The Daigas Group is committed to making a positive contribution to realizing a higher level of comfort and development in the business activities of its customers through stable procurement and safe supply of natural gas and other energy sources, and ensuring of safe use of gas and equipment with an improved level of services for its customers. We believe that an important foundation in realizing this will be ensuring security so that customers can use energy without worry. We will endeavor to provide products and services that give utmost reassurance to safety and to take on the challenge of creating new value in line with customers’ wishes in order to be a corporate group that continually evolves and develops alongside its customers.

The Daigas Group will endeavor to ensure stable procurement, stable supply and security to allow customers to utilize energy safely. By doing so, the Group will provide products and services that are valuable to customers.

The “Customer Satisfaction Survey” covers seven duties that deal directly with customers: opening of gas lines, repair of gas appliances, regular security patrol (gas facilities inspection), response to telephone inquiries, sales of appliances, security emergency response, and replacement of gas meters upon expiration of the validity period. A questionnaire form is mailed out after the completion of each operation, and assessments of responded customers received are then analyzed. Customer satisfaction is graded on a scale of one to six, and “overall satisfaction rate” is the ratio of responses in the top two grades to the total number of responses.

The overall satisfaction rate was 92% in FY2018, representing an improvement of 0.3 percentage points from the preceding year. We will continue to offer customer-oriented services based on their opinions shown in the survey.

**Targets and Results**

<table>
<thead>
<tr>
<th></th>
<th>Targets</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall satisfaction rate</td>
<td>91% or more</td>
<td>92%</td>
</tr>
<tr>
<td>Each satisfaction rate for seven customer service duties</td>
<td>86% or more</td>
<td>89% in all duties</td>
</tr>
</tbody>
</table>

**Actions Taken**

**Further efforts to enhance levels of customer service**

Efforts to raise our customer services to the highest level in a six-grade customer satisfaction (CS) poll began in FY2016 as part of our efforts to advance our overall service level. Specifically, we observed the behavior of Osaka Gas staff who received high CS grades in four of the seven customer-service fields—opening of gas lines, repair of gas appliances, sales of appliances, and response to telephone inquiries. This is what we call “behavioral observation.” The observation results were analyzed and developed into a customer service manual in each field for use by all other staff.

The detailed survey results are fed back to staff for further improvement of their customer service level.

*“Behavioral observation” is a methodology for seeking solutions based on the academic analysis of facts and findings obtained through the broad-based observation of people’s behavior that becomes prominent in various situations.*
Efforts to Ensure Safety and Ease Customers’ Worry

▶ Ensure stable procurement by diversifying sources of LNG imported by Osaka Gas

Unlike oil resources, which are unevenly concentrated in the Middle East, natural gas resources—materials of city gas and fuels for power generation—are spread worldwide. Natural gas’s reserve-to-production ratio is also much longer than that for oil,* giving the former a comparative advantage as an energy source. Osaka Gas started importing LNG in 1972 from Brunei, and since then has diversified its procurement sources. At present, we are procuring LNG from eight countries: Indonesia, Malaysia, Australia, Qatar, Oman, Russia and Papua New Guinea, as well as Brunei. We are set to embark on an LNG project in the state of Texas, the United States. We will continue to redouble our efforts to ensure stable LNG procurement.

Countries with Natural Gas Reserves and LNG Supply Sources for Osaka Gas

▶ Ensure a stable energy supply by diversifying power sources

The Daigas Group engages in the electricity generation business using various power sources it owns, including thermal power generation, gas cogeneration systems and renewable energy sources. The Group has a combined power-generation capacity of about 2.01 million kW in Japan, including a main power source at the Senboku Natural Gas Power Plant, a highly energy efficient thermal power plant. The Group will continue to develop new power sources to ensure stable electricity supply.

Combined Power-Generation Capacity Owned by the Daigas Group in Japan (as of the end of June 2018)

<table>
<thead>
<tr>
<th>Thermal power generation source</th>
<th>Power sources using a cogeneration system</th>
<th>Renewable energy sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx. 1,694,000 kW</td>
<td>Approx. 91,000 kW</td>
<td>Approx. 222,000 kW</td>
</tr>
</tbody>
</table>

* Power-generation capacity at facilities in which the Daigas Group has a concession is included. However, output capacity at planned facilities and facilities under construction is not included.
Measures against large-scale earthquakes

Osaka Gas has taken a range of measures to cope with large earthquakes, such as earthquake-resistant polyethylene pipes (PE), and intelligent meters that detect vibrations from an earthquake and shut off the gas supply, as well as an emergency communications network. However, the Hanshin-Awaji Great Earthquake of 1995 prompted us to beef up these measures.

We have seismometers installed in 259 locations in the Osaka Gas service area, which allow us to quickly determine the seismic intensity and obtain other information.

To prevent secondary damage from earthquakes, our service area is divided into blocks, each of which can have its gas supplies shut off separately when vibration that could potentially damage gas pipes operated by Osaka Gas is detected. This is possible thanks to a system of seismoscopic automatic gas shutoff devices (3,009 locations in total) that are activated in the case of a tremor, as well as remotely controlled shutoff devices (3,573 locations in total) that can be activated to stop gas supplies from the Central Control Room of the head office. A sub-control center has also been opened in case the Central Control Room of the head office is damaged.

In addition to the above infrastructure (hardware) for dealing with earthquakes, we are also making constant efforts in terms of software to improve employees’ ability to respond to emergencies, such as providing company-wide earthquake drills and education using e-learning.

Passing on advanced knowledge and skills in safety and disaster prevention

Osaka Gas is striving to develop human resources with a high level of knowledge and skills in the areas of safety and disaster prevention.

At natural gas processing terminals, we introduced an operation training simulator (OTS) in FY2005 to train employees to be able to respond to emergencies, including technical glitches, expeditiously. In FY2017, a virtual reality (VR) function using animation was added to the OTS, enabling trainees to experience serious accidents such as fire under the VR setting, a situation they rarely face in the real world. The upgraded OTS has been instrumental in improving employees’ safety and disaster-prevention skills to be passed on to the next generation.

In FY2008, a new human resources development system was launched by the Pipeline Business Unit’s Human Resources Development Center in preparation for the mandatory retirement of veteran engineers. We are engaged in structured and systematic human resources development as well as educational efforts “to spread know-why” that teach the meaning and background of work procedures to build a framework (i.e. safety culture) that prevents accidents. To convey the lessons learned from various past failures, we have set up experiential-type training facilities that reproduce the circumstances at the time of these failures. In addition, the Human Resources Development Center of the Pipeline Business Unit has sponsored a pipeline work contest among employees with high levels of skills and knowledge in the field. The contest, started in 2015, is designed to enhance the overall safety level of Osaka Gas.

In addition, a variety of educational programs for service improvement are offered at the respective Human Resource Development Centers of the Residential Energy Business Unit and the Commercial & Industrial Energy Business Unit, which are responsible for ensuring the security of gas appliances.

Education using a virtual reality (VR)-based operation training simulator (OTS)
Incorporating Customer Opinions

Sharing customer voices throughout the Company

Osaka Gas has established a database system called “C-VOICE” to share customer opinions and demands among all employees. The company has reflected such customer voices in its business operations, product development and service quality.

Customers’ voices reaching the Company daily, including both positive and negative comments, are sorted out by the end of each day and filed into the “C-VOICE” system, to be shared the following day not only by the relevant sections and departments but also by top management officials and all other employees. Osaka Gas has adopted a policy of sharing all information about customers among all of its employees, not only facts and response to customers but also preventive measures and system improvement measures being devised in response to complaints and opinions.

Overview of C-VOICE

Department in charge

Action taken

Registration in database

Relay information

Reference

Management / Employees

Sharing information

Suggestions

Department in charge

Development and implementation of corrective measures

Identification of issues

Secretariat

Analysis

Response to the customers’ voices

Examples of improvement in product development and service quality based on customers’ voices

At Osaka Gas, we have been working on improving the quality of various products and services based on comments from our customers. In FY2018, we developed and commercialized a remotely controlled device with a wireless LAN function, which enables customers to operate gas appliances installed at their homes by using their smartphones while away from home. In addition, we implemented a mechanism to accept applications on the website for paying gas charges with credit cards. At the same time, we expanded the number of Net banks that accept payment for the service through account transfer.

Our efforts to improve our products and services will be reported to our customers. We have put up posters at our showrooms soliciting more comments from customers.
Osaka Gas launched a housing support service called “Sumikata Service,” which combines a wide range of housing-support services in addition to gas and electricity services to make a positive contribution to realizing a higher level of comfort and security in people’s lives.

Provided under the “Sumikata Service” are housing maintenance and repair services regarding water-related facilities, air conditioning equipment, and other housing equipment and systems. Also offered are house cleaning services, housing renovation services, and housing support aimed at realizing a higher level of comfort and security. For example, in water-related facility repair services, Osaka Gas service shops act expeditiously in response to inquiries from customers, while applying the technological expertise acquired through the maintenance and repair of gas appliances to repairing water-related facilities including kitchens, bathtubs, bathrooms and toilets. Since the “Sumikata Service” was launched, Osaka Gas had received more than 70,000 calls for service as of the end of March 2018. Of the customers who received the service during the period, 96% replied the overall service was satisfactory.

Services provided under the newly launched “Sumikata Plus” consist of the “Sumai no Kaketsuke Service” aimed at responding to emergency housing needs, and the “Kurashi Ouen Service” designed to support customers in their daily lives. “Housing Mikata Plus” is a service that provides “Hometown Riding Service” and “Living Support Campaign” by paying monthly flat fee. Regarding this service, in April 2018, regardless of the contracted gas price menu, we expanded the scope of the service so that it can be used by all customers, and expanded the service menu including services related to housing diagnosis.

Expansion of services provided under the “Sumikata Plus”

TOPIC

**Energy Sales Company Established in Greater Tokyo Area**

Osaka Gas Co., Ltd. and Chubu Electric Power Co., Inc. jointly established a new sales company, CD Energy Direct Co., Ltd., on April 2, 2018 to provide gas, electricity and other services related to daily customer life and businesses in the Tokyo metropolitan area.

CD Energy Direct will combine management resources and business know-how Chubu Electric Power and Osaka Gas have fostered through electricity and gas businesses and fully harness those resources and know-how in the greater Tokyo area. At the same time, by selling our competitive products—gas and electricity—the new company will maximize value provided to household and corporate clients, thereby contributing to society.

Further, harnessing IoT-based services, CD Energy Direct hopes to build a new business model and offer new services that transcend the boundaries of an energy operator by creating new value instrumental in customers’ daily life and in businesses.