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Towngas China actively explored new business opportunities and continued to expand the footprint of our existing markets in 2018, thereby achieving major breakthroughs and gaining significant growth momentum for our future development. Up to the date of this Annual Report, our business portfolio grew to include 116 project companies comprising city gas supply, gas pipelines construction, the operation of vehicle gas refilling stations and the sale of household gas appliances as well as other extended businesses. The Group recorded a remarkable growth of 19% in total gas sale volumes, growing strongly to 10,044 million cubic metres, with the industrial and commercial sectors showing a significant increase to 7,626 million cubic metres, a surge of 21% compared to 2017.

China’s “13th Five-Year Plan for Energy Development” proposes that the proportion of natural gas consumption should account for 10 per cent of the national primary energy consumed by 2020, increasing further to 15 per cent by 2030. In response to this national development strategy, we are actively developing environmentally friendly businesses while also pushing forward coal-to-gas conversion projects. A Sustainability Committee, consisting of Mr. Peter Wong Wai-yee, an Executive Director and the Chief Executive Officer of the Company, as well as other senior management members, was thus set up during the year to drive these goals and enhance corporate governance. The committee is responsible for advancing and monitoring the Group’s sustainable development strategies which cover not only environmental protection issues, but also health and safety, business processes, community engagement as well as innovation and environmentally friendly activities that will both enhance business values and help to build sustainable communities.
HKCG became China’s first city gas enterprise to construct an underground salt-cavern gas storage facility. The project is divided into three phases with a total investment of RMB1.2 billion and a total gas storage capacity of 1 billion cubic metres. The first phase of the project has been completed, with three wells constructed to provide a maximum daily gas capacity of 5 million cubic metres. The contract for the second phase of the project was also signed in November 2018. As urbanisation speeds up in China, there is an increase in the market demand for natural gas and Towngas China is no exception. Riding this wave, our construction of peak-shaving gas storage facilities will provide a continuous supply of clean energy by storing excess supply of natural gas which is relatively cheaper during the summer months to meet the demand of gas companies when gas prices are higher during the winter months, thereby benefiting the community and creating greater economic value for the Group.

HKCG is the country’s first city-gas enterprise to build an underground salt-cavern gas storage, which has contributed to the Group’s city-gas project companies’ peak-shaving capacity since its commissioning in 2018.

The Towngas Jintan Gas Storage makes use of large and safe salt caverns to store gas during periods of low gas usage. The stored gas makes for a reserve supply during peak periods, thereby ensuring peak-shaving capabilities.
Review of Operations

Sales of Piped Gas

In 2018, the Group’s total piped gas sale volumes grew strongly by 19% to 10,004 million cubic metres. The total number of customers rose to 12.63 million, representing a year-on-year increase of 860,000 customers. In particular, industrial gas sales increased by 24% to 6,008 million cubic metres, accounting for 60% of total gas sales; commercial gas sales increased by 11% to 1,618 million cubic metres, representing 16% of total gas sales; and residential gas sales rose by 12% to 2,378 million cubic metres, accounting for 24% of total gas sales.

Cementing the solid foundations laid by our city gas business in mainland China, our business now spans 20 provinces, municipalities and autonomous regions, providing a reliable and stable supply of clean energy. Together with our ancillary gas products and extended businesses, we are seizing the opportunities brought about by the country’s national coal-to-gas conversion projects to become not only an industry leader but also one of the largest businesses to provide clean energy and quality services in mainland China.
Development of New Projects

During the year, the Group launched two gas projects, a city gas project in Liujiang district, Liuzhou city in the Guangxi Zhuang autonomous region and a midstream natural gas pipeline network and city gate station project in Chiping county, Liaocheng city in Shandong province. The principal industrial activity in Liuzhou city is the manufacturing of automobile parts and components and mechanical equipment. This project is wholly owned by the Group. Being our third project in Guangxi, it will generate regional synergies with our other two piped gas projects in Guilin and Fusui (Zhongwei) in the province. The midstream natural gas pipeline network and city gate station project in Chiping county, Liaocheng city in Shandong province is our fourth midstream pipeline transmission project. Under this project, the “Jinan–Liaocheng” natural gas pipeline and Chiping South city gate station will be constructed. This new venture holds bright prospects for the future with its ample sources for natural gas supply. In addition, we launched a gas-related project to organise the centralised procurement of natural gas sources for the Group’s enterprises in 2018.

Apart from our focus on the gas business, we also continue to actively identify potential business opportunities for “distributed energy”. In addition to the two distributed energy projects established in the previous year, we added a total of eight new distributed energy projects during the year. These new businesses are located in Jiawang district, Xuzhou city in Jiangsu province; Jimo Chuangzhi new district, Qingdao city in Shandong province; the Yangxin Economic and Technological Development Zone of Binzhou city in Shandong province; Changchun city in Jilin province; Guilin city in the Guangxi Zhuang autonomous region; the Chengnan Economic Development Zone of Tangshan city in Hebei province; Boxing Economic Development Zone of Binzhou city in Shandong province and Xuzhou Biomedical Industrial Park in Jiangsu province. The natural gas consumption of these projects is expected to reach 400 million cubic metres in five years. They will also generate regional synergies with our adjacent gas projects in market exploitation and sources of gas supplies etc.

In addition, the Group had added one new distributed energy project at the beginning of 2019. The project is located in the South District of Maanshan Economic and Technological Development Zone in Anhui province, laying a solid foundation for the Group’s business development in 2019. This project is the first distributed energy project in Anhui province. It is an exemplary project for regional natural gas distributed energy and plays an active role to promote the development of distributed energy projects in Anhui province.
Review of Operations

Industrial and Commercial Markets

Issued by the International Energy Agency, the “Market Report Series: Gas 2018” forecast that global demand for natural gas will rise and China will become the world’s largest natural gas importer over the next five years as a result of the country’s economic development and policies to combat air pollution. At the same time, as industrial and commercial markets continue their boom, the industrial sector is set to take over from the power sector as the key growth driver for natural gas.

According to the “Opinions on Promoting Multi-functional, Complementary and Optimised Demonstration Projects” jointly issued by the National Development and Reform Commission and the National Energy Administration, plans are underway for approximately 50 per cent of the new industrial parks to adopt distributed energy systems and approximately 30 per cent of existing industrial parks to improve their energy efficiency by 2020. Thus, distributed energy systems have enormous potential for growth.

Distributed Energy

Distributed energy systems are highly energy efficient. They generate electricity with natural gas, a clean energy source, while using the residual heat and steam produced in the process for hot water supply and other purposes. As such, the application of distributed energy systems continues to expand. Within the Group, we have been actively investing in distributed energy projects since 2015, and many industrial and commercial parks, tourist resorts and various public facilities in mainland China are now equipped with these stable energy supply systems.

In 2018, we enhanced our investment in the distributed energy business with the launch of two new projects. One of these, located in Guilin in the Guangxi Zhuang autonomous region, is our first collaborative project with a biotechnology enterprise. In addition to distributed energy systems, we also harvest landfill gas generated from sewage and other waste matter, with nearly 30 per cent of the gas collected being used to produce energy. This project has realised our goal to convert waste into energy.

Inaugurated last year, TCEI functions as our wholly owned comprehensive energy project investment platform in mainland China. It is principally engaged in the investment and establishment of distributed energy projects. In 2018, TCEI achieved a breakthrough with the establishment of projects in northern, eastern as well as southern China. We expect more projects to be set up in the future which will further increase our market share in this rapidly expanding sector.

The Group’s industrial and commercial customers come from a range of industries, including the pictured biotech customer from Guilin city, Guangxi Zhuang autonomous region, which uses natural gas-powered steam boilers that are more environmentally friendly and energy efficient than traditional coal-powered ones.
Coal-to-Gas Conversion Projects

The “Three-Year Action Plan to Win the Battle for a Blue Sky” endorsed by the State Council of the People’s Republic of China (the “PRC”) in 2018 reiterates the country’s determination to drive coal-to-gas conversions, as the country works to raise the proportion of natural gas within the total amount of energy consumed to reach its goal. Therefore, in 2018 we encouraged our customers to use boilers driven by natural gas instead of coal as the latter generates a higher degree of pollution, resulting in a total of 4,450 tonnes of new and modified boilers. Our coal-to-gas boiler conversion projects have contributed to the annual sale of more than 1,200 million cubic metres of gas since 2015. These conversion projects also achieved a year-on-year increase of 56 per cent in gas sales in 2018.

To improve air quality, the State Council of the People’s Republic of China announced the "Three-Year Action Plan to Win the Battle for a Blue Sky", which reiterated China’s commitment to coal-to-gas measures.

The Group encourages its customers to make the switch from coal to gas. One of our customers in Songyang county, Lishui city, Zhejiang province has modified their furnace to heat stainless steel pipes, which reduces fuel and energy costs while reducing the impact on the environment.
Review of Operations

Industrial and Commercial Applications
In terms of industrial and commercial applications, our project companies play a proactive role, not only selling natural gas to customers, but also installing water heating systems and large-scale gas dryers according to their business needs. These services served to boost our gas sales and cater to the needs of customers.

For instance, in regards to commercial natural gas water heating systems, we installed over 300 water heaters for commercial customers ranging from hotels to schools to residential apartments in 2018. Prospects are highly positive and we expect to expand the range of applications even further in the coming year. Providing a more cost-effective solution for our customers, we not only install the relevant equipment or systems, but also provide after-sales services in the areas of purchase, installation, use and maintenance of the equipment.

Small and Medium-sized Food Outlets
Capitalising on our forward-looking development strategies and steady gas supply, we are not only cementing our leadership in the small and medium-sized catering market, but also gaining the support of the local governments and the trust of our customers. In 2018, we gained more than 10,000 catering customers. We anticipate that the contribution of this sector to our gas sales will continue to increase with our ever-widening customer base.
Residential Market

During the year, the gas sold to the residential market accounted for 24 per cent of our total gas sales in 2018. By the end of 2018, we have 151 customer centres across the country, with nine new centres set up during the year.

We have promoted our “Three Courtesies” culture – manners, etiquette and politeness – since 2015, encouraging employees to be courteous and helpful at all times. As this promotion has proven to be extremely successful within the Group, we expanded the initiative in 2018, motivating our employees to promote the “Three Courtesies” outside of work, in a bid to create a happier and more harmonious community.

The “Flying Dandelion Programme” aims to provide training for the Group’s internal trainers who will then share the Group’s quality service values with our frontline staff. By the end of 2018, a total of 43 internal trainers had participated in the programme, while a total of 134 training sessions were held for frontline staff during the year. More than 6,600 members of our team, including customer service staff, on-site inspectors, repairmen and “Three Courtesies” Smiling Service Ambassadors attended these sessions, thereby improving our overall service standards.

In order to increase the number of communication channels with our customers, the Group has launched nine customer centres during the year, making up a total of 151 centres across the country.
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Bauhinia Gas Appliances

Ever since our expansion into the mainland market, we have been known for our stringent quality control and product safety. Building on this sterling reputation as well as our broad residential customer base, we launched our proprietary gas appliance brand, Bauhinia, in 2005, with a variety of gas appliance products. Since then, we have won a significant share of the downstream gas appliance market, in addition to benefitting from expanding commercial opportunities. Over the past 13 years, Bauhinia has built a reputation as both a quality and leading brand, with a comprehensive catalogue of products ranging from gas heating appliances and cooking stoves to gas dryers, as we cater to customers’ various needs.

Gas Heating Appliances

Benefitting from the country’s new energy and environmental protection policies, residential heating systems are increasingly commonplace, bringing further growth momentum to the residential market. A total of 18,900 combi boiler units were sold in 2018, representing a year-on-year increase of 26 per cent. During the year, Bauhinia also launched four fashionable premix condensing heating appliances which can fully utilise the heat and potential heat released from the condensation of steam and flue gas to avoid wastage resulting from heat loss. The new product can cover a heating area of up to 280 square metres, satisfying the needs of customers with various home sizes.

As household heating systems become more popular, we expect to see a growth in the household market.
Gas Dryers

With growing consumption and improvements in the quality of life in mainland China, Bauhinia sold more than 13,000 gas dryers in 2018, representing a year-on-year increase of 70 per cent. Bauhinia’s gas dryers have four major advantages: they dry laundry efficiently, can handle large volumes, and are extremely hygienic and gentle on fabric.

Gas dryers take only 45 to 60 minutes to finish a drying cycle, which is three times faster than traditional dryers. They can dry up to six kilograms of laundry in one load, including heavy coats and large blankets. The drying temperature can be set as high as 70 degree Celsius, providing greater sanitisation while the acaricidal rate, which measures tick and mite elimination, can reach up to 100 per cent. And, with its humidity sensors, drying temperatures are adjusted based on the dampness of the clothes to make clothes softer. Looking forward, Bauhinia is targeting three areas – eastern, southwestern and southern China, to promote the advantages of our gas dryers and make our products better known to more families.

Gas Cooking Stoves

With their safety flameout protection devices, Bauhinia’s gas cooking stoves passed the national quality inspection department’s quality check with flying colours, proving them a safe choice for every family kitchen. During the year, we sold more than 96,000 built-in hobs. We will continue our research into both our customers’ cooking habits and the latest technology to develop more quality and efficient products for our users.
Review of Operations

Extended Services

Towngas Lifestyle

Towngas Lifestyle, our multi-functional internet service platform, has provided our customers with a wide range of accessory gas products and services over the years. Since the launch of our online customer centre Virtual Customer Centre (VCC) platform, in 2016, Towngas Lifestyle has accumulated an extensive and stable customer base as a result of our multi-pronged promotion strategies as well as its convenience and efficiency.

Virtual Customer Centre (VCC) Platform

The upgrade of our VCC platform in 2017 as well as the addition of 18 project companies has resulted in a great improvement in our efficiency as well as a reduction in operation costs. In 2018, the number of project companies making use of this VCC platform continued to rise, with 18 additional enterprises offering this platform.

By the end of 2018, the platform had over 5 million users and more than 1.3 million registered users. Online payments and credit refill transactions made by customers on the platform amounted to over RMB250 million. This figure not only marks the high level of traffic on the platform, it also denotes a growing trend as the platform increasingly becomes a major channel for our customers to manage their gas services.

Towngas Lifestyle Membership Scheme

We first introduced the Towngas Lifestyle Membership Scheme last year. Designed exclusively for Towngas Lifestyle customers, it was launched to strengthen our connection with them through both activities and point redemptions. In 2018, the total number of Towngas Lifestyle members reached over 3.5 million. In 2019, we will focus on enriching the content of the scheme. A major initiative will be the launch of a bonus points system under a harmonious family theme so that membership will not be limited to parents only, which helps to boost parent-child interaction through our Towngas Lifestyle platform.

At the same time, we will adopt the new digital trend to use big data to construct an analytic platform that builds on our customers’ online and offline information. We will then enhance our system using this information based on customers’ identities and behavioural preferences to better understand consumer habits and preferences.
Mia Cucina

As people’s quality of life improves, the kitchen is no longer just a small corner for cooking. It now plays an important role, providing a household space that demonstrates and complements individual lifestyles and quality standards of living. Our kitchen cabinet brand Mia Cucina was specifically designed to meet the needs of such discerning customers. Providing total kitchen solutions ranging from the design of cabinets to top-of-the-line gas appliances, the brand’s concept is to tailor-make kitchen solutions to suit the different needs of each household. Reflecting this philosophy, the brand is named Mia Cucina, meaning “My Kitchen” in Italian.

To allow every household to make the most of their kitchen space, Mia Cucina provides one-stop services, from on-site consultation and measurement, design and improvement, to the ordering and installation of cabinets and appliances. As we pay special attention to the quality of our kitchen cabinets, all our products are made with top quality European materials. Similarly, all accessories are carefully selected to improve function as well as to provide greater flexibility and convenience to users.

Looking forward, we are planning to introduce a series of professional gas appliances of the best quality and durability within the industry. We will also seek to work with real estate developers to provide a complete series of kitchen cabinets and gas appliances in newly constructed, modern and well-decorated apartments.

Mia Cucina cabinets fuse modern aesthetics with simple designs to make its mark in the middle-class and discerning market. The Group will launch more collaborations with property developers to offer one-stop product sales, design, sourcing and installation services to new buildings.
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Safety and Risk Management

Building on our stringent safety practices, we have implemented the “Safe Practice Underlies All Practice” motto and concept. Production safety and environmental protection are strongly emphasised and we are committed to implementing positive and innovative measures while ensuring that our safety indicators remain the leading industry standard. In 2018, we conducted 12 general manager safety inspections and two crosschecks among general managers to enhance safety and risk management performance, while also reducing operational risks for our project companies.

We held our first “Safety Year” campaign in 2008 and, over the years, have implemented the principle of “Safety First” into every aspect of our operations and services. In 2018, the Company’s Chairman and Executive Director, Mr. Alfred Chan Wing-kin and Executive Director and Chief Executive Officer, Mr. Peter Wong Wai-ye, led members of the Safety Committee and the rest of the management team in a massive safety inspection exercise under the theme “Boosting Safety Confidence” in the provinces of Anhui and Jiangxi as well as southwestern China. Safety conditions in every aspect of our business, from residential gas to construction and energy production sites, were inspected to nip any danger in the bud.

In mid-2018, in response to the nationwide “Safe Production Month” initiative, our project companies across the country gathered together to hold our second “Safety Walk” under the Group’s “Walk Thousands of Miles, Boost Confidence and Promote Three Courtesies” umbrella theme. With 114 of our public utility companies in mainland China as well as our parent company, HKCG, taking part, a total of almost 12,000 people joined in this exercise. Some of our companies also invited the local authorities, family members of employees and business partners to join in, further promoting our safety culture to the rest of the community.
Engineering Quality Management

Towngas China works closely with local governments to ensure gas supply safety and reliability. A major effort is the active replacement of grey cast iron pipelines with polyethylene (PE) pipelines, which offer better performance and greater resistance to corrosion. By the end of 2018, we had completed the renovation of 2,642 kilometres of pipelines in our network, with a total of 91 kilometres being completed during the year. The cumulative renovation rate stands at 98.1 per cent, with only 50 kilometres of pipelines left to be replaced.

When planning and constructing high-pressure pipelines, we conduct a series of advance assessments. These include geological and environmental evaluation as well as soil and water conservation, on the construction sites and the vicinity, to ensure that the general environment is suitable for construction. Also committed to workers’ occupational safety and health, a range of engineering equipment developed and modified by HKCG staff were introduced during the year. This equipment not only decreases the risk of injury for our engineering technicians during construction, but also reduces the physical strain on employees carrying out their duties.

During the year, we took a pioneering role once again when we introduced the use of professionally trained dogs to detect gas leakages in the northeastern regions. This innovative move, a first in the region, will help to reduce the potential risk of gas accidents as it leverages the dogs’ keen sense of smell. We will be training more dogs to carry out this work to serve other business regions in the future.
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Human Resources

In an environment where businesses scramble to seek and keep talent, Towngas China continues to implement a people-oriented development strategy. In addition to formulating and improving training to meet the needs of our employees at all levels, we also provide competitive employee welfare benefits to retain and motivate our talent. As such, we are pleased to report that the staff turnover rate during the year was at a low of about 3 per cent.

We have always regarded our people as the most valuable asset of the Group. We believe that unleashing their inherent potential promotes the parallel growth of both ourselves and our employees. We thus launched the Talent Ladder Scheme which seeks out outstanding employees every year and places them in a training programme which covers basic as well as middle and high management levels to provide a continuous supply of management talent for the Group’s long-term development. In addition to participating in various key development projects, the selected employees will also gain the opportunity to be assigned to different positions after the completion of their training. By the end of 2018, 64 scheme members had worked in a total of 124 positions, broadening their knowledge and experience for our long-term development.

The annually held “Superior Quality Service” (SQS) scheme further encourages everyone from different departments to work together to maximise their creativity and propose improvements across our operations, procedures and practices. Our Research and Development of New Gas Flowmeter Temperature Detector, which won first prize in 2018, serves as a prime example. This newly designed temperature detector reduces the temperature deviation sometimes seen in our more traditional equipment, thus improving the accuracy of gas usage measurements. As at the end of 2018, thousands of employees have participated in SQS, resulting in proposals for thousands of improvement plans. Costs saved by these proposals are expected to amount to hundreds of millions of RMB for the Group.
Corporate Social Responsibility

We attach great importance to corporate social responsibility and are also committed to becoming a green business pioneer. As a public utility, we not only supply safe and reliable energy to customers, but also provide caring and competent services. At the same time, we make every effort to contribute to the environment and strive to give back to the community through the implementation of various community-focused projects. We also advocate low-carbon living, driving this message home through various environmental protection activities and themes. In view of this dedicated commitment, our charity projects have won wide recognition from the community and we have also received positive feedback from employees’ families, partners and social welfare organisations.

Gentle Breeze Movement

In 2013, we launched the “Gentle Breeze Movement” programme, embracing every household like a wafting breeze. More than mere suppliers of clean energy, we seek to help the disadvantaged and improve their quality of life. In 2018, the Gentle Breeze Movement carried out activities in Baotou city in the Inner Mongolia autonomous region and Changting county in Fujian province. These included renovating classroom buildings and the dormitories of local schools, as well as donating libraries and school supplies to local campuses.

Since the inception of the “Gentle Breeze Movement” six years ago, HKCG and the Group have donated more than RMB3.5 million in total, aiding 37 schools located in Jiangxi, Anhui, Jiangsu, Shandong, Guizhou, Liaoning and Sichuan provinces in the improvement of their teaching environment.

On 30 May 2018, the Towngas “Gentle Breeze Movement” team arrived at the Xincheng Primary School, Guyang county, Baotou city, Inner Mongolia autonomous region and brought with them brand-new teaching materials. Through refurbishing the dormitories and building the Towngas China Charity Library, the team helped improve the students’ learning environment.
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Firefly Project
A seventh Firefly Centre was established in 2018 at Yumaihong Primary School in Luliang county, Yunnan province. We donated a multi-media classroom equipped with brand-new computers, desks and chairs, and other facilities to enhance the learning environment. Since becoming a partner of the “Shanghai Soong Ching Ling Foundation – BEA Charity Fund” in 2009, we have established seven Firefly Centres in Sichuan, Shandong, Zhejiang, Anhui and Yunnan provinces through the Firefly Project, providing assistance to resource-deprived regions and promoting the comprehensive development of the next generation.

Towngas China Environmentalism
With a focus on innovation and environmental-friendliness, we host activities every year with a view to encouraging our employees to protect and improve their environment. During the year, we launched the “Low-Carbon Life” programme together with four different initiatives – “Towngas China Plantation Day”, “Earth Hour”, “Tips on Clothing, Food, Living and Travel”, and “Call for Low-Carbon Innovation”. Nearly 80 project companies worked together to spread the message of a healthy low-carbon lifestyle and strengthen the sense of responsibility in their respective communities and the general public to maintain a balanced ecology and protect the environment.

Rice Dumplings for the Community
We continued to hold our popular charity event “Rice Dumplings for the Community” in 2018. More than 60 of our project companies and some 1,100 Towngas China volunteers took part in the event, helping to prepare over 30,000 rice dumplings for the underprivileged across the country.
Long-Term Development Strategy

With an annual gross domestic product growth of 6.6 per cent, the Chinese market witnessed moderate to high growth in 2018. This market expectation-meeting economic development along with the positive impact of the country’s environmental-protection policies and the high prices of alternative energy resulted in double-digit growth in natural gas consumption in 2018 as well as the year before, giving our businesses a major boost.

At Towngas China, we make every effort to align ourselves with national environmental-protection policies. As a pioneer and substantial investor in distributed energy for commercial and industrial use and “coal-to-gas” conversion projects, our forward-looking development strategy has started to bear fruit, laying solid foundations for our sustainable and onward growth in the commercial and industrial sectors. We will continue to embrace every opportunity to identify future environmentally friendly projects that will provide both investors and shareholders with value-added returns in their best interest.

Riding on the valuable experience of our parent company, HKCG, which has been running a public utility business for over 150 years, the Group has ventured into developing gas markets in mainland China, while successfully accumulating a huge residential customer base through our safe and stable gas supply. Going forward, we will continue to focus on innovative ideas, particularly in the fields of research and development for quality ancillary gas products and other gas-related extended businesses, to offer one-stop gas solutions to our customers. Furthermore, as the era of big data arrives, we will make better use of electronic platforms such as online customer centres to strengthen our ties with both our customers and our stakeholders.