 28, No. 2, March, 2007)

In Japan (Osaka Gas's gas business)



Quality of the gas supplied by Osaka Gas

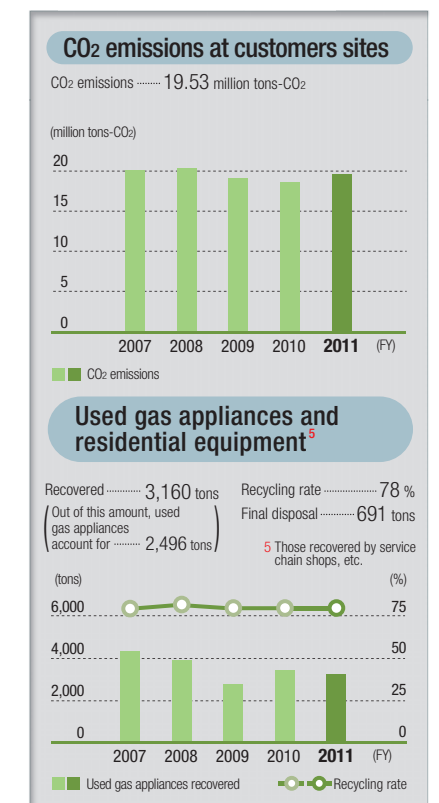
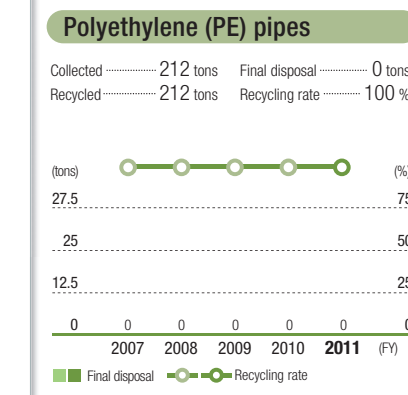
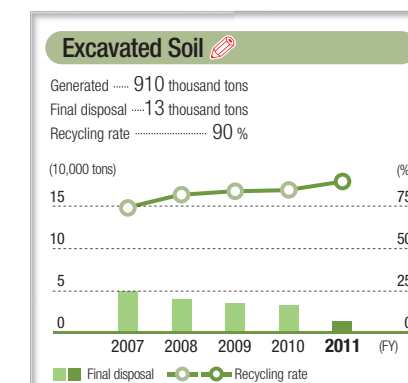
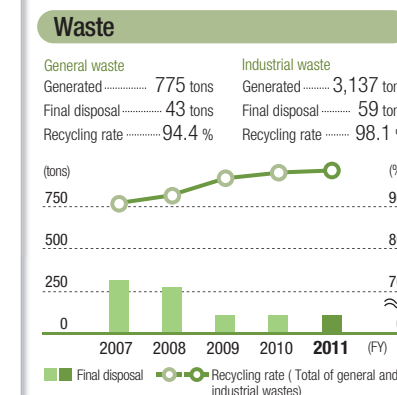
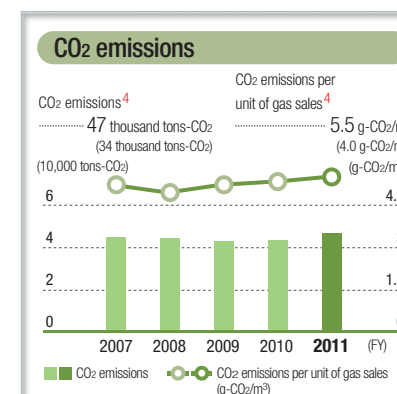
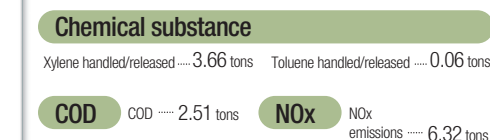
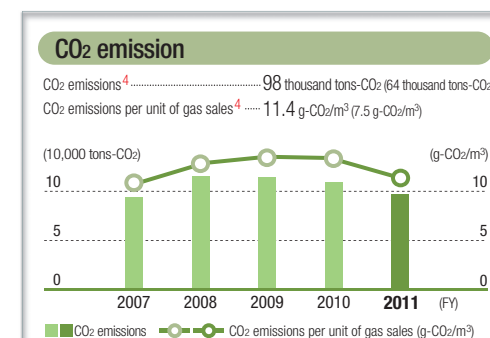
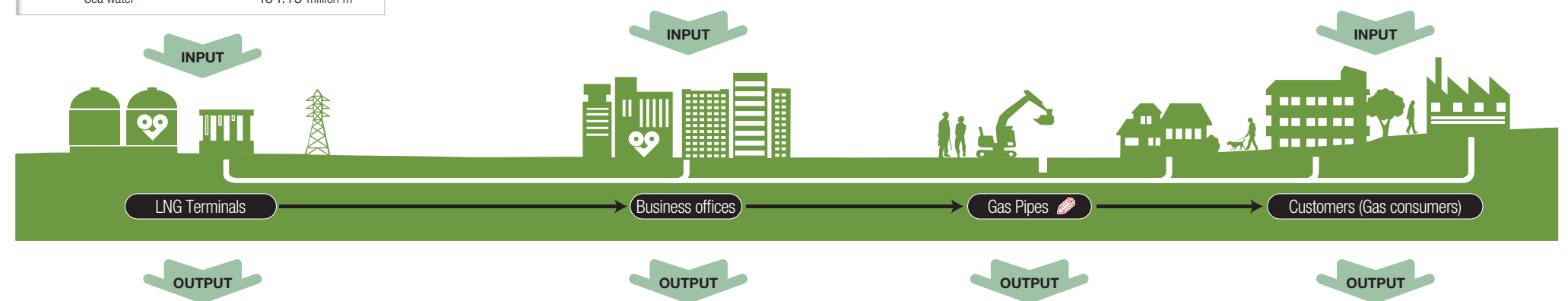
Heat value (HHV)

45.0 MJ/Nm³
(about 10,750kcal/Nm³)

CO₂ emission factor in combustion

50.9 g-CO₂/MJ
(2.29kg-CO₂/Nm³)

Note: Figures applied since March 2003



³ Because general and industrial water is used for businesses, the amount of input and wastewater is the same. For sea water, after it is used to gasify LNG, the same amount becomes wastewater.

⁴ At Osaka Gas, CO₂ emission subject to control is calculated using the average factor of thermal power plants (0.69 kg-CO₂/kWh) so that we can precisely assess how reduction of purchased electricity has contributed to a reduction in CO₂ emission. The figures in () show CO₂ emission calculated using the average emission factor of all power sources in FY2010 announced by Kansai Electric Power Co., Inc. (0.294 kg-CO₂/kWh) for the purpose of comparison.

What is the most appropriate method for evaluating CO2 reductions thanks to energy conservation efforts?

— Proper evaluation using the marginal emission factor —

Do you know how changes in CO2 emissions from electricity consumption by customers are calculated? CO2 is not emitted when you use electricity, that is why the CO2 emitted at the power plant is calculated as being emitted by the customer. This also applies in cases where the customer engages in energy conservation initiatives to reduce energy use, and in such cases, it is appropriate to evaluate the CO2 reductions at the power plant.

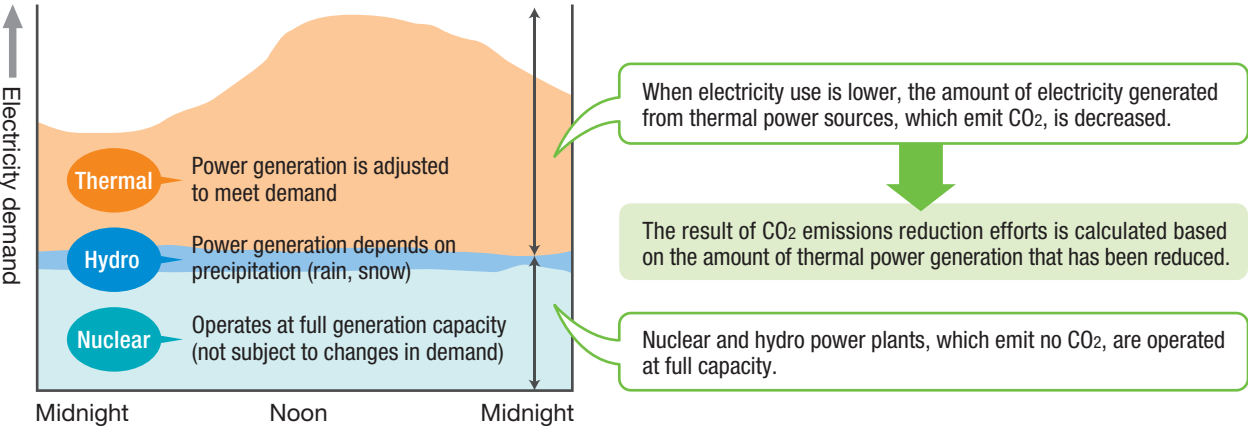
To do this, it is necessary to identify the power sources for electricity that is subject to demand fluctuations and hence variable throughout the year. These are known as marginal power sources. CO2 reductions are evaluated based on the volume of electricity that is reduced from these sources.

What is the marginal power source in Japan?

The power sources of Japan include thermal, nuclear and hydro power generation. Nuclear power plants continually generate power except for occasions such as periodical inspections. Due to their low operational costs, hydro power plants are operated to the fullest extent possible and the amount of power generated annually is determined

by changes in the amount of precipitation (rain and snow). On the other hand, the amount of power generated by thermal power is adjusted to meet demand and so the marginal power source in Japan is considered to be the thermal power.

Electricity production by type of power source



Formula for calculating CO2 emissions reductions

The following formula demonstrates the proper method for calculating CO2 emissions reductions due to reduced electricity consumption using the thermal power factor as the CO2 emissions factor (marginal emission factor) of the marginal power source.

Reduced electricity use (kWh)

×

Marginal emission factor (0.69kg-CO2/kWh¹)

=

Reduced CO2 emissions (kg-CO2)

¹ Source: Interim Report, Sub-Committee on Scenarios to Achieve the Target, Global Environmental Committee, Central Environmental Council (2001)

Average Emission Factor (AEF) for all power sources and the marginal emission factor

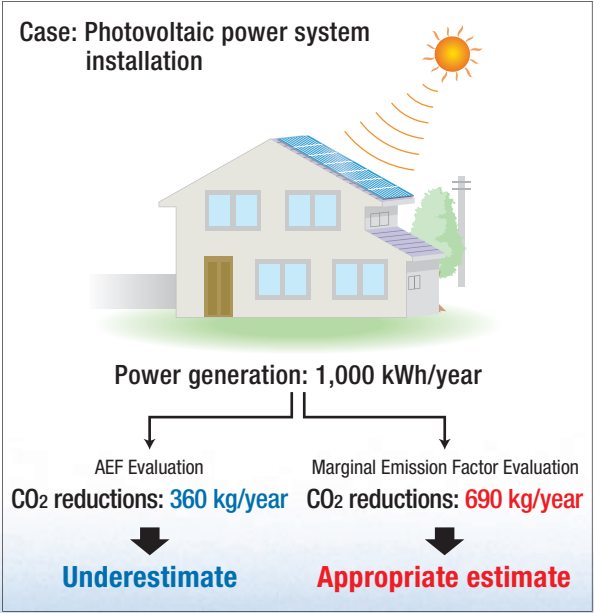
Generally, CO2 emissions are estimated using the average factor for CO2 emissions for all types of power sources, known as the Average Emission Factor (AEF), including nuclear, hydro and thermal generation. However, if AEF is used to estimate CO2 emissions reductions, nuclear and hydro generation, which do not change with fluctuations in demand, are included in the sources of reduced electricity generation. As a result, proper evaluations of CO2 emissions reductions should use the marginal emission factor, which in Japan is the CO2 emissions factor of thermal power generation at thermal power plants.

These two factors differ significantly as outlined below and it is possible that CO2 emissions reduction evaluations based on AEF will underestimate mitigating effects on global warming due to the introduction of solar, wind, biomass, and other alternative energy sources.

| Average Emission Factor (AEF) | Marginal Emission Factor (Thermal Power Factor) |
|-------------------------------|---|
| 0.36 kg-CO2/kWh | 0.69 kg-CO2/kWh |

Source: Interim Report, Sub-Committee on Scenarios to Achieve the Target, Global Environmental Committee, Central Environmental Council (2001)

Example of underestimation of CO2 emissions reductions when using AEF



International/Domestic standards for CO2 reduction assessments

International standards dictate that assessments of CO2 reductions as a result of reduced electricity purchased should be calculated using the marginal emission factor (in Japan, the thermal power factor). This practice is employed in the Clean Development Mechanism (CDM) process, one of the mechanisms of the United Nation's Kyoto Protocol, as well as international standards such as the Guidelines for Quantifying GHG Reductions from Grid-Connected Electricity Projects, part of the Greenhouse Gas Protocol Initiative. In Japan, the government guidelines for energy conservation include information regarding this method.

CO2 reduction assessment under the Guidelines for Quantifying GHG Reductions from Grid-Connected Electricity Projects (GHG Protocol Initiative)

The Operating Margin (OM) emission factor (marginal emission factor) is used to calculate CO2 reductions due to the effect of energy-saving efforts. The marginal emission factor is obtained by identifying the power source of the electricity that has been reduced.

Government guidelines employing the marginal emission factor (the average factor of thermal power sources)

- ◆ **Interim Report**, Sub-Committee on Scenarios to Achieve the Target, Global Environmental Committee, Central Environmental Council (2001)
- ◆ **Environmental Reporting Guidelines 2007**, the Ministry of the Environment (2007)
- ◆ **The standard for green government building and its practical manual**, edited by the Ministry of Land, Infrastructure, Transport, published by Public Buildings Association (2005)
- ◆ **The standard for environmental performance examination/retrofit design and its practical manual**, edited by the Ministry of Land, Infrastructure, Transport, published by the Building Maintenance & Management Center (2006)

Here is a link to a video with an explanation of the proper evaluation of CO2 emission reductions. (Japanese only)
<http://www.osakagas.co.jp/company/csr/co2movie/index.html>



Being a good corporate citizen contributing to society

The Osaka Gas Group, as a good corporate citizen, strives to maintain communication with society and the communities it serves. Through proactive disclosure of information and improved managerial transparency, we intend to establish favorable relationship with citizens and to make our positive contribution to healthy development of society.

Target and Result CSR Indicator: Number of contacts and communication events

Target by FY2012

Total contacts:
at least 1% of total
customers; at least 365
communication events

FY2011 Result

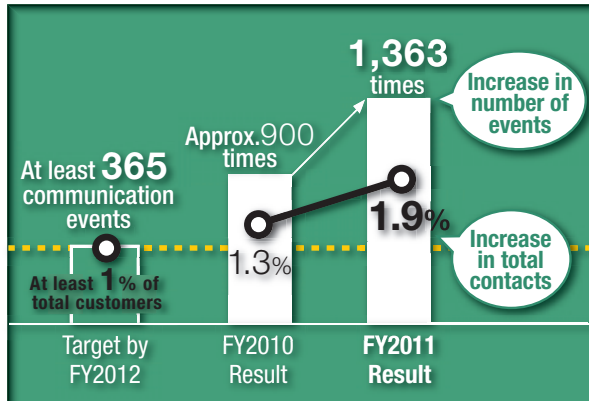
Total contacts:
1.9% of total
customers; 1,363
communication events

Definition of Indicator

The first indicator, the number of contacts, represents the total number of customers contacted in fiscal 2011 as a percentage of the total number of customers. This indicator is calculated by summing up the number of visitors to the Gas Science Museum and the Himeji Gas Energy Hall, energy and environmental education (school visits) participants, and attendees of other events and seminars, excluding sales-related events.

The second indicator, number of communication

Total contacts and number of communication events



events, stands for the number of communication activities and related efforts actually conducted.

Example of Communication with Customers in Fiscal 2011



Examples of Living-Related Activity

Ever since completing the Gas Building, the head office of Osaka Gas, in 1933, Osaka Gas has carried on its tradition of using cooking lessons to provide knowledge, awareness, and information related to food and food culture. We have also worked with local governments to promote health, safety, and peace of mind.

Examples of Environment-Related Activity

Besides sending employees to teach lessons on energy and the environment at elementary, junior high and high schools, Osaka Gas contributes to citizens' awareness improvement through workshops and exhibitions. Since 2005, Osaka Gas has had the Osaka Gas Forest to contribute to the protection of the forests along the historic Kumano Kodo pilgrimage route.

Examples of Community-Related Activity

Osaka Gas shows its gratitude to local communities through numerous events and activities: fairs open to local people at Osaka Gas bases, cleanups of nearby neighborhoods, and work-experience days for local junior high school students.

Overview of FY2011 Result

The Osaka Gas Group provides the public with its expertise through numerous events related to energy and the environment, safety, and dietary education, that are implemented by the Group organization and affiliates. And through initiatives like the Small Light Campaign, which is celebrating its 30th anniversary, we conduct goodwill events and sponsor and donate to local activities. In 2011, we reorganized our CSR promotion system and established a new management-level body focusing on

social contributions, which will take stock of the Group's activities in this area and look into the direction our efforts are headed.

In the three areas of living, environment, and community, we will plan how to coordinate these initiatives within the Group, while raising employees' social awareness and supporting them in volunteer activities. We will also continue efforts to support victims of the Great East Japan Earthquake.

Overview of Osaka Gas Social Contribution Activities



A Word from a Stakeholder

Raise Awareness and Contribute to All Aspects of Society

As members of communities, both companies and individuals are expected to contribute to healthy development of society. When you are aware that your work contribute to society, you can experience more and have a higher quality of life, and this makes your life richer. Such demeanor of employees gives Osaka Gas a better reputation among the public and this in turn makes their work more rewarding. I hope that we can continue this virtuous circle with raising employee awareness and contributing to society.

We will continue with the Small Light Campaign by tailoring its

activities to the needs of those we seek to help. We will also make the most of the Osaka Gas Group strengths—our expertise and know-how, assets like our facilities, and the individual expertise of our employees—to expand our activities solving social issues, all-in-all contributing to the development of a society and communities in which people live with vigor and hope.



Eiichi Inamura
Chairman of the Board
for Social Contribution,
Osaka Gas Group
CSR Committee

T O P I C S

Launching the "Hajimaru-kun" Give-away Program donating recycled PCs to welfare organizations

Since April 2005, OGIS-RI Co., Ltd., an Osaka Gas Group company, has collected personal computers that are no longer being used from companies and, after deleting data and performing inspections, prepares them for reuse. In October 2009, cleaning and other refurbishment tasks were outsourced to a facility for people with disabilities and the program was developed into the Hajimaru-kun Program, a philanthropic activity connected with increasing work opportunities for people with disabilities.

In addition, with the cooperation of Osaka Gas Co., Ltd., OGIC Corporation, and the Small Light Campaign funded by Group employees, in May 2010 the Hajimaru-kun Give-away Program was launched.

In fiscal 2011, more than 10 companies including those of the Osaka Gas Group provided used PCs, which were outsourced for refurbishing to a facility for the disabled, and then donated them (137 PCs) to 59 organizations. Of these, 25 provided by Sunmoretec, a information service company of the Suntory Group, and 10 provided

by OGIS-RI Co., Ltd. were donated to the Japan Asian Association & Asian Friendship Society (JAFA), a group promoting exchange between high school students in Japan and other Asian countries.

As well, there were more than 1,000 PCs outsourced for refurbishing under the Hajimaru-kun Program to a facility for the disabled, and starting in February 2011 we began outsourcing software installation as well.

OGIS-RI Co., Ltd. will seek more companies and organizations to partner with in these activities as it strives to support the disabled and give social welfare organizations better IT capabilities.



Philanthropic activities symbol
Hajimaru-kun

Being a good corporate citizen contributing to society

Energizing Kids web site (in Japanese):
http://www.osakagas.co.jp/e-kids/



Social Contribution, Communication with the Public

Nurturing Children

Employees Teach Energy and Environment at Schools

To give children a better understanding about the connection between energy and the environment, Osaka Gas sends employees to teach at elementary and high schools. About 50 employees and Osaka Gas alumni are instructors in this program.

In fiscal 2011, 822 sessions were held for a total of approximately 31,700 students. Since we began this activity in fiscal 2007, there has been a cumulative total of 2,800 sessions (for approximately 111,700 students.)



Teaching students about fuel cells

NOBY Track & Field Club

In April 2010, Osaka Gas began activities of the NOBY Track & Field Club, headed by former Olympic athlete Nobuharu Asahara, the coach of the Osaka Gas track & field team. Established with an introductory lecture in October 2009, the club is part of Osaka Gas's social contribution and uses the medium of sports to help children grow strong and healthy and to foster the next generation of top athletes.

As of April 2011, the club had 100 elementary school students, 42 junior high students, and 18 of high school age and older. The club holds weekly practice sessions under the guidance of coach Asahara.



The NOBY Track & Field Club

Energetic Kids Baseball Camp

As part of efforts to contribute to the community through sports, the Osaka Gas baseball club held the Energetic Kids Baseball Camp in February 2011 at the field of Osaka Gas.

There were 100 participants in grades 5 and 6 on the baseball team. Ryuji Matsuda, manager of the Osaka Gas baseball team, led a group of 35 team coaches and players who taught the youngsters how to properly catch and hit the ball and play field positions in a fun-filled day.



Baseball camp (batting practice)

Dietary Education

Communicating Through Food

Osaka Gas and its affiliate Apriti Sesamo Co., Ltd. hold cooking classes and gas cooking devices seminars to provide opportunities to interact with customers through food culture.

One of these events is the Little Chefs Academy, to which children living in welfare facilities are invited to take part in Osaka Gas's Tomoshibi Children's Cooking program. There are also dietary education textbooks published, nine in total, that have been distributed free of charge to schools in the Osaka Gas service area.



Tomoshibi Children's Cooking

TOPICS

Let's Eat and Grow Healthy: Osaka Gas Opens Site for Learning Food Culture

Under the slogan, "Let's eat and grow healthy!", Osaka Gas conducts dietary education with the aim of developing well rounded people of sound mind and body with the help of food. One of these efforts is a site called "Let's Eat and Grow Healthy," a section of the Osaka Gas website that is aimed at elementary school students.

On the site, children can learn through quizzes on topics such as the importance of cooking on your own and in a proper way. The content of the site was created with guidance from Yukari Takemi, a professor at the Kagawa Nutrition University, in order to make the site conducive to creating discussions between parents and children about food and to provide users with educational material on food and cooking.



"Learning About Fire" to Foster the Next Generation

By familiarizing children with fire through firsthand experience, Osaka Gas's "Learning About Fire" program helps children grow into well-rounded individuals and makes them independent. This program includes sessions in how to light a fire, story-telling on the topic of fire, and first-hand experience lessons.

In fiscal 2011, the program's spring and summer curriculum included how ancient people made fire, how to use matches, and safety with fire.



Learning about fire at camp

Cultural Activities

OMS Drama Awards

In 1994, Osaka Gas created the Ogimachi Museum Square (OMS) Drama Awards in order to develop the next generation of playwrights and open the door to opportunities for scriptwriters and playwrights. The awards are renowned all over Japan as an honor specifically for the Kansai region, and many winners are now working at the top of the world of theater.

In fiscal 2011, the 17th year of the awards, 50 works were submitted, with eight being named outstanding. In the final judging, a panel of five including actor Eri Watanabe hotly debated the finalists. The grand prize winner was "Muika" by Shin Hashiguchi, with "Usotsuki, Gokyu" by Akira Yamazaki receiving honorable mention, and certificates and awards being presented.

Starting with the 16th awards in fiscal 2010, besides monetary prizes (300,000 yen for the grand prize, 100,000 yen for honorable mention), there is a 500,000 yen subsidy for winning entries that are to be performed again.



Awards ceremony for the OMS Drama Awards

Yutaka Sado and the Super Kids Orchestra

The Osaka Gas supports the Super Kids Orchestra, an event that fosters talented child musicians and raises awareness of social contribution. The event is led by world-renowned conductor Yutaka Sado.



Yutaka Sado and the Super Kids Orchestra

Communication on a Local Level

U-Coro Project Prepares Citizens for Disasters

Since fiscal 2008, the Osaka Gas Research Institute for Culture, Energy and Life (CEL) has operated the U-Coro Uemachi Plateau Communication Room, part of the Osaka Gas Experimental Residential Complex NEXT 21 in Osaka City. The Room is host to programs that celebrate the uniqueness of local areas, and it provides opportunities for local residents to discuss among themselves and discover the appeal, possibilities, and issues of the community, and build new networks.

Among exhibits held in fiscal 2011 was the topic on the evacuation centers in case of disasters. The U-Coro Uemachi Plateau Communication Room has become an integral part of the community by successfully creating a circle of exchange on issues of life and living.



A discussion with local citizens

Osaka Gas Sponsors Lively Disaster Preparation Event

Kobe City sponsored an event in October 2010 at various locations around Kobe on preparing for natural disasters. At the event dubbed as Disaster Prevention Olympics, working together with the Kobe Municipal Fire Department, Nobuharu Asahara, the coach of the Osaka Gas track and field team, supervised disaster prevention competitions. Many families took part in this fun competition.

Osaka Gas had a booth at the event introducing its efforts to ensure safety and peace of mind when using gas, thus contributing to education on disaster prevention.



Osaka Gas booth

Activities at Affiliated Foundations

As of October 1, 2010, two foundations were authorized as public utility foundations.

Supporting Senior Citizens

Activities of the Osaka Gas Group Welfare Foundation

The Osaka Gas Group Welfare Foundation was established in 1985 funded by companies of the Osaka Gas Group for the research, survey, and implementation of financial assistance activities for senior citizens. The foundation is active in the six prefectures of the Kansai region of Japan, working to improve and maintain the health of senior citizens.

In fiscal 2011, the foundation spent 9.44 million yen on 63 subsidy projects for senior citizens, and 6 million yen on eight projects related to research and surveys. It also held 204 sessions of health and fitness for a total of 14,357 participants.

International Support

Activities of the Osaka Gas Foundation of International Cultural Exchange

The Osaka Gas Foundation of International Cultural Exchange provides aid services to promote mutual understanding with natural gas-producing countries in the South-East Asia and Oceania region.

In fiscal 2011, the foundation provided total assistance of 21.2 million yen for items such as educational materials, scholarships, experimental research, and training in Indonesia and Malaysia. Total assistance of 19 years since the establishment of the foundation in 1992, reached 340 million yen.

Complying with laws and regulations and respect for human rights

The management's and employees' compliance with laws and regulations forms a basis of gaining society's trust. Our perspectives on compliance go beyond legal and regulatory boundaries to include decent conduct expected of all citizens. Based on our respect for human rights, we intend to maintain equitable relationship with our customers, business partners, and other parties.

Target and Result **CSR Indicator: Employee scores on compliance awareness**

Target by FY2012

FY2011 Result

Higher than the previous year

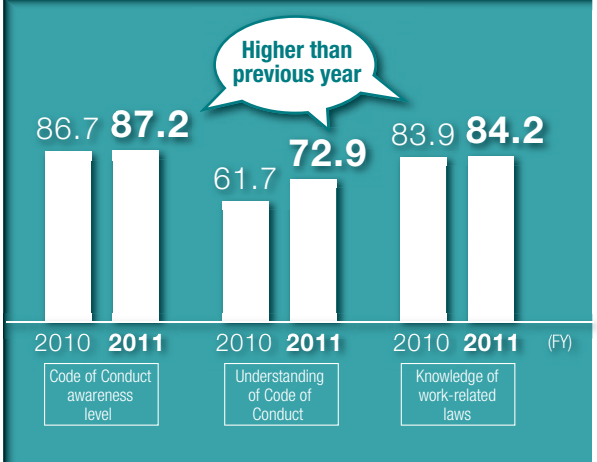


Higher than the previous year

Definition of Indicator

Since fiscal 2004, the Osaka Gas Group has been conducting annual surveys to determine how widespread and entrenched compliance awareness is in areas like human rights. The results are reflected in future Group measures. The goal is to have higher scores each year for the key CSR indicators of Code of Conduct awareness level, understanding of Code of Conduct, and knowledge of work-related laws. The survey is administered to a random group of 4,000 Group employees and responses are anonymous.

Key questionnaire results (%)



Breakdown and analysis of FY2011 compliance awareness scores

Awareness

Do you keep the corporate Code of Conduct in mind?

86.7% → **87.2%**

Each year brings increasing awareness among employees of the Osaka Gas Group Code of Conduct. On the occasion of revision of the Osaka Gas Group Code of Conduct in July 2011, we are striving to raise awareness even further through education and training.

Level of understanding

Do you comprehend the corporate Code of Conduct?

61.7% → **72.9%**

There was a major improvement in the level of understanding of the Osaka Gas Group Code of Conduct. With the Code of Conduct being revised in July 2011, we are revamping our training with the goal of achieving even greater levels of understanding.

Knowledge

Do you know the laws relating to your work?

83.9% → **84.2%**

There was an increase in knowledge of work-related laws. We will continue to use opportunities in daily work and training to give employees an even greater knowledge of the laws relating to their jobs.

Overview of FY2011 Result

There were improvements in all items of the key CSR indicators of Code of Conduct awareness level, understanding of Code of Conduct, and knowledge of work-related laws.

A look at all awareness surveys shows high levels for knowledge, climate, and conduct. We can see it from the survey responses: "We have been able to reduce compliance risk thanks to a high level of awareness in the workplace," "We are now able to take action with unwavering confidence," and "Our focus on compliance has given customers even greater trust in Osaka Gas."

However, the awareness survey scores shows that there is still room for improvement in cultivating greater understanding of the Code of Conduct. We will therefore step up education and training.

We will continue to conduct awareness surveys as a way of fixed-point observation.

Compliance Promotion

Organization for Strengthening Compliance

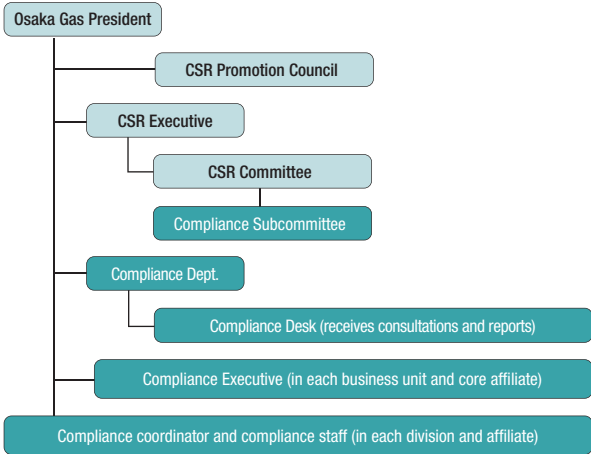
Compliance System Covers the Entire Group

The Compliance Subcommittee under the CSR Committee leads cross-organizational study of measures and sharing of information. The Compliance Department is in charge of promoting compliance activities.

Each of the Osaka Gas business units and core affiliates appoints a Compliance Executive.

There is also a Compliance Executive in each Osaka Gas business unit and core affiliate, as well as a compliance coordinator and staff in each division and affiliate.

Compliance structure



Compliance Desk

Compliance Desks at Head Office, Core Affiliates, and Law Offices Outside Company

The Osaka Gas Group has established Compliance Desks at the Head Office, core affiliates, and law offices outside the company to provide a channel for persons who need a place to seek advice on and report matters of compliance with laws and internal rules. The Compliance Desks are open to Group employees, temporary workers, and business partner employees. All referrals are anonymous.

In fiscal 2011, the Compliance Desks were contacted a total of 115 times by Group employees and temporary workers. Upon receipt of reporting, an initial examination was made, following which a fair investigation of the facts was conducted and any necessary corrective measures were implemented.



Compliance Desk Information Card distributed to all employees

Education, Training, Raising Awareness

Compliance Training

In fiscal 2011, Osaka Gas Group management underwent training with lectures from an outside instructor, while managers had training on sexual harassment. There were also four training sessions for compliance coordinators to help those at Osaka Gas companies and divisions raise their awareness, knowledge, and skill levels.

The period from July to September is designated as the time to strengthen compliance, and Osaka Gas employees took part in training and other activities to this end.



Training for compliance coordinators

Compliance Activities Held in Fiscal 2011 (by Compliance Department)

| Participants | No. of participants |
|--------------------------|---------------------|
| Management | 195 |
| Supervisors and managers | 1,306 |
| Compliance coordinators | 248 |
| New employees | 305 |

Note: Figures indicate the cumulative number of participants in each category of program. In addition to the above, compliance trainings were organized by each division/department.

Range of Awareness Activities

The Osaka Gas Group holds regular compliance awareness activities that include information provision, putting up posters, and notices on the company intranet.

In fiscal 2011, we held our first-ever compliance motto contest, with 1,096 entries from employees of the Osaka Gas Group.

All Group employees have received a pocket-sized compliance desk information card with the phone number and FAQs on reporting compliance issues.

Compliance Motto Contest: Winner and Runners-Up

Winner:
"Recipe for compliance trouble:
"It's not that important."
Runners-Up:
"Protecting compliance protects you."
"You could do that before. You can't now."

Complying with laws and regulations and respect for human rights

Protection of Personal Information

Improving Education and Supervision of Affiliates and Business Partners

The Osaka Gas Group is in possession of personal information on a large number of customers, and we have rules and measures in place to protect this information.

These measures have allowed us to reduce the danger of losing important personal information. However,

we have not totally eliminated problems: in fiscal 2011, an Osaka Gas affiliate and its outsource partner lost customers' personal information on two occasions. In both cases, the lost information was not leaked to outside the company; however, we take cases like this extremely seriously. We investigated the cause and improved our safety measures. We will continue to strengthen our personal information protection measures to prevent this from happening again.

Action on Human Rights

Systems and Plans for Human Rights Awareness

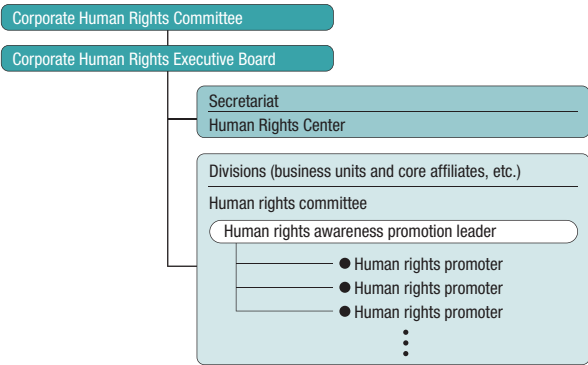
Group-Wide Awareness Activities

To promote human rights awareness throughout the Group, Osaka Gas established the Corporate Human Rights Committee headed by the director responsible for the Human Resources Department. This committee decides all basic policy with regard to human rights.

Following this basic policy, the Human Rights Center of the Human Resources Department plans and runs numerous efforts and events, such as human rights training for all job levels, training at all company divisions, and human rights lectures. There are also human rights slogan contests, with the winning slogans made into posters that are put up in offices to raise awareness of human rights. As well, each business unit and affiliate of that business has its own human rights committee, which relays policy and human rights information, encourages participation in outside lectures, and gathers human rights slogans, as well as exchanges information and opinions with other divisions, all in efforts to understand what must be done across the entire Group. Further, each business unit and its affiliate appoints a human rights awareness promotion leader, who is in charge of dealing with daily issues related to human rights.

The Osaka Gas Group's internal reporting system of Compliance Desks also provides a place for employees to seek advice on and report all matters related to human rights.

Organization



Human Right Awareness

Human Rights Awareness Plans for FY2011

The Osaka Gas Group has a human rights awareness slogan and activities every fiscal year in efforts to build a corporate culture in which human rights are respected.

In fiscal 2011, the slogan once again proclaimed our goal to "respect human rights and build a positive, energetic workplace," which we strove to achieve with initiatives including the following:

- Enhance and strengthen the human rights awareness structure
- Enhance human rights education and awareness raising activities
- Train human rights awareness promotion leaders within each division
- Gather information on human rights and disseminate it within the company
- Participate in and gather information at private industry human rights associations



Human right lecture for managers



Fiscal 2012 human rights slogan poster

Human Rights Training

The Osaka Gas Group has human rights training for all job levels, including management, managers, and new employees.

Newly appointed managers go through a process of detailed understanding, starting with the basics of human rights, a video course of lectures and discussions, then moving on to case study training on topics such as sexual and power harassment, and discrimination against social minorities.

There are human rights lectures for division heads and managers at Osaka Gas and affiliates, led by outside instructors. In fiscal 2011, there were two lectures on the topic of power harassment, with 443 attending.

Starting in fiscal 2011, human rights promoters led training for all employees, with a total of 10,000, including members of Group companies, taking part.

Fiscal 2011 Outside Courses for Human Rights Awareness Promotion Leaders

| Course name | No. of participants |
|---|---------------------------|
| Anti-discrimination and Human Rights Awareness Raising (managers) | 103 (cumulative total) |
| Human Rights, Anti-Discrimination Awareness (part 1, part 2) | |
| Course for Human Rights Training Leaders | |
| Buraku Liberation, Human Rights University Course | |
| Buraku Liberation and Human Rights Summer University Course, etc. | |
| Anti-Discrimination, Human Rights Awareness (introduction) | |
| Human Rights Introduction Seminar | |
| Fiscal 2011 Human Rights Awareness Seminar | |

Efforts Throughout the Supply Chain

CSR-Based Purchasing Guidelines

Purchasing Guidelines Follow the UN Global Compact

Osaka Gas strives to fulfill its corporate social responsibility in purchasing activities by enforcing the seven guidelines of the CSR-based Purchasing Guidelines shown on the right. The first guideline, "Strict Compliance," means that in purchasing, employees be acting as responsible members of society by following the letter and spirit of all relevant laws, as well as following accepted social norms and corporate ethics. "Relevant laws" means not only the relevant laws of countries where we do business, but also laws and regulations related to fulfilling corporate social responsibility in labor and human rights, including the 10 principles of the UN Global Compact.

These CSR-based Purchasing Guidelines can be found on the Osaka Gas Web site, and are also explained to all new suppliers we will do business with. We also reinforce these to existing suppliers by following up on annual surveys on the state of CSR-based purchasing.

CSR-based Purchasing Guidelines
(formulated June 1992, revised June 2009)

1. Strict Compliance
2. Assurance of Quality
3. Fair Price
4. Observance of Delivery Date
5. Environmental Considerations
6. Assurance of Safety
7. Maintenance and After-Sale Services

http://www.osakagas.co.jp/purchase/us/doc2_e.html

Human rights group training by job level

| Participants | Period | No. of participants |
|--|---------------------------------|---------------------|
| Directors | November | 29 |
| Division heads, managers | July, August | 443 |
| Supervisors and managers | June, July, September, December | 251 |
| New recruits | April | 177 |
| Corporate Branding Seminars | November | 130 |
| Managers, chiefs | August | 57 |
| Lecture for all employees | August - March | 10,407 |
| Human rights promoters | June, September, December | 50 |
| Training for all employees | April | 98 |
| Tailored training for affiliates | Full year | 510 |
| Corporate Human Rights Committee | March | 30 |
| Corporate Human Rights Executive Board | July, November | 25 |
| Head Office Human Rights Committee | May, October | 19 |
| Total | | 12,226 |

Survey on the Supply Chain Overseas

LNG suppliers outside Japan represent a part of the supply chain as well as a major group of our stakeholders. In January 2011, seven suppliers in six countries that we have long-term supply contracts with were given a questionnaire on the 10 principles in four fields (human rights, labor standards, the environment, and anti-corruption) of the UN Global Compact.

Employees at Osaka Gas Group overseas companies are given an Employee Handbook that covers all work related rules based on the Osaka Gas Group Code of Conduct. This ensures that all overseas employees are aware of issues in the four fields of human rights, labor standards, the environment, and anti-corruption.

Questions of the survey

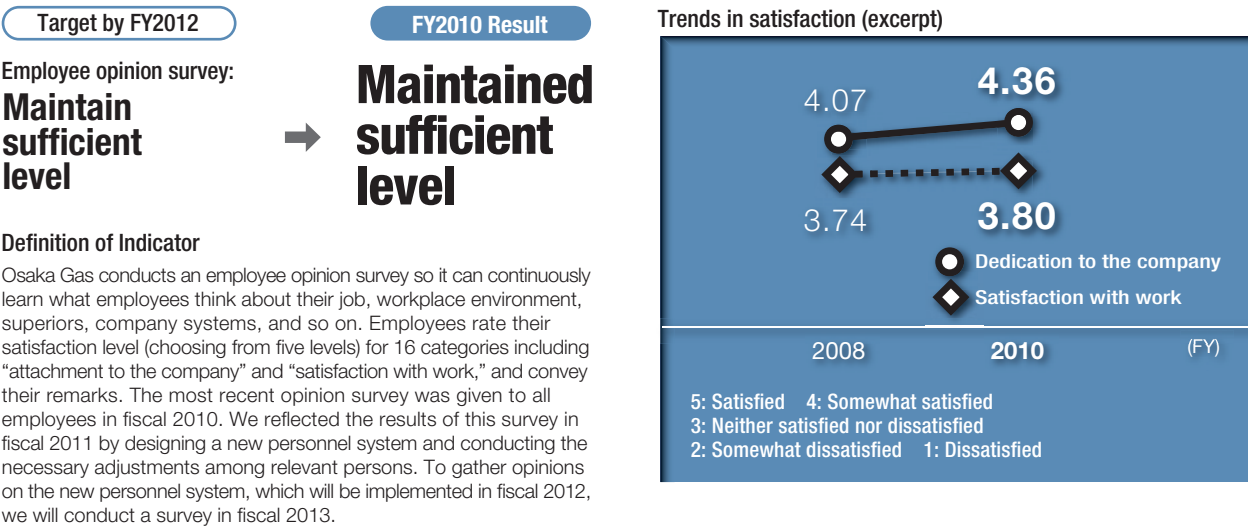
| | |
|-------------------------|---|
| Corporate governance | Code of conduct, penetration of code of conduct, risk management, corruption prevention |
| Environment | Environmental policy, environmental management system, compliance issues on environment |
| Human rights | Policy on human rights, human rights protection efforts |
| Labor | Policy on employment, management-labor relations, OSHMS, forced labor/ child labor prevention |
| Contribution to society | Policy on social contribution, social contribution programs, customer protection policy |



Management policy of human growth

The Osaka Gas Group strives to become a group of enterprises to realize growth of its employees through work by ensuring employment opportunities and respecting employees' individuality and initiative. We will continue to improve our knowledge and awareness with the goal of creating new value for customers and society. The group and its employees, through mutual trust and decency, strive to achieve sound growth of the enterprises within the group.

Target and Result **CSR Indicator: Employee opinion survey (job satisfaction and dedication)**



Overview of FY2011 Result

In April 2011, Osaka Gas introduced a new personnel system. This system is aimed at achieving continuous growth and development of Osaka Gas by clarifying the roles and expectations of all employees and by detailing proper hiring, training, evaluation, and placement of employees.

In the area of work-life balance, we are working on a number of efforts, including encouraging more male employees to make use of the Nurturing Leave, a childcare leave system, and establishing a consultation center in the

Health Promotion Center so that the employees and their families can get the advice they need for their health during pregnancy and child-raising periods. As a result of these efforts, in May 2011 Japan's Ministry of Health, Labour and Welfare once again (following original certification in April 2007) certified Osaka Gas as a company that actively supports childcare for its employees in accordance with the Law to Promote Measures to Support the Next Generation. This certification entitles companies to use a logo from Ministry of Health, Labour and Welfare.

A Word from a Stakeholder

Mutually Supportive Workplace Allowed Me to Return and Pursue a Promising Career

I think Osaka Gas truly understands that employees want challenges and growth.

Before I got married, I used my paid vacation to take overseas trips and broaden my horizons. My superiors also placed me in a variety of jobs and I became interested in real estate development and management. I took outside lectures and other training in the subject and this really helped me forge a career.

I am currently a sales manager in charge of the marketing for new houses. I had a child at age 36, but after coming back to work after five and a half months of childcare leave I was worried about whether I could pick up where I left off. Although it was tough up until my child was 4, my coworkers were very understanding and I was able to continue work by using the flex system. All this made it possible for me to forge a long-term career.

A lot of the work I do in sales involves negotiations outside the company, and my schedule tends to be irregular. I would not have been able to continue working while raising my child had I not been able to use day care and baby sitters, get support from my husband and mother-in-law, and get the understanding of people at my workplace.

I'm grateful that I have a work environment in which people respect and support each other. I hope that I can use all that I experienced in having and raising a child in my work—the personal growth I achieved, the things I learned about personality development and human psychology, and the friendships I forged with other mothers that allowed me to broaden my views.



Yuko Kusui
Real Estate Development
Team Manager,
Nanbu Residential Energy B.U.

Maintain Employee Numbers and Diversify Our Workforce

Hiring Efforts

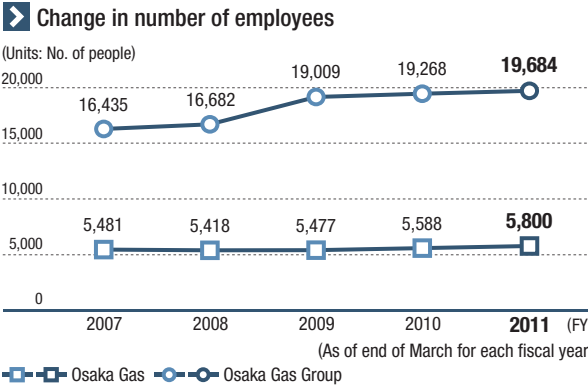
Match Employees' Aptitude and Aspiration with Company Needs

Our Declaration shows a summary of the Osaka Gas Group Code of Conduct, in which includes a topic of "achieving a workplace where human rights are respected and employees can work in comfort and piece of mind." Our Declaration states that we work towards achieving such a workplace.

In hiring personnel, we place importance on staffing in the job employees want and that they are qualified for, and matching them to the skills and job requirements of Osaka Gas. Since fiscal 2009, we have held meetings to introduce students to the companies in the Osaka Gas Group. At the fiscal 2011 meetings, approximately 725 students attended and heard ten Group companies explain the nature of their work and the kind of employees they are looking for. In fiscal 2011 we also held an internship program in which approximately 125 students experienced what it is like to work at Osaka Gas.



A meeting introducing students to companies in the Osaka Gas Group



Raising Employee Value

Osaka Gas encourages employees to continuously upgrade their skills so that we can better provide our customers with a stable supply of gas.

As of the end of fiscal 2011, the average length of service at Osaka Gas was 20.9 years. This is much higher than the 14-year average for companies of at least 1,000 employees (according to a 2008 statistics on wage structure compiled by the Ministry of Health, Labour and Welfare). We also have a low employee turnover rate (0.37%/year) for employees under 50 years of age.

We believe this is a result of efforts to increase value for employees, such as by providing opportunities for growth and creating a good work environment.

A Diverse Workforce

Hiring the Disabled, Rehiring Employees After Retirement

Osaka Gas does all it can to hire the disabled and creates a work environment conducive to the talents of each individual. As a result of these efforts, the disabled made up 2.1% of our workforce as of April 2011, well above the legal minimum of 1.8%.

Osaka Gas has a system, called the Short-Term Contract Reemployment Scheme, to rehire employees 60 and older after retirement, under which applicants are placed in jobs that match their skills and desires. In fiscal 2009, we introduced a full-time reemployment system to meet the working needs of a wider range of employees. All Osaka Gas Group companies have similar systems for the reemployment of retirees.

A Word from a Stakeholder

Reemployment System Gives Experienced Employees Rewarding Work

Under Osaka Gas's full-time reemployment system, I conduct inspections on the opening of gas lines to ensure that service shops have performed all the proper safety notices when they carry out opening of gas lines.

Giving feedback on the inspection results to the service shop raises the quality of work for opening gas lines. It's very rewarding to do work that directly contributes to safety and peace of mind for customers.



Kenji Tsumori
Safety Service Group
Hyogo Residential Energy B.U.

Providing Opportunities for Women

We strive to build a workplace in which women can achieve their full potential. We have women working in all facets of our business—LNG processing, gas supply, and marketing—according to the employees' desire and suitability.

Thanks partly to our various efforts to achieve work-life balance, there is an increasing number of women in supervisor and manager positions. As of the end of March 2011, there were 108 women in such positions. We will continue striving to give women more opportunities to display their energies and talents.

Osaka Gas Employee Data, as of End of March (excluding employees on loan to affiliates)

| | | 2009 | | 2010 | | 2011 | |
|-----------------------------|-----------------------------------|-------|-------|-------|-------|-------|-------|
| | | Men | Women | Men | Women | Men | Women |
| Employees | No. of employees | 4,543 | 694 | 4,630 | 705 | 4,775 | 721 |
| | Average age | 42.9 | 40.8 | 43.0 | 41.4 | 43.1 | 42.0 |
| | Average length of service (years) | 21.1 | 20.4 | 21.1 | 21.1 | 20.8 | 21.6 |
| | Turnover rate (%) | 0.57 | | 0.33 | | 0.37 | |
| Reemployed contract workers | No. of employees | 188 | 52 | 204 | 49 | 255 | 49 |

Management policy of human growth

Balancing Work and Family

Supporting Employees at Work and Home

Labor-Management Committee Promotes Work-Life Balance

Osaka Gas strives to create a corporate climate where employees can balance a rewarding job with fulfilling personal life and involvement in society to maximize their talents.

▶ Number of Employees Taking Childcare and Nursing Leave (Units: No. of people)

| | FY2010 | | FY2011 | |
|-----------------------|--------|-------|--------|-------|
| | Men | Women | Men | Women |
| Childcare leave | 0 | 26 | 3 | 34 |
| Nurturing leave | 134 | 14 | 120 | 25 |
| Nursing care leave | 0 | 0 | 1 | 2 |
| Shorter working hours | 1 | 36 | 0 | 50 |
| Nursing care time | 0 | 1 | 2 | 3 |

In fiscal 2009, a joint labor-management Work-Life Balance Promotion Committee was established to systematize support measures necessary at each stage of employees' lives and create a work environment conducive to making use of these measures.

For example, in fiscal 2010 we introduced a system we call Nurturing Leave, under which employees can take a day of paid leave up until their child is three months old. This system is meant to get more male employees as well as female employees taking leave to care for their child. We are working to get this system entrenched among labor and management at Osaka Gas.

As a result of these efforts, in May 2011 Japan's Ministry of Health, Labour and Welfare once again (following original certification in April 2007) certified Osaka Gas as a company that actively supports childcare for its employees in accordance with the Law to Promote Measures to Support the Next Generation. This certification entitles companies to use a logo from Ministry of Health, Labour and Welfare.



Logo of certification from the Ministry of Health, Labour and Welfare

Improving Occupational Health and Safety

Eliminating Injury in Workplace

OSHMS the Basis for Safety Action

Osaka Gas establishes and implements a plan to systematically prevent injury in workplace based on the Occupational Safety and Health Management System (OSHMS), which is recommended by the Minister of Health, Labour and Welfare.

In fiscal 2011, there were four accidents resulting in absence from work. Following these accidents, the causes and other details were analyzed, and to prevent their reoccurrence, preventative measures were implemented and shared, and cautions were given at occasions such as daily meetings.

Driving Safety Efforts

The Osaka Gas Group uses vehicles in a range of its business activities. To instill confidence among the public in Osaka Gas's driving safety, the company makes frequent use of its Safe Driving Training Center, which is equipped with facilities for teaching driving skills and improving driver's compliance with the rules of the road.

In fiscal 2011, 4,290 employees from 31 Osaka Gas Group companies took driver training.

Maintaining and Improving Health

Measures for Lifestyle-related Diseases and Mental Health

Osaka Gas established the Health Services Center in the Human Resources Department, where employees undergo health checkups and consultation aimed at preventing and providing support for curing lifestyle-related diseases and mental health problems.

For example, to prevent lifestyle-related diseases, starting one month before health checkups, employees weight themselves and go over a checklist of health items. This gives them a chance to look at their own habits and make the necessary changes. Starting in fiscal 2011, employees requiring health improvement were given specific guidance on matters such as diet, exercise, and, if necessary, giving up smoking.

Starting in fiscal 2012, all employees whose health checkup shows that they are at risk of metabolic syndrome, as well as those suffering from metabolic syndrome will be put on a voluntary health guidance program to further step up their health guidance.

Osaka Gas has also expanded its mental health education to include all supervisors and managers at affiliates, and we are stepping up efforts at mental health care for all employees as well.

Human Resource Development

Personnel System

Separate Work Tracks Under New Personnel System

To continue achieving growth and development for Osaka Gas through initiatives such as the Field of Dreams 2020 Long-Term Management Vision and Medium-Term Management Plans, we have a new personnel system under which we clarify the roles and expectations of all employees and detail proper hiring, training, evaluation, and placement of employees. Under the system introduced in April 2011, employees themselves choose which work track they would like to take in Osaka Gas.

Training System

We created a new system for training new employees in the Osaka Gas Group Affiliates

In fiscal 2011, we held a joint training by bringing together 37 new employees of 13 Group companies.

Besides lectures on topics like Group Management Principles, CSR activities, compliance, and human rights, participants learned the business skills needed in the working world and forged closer ties with fellow participants at casual get-togethers. As a follow-up, in October 2010, participants joined practical training sessions that allowed them to use what they learned at the initial session in actual on-the-job situations.

Another integral part of our new employee training support system is a "coaching course" in which experienced employees learn how to lead new employees in the workplace.



37 new employees from 13 Osaka Gas companies

Personnel Evaluation System

Evaluation that Leads to Personal Growth

Osaka Gas strives to create a fair system of assessment through meetings between employees and their superiors. We use the concept of management by objectives (MBO) in implementing two assessment indicators: assessment of results by measuring how well employees completed business tasks; and assessment of how well they fulfilled their expected roles in day-to-day duties.

In the assessment of results under MBO, employees set their own goals. By assessing not just employees' results but also the process they use to achieve results, employees are encouraged to take on greater challenges.

Communication Between Employees and Company

Labor-Management Relations

Labor and Management Cooperate to Resolve Issues

Osaka Gas has a union shop system in which all employees except those in management level are union members. The goal is amicable labor-management relations.

The labor union and company management hold council meetings and review committee sessions at which they discuss changes in working conditions, management issues, and company business in general. Through opinion exchanges that build up mutual understanding and trust, the two sides form, maintain, and strengthen solid and amicable labor-management relations.

President's Workplace Tour

Affiliates Engage in Dialog with President

The Osaka Gas president tours company workplaces in order to improve employees' team spirit and to provide an opportunity for direct talks between the president and employees.

During his meetings, the president starts with a

message for employees. The president and supervisors and managers then lead discussions on issues in the workplace and how to improve the quality of work processes. Starting in fiscal 2010, the president's workplace tours have included affiliates.

In fiscal 2011, the president toured a total of 13 divisions and affiliates. Participants had a variety of positive opinions and reflections on these meetings: "It was very motivating to be able to exchange opinions directly with the president," "I was able to reconfirm our company's position within the Osaka Gas Group, and I now have a stronger sense of being part of the Group."



President Tours Workplaces

CSR Management

CSR Organization

To Embody the CSR Charter and the Code of Conduct Promotion and Reform in Alignment with Osaka Gas Group CSR Charter

In April 2006, the Osaka Gas Group established the Osaka Gas Group CSR Charter to serve as guidelines for executive officers and employees of the Group enabling it to fulfill its corporate social responsibilities. In fiscal 2011, the Osaka Gas Group initiated a new system and established a place for dialogue with internal and external stakeholders as occasion warrants depending on the topic to enable flexible and appropriate responses to the demands of society. The CSR Promotion Council, consisting of executives, deliberates CSR plans and reports on results of activities under the supervision of the President of Osaka Gas. From the viewpoint of integrating the promotion of overall CSR activities, we established the CSR Committee to coordinate and advance Group-wide CSR activities. The committee, led by the CSR Executive, is composed of the heads of business units.

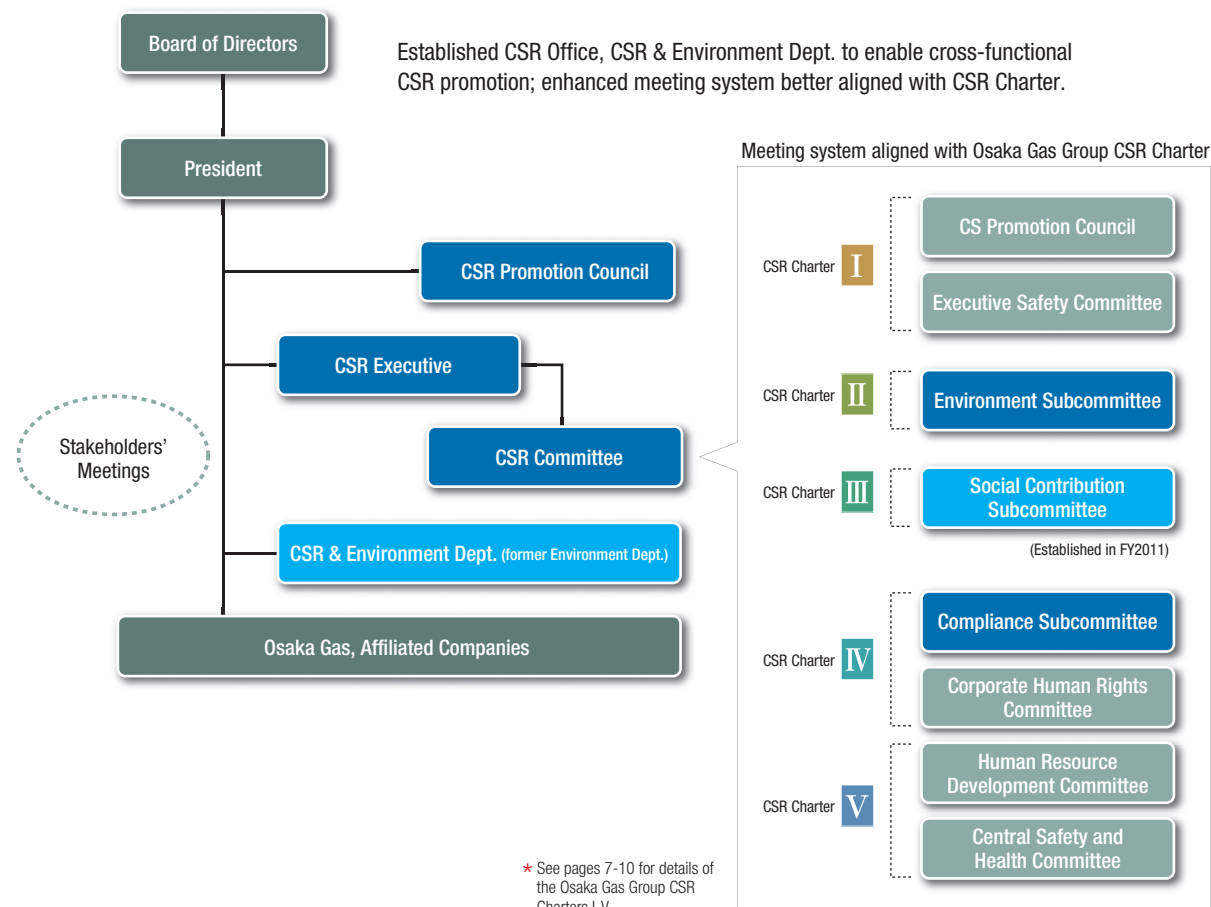
Meetings up to now have focused on the areas of the environment and compliance. However, from FY2011, Along with restructuring of the CSR organization to cover all five areas of CSR Charter*, the CSR & Environment Department was established to perform administration functions and to act as a hub for CSR activities. As well, we established a panel in charge of social contribution, whose members in various company divisions deliberate on CSR planning and reporting. With these actions, we will strengthen initiatives under the CSR Charter and aim for achieving CSR that fulfills the demands of society.

Starting from fiscal 2011, we will be expanding the themes of the stakeholders' meetings and holding communication opportunities including lectures for the general public and sending Osaka Gas experts to give guest lectures at universities.

* Charter I: Creating value for customers; Charter II: Harmonizing with the environment and contributing to realizing a sustainable society; Charter III: Being a good corporate citizen contributing to society; Charter IV: Complying with laws and regulations and respect for human rights; Charter V: Management policy of human growth.

CSR promotion system

■ New CSR body ■ Existing CSR body



Stakeholders' Meetings

Dialog with experts Theme of Global Business Environment and CSR



On December 1, 2010, Osaka Gas held a stakeholder dialog meeting at its Headquarters. Three outside experts gave lectures, followed by a panel discussion with these experts and six representatives of Osaka Gas.

Below are some of the opinions given by the experts during the discussion.

(For the details of this discussion, see the following link.)
http://www.osakagas.co.jp/csr_e/dialog/index.html

Boost the Trust of Osaka Gas by Publicizing How the Company's CSR Matches the Needs of the Times and Local Communities

Social issues change with the times and the places, so CSR must be carried out according to the task at hand. At a time when Japan faces a decreasing birthrate and an aging population, an example of a company's CSR is making it possible for employees to take care of elderly parents without having to quit their jobs.

Osaka Gas is considered a progressive company: it was number 17 on the list of 100

world-class Japanese companies, a list compiled by the Nippon Foundation. I hope that the company further improves its employee welfare systems and makes public its method for dealing with customer complaints. I think that publicizing negative issues is a way to build up trust.



Norio Machii
CANPAN Project Leader,
Information Systems Executive,
The Nippon Foundation

Listen to Stakeholders and Build an Environmentally Friendly Society Through the Main Business

In overseas CSR activities, grasping local needs and understanding business activity risks are crucial. Japanese companies operating overseas tend to take it on faith when local governments or companies say that everything is okay; often troubles occur once business starts up. We must talk with local citizens and NGOs so that we can see what types of risk exist.

As well, a company will be accepted into the

community if it carries out the actions that are needed by and appropriate for local people; for example, creating local employment, protecting the environment, and carrying out CSR. I hope that Osaka Gas will listen to stakeholders before it starts business in a new area so that it can solve problems for local communities through its business.



Kanna Mitsuta
Director
Friend of the Earth Japan

An Age in Which Private Enterprise Supports the Public. Build Improved Lifelines as a Profit-Making Company

When doing business in a developing country, contributing to the advancement of that country is an important part of CSR. With Japan's ODA budget shrinking, the time has come for private enterprise to support the public. I think it's important that Osaka Gas, a company that profits by transporting natural gas over the ocean, contribute to local peace and stability. Don't you think that there are expectations for Osaka Gas to

contribute to the improvement of the lifelines that ODA has been financing?

Osaka Gas is also pursuing environmentally friendly, advanced business, such as its Kobe biogas project in Japan. I think it's important for Osaka Gas to use a variety of media to make these and other efforts known to more people around the country.



Mizuho Kajiwarra
Staff writer,
The Asahi Shimbun GLOBE

CSR Management

Corporate Governance

System of Corporate Governance

Following the internal regulations stipulated by the Board of Directors, the Executive Board and Board of Directors are comprised of the executive directors and directors that implement Group business. They make decisions after thoroughly deliberating upon relevant issues. The Board of Directors consists of 13 directors (including two outside directors). Its mission is to make swift and appropriate decisions about important matters that affect the whole Group and to enhance supervisory capabilities.

The Company has adopted an executive officer system under which executive officers perform duties determined by the Board of Directors, while some representative directors and directors concurrently serve as executive officers. This serves to further strengthen the supervisory functions of the Board of Directors and enhance their performance in the execution of their duties.

Osaka Gas has chosen to adopt the corporate auditor system. Four corporate auditors, of whom two are outside auditors, each monitors the execution of work duties by the Board of Directors of the Osaka Gas Group. Osaka Gas has retained KPMG Azsa & Co. as the independent auditor.

Audits by Internal and Outside Auditors

The Company has established the Auditing Department (with a staff of 19 people), which functions as an internal auditing division and, based on a yearly auditing plan, monitors the appropriateness and efficiency of business activities, and provides each section of the organization with advice and recommendations. The Company is strengthening and enhancing its auditing and internal control functions with appointment of internal auditors who fulfill the responsibilities

defined in the Basic Rules for Affiliates and the Rules for Voluntary Audits, both of which are common sets of rules throughout the Group, for the business operations units and the core Group companies. This ensures that audit functions and internal governance are complete and solid. And in compliance with the Financial Instruments and Exchange Act, we evaluate internal governance related to financial reporting and report the result to the president.

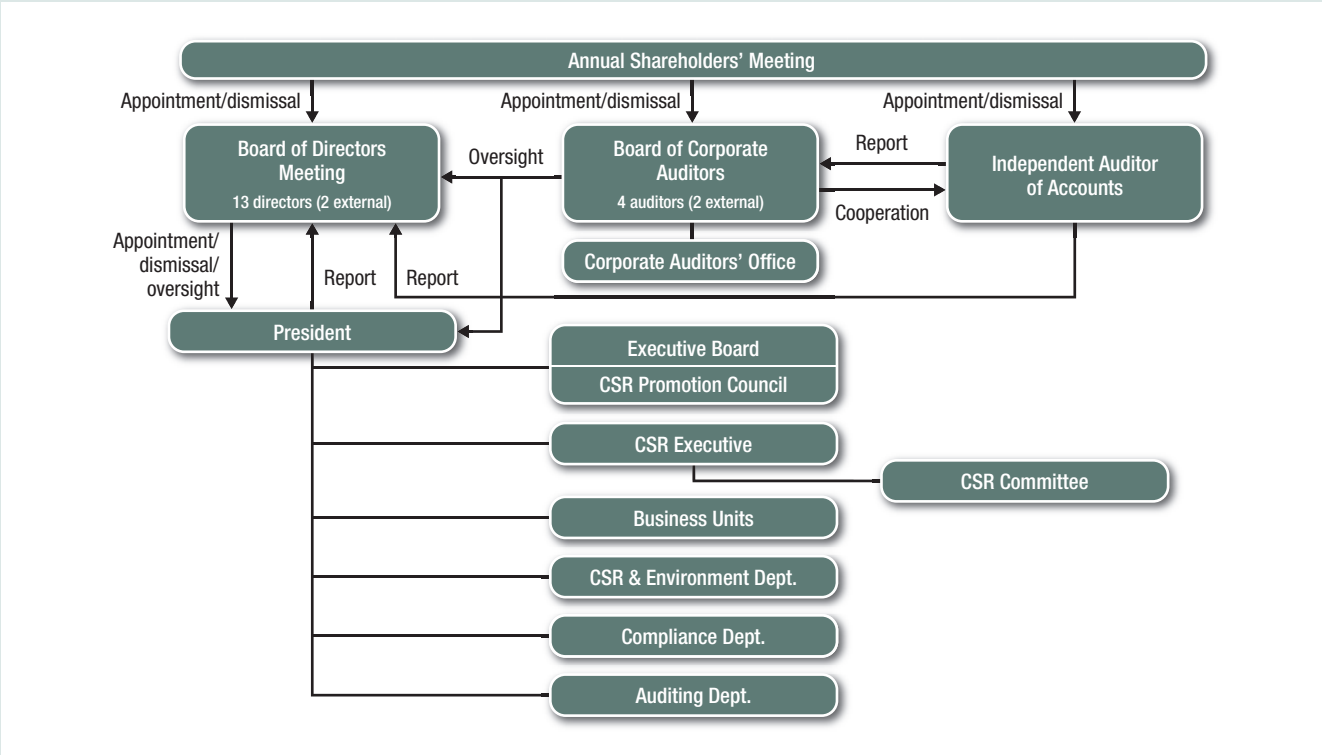
The Corporate Auditor's Office composed of four staff members not under the direct control of the directors has been established to support the corporate auditors and thus to improve the audit system.

The Auditing Department, auditors and independent auditors meet on a regular basis to discuss annual audit plans and audit reports, and also convene as required to exchange audit information to ensure the effectiveness of auditing activities.

Outside Directors and Outside Auditors

Osaka Gas has two outside directors and two outside auditors. The outside directors take part in decision-making as part of the Board of Directors. They are also expected to conduct monitoring and operational oversight. The outside auditors must strictly execute the director's business from an independent standpoint. The outside directors and outside auditors must confirm the state of the internal governance system based on the Companies Act, evaluate internal governance related to financial reporting in compliance with the Financial Instruments and Exchange Act, and hold hearings on the state of CSR with the Board of Directors, as well as confirm audit reports by independent auditors.

Corporate governance organization



Risk Management

Risk Management

The internal regulations of the Osaka Gas Group clarify the organizational structure for promoting and confirming the effectiveness of risk management.

Furthermore, the management organization for risk management common to the Group supports the implementation of risk management tasks in each division and business unit for the whole group.

Organizational Risk Management Structure

The basic unit for risk management in the Osaka Gas Group is each business division, subsidiary or affiliate. The head of each unit is responsible for managing risks of loss and conducts relevant checks on a regular basis.

G-RIMS (Gas Group Risk Management System) check list

| | |
|-----|---|
| 1. | Financial risks |
| 2. | Credit management risk |
| 3. | Purchase, accounting, tax risks |
| 4. | Risks from electronic banking* |
| 5. | Information management risks |
| 6. | Personal information management risk |
| 7. | Information disclosure management risk |
| 8. | Personnel management risks |
| 9. | Disaster prevention and safety risks |
| 10. | Product safety risks |
| 11. | Report-related risks |
| 12. | Lawsuit risks |
| 13. | Environmental problem risks |
| 14. | Risks concerning unfair trading and subsidy |
| 15. | Risks of inappropriate contact |
| 16. | Risks of insider trading |
| 17. | Risks of compliance violation in business execution |
| 18. | Business risks |
| 19. | Other risks on business practices |
| 20. | Intellectual properties management risks |
| 21. | Risks due to deficient internal control |

* Electronic banking: Financial services carried out over the Internet or via telephone.

Regular Reviews and Monitoring

Operating G-RIMS, Our Own Self-Assessment System

Risks must first be properly recognized. Then, after assessing the current status of risk management and remaining risks, actions must be planned.

G-RIMS (Gas Group Risk Management System) was established and is used as a common platform for identifying and managing risks and has been used since fiscal 2007 for conducting self-assessments throughout the Osaka Gas Group organization. Following the annual self-assessment by each division, the secretariat (Auditing Department, Compliance Department, Corporate Strategy Department and Affiliated Business Dept.) holds discussions with each division to monitor implementation. In the course of this process, the results of reviews are analyzed to identify issues requiring response while important risks unique to the individual divisions are distinguished from those common to the Group. The results of G-RIMS and issue identification are reported to the management.

Ongoing Improvement and Regular Reviews Reinforcing Internal Management Initiatives

Each division head and manager is responsible to take action for problems identified in the course of risk management reviews and to provide periodic follow up on improvement processes. In addition, the auditor in each business unit and major affiliated company serves as a focal point for discerning issues for internal audit and promote managers' self assessment to reinforce internal risk management initiatives. We ensure an effective PDCA cycle (plan, do, check, act) through these activities for risk management across the entire group.

Environmental Performance Data

Third-party verification completed

The environmental performance data on pages 57-60 has undergone third-party verification by Bureau Veritas Japan Co., Ltd.

| Item | | Unit | FY2007 | FY2008 | FY2009 | FY2010 | FY2011 | Remarks | | | | | |
|--|---|------------|------------------------------|------------------------------|----------|------------------|-----------|-----------|---|-----------|-----------|-------|--------|
| Affiliated companies: No. of consolidated companies ¹ | | | 81 | 77 | 87 | 82 | 82 | | | | | | |
| Environmental impact | | | | | | | | | | | | | |
| Energy consumption ² | | | | | | | | | | | | | |
| Consumption in crude oil equivalent | | kℓ | 960,074 | 912,889 | 929,581 | 1,342,356 | 1,732,327 | | | | | | |
| | | Osaka Gas | | kℓ | 118,361 | 118,963 | 120,235 | | 115,319 | 116,661 | | | |
| | | | | LNG terminal | kℓ | 39,879 | 46,075 | | 45,439 | 43,757 | 39,379 | | |
| | | | | Power plant | kℓ | 52,223 | 47,083 | | 48,789 | 45,824 | 51,230 | | |
| | | | | District heating and cooling | kℓ | 6,557 | 6,982 | | 7,113 | 6,783 | 6,101 | | |
| | | | | Offices | kℓ | 19,702 | 18,823 | | 18,894 | 18,956 | 19,951 | | |
| | | Affiliates | | kℓ | 841,714 | 793,926 | 809,346 | | 1,227,037 | 1,615,666 | | | |
| | | | | Power generation | kℓ | 497,368 | 444,600 | | 479,556 | 1,058,687 | 1,436,654 | | |
| | | | | District heating and cooling | kℓ | 260,200 | 255,780 | | 247,688 | 88,887 | 95,442 | | |
| Other | kℓ | 84,146 | 93,547 | 82,102 | 79,463 | 83,570 | | | | | | | |
| Electricity and fuel consumption | Electricity consumption | | 1,000 kWh | 450,874 | 512,982 | 477,519 | 485,984 | 490,116 | Including the gas before adding LPG for calorific value adjustment. | | | | |
| | Osaka Gas | | 1,000 kWh | 132,596 | 167,763 | 165,397 | 154,536 | 143,963 | | | | | |
| | | | LNG terminal | 1,000 kWh | 95,801 | 124,970 | 125,429 | 113,585 | | 100,337 | | | |
| | | | Power plant | 1,000 kWh | 787 | 664 | 1,124 | 1,058 | | 1,146 | | | |
| | | | District heating and cooling | 1,000 kWh | 4,343 | 4,463 | 4,299 | 4,170 | | 4,531 | | | |
| | | | Offices | 1,000 kWh | 31,665 | 37,667 | 34,545 | 35,722 | | 37,949 | | | |
| | Affiliates | | 1,000 kWh | 318,278 | 345,219 | 312,122 | 331,448 | 346,153 | | | | | |
| | | | Power generation | 1,000 kWh | 6,033 | 6,754 | 5,896 | 22,693 | | 19,924 | | | |
| | | | District heating and cooling | 1,000 kWh | 97,809 | 95,620 | 93,716 | 88,617 | | 92,328 | | | |
| | | | Other | 1,000 kWh | 214,436 | 242,845 | 212,511 | 220,139 | | 233,901 | | | |
| | Natural gas consumption | | 1,000 m³ | 474,545 | 445,455 | 457,702 | 840,161 | 1,156,595 | | | | | |
| | Osaka Gas | | 1,000 m³ | 71,362 | 3 | 64,886 | 3 | 66,577 | | 3 | 66,766 | 3 | 70,528 |
| | | | LNG terminal | 1,000 Nm³ | 13,104 | 12,792 | 12,229 | 13,464 | | 12,615 | | | |
| | | | Power plant | 1,000 Nm³ | 44,807 | 40,407 | 41,774 | 41,192 | | 46,140 | | | |
| | | | District heating and cooling | 1,000 m³ | 4,686 | 5,025 | 5,174 | 4,918 | | 4,251 | | | |
| | | | Offices | 1,000 m³ | 8,766 | 6,662 | 7,400 | 7,193 | | 7,522 | | | |
| | Affiliates | | 1,000 m³ | 403,184 | 380,570 | 391,125 | 773,395 | 1,086,067 | | | | | |
| | | | Power generation | 1,000 m³ | 189,730 | 168,338 | 187,531 | 705,905 | | 1,013,320 | | | |
| | | | District heating and cooling | 1,000 m³ | 202,444 | 199,119 | 192,576 | 56,885 | | 61,742 | | | |
| | | | Other | 1,000 m³ | 11,010 | 13,112 | 11,018 | 10,605 | | 11,005 | | | |
| | Other fuel consumption (coal, heavy oil, etc., in crude oil equivalent) | | kℓ | 288,162 | 259,305 | 271,426 | 240,405 | 262,767 | | | | | |
| | Osaka Gas | | kℓ | 3 | 17 | 5 | 11 | 27 | | | | | |
| | | | LNG terminal | kℓ | 3 | 17 | 5 | 11 | | 27 | | | |
| | | | Power plant | kℓ | 0 | 0 | 0 | 0 | | 0 | | | |
| | | | District heating and cooling | kℓ | 0 | 0 | 0 | 0 | | 0 | | | |
| | | | Offices | kℓ | 0 | 0 | 0 | 0 | | 0 | | | |
| | Affiliates | | kℓ | 288,158 | 259,288 | 271,421 | 240,394 | 262,740 | | | | | |
| | | | Power generation | kℓ | 275,526 | 247,410 | 260,300 | 233,278 | | 255,048 | | | |
| | | | District heating and cooling | kℓ | 3 | 6 | 1 | 11 | | 1 | | | |
| | | | Other | kℓ | 12,630 | 11,872 | 11,121 | 7,105 | | 7,691 | | | |
| | Vehicle fuel consumption | Gasoline | | kℓ | 3,663 | 3,676 | 3,369 | 3,175 | | 3,178 | | | |
| | | | | Osaka Gas | | kℓ | 1,058 | 1,016 | | 1,011 | 1,028 | 1,084 | |
| | | | | | | LNG terminal | kℓ | 1 | | 1 | 1 | 1 | 1 |
| | | | | | | Other | kℓ | 1,057 | | 1,015 | 1,010 | 1,027 | 1,083 |
| | | | | Affiliates | | kℓ | 2,605 | 2,660 | | 2,358 | 2,147 | 2,094 | |
| | | | | | | Power generation | kℓ | 0 | | 1 | 1 | 1 | 4 |
| District heating and cooling | | | | | | kℓ | 1 | 1 | 0 | 43 | 10 | | |
| Other | | | | | | kℓ | 2,604 | 2,659 | 2,357 | 2,104 | 2,080 | | |
| Natural gas | | 1,000 m³ | 424 | 509 | 520 | 481 | 468 | | | | | | |
| | | Osaka Gas | | 1,000 m³ | 380 | 430 | 453 | 429 | 420 | | | | |
| | | | | LNG terminal | 1,000 m³ | 12 | 12 | 11 | 11 | 11 | | | |
| | | | | Other | 1,000 m³ | 368 | 419 | 442 | 419 | 409 | | | |
| | | Affiliates | | 1,000 m³ | 44 | 79 | 68 | 52 | 48 | | | | |
| | | | | Power generation | 1,000 m³ | 0 | 0 | 0 | 0 | 0 | | | |
| | | | | District heating and cooling | 1,000 m³ | 0 | 0 | 0 | 0 | 0 | | | |
| | | | | Other | 1,000 m³ | 44 | 79 | 68 | 52 | 47 | | | |

| Item | | Unit | FY2007 | FY2008 | FY2009 | FY2010 | FY2011 | Remarks | | |
|---|---|------------------------------|----------------|----------|--------|--------|--------|---------|-----|----|
| | Diesel oil | | kℓ | 664 | 1,064 | 823 | 579 | 717 | | |
| | | Osaka Gas | kℓ | 14 | 11 | 6 | 17 | 19 | | |
| | | | LNG terminal | kℓ | 4 | 3 | 3 | 4 | | 4 |
| | | | Other | kℓ | 10 | 8 | 2 | 14 | | 15 |
| | | Affiliates | kℓ | 651 | 1,054 | 817 | 561 | 698 | | |
| | | Power generation | kℓ | 13 | 11 | 15 | 0 | 0 | | |
| | | District heating and cooling | kℓ | 0 | 0 | 0 | 0 | 0 | | |
| | | Other | kℓ | 637 | 1,042 | 802 | 561 | 698 | | |
| | LPG | | 1,000 m³ | 186 | 167 | 164 | 305 | 128 | | |
| | | Osaka Gas | 1,000 m³ | 0 | 0 | 0 | 0 | 0 | | |
| | | | LNG terminal | 1,000 m³ | 0 | 0 | 0 | 0 | | 0 |
| | | | Other | 1,000 m³ | 0 | 0 | 0 | 0 | | 0 |
| | | Affiliates | 1,000 m³ | 186 | 167 | 164 | 305 | 128 | | |
| | | Power generation | 1,000 m³ | 0 | 0 | 0 | 0 | 0 | | |
| | | District heating and cooling | 1,000 m³ | 0 | 0 | 0 | 0 | 0 | | |
| | | Other | 1,000 m³ | 186 | 167 | 164 | 305 | 128 | | |
| | Heavy oil, etc. (in crude oil equivalent) | | kℓ | 91 | 63 | 130 | 115 | 0 | | |
| | | Osaka Gas | kℓ | 0 | 0 | 0 | 0 | 0 | | |
| | | | LNG terminal | kℓ | 0 | 0 | 0 | 0 | | 0 |
| | | | Other | kℓ | 0 | 0 | 0 | 0 | | 0 |
| | | Affiliates | kℓ | 91 | 63 | 130 | 115 | 0 | | |
| | | Power generation | kℓ | 0 | 0 | 0 | 0 | 0 | | |
| | | District heating and cooling | kℓ | 0 | 0 | 0 | 0 | 0 | | |
| | | Other | kℓ | 91 | 63 | 130 | 115 | 0 | | |
| Atmospheric emissions | | | | | | | | | | |
| CO2 emissions ² | | 1,000 tons-CO2 | 2,398 | 2,270 | 2,316 | 3,104 | 3,908 | | | |
| | Osaka Gas | 1,000 tons-CO2 | 258 | 267 | 268 | 261 | 262 | | | |
| | | LNG terminal | 1,000 tons-CO2 | 96 | 115 | 114 | 109 | | 98 | |
| | | Power plant | 1,000 tons-CO2 | 103 | 93 | 95 | 94 | | 105 | |
| | | District heating and cooling | 1,000 tons-CO2 | 14 | 15 | 15 | 14 | | 13 | |
| | | Offices | 1,000 tons-CO2 | 45 | 45 | 44 | 44 | | 47 | |
| | Affiliates | 1,000 tons-CO2 | 2,140 | 2,003 | 2,048 | 2,843 | 3,646 | | | |
| | Power generation | 1,000 tons-CO2 | 1,406 | 1,258 | 1,347 | 2,451 | 3,230 | | | |
| | District heating and cooling | 1,000 tons-CO2 | 531 | 522 | 506 | 192 | 205 | | | |
| Other | 1,000 tons-CO2 | 203 | 222 | 195 | 200 | 210 | | | | |
| CO2 emissions (Reference: Data for comparison) ⁴ | | 1,000 tons-CO2 | 2,248 | 2,089 | 2,161 | 2,941 | 3,744 | | | |
| Osaka Gas | 1,000 tons-CO2 | 214 | 208 | 214 | 209 | 214 | | | | |
| | LNG terminal | 1,000 tons-CO2 | 64 | 71 | 73 | 71 | 64 | | | |
| | Power plant | 1,000 tons-CO2 | 103 | 93 | 95 | 93 | 105 | | | |
| | District heating and cooling | 1,000 tons-CO2 | 12 | 13 | 13 | 13 | 11 | | | |
| | Offices | 1,000 tons-CO2 | 35 | 31 | 33 | 33 | 34 | | | |
| Affiliates | 1,000 tons-CO2 | 2,034 | 1,881 | 1,947 | 2,732 | 3,530 | | | | |
| Power generation | 1,000 tons-CO2 | 1,404 | 1,256 | 1,345 | 2,444 | 3,223 | | | | |
| District heating and cooling | 1,000 tons-CO2 | 499 | 488 | 475 | 162 | 174 | | | | |
| Other | 1,000 tons-CO2 | 132 | 137 | 126 | 126 | 132 | | | | |

Figures in the table do not appear to add up to the totals due to rounding.

¹ Affiliates' data indicates the total for the companies, excluding overseas and tenant locations where data is difficult to collect. The number of the companies surveyed differs by year and by item.

² The following per-unit calorific values and emission factors are used for the calculation of energy consumption and CO2 emissions.

| | Purchased electricity | Gas | Before adding LPG for calorific value adjustment | Gasoline | Diesel oil | LPG | LNG | Heavy fuel oil A | Kerosene | Coal |
|--------------------------|-----------------------|--------------------|--|-------------|-------------|-------------------|--------------|------------------|-------------|--------------|
| Per-unit calorific value | 9.97 | 45.0 | 40.9 | 34.6 | 37.7 | 104.3 | 54.6 | 39.1 | 36.7 | 25.7 |
| | GJ/1,000 kWh | GJ/1,000 Nm³ | GJ/1,000 Nm³ | GJ/kℓ | GJ/kℓ | GJ/1,000 m³ | GJ/ton | GJ/kℓ | GJ/kℓ | GJ/ton |
| Emission factor | 0.69 | 2.29 | 2.23 | 2.32 | 2.58 | 6.17 | 2.70 | 2.71 | 2.49 | 2.33 |
| | tons-CO2/1,000 kWh | tons-CO2/1,000 Nm³ | tons-CO2/1,000 Nm³ | tons-CO2/kℓ | tons-CO2/kℓ | tons-CO2/1,000 m³ | tons-CO2/ton | tons-CO2/kℓ | tons-CO2/kℓ | tons-CO2/ton |

* CO2 emission of purchased electricity subject to control is calculated using the average factor of thermal power plants so that the Osaka Gas Group can precisely assess how the reduction of purchased electricity has contributed to a reduction in CO2 emission.

Sources:
Emission factor of purchased electricity (average factor of thermal power sources): Please refer to July 2001 Target Achieved Scenario Subcommittee Interim Summary, Global Environmental Committee, Central Environmental Council.
Per-unit calorific value and emission factor of gas are as per the announcement of Osaka Gas.
Other values are as per the ministerial ordinance under the Law concerning the Promotion of Measures to Cope with Global Warming.

⁴ Emission factors used for calculation of the CO2 emission of purchased electricity.

| FY | | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------|------------|-------|-------|-------|-------|-------|
| Emission factor | kg-CO2/kWh | 0.358 | 0.338 | 0.366 | 0.355 | 0.294 |

The above data are the ones announced by the Kansai Electric Power Co., Inc. The yearly CO2 emission of purchased electricity is calculated by multiplying the year's electricity consumption by the year's emission factor, which means the emission factor used for the calculation varies from year to year. Therefore, the year-to-year difference in CO2 emission does not necessarily reflect the effect of emission control measures.

| Item | | Unit | FY2007 | FY2008 | FY2009 | FY2010 | FY2011 | Remarks | |
|--|-------------|------------------------------|-----------------------|--------|--------|--------|--------|---------|---|
| Environmental impact | | | | | | | | | |
| Methane emission | | tons-CH ₄ | 115 | 109 | 110 | 148 | 138 | | |
| | Osaka Gas | tons-CH ₄ | 115 | 109 | 110 | 148 | 138 | | |
| Nitrogen oxide emission | | tons-NOx | 521 | 343 | 186 | 503 | 634 | | |
| | Osaka Gas | tons-NOx | 24 | 24 | 20 | 23 | 26 | | |
| | Affiliates | tons-NOx | 497 | 319 | 166 | 480 | 608 | | |
| Sulfur oxide emission | | tons-SOx | 190 | 151 | 146 | 94 | 117 | | |
| | Osaka Gas | tons-SOx | 0 | 0 | 0 | 0 | 0 | | |
| | Affiliates | tons-SOx | 190 | 151 | 146 | 94 | 117 | | |
| Water usage | | | | | | | | | |
| General and industrial water consumption | | 10,000 m ³ | 842 | 771 | 736 | 1,135 | 1,276 | | |
| | Osaka Gas | 10,000 m ³ | 145 | 150 | 190 | 157 | 146 | | |
| | | LNG terminal | 10,000 m ³ | 107 | 117 | 157 | 120 | | 111 |
| | | Other | 10,000 m ³ | 37 | 34 | 32 | 37 | | 35 |
| | Affiliates | 10,000 m ³ | 698 | 621 | 546 | 978 | 1,130 | | |
| | | Power generation | 10,000 m ³ | 177 | 162 | 170 | 488 | | 662 |
| | | District heating and cooling | 10,000 m ³ | 200 | 208 | 203 | 118 | | 118 |
| | | Other | 10,000 m ³ | 321 | 251 | 173 | 372 | | 349 |
| Sea water consumption | | 10,000 m ³ | 59,916 | 59,951 | 57,265 | 59,425 | 61,400 | | |
| | Osaka Gas | 10,000 m ³ | 38,208 | 38,827 | 38,504 | 38,826 | 40,419 | | |
| | Affiliates | 10,000 m ³ | 21,708 | 21,125 | 18,760 | 20,599 | 20,981 | | |
| Chemical substances (Osaka Gas) | | | | | | | | | |
| Xylene | Handled | tons | 4.50 | 3.45 | 1.44 | 1.75 | 3.66 | | |
| | Released | tons | 4.50 | 3.45 | 1.44 | 1.75 | 3.66 | | |
| | Transferred | tons | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Toluene | Handled | tons | 2.58 | 1.49 | 0.05 | 0.03 | 0.06 | | |
| | Released | tons | 2.58 | 1.49 | 0.05 | 0.03 | 0.06 | | |
| | Transferred | tons | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | |
| Waste | | | | | | | | | |
| General waste ⁵ | Generated | | tons | 2,240 | 1,962 | 1,459 | 2,286 | 1,764 | ⁵ Affiliates' data is a cumulative total of 50 companies excluding overseas and tenant locations where data is difficult to collect. |
| | Osaka Gas | | tons | 1,177 | 1,126 | 750 | 982 | 830 | |
| | | LNG terminal | tons | 33 | 65 | 75 | 69 | 55 | |
| | | Other | tons | 1,145 | 1,061 | 675 | 914 | 775 | |
| | | Affiliates | tons | 1,062 | 836 | 709 | 1,303 | 934 | |
| | | Power generation | tons | 29 | 11 | 17 | 2 | 12 | |
| | | District heating and cooling | tons | 8 | 2 | 7 | 3 | 24 | |
| | | Other | tons | 1,025 | 823 | 685 | 1,298 | 898 | |
| | | Recycled | | tons | 1,251 | 1,300 | 944 | 2,066 | |
| | Osaka Gas | | tons | 962 | 1,004 | 691 | 927 | 785 | |
| | | LNG terminal | tons | 30 | 64 | 74 | 68 | 54 | |
| | | Other | tons | 932 | 940 | 617 | 859 | 732 | |
| | | Affiliates | tons | 289 | 296 | 253 | 1,139 | 745 | |
| | | Power generation | tons | 0 | 0 | 0 | 2 | 11 | |
| | | District heating and cooling | tons | 2 | 1 | 2 | 2 | 8 | |
| | | Other | tons | 288 | 295 | 251 | 1,136 | 726 | |
| | | Final disposal | | tons | 988 | 662 | 515 | 220 | |
| | Osaka Gas | | tons | 215 | 122 | 59 | 55 | 45 | |
| | | LNG terminal | tons | 3 | 1 | 1 | 1 | 2 | |
| | | Other | tons | 212 | 121 | 58 | 55 | 43 | |
| | | Affiliates | tons | 773 | 540 | 456 | 164 | 189 | |
| | | Power generation | tons | 29 | 11 | 17 | 0 | 1 | |
| | | District heating and cooling | tons | 6 | 1 | 5 | 1 | 15 | |
| | | Other | tons | 738 | 528 | 434 | 163 | 172 | |
| | | Recycling rate | | % | 56 | 66 | 65 | 90 | |
| | Osaka Gas | | % | 82 | 89 | 92 | 94 | 95 | |
| | | LNG terminal | % | 91 | 99 | 99 | 99 | 97 | |
| | | Other | % | 81 | 89 | 91 | 94 | 94 | |
| | | Affiliates | % | 27 | 35 | 36 | 87 | 80 | |
| | | Power generation | % | 0 | 0 | 0 | 94 | 91 | |
| | | District heating and cooling | % | 20 | 50 | 29 | 51 | 35 | |
| | | Other | % | 28 | 35 | 37 | 87 | 81 | |

Figures in the table do not appear to add up to the totals due to rounding.

| Item | | Unit | FY2007 | FY2008 | FY2009 | FY2010 | FY2011 | Remarks | |
|--|---|------------------------------|--------|--------|--------|--------|--------|---------|---|
| Industrial waste | Generated | | tons | 80,839 | 95,616 | 84,242 | 66,462 | 78,388 | Estimated amount of soil generated: The amount that is believed to be generated when doing pipe installation without using current methods for reducing the amount of excavated soil. The difference between this figure and the actual amount generated is the reduced amount. Amount utilized: The amount used outside of Osaka Gas, such as for improving farmland soil. Final disposal is the amount generated minus the amount recycled and the amount utilized. When reliquefying BOG (boil-off gas), which has been gasified in the LNG tank, LNG cryogenics is used instead of electricity. With FY1999 as the base year, a calculation of the amount of CO ₂ reduced as a result of employing high-efficiency equipment and systems, such as cogeneration systems, gas air conditioners, and high-performance industrial furnaces. |
| | Osaka Gas | | tons | 2,913 | 2,938 | 3,065 | 3,112 | 3,348 | |
| | | LNG terminal | tons | 175 | 124 | 135 | 113 | 212 | |
| | | Other | tons | 2,738 | 2,814 | 2,931 | 2,999 | 3,137 | |
| | | Affiliates | tons | 78,286 | 92,679 | 81,177 | 63,350 | 75,039 | |
| | | Power generation | tons | 34,956 | 32,080 | 36,838 | 33,154 | 41,028 | |
| | | District heating and cooling | tons | 22 | 25 | 17 | 59 | 65 | |
| | | Other | tons | 43,307 | 60,574 | 44,322 | 30,138 | 33,946 | |
| | | Recycled | | tons | 71,981 | 85,412 | 75,534 | 61,099 | |
| | Osaka Gas | | tons | 2,782 | 2,780 | 3,010 | 3,056 | 3,289 | |
| | | LNG terminal | tons | 171 | 121 | 135 | 113 | 212 | |
| | | Other | tons | 2,610 | 2,659 | 2,876 | 2,943 | 3,077 | |
| | | Affiliates | tons | 69,199 | 82,631 | 72,524 | 58,043 | 69,257 | |
| | | Power generation | tons | 34,685 | 31,766 | 36,271 | 32,659 | 40,673 | |
| | | District heating and cooling | tons | 13 | 11 | 11 | 18 | 37 | |
| | | Other | tons | 34,502 | 50,854 | 36,242 | 25,367 | 28,547 | |
| | | Final disposal | | tons | 9,218 | 10,204 | 8,708 | 5,363 | |
| | Osaka Gas | | tons | 131 | 157 | 55 | 56 | 59 | |
| | | LNG terminal | tons | 4 | 2 | 0 | 0 | 0 | |
| | | Other | tons | 128 | 155 | 55 | 56 | 59 | |
| | | Affiliates | tons | 9,086 | 10,047 | 8,652 | 5,307 | 5,782 | |
| | | Power generation | tons | 272 | 314 | 566 | 495 | 355 | |
| | | District heating and cooling | tons | 10 | 14 | 6 | 41 | 28 | |
| | | Other | tons | 8,805 | 9,719 | 8,080 | 4,771 | 5,399 | |
| | | Recycling rate | | % | 89 | 89 | 90 | 92 | |
| | Osaka Gas | | % | 95 | 95 | 98 | 98 | 98 | |
| | | LNG terminal | % | 98 | 98 | 100 | 100 | 100 | |
| | | Other | % | 95 | 94 | 98 | 98 | 98 | |
| | | Affiliates | % | 88 | 89 | 89 | 92 | 92 | |
| | | Power generation | % | 99 | 99 | 98 | 99 | 99 | |
| | | District heating and cooling | % | 57 | 45 | 64 | 30 | 57 | |
| | | Other | % | 80 | 84 | 82 | 84 | 84 | |
| Used gas appliances, etc. (Osaka Gas) | | | | | | | | | |
| | ① Collected | tons | 4,786 | 4,327 | 3,470 | 3,438 | 3,160 | | |
| | ② Recycled | tons | 3,900 | 3,541 | 2,784 | 2,763 | 2,469 | | |
| | ③ Final disposal (①－②) | tons | 887 | 786 | 686 | 675 | 691 | | |
| | ④ Recycling rate (③÷①) | % | 81 | 82 | 80 | 80 | 78 | | |
| Polyethylene pipes (Osaka Gas) | Collected | tons | 155 | 152 | 145 | 203 | 212 | | |
| | Recycled | tons | 155 | 152 | 145 | 203 | 212 | | |
| | Recycling rate | % | 100 | 100 | 100 | 100 | 100 | | |
| Excavated soil (Osaka Gas) | ① Amount during installation | km | 902 | 909 | 886 | 770 | 726 | | |
| | ② Estimated amount of soil generated using conventional method ⁶ | 10,000 tons | 184 | 183 | 180 | 163 | 157 | | |
| | ③ Reduced | 10,000 tons | 83 | 83 | 78 | 68 | 66 | | |
| | ④ Generated (②－③) | 10,000 tons | 101 | 100 | 102 | 95 | 91 | | |
| | ⑤ Recycled | 10,000 tons | 83 | 84 | 87 | 85 | 81 | | |
| | ⑥ Recycling rate (⑤÷④) | % | 82 | 84 | 85 | 89 | 90 | | |
| | ⑦ Utilized ⁷ | 10,000 tons | 14 | 13 | 12 | 9 | 8 | | |
| | ⑧ Final disposal (④－⑤－⑦) | 10,000 tons | 3.9 | 3.5 | 3.3 | 1.4 | 1.3 | | |
| Copy paper | Osaka Gas | 10,000 sheets | 3,851 | 4,004 | 4,044 | 4,875 | 4,660 | | |
| | Affiliates | 10,000 sheets | — | — | — | 5,994 | 5,828 | | |
| Environmental impact reduction (Osaka Gas) | | | | | | | | | |
| Use of LNG cryogenics | | 1,000 tons | 4,085 | 3,391 | 3,678 | 3,398 | 3,866 | | |
| | Cryogenic power generation | 1,000 tons | 2,453 | 1,546 | 2,006 | 1,860 | 2,212 | | |
| | Expansion turbine | 1,000 tons | 1,036 | 1,143 | 1,039 | 960 | 1,142 | | |
| | BOG re-liquefaction ⁸ | 1,000 tons | 596 | 702 | 633 | 578 | 512 | | |
| CO ₂ emission reduction at customer sites ⁹ | | 1,000 tons-CO ₂ | 2,068 | 2,171 | 2,332 | 2,461 | 2,553 | | |
| Environmental management indicators (Osaka Gas) | | | | | | | | | |
| Environmental management efficiency | | yen/1,000 m ³ | 90 | 91 | 92 | 77 | 69 | | |
| Monetary value of environmental impact reduction | | 100 million yen | 4.3 | 3.9 | 3.5 | 3.3 | 4.1 | | |
| Environmental impact reduction efficiency | | yen/1,000 m ³ | 49 | 43 | 42 | 41 | 48 | | |
| Monetary value of environmental impact reduction at customer sites | | 100 million yen | 73 | 76 | 82 | 87 | 90 | | |
| Environmental impact reduction efficiency at customer sites | | yen/1,000 m ³ | 833 | 860 | 980 | 1,067 | 1,054 | | |

Figures in the table do not appear to add up to the totals due to rounding.

Third Party Review

The Osaka Gas Group contracted with the Institute for Environmental Management Accounting (IEMA) for a third party review, including recommendations as well as simple audits.

IEMA interviewed the managers of our front-line departments on the planning and implementation of social and environmental management activities at the Osaka Gas Group. An overall evaluation and feedback based on these interviews and other reviews were then presented during a subsequent conversation with the CSR Executive.



Interviews on work processes by Ms. Nashioka from IEMA (right)



Evaluation and Opinion of CSR Management at Osaka Gas Co., Ltd.

Purpose of the Review and Overview of Procedure

We express our opinion to help enhance the reliability of the Osaka Gas CSR Report 2011 by evaluating its CSR initiatives, with the exception of those related to environmental management, from our position as a third-party that maintains no business relationships with Osaka Gas. We interviewed Masashi Kuroda, CSR Executive and Executive Vice President, as well as other responsible personnel to clarify the planning and implementation of CSR management (excluding environmental management) at Osaka Gas as well as the evaluation and utilization of environmental performance data, which indicates the results of these activities and serves as the basis of disclosed information.

Evaluation and Opinion

Following the Great East Japan Earthquake of March 11, 2011, Osaka Gas made a prompt assessment of the situation and immediately went to work helping people in the affected areas. It also set up a task force to deal with the tsunami in the Kii Peninsula, part of Osaka Gas's service area. We offer high praise to Osaka Gas for responding with such disaster prevention and relief efforts as action that is integral to the company's activities. It is reported that Osaka Gas made a major contribution by using its experience and know-how in the disaster-stricken areas, and we understand that its advanced technology and morals earned it a good reputation.

At times of disaster like this, people inevitably question the corporate social responsibility of companies in the energy industry. In light of this, the position of Osaka Gas is being reconsidered: it is not just a gas provider but rather an energy provision company. This is a crucial point in the creation of a new society for Japan, so I would like to see Osaka Gas come up with new proposals for such a society by responding to stakeholder concerns with discussions on the company's philosophy.

On a matter related to this point, last year Osaka Gas made major revisions to its Code of Conduct. I think it's great that with these revisions, Osaka Gas has consolidated measures for the basis of action to take when unforeseen circumstances occur. I think that Osaka Gas will continue to earn an increasingly higher reputation for formulating measures and conducting drills that prepare the company for any situation anywhere; for always assuming that something that shouldn't happen will inevitably happen. Osaka Gas's Small Light Campaign is celebrating 30 years of volunteer activities by employees, and this initiative demonstrates the high social morals installed in each employee. I can see that the campaign's spirit forms the foundation of actions such as those taken in response to the Great East Japan Earthquake.

With Japan's economy continuing to face tough times, Osaka Gas is playing a crucial role in forming policies related to matters like electricity cutbacks and LNG power generation. I hope that Osaka Gas becomes a company in which employees consider corporate social responsibility a normal part of company management and everyday duties.

June 30, 2011

Eriko Nashioka,
Certified Public Accountant and
Certified Tax Accountant; Director of IEMA

Katsuhiko Kokubu,
Professor, Kobe University; Director of IEMA
Institute for Environmental Management Accounting (IEMA)

Note: For full report of the third party review, see the Osaka Gas website.

Third Party Verification

Bureau Veritas Japan Co., Ltd. provided a third party verification of the environmental performance data of the Osaka Gas Group to be included in its CSR Report 2011. The verification was conducted to confirm the data were sufficiently reliable and consistent for the purpose of the Report.

Locations

Head Office: Functions for data aggregation
Osaka Gas, Senboku LNG Terminal I: LNG processing
Kinpai Co., Ltd., Central Building: Gas pipe installation
Osaka Gas Chemicals Co., Ltd., Carbon Fiber Materials Production Center:
Production of general purpose carbon fiber

Content of the Verification

Head Office:

1. Reliability of data collection and compilation system, adequate operation of system and effectiveness of internal verification
2. Accuracy of the compiled data for FY2011 (April 2010 to March 2011)
3. Validity of conclusions derived from compiled data

Individual business locations:

1. Adequateness of the scope of data collection
2. Effectiveness of data measurement, collection and compilation methods and effectiveness of internal verification
3. Reliability of measurement data and collected data and accuracy of compiled results

This verification was conducted according to Bureau Veritas Japan's CSR Report Third Party Inspection Procedures and Guidelines, which is based on outstanding cases. In addition, Bureau Veritas Japan provided limited warranty for this verification with reference to ISAE (International Standards on Assurance Engagements) 3000 (revised in December 2005 by the International Federation of Accountants).

Opinion

The site environmental data was measured, gathered, and calculated based on an effective internal system. There were no major errors found. In the verification process, certain erroneous data was found, but it was all properly corrected.



Revisions were made to the Osaka Gas Group Code of Conduct in line with ISO 26000, an international standard providing guidelines for social responsibility.

Masashi Kuroda
Executive Vice
President and CSR
Executive, Osaka Gas
Co., Ltd.

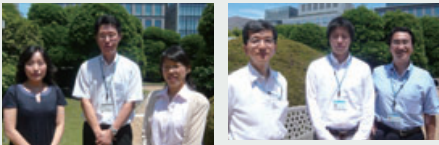


Following the Great East Japan Earthquake, Japanese society began to reconsider its orientation of placing top priority on economic efficiency as the disaster once again drove home the importance of security, disaster prevention, and social contribution. And from the point of energy security, we now see the necessity of moving from a centralized energy grid to distributed energy networks.

Within an organizational structure as well, we understand that delegating authority between a variety of decision-makers offers a better way to deal with crises. To delegate authority requires that rules and principles be firmly ingrained and shared among organizations. There are countless examples of events occurring far away that eventually come to affect business. This means that we must fulfill our corporate social responsibility by taking precautions in every aspect of the supply chain. To this end, we revised our Code of Conduct based on ISO 26000 and other references.

We in the Osaka Gas Group hope to continue to strengthen the bonds of trust with society by being prepared for all crises.

We made this report. We look forward to hearing your feedback and opinions.



From the CSR Office:
Last year, we were strongly impressed with the concept of business integrity, which means to act without hesitation on what you believe in. The company charter and philosophy are not merely for show; rather, they guide employees in acting with conviction. With this in mind, we sincerely hope you find this CSR Report useful in some way.