

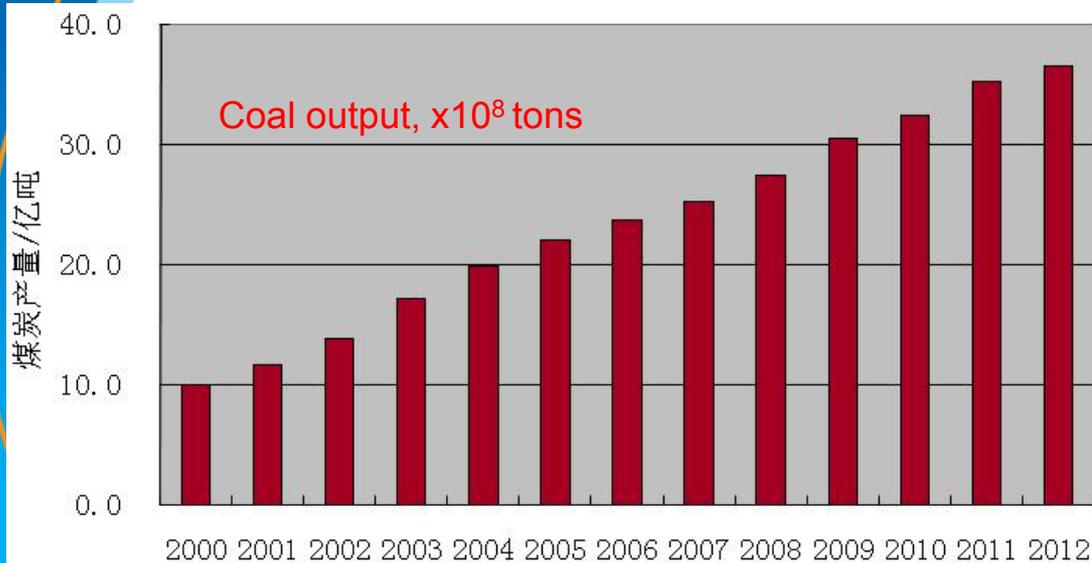
China Coal Sector Update to the 18th Session of the Global Methane Initiative (GMI) Coal Subcommittee

19-20 November 2013
China Coal Information Institute



China Coal Sector Update

- Any new trends in the coal sector
 - Decrease in production
 - Output of coal is 1.79 Billion tons in the first half year of 2013, and decreased 68 Mt and lowered 3.7% on year on year basis.



Coal productions from 2000 to 2012 in China



China Coal Sector Update

- Any new trends in the coal sector
 - Emissions
 - Emission from Ventilation air methane
 - The emission volume of VAM in China is about 20 billion m³ in 2012.
 - Emission from Unutilized CMM
 - The emission volume of unutilized CMM in China is about 7.65 billion m³ in 2012.



China Coal Sector Update

- Regulatory Update
 - New and/or changes to existing laws, regulations, or incentives
 - Guideline on further speed up the CBM/CMM exploitation and utilization issued by General Office of the State Council in China in Sep. 22, 2013.
 - Increase Government Directional Support
 - Increase indirect Financial Incentives
 - Encourage Private Capital Invest CBM
 - Market pricing Mechanism
 - Encourage CBM/CMM to Power



China Coal Sector Update

- Specific project updates
- Comprehensive Utilization of Low Quality CMM and VAM
 - Xingbianfumin Cleaner Energy Company plans to invest 3.6 Billion RMB for Lu'an Mining Group, Yangquan Mining Group, Shanxi Coal Import & Export Group Co., Ltd. to reform ventilation shaft and construct power plant with 340 Mw by comprehensive Utilization of Low Quality CMM and VAM in September, 2013.



China Coal Sector Update

- Specific project updates
- CMM Recovery from Abandoned Coal Mines
 - One CMM Company in Shanxi Province carried out CMM recovery Project from Abandoned Coal Mines in October, 2013.
 - This is one significant breakthrough for Abandoned Mine Methane recovery in China
 - The concentration of Abandoned Mine Methane can reach 60%.



China Coal Sector Update

- Specific project updates

CCII organized 2013 13th International Symposium on CBM/CMM and Shale Gas at Landmark Hotel in Beijing on 24-25 October.



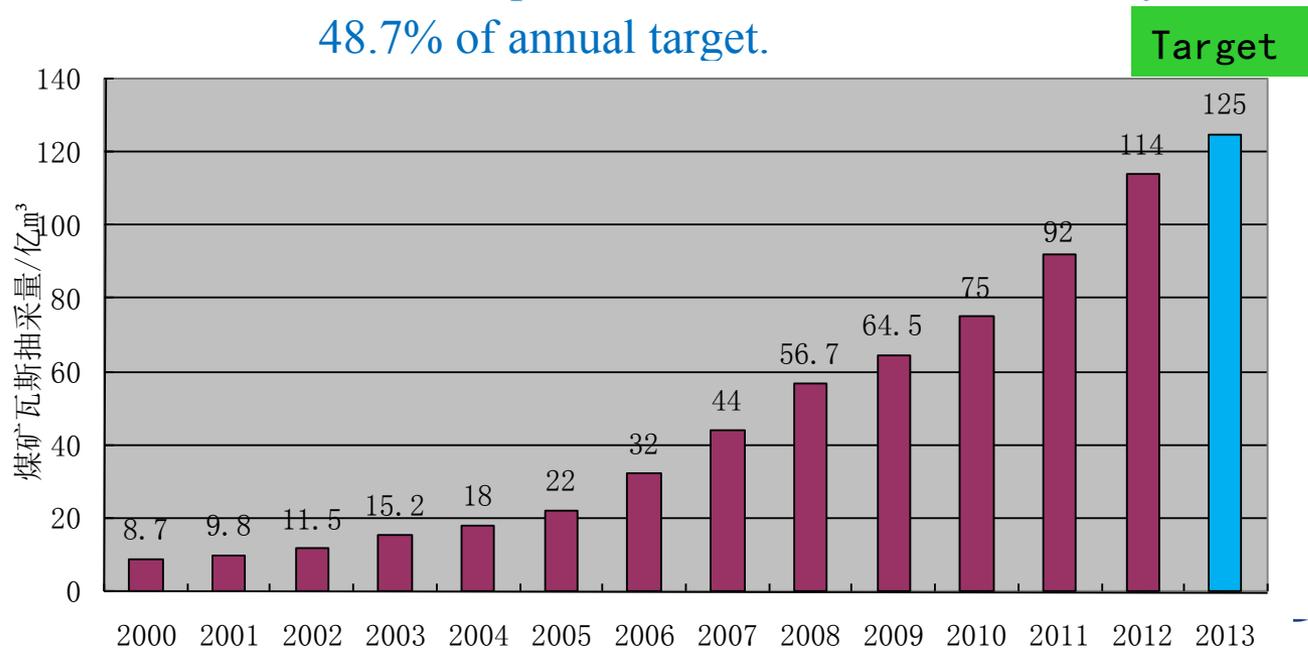
CMM Project Outlook

- Anticipated or planned projects
 - Low Quality CMM Utilization (Concentration < 30%) : Enrichment and purification with PSA for civil use or power
 - Comprehensive Utilization Project of Low Quality CMM and VAM
 - Recovery and Utilization of Abandoned Coal Mines
- Infrastructure development
 - CBM/CMM Transportation by Pipeline
 - 5 CBM/CMM pipelines have been built, and transportation capacity is 10.2 B m³.
 - 3 CBM/CMM pipelines are under construction, and transportation capacity is 3.4 B m³.



China Coal Sector Methane Action Plan

- Status of Coal Sector Methane Action Plan development
- CMM drainage
 - CMM drainage increased from 2.2 billion in 2005 to 11.4 billion m³ in 2012.
 - CMM output is 6.09 B m³ in the first half year of 2013 and finishes 48.7% of annual target.

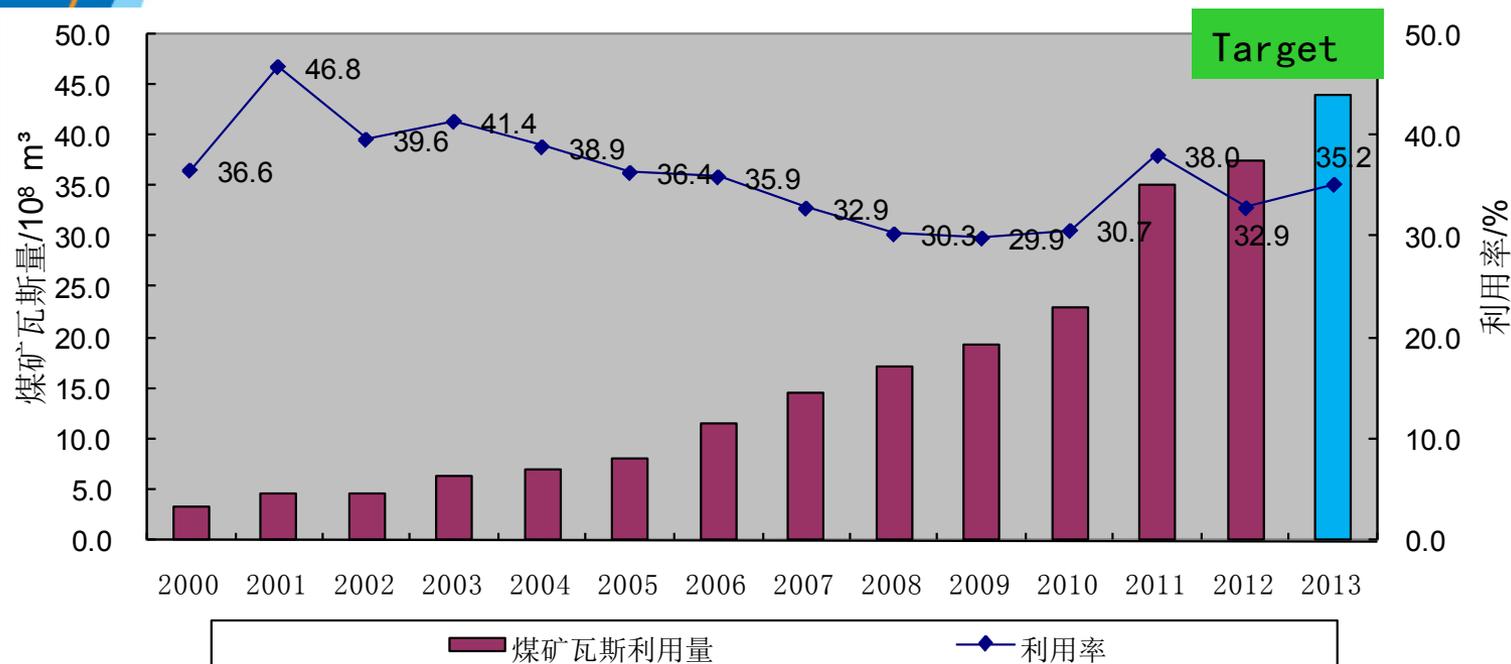


CMM production from 2005-2012 and Annual Target in 2013 in China

China Coal Sector Methane Action Plan

■ CMM utilization

- The volume of CMM utilization are 3.75 billion m³ in 2012 , and utilization rate is 32.9%. About 7.65 billion m³ of gas are available for more gas utilization projects.
- Utilization volume of CMM is 2.11 Bm³ utilization rate is 34.6% in the first half year of 2013 and finishes 47.9% of annual target.



CMM recovery and utilization from 2000 to 2012 (10⁸ m³)

Contact Information and Announcements

2014 14th International Symposium on CBM/CMM and Shale gas in China

**Landmark Hotel, Beijing, P.R. China
November, 2014**

Welcome to



The Event



Contact Information and Announcements

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Thank You!

Welcome to visit CCII

