



### Osaka Gas Co., Ltd.

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As of the end of June 2012, Osaka Gas is included in the following socially responsible investment (SRI) indices.













Member of the MSCI World SRI Index 2012-2013















### To Readers

The Osaka Gas Group believes that to fulfill its corporate social responsibilities, it must manage its business by incorporating the opinions of society.

This Report features two important CSR themes, which we have selected taking into consideration the current social situation as well as stakeholders' expectations toward our group, clarified through dialogs with experts and stakeholders.

The Osaka Gas Group carries out its CSR activities in accordance with the Osaka Gas Group CSR Charter. The Group's main CSR activities undertaken in fiscal 2012 are presented in this report, together with targets and results.

**CSR** Report

### Coverage and Materiality

The Osaka Gas Group continuously discloses information on its CSR activities to the public. Adding to our principle of materiality, feedback from readers and the opinions of various external organizations were also took into consideration for selecting topics to cover in this report and define

Readability and Ease of Understanding Careful consideration is given to ensure that a wide range of readers can understand the information

provided in this report, including the text size, use of colors, pictures and diagrams, as well as explanatory notes for technical terms.

Explanations are provided.

The meanings of terms with this mark are provided in the glossary.

### Reliability

We use third party verification to ensure the reliability of the content and data presented in our CSR report.

The environmental performance data in this report underwent third party verification by Bureau Veritas Japan Co., Ltd. The overall report underwent a third party review process that included assessment and recommendations as well as simple audits, by the Institute for Environmental Management Accounting (IEMA).



Other corporate information media







### [ Scope of This Report ]

[ CSR Report Media ]

Printed

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.

Website

report

Environmental performance data represents Osaka Gas and 80 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 fiscal 2012 (from April 1, 2011 to March 31, 2012), some articles refer to efforts for fiscal 2013.

### Guidelines Referred to ]

· Sustainability Reporting Guidelines (G 3.1) of the Global Reporting Initiative (GRI) •Environmental Reporting Guidelines 2012 of the Ministry of the Environment
•The United Nations Global Compact Communication on Progress (COP) Policy 20

### [ Inclusion in SRI Indices ]

As of the end of March 2012, 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)

•MSCI World ESG Index

•MSCI World SRI Index

•MSCI KLD 400 Social Index

·Morningstar Socially Responsible Investment Index (MS-SRI)

[ 1 Ensuring Greater Peace of Mind and Safety for All Our Customers .....

# Further Enhancing Our Customers ' Peace of Mind and Safety

To Deliver Peace of Mind to All Our Customers





[ 2 Thaping a Better Society with Natural Gas and Distributed Energy Systems .....

# Building a Smart Energy Society that Ensures Wise **Energy Use**

Aiming to Achieve More Energy Creation, Energy Savings and to Reinforce Energy Security





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### Fiscal 2012 Activity Highlights



### Creating value for customers

**Customer Satisfaction Survey:** Overall satisfaction rate: 89.9%

- · Participating in Ichthys LNG Pty Ltd s Gas
- Field Development Project in Australia.
- Senboku Natural Gas Power Plant in operation. which uses natural gas to generate power.



Harmonizing with the environment and contributing to realizing a sustainable society

CSR Indicator :
Environmental Management Efficiency :

65 yen / 1,000 m<sup>3</sup>

- · Decision to construct two fuel-e cient I NG carriers
- · Introducing the world s first large-scale energy-conservation process using LNG cold heat



### Being a good corporate citizen contributing to society

Total contacts and number of communication events

Total contacts: 1.9% of total customers Number of events held: 1,673

· Providing children with opportunities to learn about nutrition and utilization of fire as part of the next generation support programs

· A total of 743 on-site energy and

environmental lessons held during the year



### Complying with laws and regulations and respect for human rights

**Employee score on compliance awarenesss** 

Code of Conduct awareness level: 86.3% Understanding of Code of Conduct: 73.2% Knowledge of work-related laws: 84.0%

### [Activities]

- · Revision of the Osaka Gas Group Code of Conduct in accordance with ISO26000
- · Launching "Predictive Data Monitoring" to prevent compliance-related problems

### Management policy for human growth

### CSR Indicator

Employee opinion survey
(job satisfaction and attachment to the company)

Job satisfaction 3.80 (FY2010 result) Attachment: 4.36 (FY2010 result)

· Creating an environment that is easy and comfortable for disabled and elderly employees to work in

· Implementing various support measures

for female employees to be active in various fields

# The world changes, businesses change. But we remain committed to serve each of our customers and society for better future.

### The world in big changes

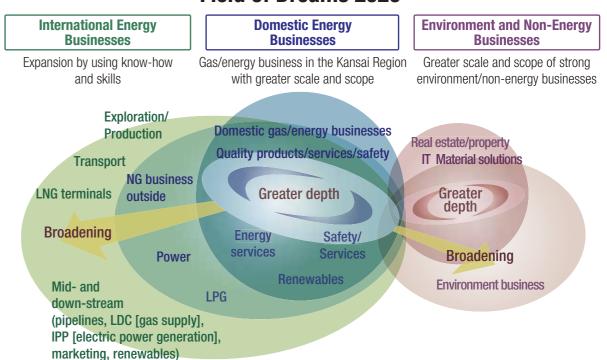
Year 2011 saw unprecedented and dramatic developments in many parts of the world, bringing changes and challenges to our society; Arab Spring, European economic crisis, floods in Thailand, to name a few. Japan was severely hit by the devastating earthquake and tsunami in March and the typhoon in September. The earthquake has incurred enormous damages to the society and economy of Japan. The nuclear disaster and subsequent power shortage have brought a fundamental review in the Japanese energy policy. Safety and stability of energy supply, energy efficiency and global warming are to be revisited in this regard. Further use of market mechanism in energy sector will be investigated for more flexible and resilient energy supply systems.

Both at home and at work, we can sense significant changes in perception as well as in action in the use of energy, and, at the same time, expectation on natural gas has become higher as an energy resource to achieve an optimal energy mix and efficient energy use.

We are well aware that our business environment will be constantly in transition, but Osaka Gas Group will continue to be a value provider in our core energy business and related areas in response to ever-evolving requests from our customers. In 2012, each member of our Group is determined to "change and challenge" against a new changing business world and to remain our customers' choice. We will renew our effort in contributing to comfortable homes and successful businesses by creating values as our times demand.



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



### Key initiative in 2012

In this year, will focus on the following three tasks; First, ensuring safety and security for our customers in their energy use. In addition to day to day operations, we will enhance our emergency capability against earthquake or tsunami of the magnitude which the National Central Disaster Prevention Council stipulates. Accordingly, we will review our Business Continuity Plan.

Second, proliferating natural gas and distributed energy systems for the future. Specifically, to achieve an energy thrifty community, we will muster all the products, services and technologies in natural gas use of Osaka Gas Group. We will also contribute to the peak power reduction by providing our customers with fuel cells, co-generation, gas cooling / heating and solar systems.

Third, creating new business models and expending investment opportunities in the three business domains in our Vision. They are namely, "domestic energy business besides the traditional gas business", "international energy business along our value chain" and "environmental and non-energy business".

### Aiming at a higher level of CSR

It is imperative, we believe, that Osaka Gas Group retain and augment confidence and support from stakeholders

and communities to conduct our businesses successfully. Hence, complying with high levels of corporate social responsibilities is vital. This year, we will upgrade our CSR targets and reinforce our activities in compliance with the ISO26000 CSR Standard and the UN Global Compact. As means of realising "participation and development in community" recommended by ISO, Osaka Gas has established a new division called "Regional Co-Creation Division" which liaises between Osaka Gas Group and various stakeholders in the community. We hope this will facilitate broad and smooth communication with our stakeholders.

### In conclusion

This booklet reports to you current and past CSR activities of Osaka Gas Group, and I look forward to hearing from the readers any candid comments or opinions. Through dialogs with our diverse stakeholders, we will make a solid progress towards the fulfilment of our Vision and deliver more comfort and satisfaction to our customers.

> H. Baus Hiroshi Ozaki President

# Further Enhancing Customers 'Peace

Osaka Gas strives to ensure stable procurement of LNG 🕮 (liquefied natural gas) and the safety and security of gas processing / distribution facilities as well as customer facilities. In fiscal 2013, we will redouble our efforts to provide greater peace of mind and safety for our customers.

### Stable Procurement of Natural Gas

### **Diversifying Procurement Sources**

Unlike oil, whose reserves are concentrated in the Middle East, natural gas is available around the world. Additionally, the reserves-to-production ratio for natural gas is higher than that for oil\*, making natural gas an even more advantageous energy source. In 1972, Osaka Gas began to import liquefied natural gas (LNG) from Brunei. Currently, we also import LNG from Indonesia, Malaysia, Australia, Qatar, Oman, and Russia. Around the end of 2013, we will commence LNG procurement from Papua New Guinea, bringing the total number of procurement sources to eight. We will continue to diversify our procurement sources to ensure the continuing stable procurement of LNG.

### Countries with natural gas reserves and Osaka Gas' natural gas procurement sources



### Stable Procurement through Long-Term Contracts

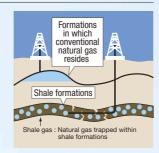
To ensure stable procurement of LNG without being exposed to political and economic risks in any one particular country, Osaka Gas has worked not only to diversify its procurement sources,

but also to ensure that the majority of LNG imports are based on long-term contracts. We currently have long-term contracts with eight countries. In fiscal 2013, a new portfolio contract will start, under which LNG will be supplied from multiple sources owned by the Royal Dutch Shell Group.



### Participating in Gas Field Development Projects

Osaka Gas was among the first in the Japanese energy industry to invest in the upstream business. Starting with the project in Indonesia in 1990, we have participated in gas field development projects in Australia, Norway and Oman. In recent years, we have been actively involved in new energy gas development, including a shale gas development project in



# Safety Measures at LNG Terminals

### **Bolstering Earthquake Resistance**

Our major LNG facilities including LNG tanks are earthquake-proofed to withstand earthquakes as strong as magnitude 7 on the seismic intensity scale. In fact, none of our LNG facilities were damaged in the Great Hanshin Awaii

Earthquake. To minimize possible damage in the event of an earthquake, LNG tanks are constructed on foundations supported by hundreds of steel piles that are driven into solid earth. In addition, the tanks are of double-shell construction



### Monitoring 24 Hours a Day

The central control rooms at LNG terminals carry out around-the-clock monitoring and operation of all processes from receipt of LNG to production and delivery of gas.

Emergency detectors are installed throughout the LNG terminal. Should a detector detect an abnormality, an alarm will be sounded in the central control room and staff will rush to the scene and respond to the problem.



### Safeguarding LNG Tanks against Natural Disasters

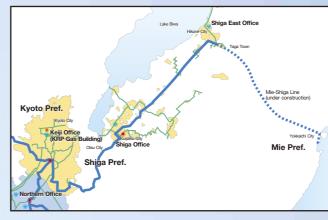
Surrounding dikes are built around the LNG tanks to prevent LNG from flowing out in case of an unexpected LNG spill. Even if LNG spills out inside the dike, high-expansion foam discharge devices and water curtain facilities can prevent LNG from spreading.

# of Mind and Safety

### Safety Measures in Gas Distribution

### Building a Wide-Area Pipeline Network

Osaka Gas and Chubu Electric Power Co., Inc. are working together to construct the Mie-Shiga Line, a pipeline approximately 60 km long between Taga Town in Shiga Prefecture and Yokkaichi City in Mie Prefecture (scheduled for completion in 2014). The pipeline linking Osaka Gas with a major utility in a separate region further enhances the stability of gas supply.



### Earthquake-Proofing of Pipelines

When installing new low-pressure pipes, we use polyethylene (PE) pipes ?!!, which have high

earthquake resistance and corrosion resistance. PE pipes had almost no damage during the Great Hanshin-Awaii Earthquake. Now over 80% of our pipeline network has been earthquake-proofed.



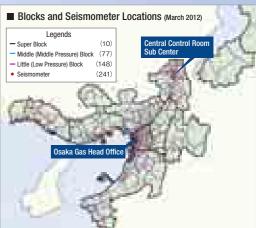
### Promoting Widespread Use of Microcomputer-Controlled Meters

We have been promoting the widespread use of microcomputer-controlled gas meters, which monitor gas use around the clock. The microcomputercontrolled meter automatically shuts off the gas supply should it detect an earthquake or large gas leak. Now 100% of households in our supply area are equipped with the meters.



### Dividing Supply Areas into Blocks for Early Restoration

We have installed seismographs and remote monitoring devices throughout our service areas to enable us to quickly determine seismic intensity and collect information on state of gas supply. To prevent secondary disasters, we have divided our supply area into blocks, in each of which we have strategically installed automated seismic shutoff devices and remote shutoff devices. If a disaster occurs and the gas supply is temporarily shut off, working on each subdivided block will make it possible to restore service promptly while ensuring safety.



### Safety Measures at Customer Sites

### Developing and Promoting Widespread Use of Safe Gas Appliances and Services

Osaka Gas is making various efforts to ensure safe use of gas by our customers. We visit customers who are using gas water heaters without incomplete combustion prevention devices and wire-mesh gas stoves and recommend replacing them with safer appliances. We also provide various services, including installing gas alarms that alert residents to gas leaks and carbon monoxide emissions, and dispatching maintenance personnel to a home when trouble is detected. We also work to promote the widespread use of the "Si Sensor-Equipped Cooking Stove," a gas appliance with safety functions including an automatic shutdown function.



We lend ventilation alarms free-of-charge to restaurants and other facilities using commercial gas cooking



**Encouraging All Employees to Think** from the Customer's Perspective and **Fulfill Their Duties and Responsibilities** 

### Takashi Sakai

Customer safety and peace of mind is our number one priority in ding products and services. The level of safety and peace of mind expected by customers and society is changing constantly. While always adhering to the principles on security and safety that make up the core of our business practices, we strive to respond quickly and flexibly to those changes, through constant dialogue and cooperation with local authorities, communities and businesses.

To reduce human errors to a minimum, we will reinforce our efforts for continuous improvement, without being content with the status quo. We will strive to identify areas requiring further afety and peace of mind to our customers

# To Deliver Peace of Mind to All Our Customers

# What We Have Learned from the Earthquake Disaster and How We Should Apply the Lessons Learned to Future Disasters

On March 11, 2011, a magnitude 9.0 earthquake, the largest earthquake ever recorded in Japan, occurred and the resulting massive tsunami devastated a wide area on the Pacific coast of the Tohoku region. Following the disaster, the national government's Central Disaster Management Council has made a recommendation calling for a fundamental review of tsunami measures. In response, many local governments and companies have started to develop new standards.

The Great East Japan Earthquake has made us reaffirm the most important thing to remember in responding to a disaster. That is, human life takes precedence over everything else. When a disaster

occurs, we must strive to prevent secondary disasters and gas supply disruptions, with a priority on the safety of employees and customers. We believe that it is important to ensure that all employees are aware of and fully understand this policy and act in accordance with this policy during an emergency.

As part of efforts to improve employees' security awareness and disaster response capabilities, we actively conduct joint disaster drills with local governments and fire departments. We also conduct education and training programs to ensure that advanced knowledge and skills regarding safety and disaster prevention are passed on to future generations.

### **Bolstering Earthquake Measures Based on the** Experience of the Great Hanshin-Awaji Earthquake

After the Great Hanshin Earthquake in January 1995, up to around 860,000 households were cut off from the gas supply, including those whose gas supply was shut off to prevent a secondary disaster. Based on our experience of the Earthquake, we developed a five-year Earthquake Disaster Mitigation Plan, which comprises three pillars: prevention measures, emergency response measures and restoration measures. In accordance with the Plan, we have implemented various measures, including introducing earthquake-proof equipment, establishing gas supply shut-off systems, providing disaster education and training to employees, and developing temporary gas supply systems.



### **Establishing a Cross-Departmental Disaster Prevention Project Team**

Following the Great East Japan Earthquake, in October 2011 we established a New Disaster Prevention Planning Project Team within the Central Security Control Department of Osaka Gas Pipeline Business Unit. The Project Team is a cross-departmental working group comprising a total of 33 members from the Central Security Control Department, Residential Energy Business Unit, and Commercial & Industrial Energy Business Unit. The Team has identified about 40 issues and worked to develop systems for disaster management.

### Reaffirming Our Policy of Placing Foremost Priority on **Human Lives Following a Disaster**

The Great East Japan Earthquake has made us reaffirm the preciousness of human life. What should be given the highest priority following a disaster is human life. With this in mind, Osaka Gas Group employees must act to protect their own lives and the safety of customers. We will continue efforts to instill the policy of placing foremost priority on human lives in all Group employees including frontline staff.







### Putting into Operation the Disaster Restoration Support System "BRIDGE" to Ensure Efficient Gas Restoration Operations

In order to restore the gas supply as quickly as possible following a disaster or accident, close cooperation and collaboration among the relevant departments are essential. To achieve smooth and efficient gas restoration operations, it is extremely important to share on-site information in real time. Osaka Gas has developed a disaster restoration support system that enables real-time integrated management of information, from the occurrence of the disaster/accident to the full restoration of normal gas supply. This system, called "BRIDGE," was put into

operation in April 2012. By combining map information with customer information and by performing centralized control of the progress of restoration operations, this system visualizes the gas restoration operations. The system enables us not only to execute systematic and

efficient gas restoration operations, but also to reduce the time required to restore gas services.





\* Purging: Bleeding off the air present in the gas pipe and allowing gas to flow inside

### Thorough Safety Drills Will Lead to Effective and Efficient Response to an Emergency

To ensure that employees can exercise prompt and proper judgment in the event of a disaster such as an earthquake, Osaka Gas conducts more than 2,000 disaster drills (including small-scale drills for a few people) annually at its business bases, mainly at the Senboku and Himeji LNG Terminals and Pipeline Business Unit. We have also concluded disaster agreements with local governments and companies, and conducted joint disaster drills.

In October 2011, Hyogo Prefecture Comprehensive Disaster Drill for Petrochemical Complexes, etc., organized by the Hyogo Prefectural Government, was held at the Himeji LNG Terminal. This drill is held annually. The 2011 drill was conducted under the scenario based on the probability of major earthquakes, causing damage to land and sea. A total of 140 people from 13 organizations participated in the drill, including the Maritime Safety Agency, Self Defense Force, fire departments and police stations, and neighborhood companies. In the drill, which simulated an oil spill from heavy oil tanks and ensuing fire, our LNG terminal workers practiced their initial response procedures. This annual drill helps reinforce collaboration among participating



Hyogo Prefecture Comprehensive Disaster Drill (under the scenario of a fire caused by an oil spill from heavy oil tanks)

### Passing on Advanced Knowledge and Skills for Safety and Disaster Prevention to **Future Generations**

for the retirement of experienced technicians, the Human Resources Development Center of the Pipeline Business Unit launched a new human resources development system in fiscal 2008. To establish a system that does not allow an accident to happen (i.e. safety culture) the Center has been promoting human resources development in an arrangized systematic manner, and "know why" education to promote



# Building a Smart Energy Society that Ensures Wise Energy Use

We want to make living in the future smart, while safeguarding the blue Earth through the use of abundant and clean natural gas. Our new slogan embodies this passion and commitment of ours. We will make living, the city and the future smart with natural gas.



Best mix of distributed systems and large-scale centralized systems

Injection of biogas [1] into gas pipe

natural gas

Comparison of Overall Energy Efficiency

Best mix of distributed systems and large-scale Smart Energy Network centralized systems (urban area) P12

# What Should Be the Energy of the Future?

The Great East Japan Earthquake has made people think seriously about energy issues. In addition to environmental friendliness, supply stability and economic efficiency, the importance of safety and reliability has been recognized anew. Amid ever-growing demand for distributed energy solutions and efficient energy use, it is increasingly required to optimize the mix of large-scale centralized power sources and distributed energy systems, and to ensure the efficient use of energy as well as diversification of energy sources without depending too heavily on a single energy source. Under these circumstances, we believe that expectations for natural gas will rise higher than ever before. To meet these expectations, we will intensify efforts to spread and expand the use of natural gas and promote the introduction of cogeneration

### Distributed Energy Systems Osaka Gas Envisions

We believe that distributed energy systems, including natural gas supply structure as well as Japan's economic growth, by ensuring more efficient use of energy in factories, stores and homes by helping reduce peak electricity demand 11, and by providing enhanced supply security during power outages.

With a strong commitment to contributing to building a low carbon society and reducing social costs, we will strive to seek the best mix of energy sources and to build "smart energy networks," which optimize energy use within a community by combining electricity and heat produced by cogeneration systems and renewable energy and by using information and communications technology (ICT).

### Promoting R&D and Practical Application of Innovative Technologies that Will Lead the Next Generation

To contribute to building a distributed energy society, we are working to improve the efficiency and reduce the cost of residential fuel cells commercial cogeneration systems, and gas heating and cooling systems. We are also continuing development of technologies applied to biogas and hydrogen production.

Best mix with renewable energy 211

Natural gas -fueled ship

Combined cycle

Energy-efficient LNG ?!! carrier

Cryogenic power generation 🔃

Fuel cell vehicle

Mega-solar power plant

Wind power generation

Contributing to the New Energy Mix by Fully Leveraging the **Characteristics of Natural Gas** 

WOSAKA GAS

### Masato Kitamae

In terms of energy security, the role of natural gas will become greater than ever before. We are increasingly expected to implement drastic energy conservation measures, while flexibly responding to changes in customers' behavioral patterns and social infrastructures. To meet such expectations, we will accelerate our efforts: to develop and spread the use of residential fuel cells with higher power generation efficiency; to realize smart living and business that uses information and communications technologies to improve total energy efficiency without imposing an undue burden on customers; and to provide a diverse range of products and services, including double power generation system that combines photovoltaic

Toward achieving a new energy mix, the Osaka Gas Group will strive with concerted efforts to fulfill its responsibilities as an energy company.

10~30% **Transportation of** Thermal energy  $30 \sim 60\%$ LNG by lorry Electrical energy 20~45% (LHV\*) **Transportation by** 

Natural Gas Cogeneration System ?!!

natural gas vehicle

Smart House P11

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Features

We are committed to contributing to building a smart society with greater energy savings and energy security, by encouraging people to create energy in their homes and communities with distributed energy systems (including natural gas cogeneration systems and renewable energy systems) and by networking them.

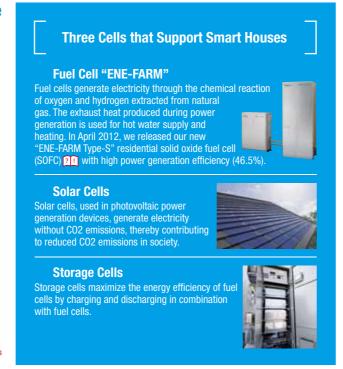
### In the Home...

### **Development of Flagship Model of the Smart House**

We are pursuing zero net carbon emissions living by combining three types of cells—fuel cells, solar cells and storage cells.

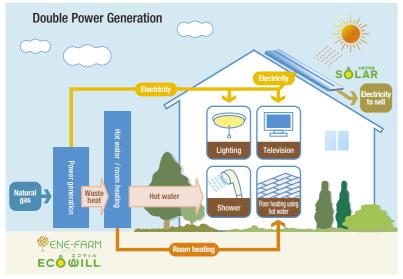
Osaka Gas has been involved in the development of a flagship model of the Smart House. We seek to realize comfortable, environmentally friendly living by producing/storing/consuming electricity and heat wisely (smartly). Since February 2011, we have been conducting verification testing at two experimental residences—one for technical assessment and one as an experimental dwelling.





### **Promoting Widespread Use of Equipment for Smart Houses**

Osaka Gas has been striving to promote the widespread use of double power generation systems, which combine residential cogeneration systems and solar cells, and equipment for Smart Houses, including Ene-Look Plus, which visualizes energy consumption in the home. We will promote the installation of these systems not only in new construction, but also in retrofitted houses.



# and Double Power Generation Systems (Total) Number of residential cogeneration systems sold Number of houses with double power generation (units) 100,000 5,369 5,000 81,357 4,000 65,457 60,000 2,816 2,000 20,000 931

Penetration Status of Residential Cogeneration Systems

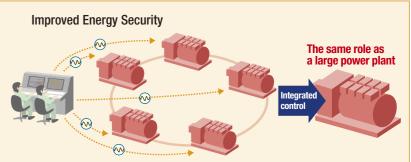
# In the Community...

### **Development of Smart Energy Networks**

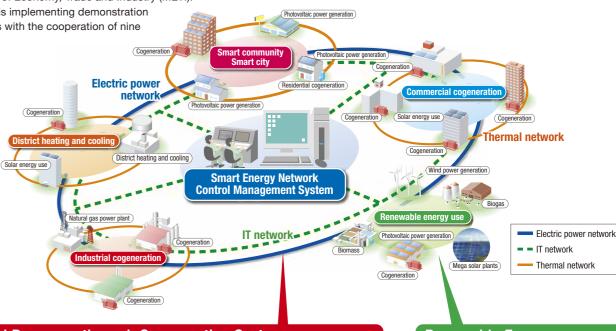
A smart energy network is a next generation energy system that optimizes energy use by combining gas cogeneration systems, renewable energies and information and communications technology (ICT). The smart energy network provides the following three benefits, by arranging interchange of energy among multiple uses within a specific area ("energy community") and by performing integrated control of dispersed energy sources.

- (1) Increased energy conservation and CO<sub>2</sub> emission reductions
- (2) Improved energy security
- (3) Wider diffusion of renewable energies

Since fiscal 2011 Osaka Gas and Tokyo Gas have been jointly participating in the Dispersed Energy Compound Optimization Demonstration Project of the Ministry of Economy, Trade and Industry (METI). Osaka Gas is implementing demonstration experiments with the cooperation of nine customers.

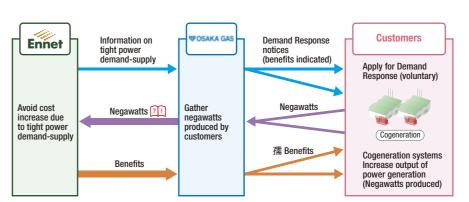


Gas cogeneration systems, which can be also used as emergency power generation systems, contribute to improved energy security. The smart energy network performs integrated control of dispersed cogeneration systems, and plays the same role as a large power plant which will further enhance the stability of the entire network.



### **Demand Response through Cogeneration Systems**

In June 2012, we launched the Demand Response Program to help reduce peak demand by encouraging customers to increase power generation from their cogeneration systems.



### Renewable Energy

Toward building a low-carbon society, Gas and Power Co., Ltd., an affiliated company of Osaka Gas, is constructing mega-solar plants at three locations: Konohana Ward in Osaka; Shoo Town in Katsuta-gun, Okayama Prefecture; and Hirogawa Town in Arida-gun, Wakayama Prefecture. All the plants are scheduled to go into operation by the end of March, 2013.

We are also working to promote the use of biogas [1]. We accept about 800,000 m³ of biogas annually from a sewage treatment facility in Higashi-nada Ward in Kobe and feed the biogas into gas pipelines.

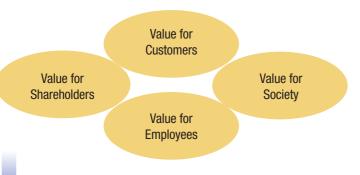
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# **CSR of the Osaka Gas Group**

Management Principles of the Osaka Gas Group

# **Value Creation Management**

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





Osaka Gas Group Environmental Activities Policy

**Osaka Gas Group Code of Conduct** 

### CSR Management of Osaka Gas Group and Revision of CSR Indicators

Placing top priority on maximizing customer value, the Osaka Gas Group pursues "Value Creation Management" as its guiding principle to enhance value for all stakeholders, including customers, shareholders, society and employees through fair and transparent business activities. We believe that pursuing value creation management means fulfilling our corporate social responsibilities.

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. In addition, in 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 be in line with the UN Global Compact. In 2009, we defined and announced CSR indicators for each of the five principles of the CSR Charter. These indicators have been used to promote our CSR activities and stakeholder dialogues.

Our CSR indicators are meant to visualize our CSR performance and thus promote our CSR initiatives. Based on our past performance, we have made some revisions to the previous indicators, which were set for the period from fiscal 2010 to 2012, and set a new target for each indicator.

### Osaka Gas Group New CSR Indicators

CSR Charter	Previous CSR Indicators <2010 – 2012>	New CSR Indicators <2013 – 2014>	Remarks
	Customer satisfaction level Overall satisfaction rate: 82% or more	Customer satisfaction level Overall satisfaction rate: 85% or more, 82% or more in all customer service duties (Standardize service levels)	We will strive to standardize service levels by setting clear standards for each task, while working to improve customer satisfaction levels.
	Environmental management indicator 91 yen/ 1,000 m³ or less	Environmental management indicator 68 yen/ 1,000 m³ or less (Add water consumption [general/industrial] to environmental impacts.)	From fiscal 2013, water consumptio will be added to our environmental impacts, which currently include greenhouse gas emissions, NOx emissions, COD, waste, excavated soil, and chemical substance emissions from our gas business.
	Number of contacts and communication events Number of events held: At least 365 Number of contacts: At least 1% of total customers	Number of contacts and communication events Number of events held (on-site dietary and energy/environment seminars, etc.): 1,000 times Number of contacts (visitors to permanent facilities including Gas Science Museum): 70,000 people or more Social contribution activities: Number of activities implemented: 600 times or more	Communication with society is the opportunity for the Osaka Gas Group to return society tangible or intangible assets it has accumulated through its business activities. From fiscal 2013, activities of affiliated companies will be included.
	Compliance awareness survey scores Higher than previous year levels in all items Awareness level of the Code of Conduct Level of understanding of the Code of Conduct Level of knowledge of work-related laws	Compliance awareness survey scores(Individual) Level of understanding of the Code of Conduct: Higher than the previous year(Organization) Degree of penetration of compliance: Higher than the previous year Percentage of employees receiving compli- ance training: 100%	Scores (organization/individual) from the Group-wide annual Compliance Awareness Survey and awareness raising activities at each organization will be used as CSR indicators. Adding to regular employees, the scope includes directly employed employees.
	Employee opinion survey Maintain sufficient levels in job satisfaction and sense of attach- ment to the company	Employee opinion survey Maintaining sufficient levels in job satisfaction and sense of attachment to the company	The survey will be conducted unde the new personnel system.

### **Revision of Environmental Targets**

In addition to revising CSR indicators, we have also revised our environmental targets. In order to make steady progress toward achieving the objectives set out in our long-term management vision and medium-term management plans "Field of Dreams 2020," we set new environmental targets for fiscal 2014. We raised target values for all items. In light of the situation following the Great East Japan Earthquake, we set targets for efforts to improve energy security and to enhance environmental performance throughout the entire value chain (all business activities of Osaka Gas Group, from procurement to production, supply and sales), as well as reduction targets for greenhouse gas emissions and other environmental impacts.

### Major revisions made

We revised targets for each indicator, and added the following new targets:

### Efforts at customer sites

(Targets for CO2 emissions reduction and energy security improvement)

### Efforts in the value chain

(Targets for CO2 emissions reduction and 3R promotion across the value chain)

Strengthening environmental technology development

Comment from the person in charge

Manager, CSR Office, CSR & Environment Department Mari Tabata

We use CSR indicators to promote our CSR activities and stakeholder dialogues.

To visualize the performance of our CSR activities, we have defined CSR indicators for each of the five principles of the CSR Charter. These indicators are used to promote our CSR activities and stakeholder dialogues. We will work to develop indicators and targets for 2020 that cover the CSR activities of the entire Group.



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### Revision of the Osaka Gas Group Code of Conduct

In November 2010, the International Organization for Standardization (ISO) published ISO 26000. It provides guidance to all types of organizations on principles and practices of social responsibility. Ahead of the release of ISO 26000, the Japan Business Federation revised its Corporate Code of Conduct in September 2010. Against a background of developments like these, in July 2011, we revised the Osaka Gas Group Code of Conduct to reflect the following aspects: respecting international norms in our global business activities, including the laws and regulations of each country/region and those concerned with human rights; and promoting social responsibility throughout the supply chain. The table below shows how the 18 items of the Osaka Gas Group Code of Conduct relate to the UN Global Compact and ISO 26000.

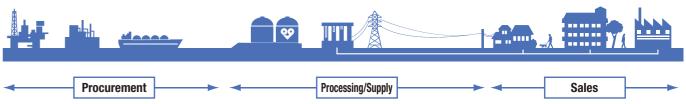
How the UN G	lobal Compact and ISO 26000 a	re related to the Osaka Gas Gro	oup Code of Conduct (revised in July 2011)	
11	IN Global Compact	ISO 26000: Core subjects	Osaka Gas Group Code of Conduct	
orv diobal compact		Organizational governing	Csarra das droup code of contact	
Human	Principle 1	Human rights	1 Respect for human rights	
Rights	Businesses should support and respect the protection of internationally proclaimed human rights; and Principle 2 make sure that they are not complicit in human rights abuses.	Osaka Gas Group Code of Conduct	2 Creating a pleasant work environment	
		1 3 4 5 13	3 Compliance with laws and regulations	
			4 Personal and professional lives	
Labor	Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective	Labor practices Osaka Gas Group Code of Conduct	5 Respect for international rules and regulations as well as international norms including human rights norms	
	bargaining; 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	2 3 4 5 13	6 Consideration to the environment	
			7 Compliance with anti-monopoly laws and practice fair transaction	
			Provision of products and services	
	respect of employment and occupation.		Ensuring safety of products and services	
Environment	Principle 7 Businesses should support a precautionary approach to environmental challenges; Principle 8 undertake initiatives to promote greater environmental responsibility; and Principle 9 encourage the development and diffusion of environmentally friendly technologies.	The environment Osaka Gas Group Code of	10 Interacting with customers	
		Conduct	11 Contributing to society	
		3 4 5 6 13	12 Associating with business partners	
			Developing our partners' understanding of our Code of Conduct	
Anti-	Principle 10 Businesses should work against corruption in all its forms, including extortion and bribery.	Fair operating practices	14 Use of information and information systems	
Corruption		Osaka Gas Group Code of Conduct	15 Disclosure of information	
		3 4 5 7 12 ~ 18	16 Management of intellectual property	
		Consumer issues	17 Prohibiting association with anti-social forces	
	CORAL COM	Osaka Gas Group Code of Conduct 3 4 5 8 9 10 13	18 Appropriate payment of taxes and accounting practices	
WE STEDENST		Community involvement and development	Revised item  Numbers in the center column show the items of the Osaka  Gas Group Code of Conduct relating to each core subject of	

Osaka Gas Group Code of

Conduct 3 4 5 11 13

### Osaka Gas Group CSR Activities throughout the Value Chain 🕮

Below is a list of the Osaka Gas Group's major CSR activities performed in each business process (throughout the value chain), from procurement to processing, supply and sales. We will strive to promote activities that create value for society and pursue sustainable development for our company group and society, in order to fulfill our social responsibilities throughout the entire value chain.



Notification of suppliers of CSR purchasing guidelines based on the UN Global Compact Conducting CSR surveys at overseas suppliers

### **Decision to Construct Two Fuel-Efficient LNG Carriers**

Osaka Gas has decided to build two fuel-efficient LNG carriers, which saves energy in transporting LNG. The new ship features a continuous tank cover integrated with the hull (Sayaendo [garden peas] design), which significantly lessens wind resistance. Combined with the use of a new steam turbine engine with steam re-heating, the ship would achieve a higher fuel efficiency of over 20% compared with conventional ships, enabling us to reduce CO<sub>2</sub> emissions and transportation costs.



Artist's rendering of the new LNG carrier

Safety measures 24 hours a day, 365 days a year Disaster countermeasures

Policies and efforts aimed at building a low-carbon

Promoting reduction of resource consumption and use of recycled materials Biodiversity conservation

### **Promoting the 3Rs** throughout the Value Chain

Osaka Gas has been promoting the 3Rs—Reduce excavated soil from gas pipe installation work; Reuse used gas meters after disassembly, maintenance and inspection; and Recycle used gas appliances and polyethylene (PE) pipes. In fiscal 2012, excavated soil was reduced by 42% compared to the conventional method, 90% of gas appliances were reused, and 100% of PE pipes were recycled. We will aim to achieve 100% for the recycling of gas alarms and plastic foam packing materials.



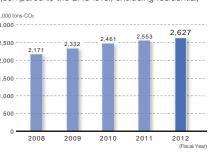
OG ROAD Co., Ltd. received the Chairperson Award of the Fiscal 2012 Kinki Construction Materials Recycling Awards

Promoting the widespread use of equipment and services designed for the safe use of gas Ensuring customer safety through the All-Employee Gas Safety Initiative Policies and efforts aimed at building a low-carbon

### 74,000 tons of CO<sub>2</sub> Emissions **Curbed at Customer Sites**

As part of efforts to reduce CO2 emissions at customer sites, we have promoted the use of cogeneration systems and high-efficiency equipment and systems (such as gas air conditioners and high-performance industrial furnaces) for our corporate customers. Thanks to these efforts, CO<sub>2</sub> emissions at customer sites in fiscal 2012 were curbed by 74,000 tons compared to the previous year, and approximately 2.627 million tons compared to the business-as-usual projection starting from fiscal 1999.

CO<sub>2</sub> Emission Curbed at Customer Sites (compared to the BAU level; excluding residential)



### Stakeholder Dialogue Supply Chain Management

Osaka Gas held a stakeholder dialogue on the theme of supply chain management. Participants included six representative employees from Osaka Gas and four independent stakeholders from the distribution and manufacturing industries, which are members of the supply chain subcommittee of the UN Global Compact Japan Network. Participants exchanged their views and ideas on supply chain management issues. For summaries of the discussion, visit the website.

PC http://www.osakagas.co.jp/company/csr\_e/dialog/index.html



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# Creating Value for Customers

The Osaka Gas Group is committed to making a positive contribution to realizing a higher level of comfort and development in the business activities of its customers. The group intends to achieve this objective through the provision of a reliable and safe supply of natural gas and other energy services with an improved level of services for its customers. We also pursue development of new products and services furthering value for customers, and that create opportunities for growth for our business and customers and society at large.

### Highlight

Support for restoration of gas service in areas affected by the Great East Japan Earthquake

The Disaster Restoration Support System "BRIDGE" put into operation (Feature 1, P8)

Introduced new concept phrase for promoting low-carbonized and energy saving society (P9)

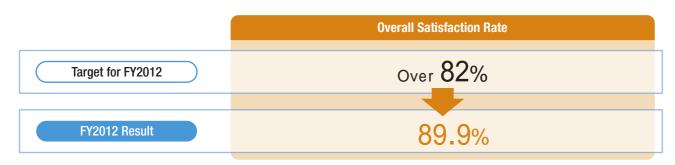
Target & Results

# CSR Indicator: Customer Satisfaction Survey: Overall satisfaction rate

Items covered in the survey are those in which Osaka Gas deals directly with end users: "opening of gas lines," "repair of gas appliances," "regular security inspections (gas facilities inspections)," "response to telephone inquiries," "replacement of gas meters upon expiration of the validity period," "sales of appliances," "sales of gas alarms," and "sales of Station 24\*." A written survey, which contains questions on levels of satisfaction and quality of service, will be mailed to customers after completion of the service concerned.

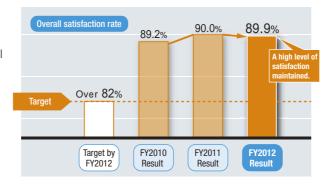
Overall satisfaction is a rate of response for "very good" and "good" among six options.

\* Station 24 business: A 24-hour IT monitoring system to ensure customer safety and security



### **FY2012 Results Overview**

With the aim of improving service quality, Osaka Gas has conducted customer satisfaction surveys since 1988. The overall satisfaction rate was 89.9% in fiscal 2012. We continue striving to improve our services based on customer feedback, so as to provide services that best meet the needs of our customers.



**CSR Activities in Figures** 

7 countries

Number of countries from which Osaka Gas imports LNG 2,954 locations

Number of locations where earthquake detection and gas shut-off devices are installed

94.3%

Usage rate for gas stoves with an automatic shutdown function



# Isao Yamamura General Manager, Customer Service Department, Residential Energy Business Unit, Osaka Gas Co., Ltd.

### Pursuing CS Improvement That Meet the Needs of the Times to Continue to Be a Good Partner for Our Customers

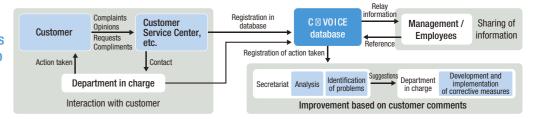
In line with our corporate creed "Service First," we at the Osaka Gas Group have strived to continually improve customer satisfaction. In fiscal 2012 we established new CS Action Guidelines to keep up with the times and meet the ever-growing needs of our customers. To continue to be a company that is trusted and chosen by our customers as their "good partner," we will continue to listen to our customers with the utmost respect and attention. We will continue striving to provide services that meet the true needs of our customers and valid suggestions that anticipate the needs of the times, thereby contributing to a comfortable life and the development of the businesses of our customers.

Basic Policy To remain a company that is trusted and chosen by our customers as their good partner, we listen closely to our customers and present valuable proposals that meet their needs and expectations.

We also strive to further improve the quality of our services to ensure that our customers lead safe, secure and comfortable lifestyles.

### Overview of C-VOICE

A system that enables customer feedback to be used to improve our products and services



Peace of Mind and Safety-Stable Procurement

# Participating in Ichthys LNG Pty Ltd's Gas Field Development Project in Australia



To ensure the economical and stable procurement of LNG [1], Osaka Gas has pursued upstream business opportunities such as gas field and LNG project. In recent years, we have actively participated in gas field development projects in Australia. In December 2011, we agreed to participate in the Ichthys LNG Project, which involves development of the Ichthys gas and condensate field located offshore in northwestern Australia. The plan is to purchase about 800,000 tons per year for 15 years starting in 2017.

**Incorporating Customer Opinions** 

# Reflecting Consumer Groups' Opinions in Our Business

In an effort to reflect customer opinions to improve our management and operational practices, Osaka Gas creates opportunities to exchange opinions with consumer groups and other community organizations. One example is an annual opinion-exchange meeting between Osaka Gas management and representatives of the Kansai Consumers' Association, which comprises consumer groups in the Kansai region. In fiscal 2012, many comments and questions were received about our earthquake preventive and response measures and distributed energy systems, largely evoked by rising concerns on domestic energy safety and security following the Great East Japan Earthquake. The opinions and suggestions received are communicated to the relevant departments through the C-VOICE system and by other means, to improve our services and work processes.



Osaka Gas management listen opinions of consumer group

# Harmonizing with the environment and contributing to realizing

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. Being seriously aware of the impacts of its business activities on the environment, the Group seeks to harmonize its businesses with the environment and to realize efficient utilization of energy resources, thereby contributing to realizing a sustainable society.

### Highlight

Introducing the world's first large-scale energy-saving process using LNG cold heat

Launching sales of residential solid oxide fuel cell (SOFC) 20 cogeneration systems (P11)

Launching "Solar Eco Wave," a scheme to allow customers to install photovoltaic panels with no initial capital cost

**Target** & Results

# **CSR Indicator: Environmental Management Indicators:**

# Environmental Management E

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 [1], NOx emissions, COD\*1, final disposal of general and industrial waste, final disposal of excavated soil\*2 (1), and chemical substance emissions. This allows us to quantitatively measure how much we are reducing our environmental impact. The smaller the figure for environmental management efficiency, the greater the reduction in 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.

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

**Environmental Management Efficiency** 

Target for FY 2012

91 yen/1,000 m<sup>3</sup> or less

FY 2012 Result

65 yen/1,000 m<sup>3</sup>

### Fiscal 2012 Results Overview

Thanks to our efforts to reduce the amount of electricity we purchase from the electric utility through efficient use of LNG cold heat at the LNG terminals and to reduce the amount of excavated soil for final disposal, the monetary equivalent value of environmental impact, which is the numerator in the formula for calculating the environmental management efficiency, was 567 million yen, down about 4% from the previous year. The amount of gas sold, which is the denominator in the formula, increased by about 2%. Therefore, the environmental management efficiency improved to 65 yen/1,000 m<sup>3</sup> from 69 yen/1,000 m<sup>3</sup> in the previous year, far exceeding the fiscal 2012 target of 91 yen/1,000 m<sup>3</sup>.



### **CSR Activities in Figures**

 $16.7_{g-CO_2/m^3}$ 

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CO<sub>2</sub> emission per 1 m<sup>3</sup> of gas sold

Percentage of final disposal at LNG terminals

Percentage of final disposal of excavated soil

# a sustainable society



### Toshimasa Kagajo General Manager, CSR & Environment Department Osaka Gas Co., Ltd.

# **Pursuing Proactive Environmental Initiatives** toward Building a Sustainable Society, **Always Looking a Step Ahead**

In order to fulfill one of our missions of protecting the global environment, the Osaka Gas Group has been implementing proactive environmental programs and working to develop and provide innovative eco-friendly products and services. Taking into account the circumstances after the Great East Japan Earthquake, in fiscal 2012 we set new environmental goals, including reducing greenhouse gas emissions, improving energy security, developing environmental technologies and reducing environmental impact throughout the value chain . We are committed to playing a part in building a sustainable society by promoting proactive environmental activities in collaboration with our customers and business partners.

Basic **Policy** 

Contributing to a low-carbon society is a top priority of the Osaka Gas Group. Under Field of Dreams 2020, our long-term management vision and medium-term management plans, we are striving to reduce greenhouse gas emissions at customer sites. We have also set the medium-term environmental targets including reducing greenhouse gas emissions from our business activities and improved recycling of resources, and are working vigorously to achieve the set targets.

### **Contributing to a Sustainable Society**

### **Efforts at Customer Sites**

We strive to reduce greenhouse gases, achieve a stable supply of energy, and stimulate the dynamics of society.

Centered on natural gas, we pursue the best mix of energy (combination with renewable energy ?!! sources, etc.), promote the widespread use of distributed systems, and boost energy efficiency.

(Fiscal 2010 - 2021)

13 million tons

Aiming for a Low-Carbon Society Promoting Widespread Use and Advanced Use of Natural Gas

Spread the use of natural gas and develop highly efficient equipment and systems.

Spread of Distributed Energy Systems Promote widespread use of cogeneration systems.

**Using Renewable Energy** Expand the use of renewable energy by combining it with high-efficiency gas equipment

Improving Customers' Energy Efficiency Through Energy Services

Improve customers' energy efficiency by visualizing energy consumption and proposing know-how.

### Efforts in Business Activities **Develop advanced environmental** Reduce CO<sub>2</sub> emissions technologies and spread use of these worldwide. from our business activities Pursue 3Rs in our business. **Business activities.** local communities Preserving

**Efforts Throughout the Value Chain** LNG transportation, materials procurement,

Reducing Environmental

Impacts of Our Business

logistics, etc.

**Environmental Activities Policy** 

Osaka Gas Group Environmental Activities Policy Reducing Environmental Impacts by

Contributing to Environmental Conservation Locally, **Our Products and Services** Nationally and Internationally

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### CSR Charter

# Targets and Results

# **Environmental Action Targets** (for FY2014)

Area			Environmental Action Targets			
Integrated indicator	Environmental management efficiency Environmental impacts of gas business per 1 m³ of gas sold					
		Coo husings	Emissions at LNG terminals (CO <sub>2</sub> emissions per 1 million m <sup>3</sup> of gas sold) ( t-CO <sub>2</sub> /1 million m <sup>3</sup> )	12.3 5% decrease compared to FY2009		
	Reducing CO <sub>2</sub> emissions from our business activities	Gas business	Emissions at office buildings (CO <sub>2</sub> emissions per 1,000 m <sup>2</sup> floor space) (t-CO <sub>2</sub> /1,000 m <sup>2</sup> )	75.9 6% decrease compared to FY2009		
		Group companies' businesses	Electricity business (including from renewable energy sources) (CO <sub>2</sub> emissions per electricity generated)	FY 2021 15% decrease compared to FY2009		
			Other businesses (CO <sub>2</sub> emissions per sales) (t-CO <sub>2</sub> /10 million yen)	10.3 3% decrease compared to FY2010		
Efforts toward low-carbon society	Reducing CO <sub>2</sub> emissions on customer sites and throughout the value chain	Customer sites	—Centered on natural gas, we seek to reduce greenhouse gas emissions and contribute to energy security of society— Promote the widespread use of high-efficiency residential fuel cells. Spread of equipment for Smart Houses promoting energy creation/conservation' and energy visualization.  *Fuel cells, photovoltaic power generation, high-efficiency water heaters  Spread the use of sophisticated energy management systems. Introduce and expand the use of equipment and systems with outage respons functions.  (Residential) cogeneration systems (including fuel cells)  (Commercial/industrial) emergency-generator and cogeneration systems and GHP with stand-alone power supply function, etc.  Promote the use of cogeneration / gas air-conditioning systems, which can contribute to reducing peak electricity demand.  Promote the spread of renewable energy such as solar power and biogas.			
		Transportation / logistics	Promote energy-efficient and eco-friendly operation (lower CO <sub>2</sub> em equipment improvements for existing Group-owned LNG tankers; in new technologies into newly-built tankers. Promote the use of natural gas powered vehicles (including large v for distributing products/services at Group companies and business	ntroduce rehicles)		
			Industrial waste from LNG terminals (final disposal rate)	0%		
			Industrial waste from offices (final disposal rate)	2%		
			General waste from LNG terminals and offices (final disposal rate)	5%		
	Promoting 3Rs in our business	Gas business	Excavated soil (final disposal rate)	Approx. 2%		
Resource recycling			Polyethylene (PE) pipes (recycling rate)	100%		
			Gas meters (reuse rates)	97% or more		
		Group companies (core affiliates*2)	Industrial waste/general waste (final disposal rate)	9%		
	Efforts throughout the value chain  Promote the 3Rs for used equipment at our customers, in cooperation with our business partners (residential gas equipment, gas alarms, packing materials, renovation waste, commercial/industrial equipment, etc.).					
Biodiversity	In accordance with the Osaka Gas Group Biodiversity Policy, we take biodiversity into consideration in all of our business activities.					
Technology development	Promote the development of technologies that contribute to a low-carbon society and energy security.  Aim to improve distributed energy technologies (smart energy houses, smart energy networks, etc.).  Aim to develop high-efficiency equipment and systems including next-generation fuel cells.  Aim to develop renewable energy-related technologies.					
Green procurement / purchasing	Promote green purchasing in cooperation with business partners, and the Green Partner Initiative.					

 $<sup>^{\</sup>star 1}$  Fiscal 2010 is used as the base year, because by that year EMS had been introduced into all Group companies.

# Environmental Management Systems and Measures against Environmental Risks

# Continued Certification for Company-Wide Integrated ISO 14001

Osaka Gas began efforts to acquire ISO 14001 certification in fiscal 1998, and all its business units were certified by the end of 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. We are striving to reduce the impact of our operations on the environment and to comply with environmental laws and regulations through effective implementation of EMS.

### Osaka Gas ISO 14001 Certification Dates

Business unit	Date
LNG Terminal & Power Generation Business Unit	October 1997
Head Office	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

### 80 Affiliates in Japan Have EMSs in Place

In accordance with the Osaka Gas Group Environmental Management Regulations, all Group companies in Japan have established and implemented environmental management systems.

### EMS Establishment / Implementation Status in Affiliates (as of April 1, 2012)

Standard	andard Outline	
ISO 14001	An international EMS standard set by the International Organization for Standardization (ISO)	12
Eco Action 21 (EA21)	An EMS standard based on the Eco Action 21 Guidelines of Japan's Ministry of the Environment	3
KES	An EMS standard established by the Kyoto Local Agenda 21 Forum, which is made up of the municipal government, businesses, and citizens	2
OGEMS®*	A standard established by Osaka Gas for its affiliates, based on Eco Action 21	66

<sup>\*</sup> Osaka Gas Environmental Management System

### **Environmental Risk Management**

As part of our efforts to minimize environmental risks, we ensure proper management of chemical substances in compliance with the relevant laws and regulations, and continue soil and groundwater conservation efforts at former coal gas production sites. No legal violations occurred in fiscal 2012.

Third-party verification completed.

# Medium-Term Environmental Targets and FY2012 Results

Regarding the Medium-Term Environmental Targets (target year: FY2012), targets were achieved for almost all items, including CO<sub>2</sub> emissions reductions, waste reduction and recycling, and reduction of final disposal of excavated soil 21.

Reduction	Reduction of Environmental Impact at Osaka Gas : Targets and Results (for Gas Business)		Osaka Gas underwent third party verification by Bureau Veritas Japan Co., Ltd.		
ltem		Indicator		FY2012 Targets	FY2012 Results
	of Environmental	Cash equivalent of total environmental impact / amount of gas sold (yen/1,000 m³)		91 or less	65
Management ( Efficiency	CO <sub>2</sub> emissions reduction	CO <sub>2</sub> emission per 1 m <sup>3</sup> of gas sold (g-CO <sub>2</sub> /m <sup>3</sup> )		17.9	16.7
	Waste reduction and recycling promotion	LNG terminals	Final disposal rate (general and industrial waste)	0.5%	0.3%
		Offices and laboratories	Final disposal rate (general waste)	9%	4.1%
			Final disposal rate (industrial waste)	3%	2.0%
	Reduction of final disposal of excavated soil	Final disposal rate (improved percentage of recycling and efficient utilization)		4%	1.2%
Efficient utilization of water		Water usage (general and industrial water) (10,000 m³)		160	139

### Reduction of Environmental Impact at Affiliates: Targets and Results

Tioudulon of Environmental Impact at Anniates . Targets and nesalis			by Bureau Veritas Japan Co., Ltd.	
Item		Indicator	FY2012 Targets	FY2012 Results
CO <sub>2</sub>	Electricity business	CO <sub>2</sub> emission intensity at transmission point (base year: FY2009)	approx. 15% (Reduction target in FY2021)	30.7% reduced
emissions reduction	District cooling / heating business	Energy efficiency (base year: FY2009)	Reduced by about 1 %	0.2%
	Other businesses	CO2 emission factor (CO2 emission/sales) (t-CO2/million yen)	0.75	0.55
Waste recycling promotion at core affiliates*		Final disposal rate (general waste, industrial waste)	10%	8.9%

<sup>\*</sup> Four core affiliates

<sup>\*2</sup> Core affiliates: Urbanex, Osaka Gas Chemicals (excluding CF Materials Division), OGIS-RI, and Liquid Gas

# Being a good corporate citizen

As a good corporate citizen, the Osaka Gas Group 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 relationships with citizens and to make our positive contribution to the development of a healthy society.

### Highlight

Launching a website as the Social Contribution channel

Social contribution through activities of sport and cultural clubs

**Holding a Social Contribution Forum** 

**Contributing to the preservation of the local environment** 

Support for areas affected by the Great East Japan Earthquake and Typhoon (donations, volunteer activities)

**Target** & Results

### **CSR Indicator:**

### Number of contacts and communication events

The first indicator, the number of contacts, represents the total number of customers contacted in fiscal 2012 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, "dietary education," and "energy and environmental education" participants, and attendees of other events and seminars, excluding sales-related events. The second indicator, number of communication events, stands for the number of communication activities and related efforts actually conducted.



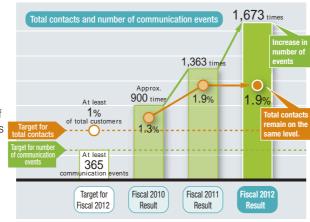
### **FY2012 Results Overview**

customers and

employees for disaster relief

(Great East Japan Earthquake and Typhoon No. 12)

Regarding programs to foster the next generation, in addition to dietary education, energy/environment education, a "Learning About Fire" program, which is designed to familiarize children with fire through firsthand experience, and "NOBY Track & Field CLUB," which aims to help children grow strong and healthy and to foster the next-generation top athletes, have been launched. In fiscal 2012, the number of communication events held increased, mainly due to full-scale implementation of these newly-launched programs. In response to the increased awareness of the Group's employees and their desire to be involved in social contributions for areas devastated by the Great East Japan Earthquake and Typhoon No. 12, we organized a number of fundraising events and encouraged charitable donations through Osaka Gas Tomoshibi Club, through which employees can donate part of their benefit. We have also been dispatching employee volunteers to disaster-hit areas on a continuous basis



**CSR Activities in Figures** 

14 times. 56,036,000 yen a total of 88 people Donations made by

Employees' volunteer activities for the recovery of disaster-hit areas (Great East Japan Earthquake and Typhoon No. 12)

743 lessons. 31,329 people Numbers of on-site energy and

environmental lessons held and

participants

125,000 copies

Number of free copies of dietary education booklets ("Dietary Education Book-Why and What?" provided to elementary schools

# contributing to society



Eiichi Inamura Executive O cer. General Manager Regional Development Department, Osaka Gas Co., Ltd.

### Striving to Enhance Our CSR Activities by **Maximizing the Strengths and Unique Characteristics** of the Osaka Gas Group

Many Osaka Gas Group employees participated in volunteer recovery activities and charitable donations following the Great East Japan Earthquake, reinforcing their awareness and motivation towards social contributions. Instead of letting their motivation fade away, we strive to cultivate a corporate culture where all employees view contributing to society as part of their responsibility as a member of the Osaka Gas Group. Participation in recovery support for the Great East Japan Earthquake made us think once again about what we should and could do to contribute to society. I believe that we should seek to contribute to society by leveraging our unique assets such as technologies and know-how accumulated over the years through our business activities. This will help strengthen our corporate identity and help build and increase employees' pride in their work and company. We will redouble our efforts to contribute to society.

Basic **Policy** 

In line with our commitment to contributing to the sustainable development of society, the Osaka Gas Group not only promotes local community contributions and charitable initiatives such as the Small Light Campaign, but also strives to help resolve the problems confronting our society. To further promote social contribution activities, we will continue our e orts to improve our systems, raise employee awareness and support their activities.

### Activities of Communication with Customers in FY2012

We have been pursuing various activities to promote the health, safety and security of society at large.

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 the health. safety and security of society.

**Increased desire for** social contribution among employees

We have been striving to protect the environment, while at the same time working to disseminate advanced knowledge on the environment.

> Besides sending employees to teach lessons on energy and the environment at elementary, junior high and senior high schools, Osaka Gas contributes to improving citizens' awareness through workshops and exhibitions. Since 2005, the Osaka Gas Forest has been contributing to the protection of the forest along the historic Kumano Kodo pilgrimage route.

We make full use of our resources including human resources, facilities and technologies, to contribute to the revitalization and development of local communities.

to local communities, we conduct numerous events and activities: fun events at Osaka Gas business sites inviting local residents, community cleanup activities, and work experience program for local junior high school

As a token of our gratitude

# Complying with laws and regulations

The management's and the employees' compliance with laws and regulations forms the basis for 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 relationships with our customers, business partners, and other parties.

### Highlight

Revision and dissemination of the Osaka Gas Group Code of Conduct

In July 2011, the Osaka Gas Group Code of Conduct was revised in accord with ISO26000 21. We worked to ensure that all Group employees are familiar with the revised Code of Conduct.

### **Predictive Data Monitoring**

We launched a new initiative "Predictive Data Monitoring" to quickly detect signs of compliance-related problems.

Target & Results

### **CSR Indicator:**

# Employee scores on compliance awareness

Since fiscal 2004, the Osaka Gas Group has been conducting annual surveys to determine how widespread and entrenched compliance awareness is in areas such as human rights. The results are reflected in future compliance measures. The goal is to have higher scores each year for the key CSR indicators for the Code of Conduct awareness level, understanding of the 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.

Target for FY2012

Continued improvements in all items over the previous year

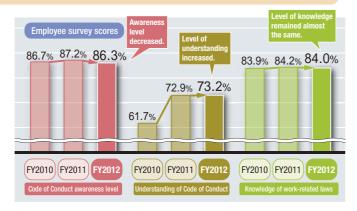
The level of understanding of Code of Conduct increased.

Awareness level of the Code of Conduct decreased.

The level of knowledge of work-related laws remained at the same level.

### FY2012 Results Overview

We use three indicators to measure employees' awareness of compliance: Code of Conduct awareness level, understanding of the Code of Conduct, and knowledge of work-related laws. The level of understanding improved over the previous year, whereas the awareness and knowledge levels decreased or remained almost unchanged. However, both awareness and knowledge levels remained high at around 85%. On the other hand, although the score was improved, the level of understanding was low compared with the other two items. In fiscal 2013 we will continue activities to enhance compliance awareness and understanding.



### **CSR Activities in Figures**

108 cases

Number of consultations and reports received at the Compliance Desk

A total of 64 sessions, 2,475 people

Numbers of training sessions organized by the Compliance Dept. and participants

14,627<sub>people</sub>

Number of employees participating in human rights training within the Group

# and respect for human rights

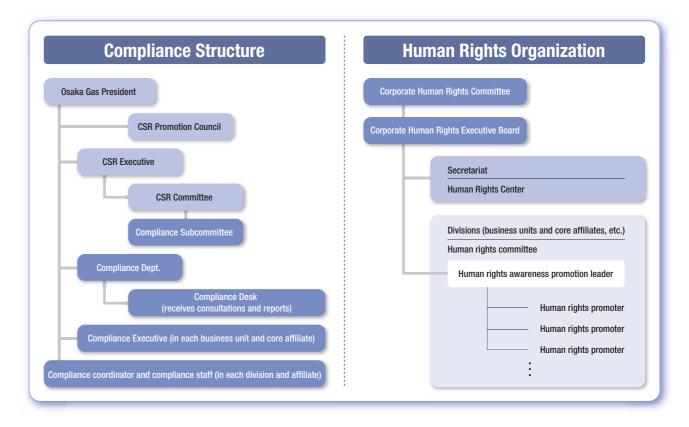


Toshiyuki Inui General Manager, Compliance Department Osaka Gas Co., Ltd.

# Compliance Awareness Permeating among All Employees through Self-Reliance and Self-Propelled Efforts by Each Company and Organization

Compliance is one of the five pillars of our CSR, and the Osaka Gas Group is making concerted efforts to ensure thorough compliance. Currently, each organization and affiliate is making autonomous efforts to instill compliance awareness in each employee. We will endeavor to enhance the corporate value of the Osaka Gas Group by ensuring strict compliance in our daily business operations and by raising and maintaining compliance awareness among our employees.

Basic Policy For the Osaka Gas Group, compliance means not only observing laws and regulations, but also practicing ethical and responsible corporate conduct. The Group has established systems to ensure thorough compliance and respect for human rights. We have also established a Compliance Desk, which receives reports on compliance issues, not only from Group employees, but also from temporary workers and business partners 'workers.



**Compliance Promotion Efforts** 

# Preventing compliance-related problems through continuous monitoring of data

In fiscal 2012 the Osaka Gas Group started a new "Predictive Data Monitoring" initiative to detect signs of potential compliance-related problems. This initiative aims to prevent any compliance-related problems from occurring by

detecting unusual changes in the data through regular and continuous data monitoring and by taking proactive measures as soon as possible.

# Management policy for human growth

The Osaka Gas Group strives to become a group of enterprises to realize the growth of its employees through work by ensuring employment opportunities and respecting employees' individuality and initiative. With discipline and self motivation, we will charge ourselves with the task of creating new value for customers, shareholders and society. Through mutual trust and decency, the group and its employees strive to achieve sound growth of the corporate group.

### Highlights

Submission and implementation of the 3rd Action Plan in accordance with the Law for Measures to Support the Development of the Next Generation

**Development of support measures for Osaka Gas Group companies** (capacity development training support menu, etc.)

Launching Human Resources Development by Career Track under the New Personnel System

# Target Results

### **CSR Indicator:**

# Employee opinion survey (job satisfaction and attachment to the company)

Osaka Gas periodically conduct employee opinion surveys to understand how employees satisfy with their job, workplace environment, superiors, company systems, and so on. Employees are asked to rate their satisfaction level on a five-point scale for 16 categories ("attachment to the company," "job satisfaction," etc.) and to leave an open comment. The most recent opinion survey was given to all employees in fiscal 2010. Based on the results of this survey, in fiscal 2011 we designed a new personnel system and made necessary adjustments among the stakeholders. The new personnel system was introduced in fiscal 2012. We plan to gather employee opinions regarding the new personnel system in the next survey, which is scheduled in fiscal 2013.

**Employee Opinion Survey (job satisfaction, attachment to the company)** 

Target for FY2012

Maintain su cient levels

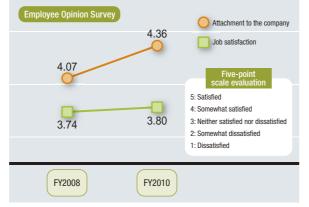
FY2010 Result

( Next survey planned to be carried out in FY2013 )

Maintained su cient level

### **Overview of FY2012 Result**

The next employee opinion survey is scheduled to be conducted in fiscal 2013, in which we plan to gather employee opinions about the new personnel system, introduced in April 2011. In fiscal 2012, we conducted training courses by career track and reviewed training programs for Osaka Gas Group companies. We also considered introducing a "work-at-home system" to further promote work-life balance. As for childcare support measures, we established a consultation desk in the Health Promotion Center so that employees and their families can seek advice on health during pregnancy and child-rearing. We also held "Nursing Care Seminars" and created a booklet titled "Support for Balancing Work and Nursing Care."



**CSR Activities in Figures** 

Percentage of

disabled employees

Numbers of employees of Osaka Gas and Osaka Gas Group

# **Pursuing Group-Wide Efforts to** Foster Employees' Personal and Professional Growth

People are the most important factor for a company and are often referred to as human assets. The Osaka Gas Group is committed to fostering the personal and professional growth of its employees through their work. In line with this commitment, Osaka Gas and its affiliated companies have been implementing their own initiatives to enhance the value of their employees. In fiscal 2012, Osaka Gas introduced a new personnel system to facilitate the growth and development of its employees. From fiscal 2013, the entire Osaka Gas Group will make Group-wide efforts relating to employment and human resources development initiatives.



Toshimasa Fujiwara Executive O cer, General Manager, Human Resources Department Osaka Gas Co., Ltd.

Basic **Policy** 

The Osaka Gas Group aims to become a corporate group where employees can continue to grow personally and professionally through their work. To this end, we seek to create a corporate culture that respects the individuality, autonomy and diverse values of employees and to enhance our organizational management. Based on our belief that the safety and health of employees are key elements in corporate management, we have been working to promote occupational safety and health and work-life balance.



To achieve continuous growth and development of Osaka Gas through initiatives for achieving Field of Dreams 2020, the Osaka Gas Group long-term management vision and medium-term business plan, Osaka Gas introduced a new personnel system in April 2011. Under the new system, we clarify the roles and expectations for each employee, and perform hiring, training, evaluation, and placement appropriate for various job roles. The new personnel system allows employees to choose which career track they would like to pursue in Osaka Gas from four options: Meister Course, Management Course, General Course and Specialist Course. We develop and conduct systematic training so that employees can acquire the skills and abilities required to be successful in the careers they select.



Number of employees who took Nurturing Leave\* \* A leave system under which employees can take a day of paid leave up until their child is three months old.

# **CSR Management**

### **CSR Organization**

### To Embody the CSR Charter and the Code of Conduct

### Promotion and Reform in Alignment with the Osaka Gas Group CSR Charter

In April 2006, the Osaka Gas Group established the Osaka Gas Group CSR Charter\* to serve as a set of guidelines for executive officers and employees of the Group, to enable it to fulfill its corporate social responsibilities. In fiscal 2011, the Osaka Gas Group initiated a new system and established a forum for dialogue with internal and external stakeholders as the 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 on CSR plans and reports on the results of activities under the supervision of the President of Osaka Gas. From the viewpoint of integrating the promotion of our 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.

Along with restructuring of the CSR organization to cover all five areas of the CSR Charter, the CSR & Environment Department was established to perform administrative functions and to act as a hub for CSR activities. With these actions, we will strengthen our initiatives under the CSR Charter and aim for the achievement of 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 for human growth

### **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 fulfill supervisory functions efficiently. 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, monitor and audit the duties and performance of the Group directors.

Osaka Gas has retained KPMG Azsa & Co. as its independent auditor.

### **Audits by Internal and Outside Auditors**

The Company has established the Auditing Department (with a staff of 21), that 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 and affiliates with advice and recommendations. For business units, core group companies, and other sections, the Group is working to enhance and strengthen auditing and internal control functions. For example, basic rules for affiliated companies and self-auditing regulations

commonly shared by Group companies more clearly define the roles and duties of internal auditors. Moreover, auditors evaluate internal controls over financial report based on the Japanese Financial Instruments and Exchange Law.

The Corporate Auditor's Office, composed of four staff members not under the direct control of the directors, has been established to assists in investigations of auditors to further ensure that their duties are fully and properly executed.

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 the auditing activities.

### **Outside Directors and Outside Auditors**

Osaka Gas has two outside directors and two outside auditors. The Company makes decisions concerning the independence of outside directors and outside auditors based on the policy to the effect that outside directors and auditors do not have any conflicts of interest with the general shareholders. The outside directors take part in decision-making as members of the Board of Directors. They are also expected to conduct monitoring and operational oversight. The outside auditors are expected to audit the directors' performance of their duties from an independent standpoint. The concrete roles of outside directors and outside auditors include verifying the state of the internal governance system based on the Companies Act, evaluating internal governance related to financial reporting in compliance with the Japanese Financial Instruments and Exchange Law, and holding hearings on the status of internal audits and CSR at the Board of Directors meetings or other occasions. They also confirm the content of audit reports compiled by the independent auditor of accounts.

### Risk Management

### **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 the risks of loss and conducts relevant checks on a regular basis.

In addition, the management organization for risk management common to the Group supports the implementation of risk management tasks within each division and business unit across the entire group.

### **Regular Reviews and Monitoring**

### Operating G-RIMS, Our Own Self-Assessment System

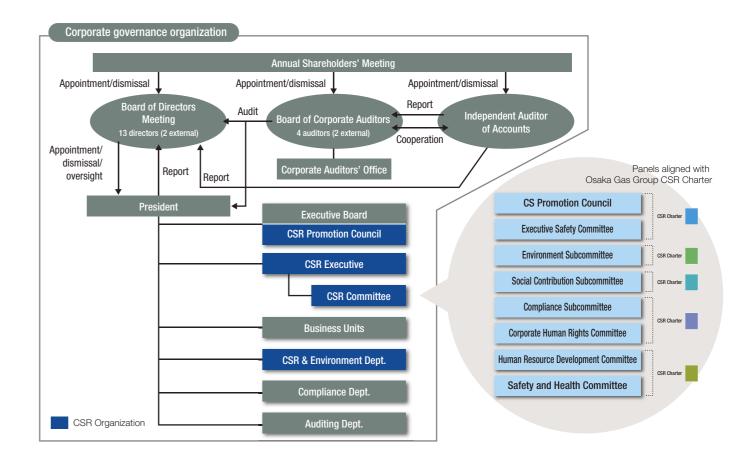
In fiscal 2007, the Osaka Gas Group introduced G-RIMS (Gas Group Risk Management System), which systematizes the self assessment of risk management practices. Each division conducts a self assessment annually using a check list comprising about 170 items. Based on the self-assessment result, the division manager, on recognition of risks his/her division is exposed, properly operates PDCA (plan-do-checkact) cycle for improvement. 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. The results of G-RIMS and issue identification are reported to management.

### **Ongoing Improvement and Regular Reviews**

### Reinforcing Internal Management Initiatives

Each division head and manager is responsible for taking action on issues identified in the course of risk management reviews and to provide periodic follow ups on the 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 promotes managers' self assessment to reinforce internal risk management initiatives. We ensure an effective PDCA cycle (plan, do, check, act) through these risk management activities across the entire group.



# **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 three executive officers in charge of each area regarding the planning and implementation of CSR activities at the Osaka Gas Group.

Based on these interviews and documents submitted, IEMA prepared and presented a report which summarized the IEMA's overall evaluation and advice regarding the Osaka Gas Group's CSR activities.



Interview with IEMA (Professor Kokubu, third from left, and Ms. Nashioka, fourth from left)



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

### Purpose of the Review and Overview of Procedures

From our position as a third-party that maintains no business relationships with Osaka Gas, we are expressing our opinion to help enhance the reliability of the Osaka Gas Group CSR Report 2012 by evaluating all the CSR initiatives that are not related to environmental management. We interviewed Masashi Kuroda, Executive Vice President/CSR Executive, Takashi Sakai, Executive Vice President /Security Executive, and Masato Kitamae, Executive Vice President/General Manager of Corporate Planning Headquarters, to clarify the planning and implementation of CSR management (excluding environmental management) at Osaka Gas and the evaluation and utilization of the performance data that indicates the results of these activities and serves as the basis for disclosed information.

### **Evaluation and Opinion**

Since the Great East Japan Earthquake, in response to the shift in Japan's energy policy, Osaka Gas has strived to fulfill its responsibilities as an energy company dealing with LNG (natural gas). Under the continuing energy emergency situation, cost and profitability issues are becoming a major challenge for any company. Amid these circumstances, expectations are rapidly increasing for smart energy networks, and demonstration experiments are being conducted by multiple companies including Osaka Gas. Following the Great East Japan Earthquake, Osaka Gas quickly reviewed its disaster risks and disaster response plans, and revised disaster drills, accordingly. Osaka Gas has worked to establish systems so that it can efficiently and quickly accomplish its social mission to supply energy stably and safely. We highly appreciate these efforts.

In fiscal 2012, the Osaka Gas Group worked on four priority initiatives in CSR management. Steady progress was made as a whole. As a leading energy company, Osaka Gas can facilitate the entry into the electric power industry by providing a system that delivers energy services.

Osaka Gas has been actively pursuing upstream investments overseas, as part of its future growth strategy and as part of its efforts to ensure a stable procurement of LNG. Osaka Gas has also worked to diversify its sources of procurement, as well as gas supply routes in Japan. From these efforts we can see that Osaka Gas has made great efforts to ensure a safe and stable supply of gas.

Regarding CSR activities, Osaka Gas' disaster relief support efforts, including employees' volunteer activities, are highly appreciated. We can see that the concept of CSR is deeply embedded in the company's culture. Efforts to reduce environmental impact and increase operational efficiency have been made and "smart work" has been achieved at offices throughout the Group companies. In July 2011, the Osaka Gas Group Code of Conduct was revised in line with ISO 26000. We believe that this will lead to the further enhancement of the Osaka Gas Group's CSR management.

The role of energy companies in society is increasingly important. We hope that Osaka Gas will develop into a company that contributes to the sustainable development of the Kansai region, Japan, and the world, by adhering to the principles of shared value between business and society.

June 20, 2012

Katsuhiko Kokubu, Professor, Kobe University; Director of IEMA

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

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

# **Third Party Verification**

The environmental performance data of the Osaka Gas Group included in this Report underwent third-party verification by Bureau Veritas Japan Co., Ltd. The verification was conducted to confirm that the data was sufficiently reliable and consistent for the purpose of the Report.

### Locations

Head Office of Osaka Gas Co., Ltd.: Overall control Senri Energy Center, Creative Techno Solution Co., Ltd.: District heating Cold Air Products Co., Ltd.: Production and sale of liquefied nitrogen, etc. OG Road Co., Ltd.: Recycling of excavated soil Torishima Energy Center, Gas and Power Co., Ltd.: Electricity supply

### **Content of the Verification**

Head Office: 1. Reliability of the data collection and compilation system,

adequate operation of the system and effectiveness of internal verification

2. Accuracy of the compiled data for fiscal 2012 (April 2011 to March 2012)

3. Validity of conclusions derived from compiled data

1. Adequateness of the scope of data collection Individual business

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 Third Party Verification Procedures and Guidelines for non-financial information, which is based on widely accepted best practices. In addition, Bureau Veritas Japan provided a limited warranty for this verification with reference to ISAE (International Standards on Assurance Engagements) 3000 (revised in December 2005).

### **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.

### Strengthening the Bond of Trust with Stakeholders



Masashi Kuroda Executive Vice President and CSR Executive

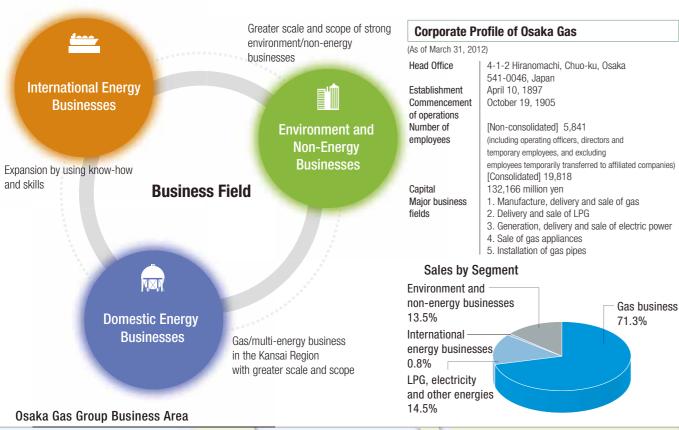
benefits, expectations for distributed energy systems including natural gas cogeneration have risen higher than ever before. Under these circumstances, the Osaka Gas Group needs to intensify its efforts to fully meet society's expectations.

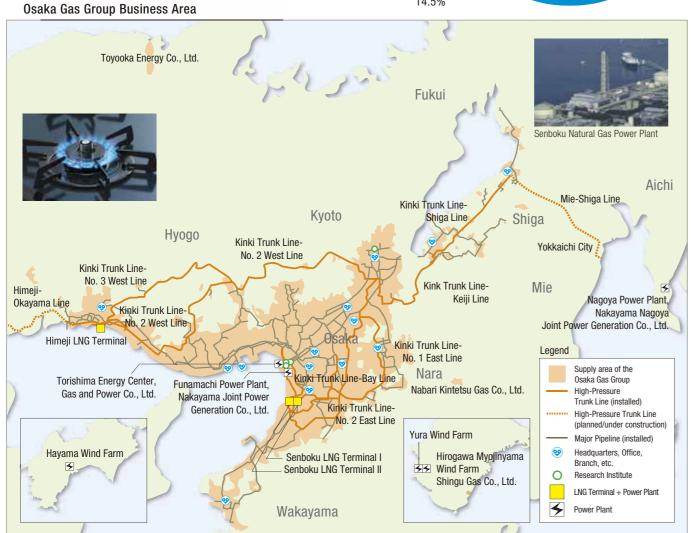
Energy companies are also increasingly required to practice fair and transparent information disclosure. I believe that it is necessary for us to listen and respond more sincerely to stakeholders' responses to the information we provide and to offer more and diverse opportunities for stakeholders to feed back their thoughts. Since 2008, we have held stakeholder dialogues with external experts. From fiscal 2012, we will make use of SNS to transmit detailed information and to gather opinions from a wide range of stakeholders

With the aim of solidifying the relationship of trust with local communities, we established the Regional Co-Creation Division in April 2012. The Division is a

service area, so as to accurately understand and respond appropriately to the specific needs of individual communities.

While vigorously promoting dialogue and collaboration with local communities and society at large, we will strive to address various issues, keeping in mind the entire value chain.



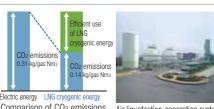


# **Osaka Gas Group Management Structure** (As of April 1, 2012) **Board of Directors** Corporate Auditors / Board of Corporate Auditors Chairman / President Corporate Auditors' Office Note: Organizations other than core affiliates are Osaka Gas Co., Ltd. organizations R&D HQ Regional Co-Creation Divisio

### **Business Fields of Affiliated Companies**

# Industrial gas/LPG/LNG business

Involved in a wide range of businesses, including the wholesale and retail sale of liquefied petroleum gas (LPG) mainly to customers outside the natural gas supply area, industrial gas businesses using LNG cryogenic energy, production and sale of dry ice, and cryogenic grinding using liquefied nitrogen



Comparison of CO<sub>2</sub> emissions of industrial gas production

Air liquefaction-separation system

Involved in the development/leasing/sale of real estate owned or newly purchased by the Osaka Gas Group, including office buildings and houses, and management/maintenance/commissioned construction of building facilities (including energy conservation/ services related to CO2 emissions reduction). Also involved in the Kyoto Research Park Project, which aims to

establish a base for government-industry-academia collaboration to foster new industries.





### IT service business (OGIS Research Institute Group)

Real estate business

(Urbanex Group)

Established mainly for developing systems for Osaka Gas's gas businesses. In recent years, this group has provided customers in various industries, including manufacturing, distribution and financial services, with a wide array of services, such as design/consulting, and development/operation/maintenance of information systems The group has also been working to expand and improve IT services in China, Singapore and the Philippines.





Server room

### Materials solutions business (Osaka Gas Chemicals Group)

Specializing in the materials solution business. This group supplies customers in a broad range of industries, from electronics to environmental business, with high-function materials that use coal chemistry technologies, which have been accumulated through our gas business. The group also offers valuable proposals that meet various needs of customers.



Preformed insulation materials for mobile phones

# OKP Lenses employed

### Life support and outsourcing service business Provides a wide range of high quality services to meet all

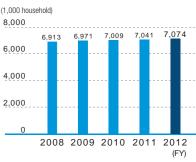
needs of customers, including behavior observation business. leasing of cars, etc., facility management, temporary staffing. and operation of sport facilities, wedding halls, and private nursing homes. We seek to enhance the brand value of the Osaka Gas Group by conducting a diverse range of businesses that support people's comfortable lifestyles and the prosperity of businesses.



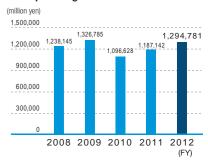


Gas Sales by Volume 10,000 8,416 8,150 8,560 8,711 8.000 6,000 2,000 2008 2009 2010 2011 2012

### **Number of Customers**



### **Operating Revenues**



### **Operating Profit and Net Income**



### **Number of Employees**

