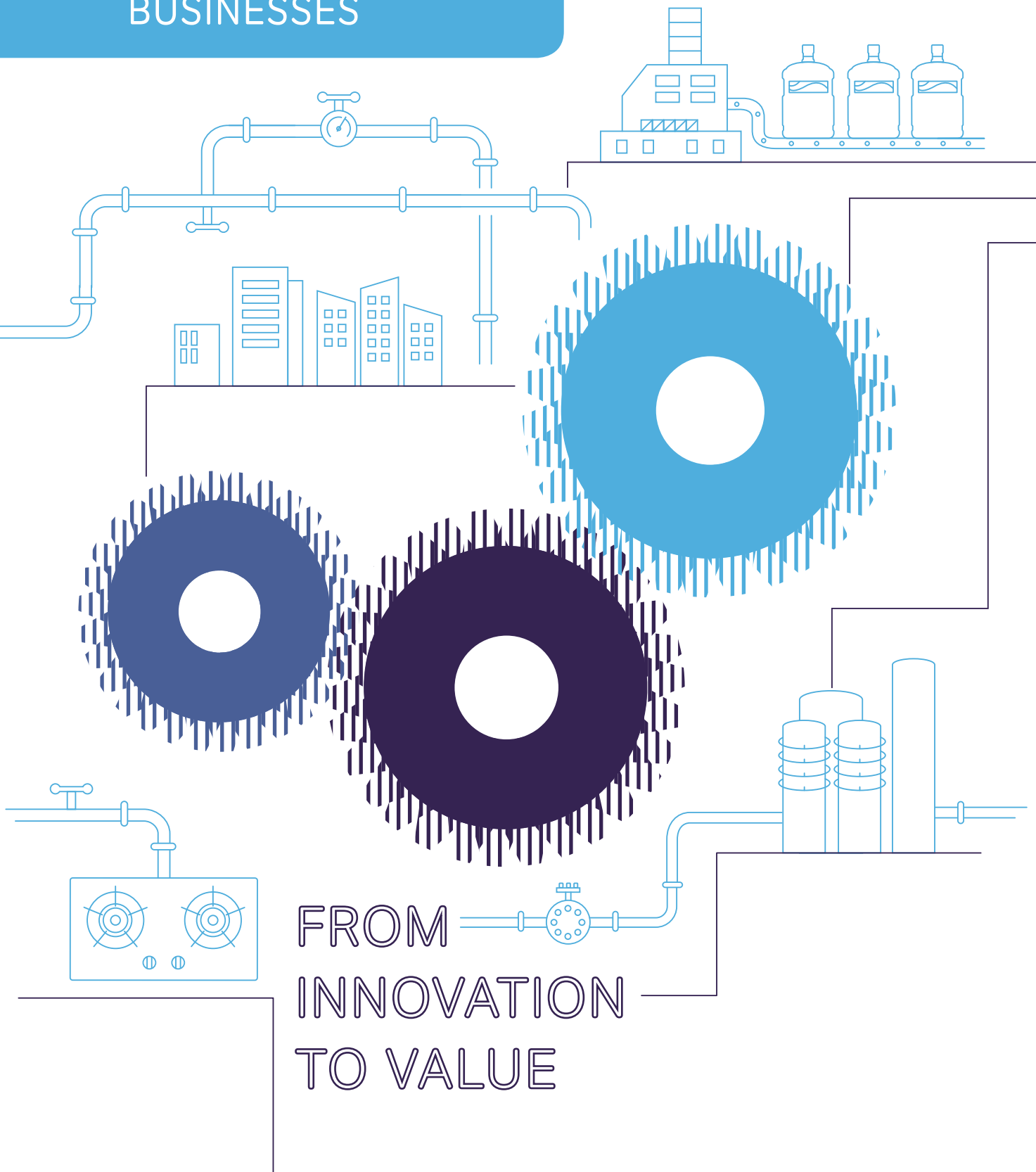



# MAINLAND UTILITY BUSINESSES



FROM  
INNOVATION  
TO VALUE



Our 131 city-gas projects serve approximately 20.9 million accounts, encompassing around 60 million people

Hua Yan Water began offering high-end bottled purified water product treated by ultra-filtration processes in Suzhou, Jiangsu province

Bauhinia celebrated its 10th anniversary in 2015, selling around 760,000 units during the year and 3.68 million units to date



# MAINLAND UTILITY BUSINESSES



Since the establishment of our first joint venture in Guangdong province in 1994, Towngas has experienced great success on the mainland across the scope and breadth of our activities. In line with the mainland government's clean energy policies, the consumption of natural gas is expected to continue on a significant upward trajectory in the coming years, opening up valuable opportunities for growth across the various markets in which we operate.

## City-gas Operations

Our portfolio of city-gas ventures continued to thrive in 2015. Adding 4 new city-gas projects, the Group operated 131 city-gas projects across mainland China, covering 23 provinces, autonomous regions and municipalities and serving around 20.9 million residential and business accounts. Despite a slow economy and a difficult environment for the manufacturing industry, we recorded a 2 per cent growth in total gas sales volume to 15.5 billion cubic metres for the year, which accounts for 10 per cent of the national city-gas market.

A sluggish economy in 2015 affected business performance worldwide. China's GDP growth continued its downward trend, dropping down to 6.9 per cent in a 25-year record low, and low international oil prices made piped natural gas less competitive.



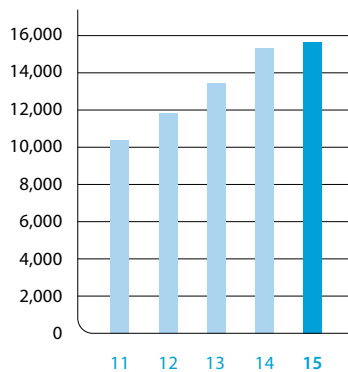
A combined cooling, heat and power system fuelled by natural gas is installed at a data centre in Nanjing, Jiangsu province to enhance energy efficiency.

Retail consumption weakened while industrial activity and exports came down, impacting our city-gas business in the industrial sector.

In spite of these formidable challenges, we succeeded in boosting residential and commercial gas sales in 2015. Our strategic marketing initiatives,

total-solution services and environmentally-friendly applications facilitated the expansion of our catering business market, particularly our drive to promote natural gas as a replacement for liquefied petroleum gas among small restaurants. Overall gas sales in the catering sector rose

### China Joint Ventures Gas Sales (million m<sup>3</sup>)



by 12 per cent, while the quantity of new installations increased by 33 per cent.

During the year, our efforts to promote distributed energy systems yielded encouraging results,

particularly among data centres and commercial complexes. These gas-fuelled cooling, heating and power generating systems not only reduce greenhouse gas emissions, but also generate waste heat that can be used for a wide variety of applications, making natural gas an environmentally-friendly and economical solution.

Echoing national air quality policies targeted at curbing the prevalence of coal-fired steam or hot water boilers, we devoted significant effort to promoting high-efficiency natural gas boilers, recording a 40 per cent increment in new installations.

On a national level, natural gas consumption has been forecasted to rise significantly in the coming years. At the 2015 United Nations Climate Change Conference in Paris, China pledged that by 2030, it will reduce carbon emission intensity by

60 to 65 per cent compared to levels in 2005 while capping further emissions. As such, the nation's city-gas demand is expected to undergo significant growth in the coming years, with the mainland government driving a shift towards cleaner fuels like natural gas, which produces lower carbon emissions than other fossil fuels like coal and petroleum.

Great reform marked the natural gas pricing mechanism in 2015. The Shanghai Petroleum and Natural Gas Exchange, of which we are a shareholder and co-founder, launched a pilot operation on 1st July. Promoting market-oriented pricing, this trading platform is conducive to the healthy development of a wholesale mechanism for natural gas, paving the way for the further broadening of the upstream market. In November, the National Development and



Stenter machines heated up by natural gas are used at a textile mill in Suzhou, Jiangsu province.



Reform Commission announced a RMB0.7 drop in non-residential natural gas city-gate prices, representing a substantial step towards restoring the economic competitiveness of natural gas. As favourable gas utilisation policies and pricing reforms continue to take root, along with a more abundant upstream supply even in winter – making gas space heating possible – we expect to see significant growth in natural gas demand in the coming years. This will provide us with immense opportunities to capture the clean energy market and continue contributing to a safer and more reliable gas supply and services on the mainland.

### Midstream Facilities

Generating promising returns, our midstream natural gas businesses operated smoothly in 2015. During the year, Towngas China acquired two midstream natural gas projects – the Xuancheng-Huangshan natural gas sub-stream and downstream city-gas project in Anhui province, and the Taigang Gas midstream long-haul pipeline project in Taian, Shandong province.

The construction of a natural gas storage facility in underground salt caverns in Jintan, Jiangsu province showed satisfactory progress. Phase

one of the facility accommodates a storage capacity of 130 million cubic metres, and is expected to be completed in the third quarter of 2016. By reducing supply bottlenecks during peak seasons, we will be able to manage our gas inventory more effectively and to further develop the winter load markets.

Taking into consideration our natural gas pipeline projects in Anhui and Hebei provinces, our natural gas extension projects in Jilin and Henan provinces, our Guangdong LNG Receiving Terminal project, as well as the natural gas storage project in Jintan, Jiangsu province, our midstream projects totalled 8, underpinning the development of our downstream city-gas markets.

### Water Supply and Wastewater Operations

Gas, water supply and wastewater operations are closely related. They serve the same customers and utilise similar technology and management patterns. This makes the Group ideally placed to leverage our existing customer base, know-how and social capital to capture the many opportunities opening up in this area of business.

Through Hong Kong & China Water Limited (Hua Yan Water), the Group currently operates six water projects in mainland China, which serve more than 1.1 million customers in the residential, industrial and commercial sectors. Despite industrial consumption being slightly down, overall water



Customers can enjoy high-quality Aquajoy purified water produced with ultra-filtration processes.

business sales are on the rise at a steady pace of 2.3 per cent for the year, for a total of 433 million tonnes during the year.

Our projects include water supply projects in Suzhou, Jiangsu province and in Wuhu and Maanshan, Anhui province; and an integrated water supply and wastewater treatment joint venture project together with an integrated wastewater treatment joint venture project for a special industry, both in Suzhou Industrial Park, Jiangsu province.

China is becoming the world's largest consumer of bottled water. Capitalising on this market trend, Hua Yan Water introduced the Aquajoy brand in September 2015, employing state-of-the-art ultra-filtration processes to offer 18.9 litre bottles of drinking water to schools, hospitals, offices and residential markets. Located in Wujiang, Suzhou, the first production line has a capacity of 3 million bottles per year. This is expected to be a promising line of business, and plans are in place to increase production in the years to come.

### Extended Service Businesses

Further capitalising on the well-established Towngas brand name, we began to unveil a number of flagship offerings for our mainland customers. These innovative new products and services aim to promote a modern lifestyle for the



We launched our high-end kitchen solutions brand, Mia Cucina, to cater to a growing market in mainland China.

20.9 million customers that use our city-gas services on a daily basis, while creating greater customer value and generating additional business for our utility companies. We are also seeking to advance to a digital platform for gas bill and internet purchase settlements in order to seize the unrivalled opportunities presented by the Internet Plus movement in mainland China.

In 2015, riding on the success of the Total Kitchen Solution service in Hong Kong, we began offering premium kitchenware, appliances as well as other household goods. The

market response among property developers in Eastern China has been promising. The expansion of further market locations will begin in 2016. Mia Cucina, our popular range of premium kitchen cabinets, was introduced to the mainland market for the first time in 2015. Combining superb workmanship with innovative design, followed by unflinching after-sales service, these European-style cabinets are not only aesthetically pleasing, but have also proven to address the practical needs of Chinese household kitchens well. Incorporating high-quality materials and rigorous construction,





The Bauhinia National Cooking Competition for Secondary and Primary Students was organised in mainland China to promote the culture of cooking for love.

they offer a high load capacity and excellent durability, while special ergonomic features and automatic functions enhance user experience.

Also launched in 2015 was our household gas insurance policy programme. In partnership with Ping An Property and Casualty Insurance Company of China, Ltd and Huatai Property Insurance Company Ltd, we offer the market's most competitive insurance products for gas incident induced losses and damages. As at the end of the year, we have achieved total sales of RMB30 million through a pilot run across 16 of our city-gas projects.

Bauhinia, our flagship brand of safe and high-quality integrated gas appliances, celebrated its 10th anniversary in 2015. Aided by the appeal of our creative marketing strategies, the brand has gained

high customer satisfaction on the mainland, selling around 760,000 units during the year and accumulating sales of 3.68 million units since its launch. Each of these quality appliances sold results in the safer daily use of gas among household customers.

The reliability and high quality of Bauhinia appliances have been recognised through numerous awards both on the mainland and in Hong Kong. These include Annual China Outstanding Marketing Award 2014-15, Top Ten Unit in the National After-sales Service Industry, and Certificate of National Outstanding Enterprise with Excellent Quality, Service and Integrity.

Leveraging the success of gas clothes dryers in Hong Kong, we are seeing high potential for the household product in parts of the mainland, and

are planning to introduce these Japan-made appliances in the market under the Bauhinia brand in 2016.

## Serving Our Customers

"Customer focus" is our guiding principle, the basis of our success and the driving force behind our ongoing efforts to enhance customer value and service delivery. To this end, we expanded our network of customer centres, bringing the total to 231 outlets across 79 mainland cities, each offering customers a one-stop experience that complements our overall dedication to service excellence. During the year, we introduced eService platforms that support online payment, service appointments, gas usage readings and more in order to provide our customers with value-added convenience.

Innovation and technology are major drivers of our customer service delivery. Our advanced customer information system, a unified and standardised data platform for our mainland ventures, enables us to better manage customer data and billing across a cloud computing platform.

Ensuring the safety of our customers is a paramount directive throughout the Group's businesses. We take a proactive stance, conducting regular safety inspections to ensure that pipes and appliances remain in good working order. Our inspection personnel also take the opportunity to educate customers on gas safety. A number of other initiatives also educate customers and raise general awareness, including radio and television ads, flyers, community exhibits, student visits, safety talks and other special events.

### Enhancing Safety

For Towngas, safety and risk management are group-wide concerns. Even as our customer base has increased substantially over the past five years, serious gas-related accidents leading to injuries and fatalities have dropped by more than half. As one of the mainland's most trusted gas companies, we work proactively to maintain this

downward trajectory, treating the safety of our customers, our colleagues and the general public with the utmost diligence.

Beginning in 2008, we rolled out safety inspections conducted by corporate senior management across our city-gas businesses on the mainland. Together with a series of safety enhancement measures in practice, we have succeeded in implementing more rigorous safety and quality standards, stepping up inspections and maintenance, enhancing the reliability of the gas infrastructure, educating our stakeholders as well as nurturing a corporate culture of responsibility.

Regular safety and risk audits are conducted to cover our mainland city-gas and water businesses. A new round of audits for the 2015/16 period is progressing well, with 52 companies having undergone inspections so far.

In 2015, we expanded the scope of our safety directive from Safety Solutions to Total Quality Management. This takes a more holistic approach to managing risk, quality and reliability at the corporate level, addressing organisational values and emphasising customer experience. Efforts to promote these standards will continue in 2016.



Continuing to enhance service quality amongst our staff, we organised the Service with a Smile Ambassadors campaign.





## Utility Businesses in Mainland China in 2015

### TOWNGAS PIPED CITY-GAS PROJECTS

#### Guangdong Province

Panyu	1994	260	105	80%
Zhongshan	1995	240	96	70%
Dongyong	1998	178	75	82.6%
Shenzhen	2004	–	2,178	26.9%
Chaoan	2007	185	99	60%
Chaozhou Raoping	2011	189	106	60%

#### Central China

Wuhan	2003	1,200	420	49%
Xinmi	2009	205	85	100%

#### Eastern China

Yixing	2001	246	124	80%
Taizhou	2002	200	83	65%
Zhangjiagang	2003	200	100	50%
Wujiang	2003	150	60	80%
Xuzhou	2004	245	125	80%
Suining	2009	85	34	100%
Fengxian	2009	60	31	100%
Peixian	2015	300	100	100%
Danyang	2004	150	60	80%
Jintan	2006	150	60	60%
Tongling	2006	240	100	70%
Suzhou Industrial Park	2001	600	200	55%
Changzhou	2003	248	166	50%
Nanjing	2003	1,200	700	49%
Fengcheng	2007	206	88	55%
Pingxiang	2009	297	105	100%
Jiangxi	2009	52	26	56%
Zhangshu	2009	86	34	100%
Yonganzhou	2010	100	68	93.9%
Hangzhou	2013	2,988	1,195	24%

#### Shandong Province

Jinan East	2003	610	470	49%
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#### Northern China

Jilin	2005	247	100	63%
Beijing Economic-technological Development Area	2005	111	44	50%
Hebei Jingxian	2011	186	79	81%

#### Northwestern China

Xi'an	2006	1,668	1,000	49%
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#### Hainan Province

Qionghai	2008	110	50	49%
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## MIDSTREAM PROJECTS

Guangdong LNG  
Anhui NG  
Hebei NG  
Jilin NG  
Henan NG  
Jintan NG

## LNG REFILLING STATION

Nanjing (Marine)

## WATER PROJECTS

Wujiang  
Suzhou Industrial Park  
Wuhu  
Suzhou Industrial Park (Industrial Wastewater Treatment)  
Maanshan  
Jiangbei

Year of Establishment	Project Investment Rmb M	Registered Capital Rmb M	Equity Share %
2004	8,595	2,578	3%
2005	750	252	27.5%
2005	2,760	920	43%
2007	360	220	49%
2012	125	50	49%
2013	180	100	64%
2014	600	204	39.9%
2005	2,450	860	80%
2005	4,705	1,597	50%
2005	1,000	400	75%
2011	550	185	49%
2013	157	63	100%
2013	1,049	374	100%

## TOWNGAS CHINA PIPED CITY-GAS PROJECTS

### Guangdong Province

Foshan  
Shaoguan  
Qingyuan  
Yangdong  
Fengxi

### Eastern China

Nanjing Gaochun  
Dafeng  
Tongshan  
Maanshan  
Bowang  
Zhengpugang Xin Qu  
Modern Industrial Zone  
Wuhu Fanchang  
Bozhou-Wuhu Modern  
Industrial Zone  
Wuhu Jiangbei  
Anqing  
Chizhou  
Tunxi  
Huangshan  
Huizhou  
Tongxiang

Huzhou  
Yuhang  
Songyang  
Changjiu  
Fuzhou  
Jiujiang  
Wuning  
Xiushui  
Yifeng  
Changting

### Shandong Province

Jimo  
Laoshan  
Zibo  
Zibo Lubo  
Longkou  
Jinan West  
Weifang  
Weihai  
Taian  
Chiping  
Linqu  
Laiyang

Zhaoyuan  
Pingyin  
Feicheng  
Boxing Economic  
Development Zone  
Yangxin  
Wulian

### Hunan Province

Miluo

### Northeastern China

Benxi  
Chaoyang  
Tieling  
Fuxin  
Shenyang Coastal  
Economic Zone  
Yingkou  
Dalian Changxingdao  
Dalian Economic and  
Technical  
Development Zone

Anshan  
Lvshun  
Kazuo  
Beipiao  
Wafangdian  
Xinqiu  
Jianping  
Changchun  
Gongzhuling  
Siping  
Qiqihar

### Hebei Province

Qinhuangdao  
Yanshan  
Cangxian  
Mengcun  
Shijiazhuang  
Baoding

### Inner Mongolia

Baotou

### Southwestern China

Ziyang  
Weiyuan  
Pengxi  
Lezhi  
Pingchang  
Dayi  
Yuechi  
Cangxi  
Chengdu  
Zhongjiang  
Jianyang  
Pengshan  
Mianyang  
Xinjin  
Xindu  
Mianzhu  
Jiajiang  
Qijiang  
Guilin  
Zhongwei (Fusui)  
Xingyi  
Luliang

## MIDSTREAM PROJECTS

Xuancheng Huangshan  
Taian Taigang

## CNG REFILLING STATIONS

Qiqihar (Lianfu)  
Qiqihar (Xingqixiang)

## OTHER PROJECT

Zhuojia Public Engineering