

# mainland china gas business

**CHINA** is aiming to diversify its reliance on coal and oil by increasing natural gas usage to around 6 per cent of its energy mix by 2010, up from less than 3 per cent today. This potential for exponential growth is driving Towngas' mainland investment strategy in city-gas businesses and our exploration of opportunities to utilise natural gas for wider industrial applications.

## The Rise of Natural Gas

The increasing use of cleaner fuels, such as natural gas, rides on the central government's support for improving environmental protection, a high GDP growth of over 7 per cent per annum creating a surging energy demand, and the restructuring of utility state-owned enterprises (SOEs) which are now seeking outside investment from companies with a good track record, excellent credibility and a long-term commitment. China provides a great opportunity for Towngas to leverage its core business strengths, as we have exactly the experience, reputation, technology and skills required by SOEs to develop natural gas markets within large community, industrial and commercial areas.

There is also potential to promote space heating using natural gas because heat supply from coal-fired co-gen (combined heating and power) plants is now insufficient. Towngas is looking to fill this gap by establishing small district central gas boiler plants and marketing individual home-based combi-boiler units. As a start, in November 2004, we concluded a framework agreement to develop a wholly-owned heating and cooling system in the hi-tech industrial development zone of Xian city (XDZ), Shaanxi Province. XDZ is slated for residential as well as

commercial expansion and, given Xian's distinct seasons, offers good prospects for gas consumption growth.

In addition, other gas utilisation possibilities are also beginning to emerge. These include gas-fired tri-gen (combined heat, power and cooling), compressed natural gas (CNG) filling stations and gas cooling. Such projects require state-of-the-art engineering experience which Towngas is capable of providing to those cities where we are currently undertaking feasibility studies, such as Xian, Wuhan and Nanjing.

All-in-all, natural gas is a very environmentally-friendly fuel that is price competitive compared to fossil fuel oil, liquefied petroleum gas and electrical power. The uncertainty surrounding high oil prices can only be to the advantage of natural gas in the long-term, as is the continuing expected shortage in the mainland's electricity supply. With a rising energy demand, coupled with the central government's support, the growth prospects for the natural gas market are outstanding, although this requires substantial investment to build infrastructure and make sure cities are ready to adopt natural gas. Towngas is now a dominant downstream player in this 'dash for gas' due to our prudent long-term policy approach to raise our exposure on the mainland.

## Joint Venture Investment

The backbone of our mainland strategy rests on joint venture (JV) partnerships. By the end of 2004, we had 29 equity JV city-gas projects, an increase of five JVs over 2003. The majority are already in profit-generating mode and show a high potential for further business expansion through vertical integration and horizontal extension. Natural gas conversion is either well under way or completed in many JVs, facilitating rapid growth in both gas demand and sales of newer, safer appliances.

In 2004, we made our first investment in Northern China by signing a JV agreement with Beijing Gas Group to supply natural gas to the Beijing Economic-Technological Development Area. This puts us in a good position to participate in the capital's expanding natural gas services in the wake of strengthening infrastructure for the 2008 Olympic Games.

We also continued to seek the benefits of synergy in 2004, particularly along the route of the West-to-East gas

pipeline which is already delivering gas to most JVs in Eastern China. We consolidated our position in Jiangsu Province by taking a majority stake in a JV in Danyang centred in the middle of a cluster of other Towngas JVs in the province. Setting up a city piped Sino-foreign JV with full management rights in Huzhou, Zhejiang Province, will also help us gain operational efficiency by strengthening our business in both Zhejiang and neighbouring Jiangsu. And establishing a JV in the city of Anqing, Anhui Province, strategically locates us at the junction of Anhui, Hubei and Jiangxi Provinces ready for expansion of our piped gas business to other cities in the region as the natural gas market further develops. In addition, we deepened our penetration into the economically-vibrant Pearl River Delta area by establishing a JV in the industrial city of Shunde, Guangdong Province, renowned for manufacturing household electrical appliances.

This strategy is cementing our foundation for expanding into China's booming industrialising economy.

In May, a city piped gas joint venture was established in Shunde, Guangdong Province, creating further synergy in management and resource allocation for Towngas JVs in the Pearl River Delta area.



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The Weihai JV, located in Shandong Province, distributes natural gas to local customers via its

### **LNG receiving terminal,**

supporting the central government's policy to promote the use of cleaner energy.





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In seeking to establish JVs with substantial shareholding, management and long-term exclusive gas supply rights, we are creating the basis for constructing and operating modern, efficient city-gas systems capable of supporting sizeable gas sales.

### Critical Success Factors

The asset management arm of the Group on the mainland, Hong Kong & China Gas Investment Limited (HCIL), is leading the process of transforming our Hong Kong-grown business from a single city to a nation-wide operator; from a single focus to a multi-disciplined business; and from a single location to a multi-hubbed company. HCIL is pioneering the transfer of our corporate management, governance and ethics policies, all crucial factors for developing consumer trust and loyalty. With teams made up of mainland talent and Hong Kong colleagues, the decision-making process is now becoming more accountable, focusing on developing technical skills, organisational behaviour and a corporate culture that is market-orientated and bottomline-g geared towards differential products, skill requirements and consumer needs. The launch of a quarterly publication for JV employees has

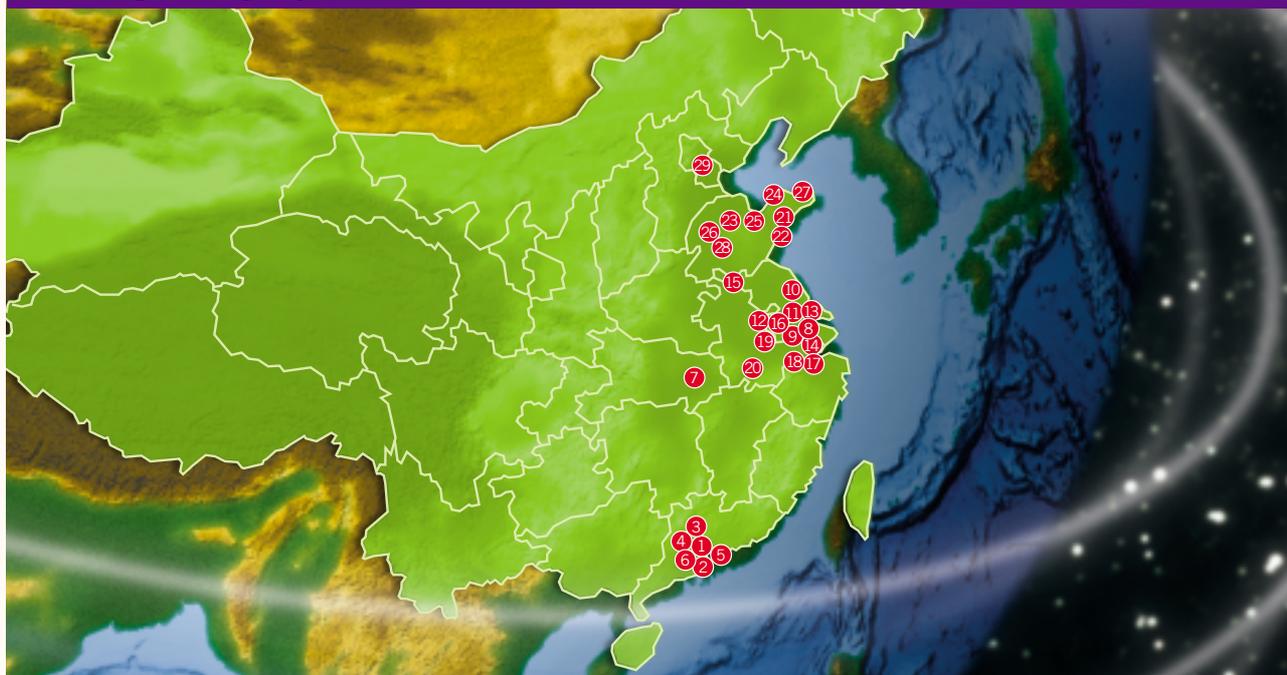
additionally enhanced team spirit and intensified a sense of belonging to the Towngas family across our China partnerships, and is helping to strengthen our image with local officials and customers.

Towngas also brings other advantages to its business partners. We have a long, reputable history for excellence in customer service, engineering and gas marketing that is appreciated by municipal governments seeking partners to facilitate the reform of their otherwise rigid state-owned enterprises. Our customer service know-how creates public confidence and sets us apart from other operators; our expertise in engineering enhances technological effectiveness; and our marketing skills focus on products that are really wanted. All these benefits are encouraging our JV partners to now grasp emerging opportunities in a much more timely fashion.

A quarterly publication, originally intended just for joint venture partners, has attracted positive feedback from our key stakeholders interested in our business developments in China and transfer of management culture.



## Towngas' City Piped Gas Joint Ventures in Mainland China



	Year of Establishment	Project Investment Rmb Mn	Registered Capital Rmb Mn	Equity Share Rmb Mn
<b>Guangdong Province</b>				
1. Panyu	1994	260	105	80%
2. Zhongshan	1995	240	96	70%
3. Dongyong	1998	132	53	80%
4. Jianke	2002	45	23	70%
5. Shenzhen	2004	1,257	472	30%
6. Shunde	2004	200	100	60%
<b>Central China</b>				
7. Wuhan	2003	1,200	400	50%
<b>Eastern China</b>				
8. Suzhou Industrial Park	2001	245	100	55%
9. Yixing	2001	246	124	80%
10. Taizhou	2002	200	83	65%
11. Changzhou	2003	248	166	50%
12. Nanjing	2003	1,200	600	50%
13. Zhangjiagang	2003	150	60	51%
14. Wujiang	2003	150	60	80%
15. Xuzhou	2004	245	125	80%
16. Danyang	2004	150	60	80%
17. Tongxiang	2003	83	58	76%
18. Huzhou	2004	200	87	95%
19. Maanshan	2003	248	108	50%
20. Anqing	2004	182	73	50%
<b>Shandong Province</b>				
21. Jimo	2001	37	19	90%
22. Laoshan	2002	60	30	60%
23. Zibo	2002	240	106	50%
24. Longkou	2002	84	42	70%
25. Weifang	2003	241	140	50%
26. Jinan	2003	245	100	60%
27. Weihai	2003	245	99	50%
28. Taian	2004	200	80	50%
<b>Northern China</b>				
29. Beijing Economic-Technological Development Area	-*	111	-*	50%

\* JV company to be established

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Yixing joint venture received a national award in December for its outstanding achievements in promoting the use of natural gas as a cleaner and more energy-efficient fuel in the city's world-famous pottery production.



For example, Yixing JV won a national award in 2004 for promoting the extensive use of cleaner and more energy-efficient natural gas in the city's world-famous pottery production. Likewise, JVs elsewhere were praised by other municipal and provincial governments and local residents for their service provision and safety measures. Such recognition raises the image and status of the Company on the mainland and helps to publicise our corporate brand name.

Our efforts in the coming year will therefore concentrate on growing our city piped gas business to meet rising

energy and more environmentally-friendly fuel demands. We will especially look for markets that have a strong economic growth and high industrial and commercial gas load potential. Combined with increasing business diversification opportunities, such as tri-gen, CNG, and possibly utility network design and construction, we remain confident we can profitably replicate our very successful Hong Kong business model on the mainland in the near future.