



## China's Shale Gas Revolution – Outlook and Opportunities for Petrochemicals

### Report Overview

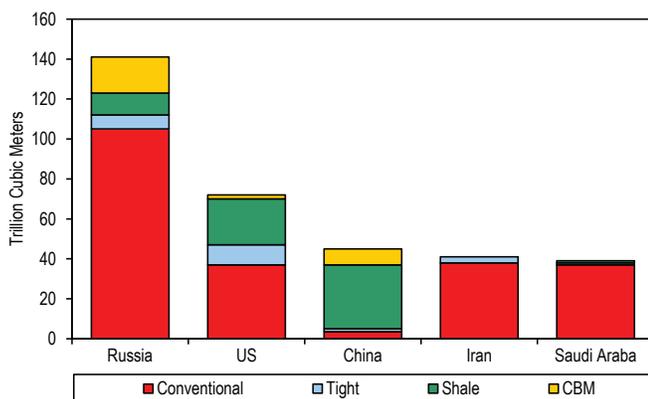
The evolving shale gas boom in U.S. looks set to be rivalled by China, which sits on the world's largest shale reserves. China's energy market continues to develop at a rapid pace due to its vast natural resource base.

However, today the focus is shifting from conventional type sources such as coal to non-conventional resources that include shale gas and coal based methane (CBM). Although in an early development phase, China's shale gas production targets look set to be smashed in 2015 at between 6-10 billion cubic meters per annum. China is now targeting to increase domestic production levels up to 60-80 billion cubic meters by 2020. The emerging shale gas revolution in China is set follow the U.S. example and create a host of opportunities for the petrochemical sector and potentially change the global landscape.

China's total shale gas resource is estimated at approximately 100 trillion cubic meters (tcm). Based on current technology, approximately 25 tcm of shale gas is estimated as recoverable. This compares to the U.S. which has around 14 tcm of technically recoverable gas from its shale formations. China's shale gas reserves present a host of opportunities for the energy and chemicals sector. However its ultimate success, and timeline, will depend on how a number of associated challenges are overcome. These challenges include:

- Shale reserve depths ranging from 8,000-21,000 feet stretching the limits of available fracking technologies.
- A need for significant investments in new gas pipeline infrastructure and gas processing capacity.
- Identification of solutions to the current water shortages that may impact fracking potential in key regions.

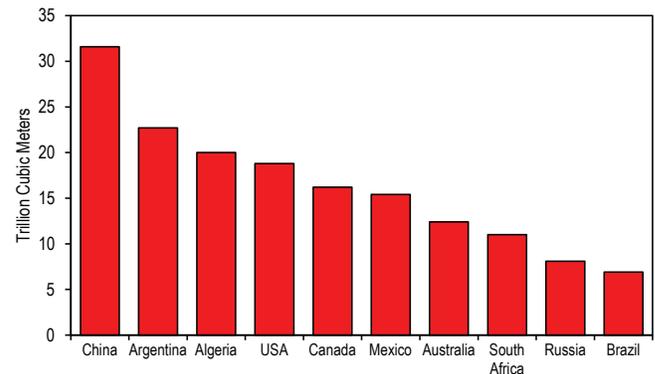
### Estimate of Recoverable Natural Gas Reserves



Nexant released a new multi-client study that provides a detailed analysis of China's Shale gas developments and highlight the potential outlook and opportunities for China's petrochemicals sector. This special report includes:

- Assessment of current and developing shale gas resources in China.
- Review of existing and new gas infrastructure, covering pipelines, gas processing and NGL fractionation.
- Discussion around gas specifications and potential petrochemical feedstocks including ethane and propane.
- Review potential petrochemical projects considering feedstock cost & availability, location and capacity development.
- Discussion around global petrochemical competitiveness and possible shifts in regional trade patterns.

### Overview of Technically Recoverable Shale Gas Resources



Nexant's study provides a comprehensive analysis of China's evolving shale gas sector covering details on key players active across the value chain including exploration, production, processing, delivery & marketing. The study includes estimates for gas production and reserve estimates covering the period 2008-2028. Petrochemical landscape developments review impact on major value chains focusing on the ethylene and propylene derivatives.

For information regarding the **China's Shale Gas Revolution – Outlook and Opportunities for Petrochemicals** report, please contact [STMC@nexant.com](mailto:STMC@nexant.com).

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### Corporate Headquarters

Tel: +1 415 369 1000  
101 2nd St Suite 1000  
San Francisco  
CA 94105-3651  
USA

### Americas

Tel: +1 914 609 0300  
44 S Broadway, 4th Floor  
White Plains  
NY 10601-4425  
USA

### Europe, Middle East & Africa

Tel: +44 20 7950 1600  
1 King's Arms Yard  
London EC2R 7AF  
United Kingdom

### Asia Pacific

Tel: +662 793 4600  
22nd Floor, Rasa Tower I  
555 Phahonyothin Road  
Kwaeng Chatuchak  
Khet Chatuchak  
Bangkok 10900  
Thailand

