

# GAS

## Medium-Term Market Report

# 2016

### Medium-Term Gas Market Report

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### Corrigendum

Please note that despite our best efforts to ensure quality control, errors have slipped into Medium-Term Gas Market Report 2016.

The text in pages 7 et 29 has changed. It should be replaced by the following pages .

## Market Analysis and Forecasts to 2021



International  
Energy Agency  
Secure  
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Together

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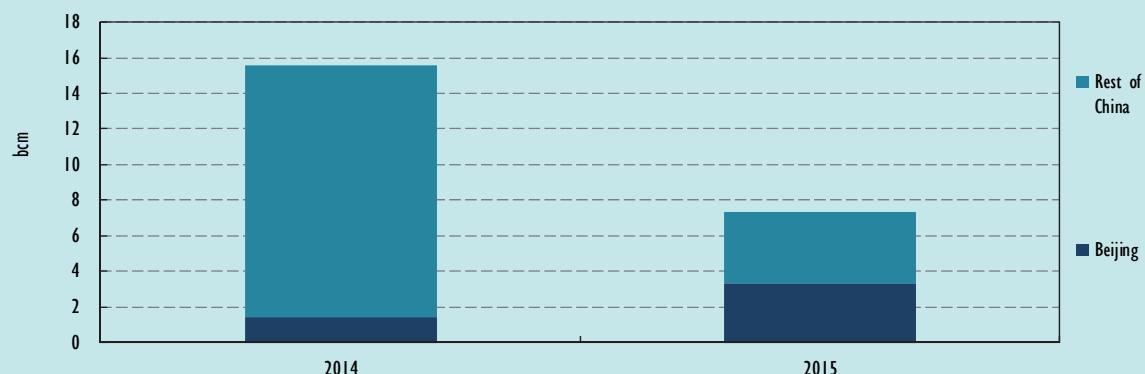
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### Box 1.3 Coal-to-gas substitution in China: Progress and challenges (continued)

The greatest coal-to-gas switching potential in China is in the Beijing, Tianjin, Hebei and Shandong provinces. The region has a very high coal intensity and some of the world's most polluted cities. On the bright side, energy infrastructure in the region is developing quickly, with the number of people with access to gas in cities increasing by 160% from 2009 to 2013. This translated to an almost 70% increase in natural gas consumption, or more than 10 bcm. The 2014-2015 Action Plan for Energy Conservation, Emissions Reduction and Low Carbon Development has allocated one-third of the total target to this region, and local governments have followed up with strong subsidies in many cities.

**Beijing** has made efforts to convert coal-fired boilers and power plants to natural gas for nearly two decades. Since 2012, worsening pollution has prompted acceleration in the coal-to-gas switching energy strategy. According to the atmospheric environmental protection agency, from 1998 to 2014, Beijing replaced 17 000 coal-fired boilers and reduced over 7 Mt of coal consumption in the urban area. This contributed to a significant increase in the city's natural gas consumption, which nearly doubled between 2010 and 2015, reaching 14.6 bcm (Figure 1.12).

**Figure 1.12** China and Beijing gas demand YoY change



By 2015, Beijing had fully eliminated coal-fired boilers in the urban area. According to data from Beijing Gas Group Company, coal-to-gas substitution resulted in 2 bcm of additional gas consumption in 2015, of which 1.7 bcm came from the replacement of coal-fired power plants and 0.3 billion from the phase-out of coal boilers.

Now Beijing is extending its ban on coal burning to suburban areas, and is pushing forward with the construction of the gas pipeline network and other related facilities in rural areas. To promote coal-fired boiler substitution, the Beijing government offers many financial incentives. For coal-fired boilers with capacity less than 20 t/h, every tonne gets a subsidy of CNY 55 000 (Chinese Yuan renminbi). For coal-fired boilers with capacity over 20 t/h, every tonne gets a subsidy of CNY 100 000. The highest financial subsidy for a conversion project could reach 50% of the total cost.

In the next few years, Beijing will continue diversifying its energy structure away from coal. According to the Plan of Accelerating the Construction of Clean Energy and Reduction of Coal Combustion through 2013-2017, Beijing aims to close down all coal-fired power plants by 2017, and to build four major gas-fired co-generation\* units in the southeast, southwest, northeast and northwest areas of the city.

\* Co-generation refers to the combined production and utilisation of heat and power.