



煤层气开发利用最新进展 及项目机会

Progress and Project Opportunities of the CMM Development and Utilization

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M2M项目

10个项目

- 5个煤层气发电项目
- 3个VAM项目
- 2个提纯液化项目

Proposed M2M Projects

10 projects

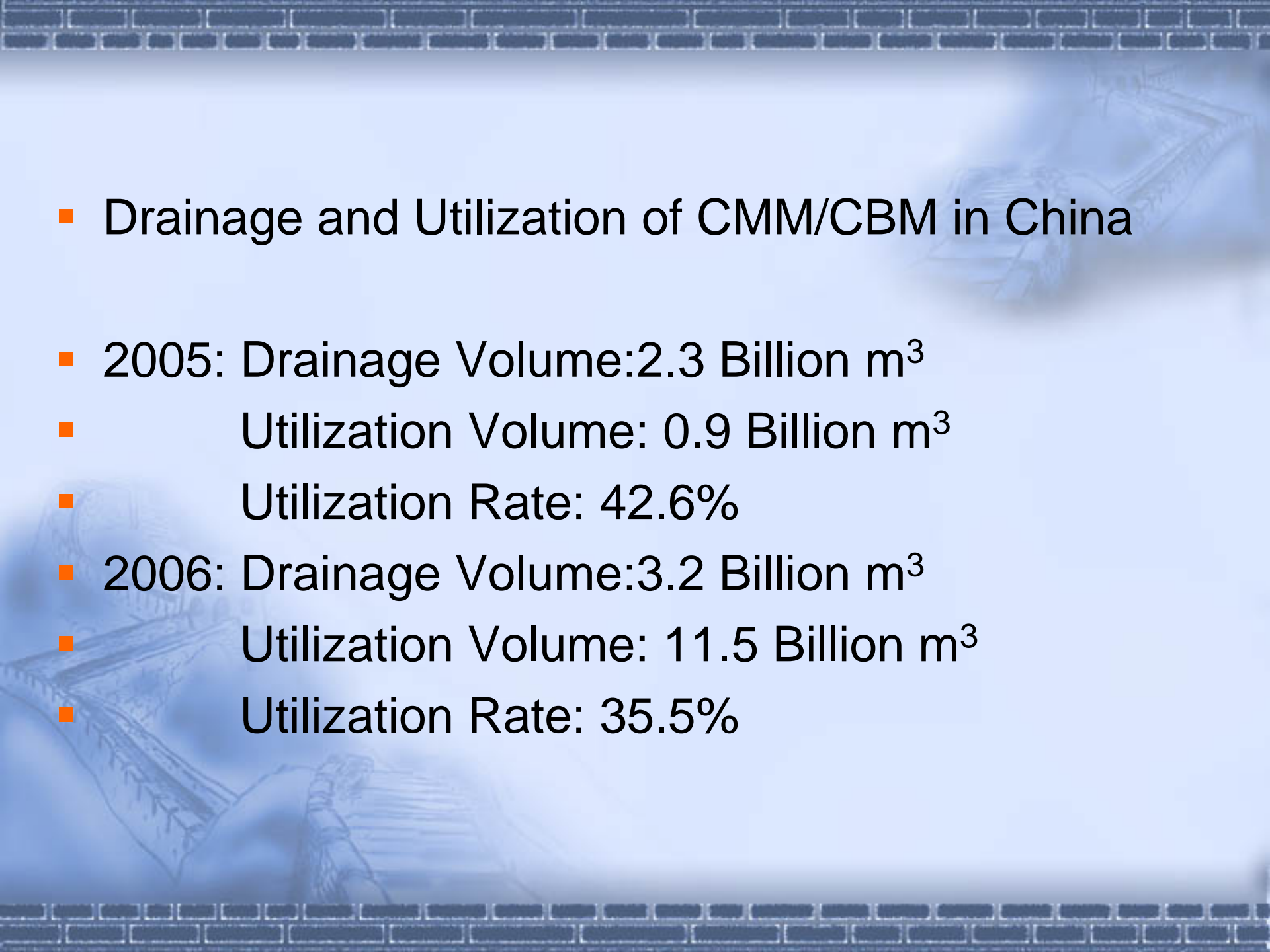
- 5 projects of CMM power generation
- 3 projects of VAM
- 2 projects of CMM purification and liquefaction

M2M projects proposed

- Hebi CMM Power Generation
- Hongneng Coal Mine CMM Recover and Utilization
- Jixi CMM Power Generation Project
- Longfeng Coal Mine and Honglin Coal Mine Gas Power Generation Project
- Pingdingshan No.4 VAM to Energy Project
- Pingdingshan No.8 CMM Drainage and Utilization Project
- Shigang Coal Mine CMM Purification Project
- Shigang Coal Mine VAM Utilization Project
- Shihao Coal Mine VAM Recovery and Utilization Project
- Songzao CMM Purification and Utilization Project

- ◆ Challenges to CMM Project Development
 - ◆ Lack of technology
 - ◆ Lack of clarity about regulatory issues, especially gas ownership
 - ◆ Lack of pilot project to demonstrate profitability
 - ◆ Lack of financing
 - ◆ Lack of support for private developers

- ◆ **Efforts to remove the barriers for CMM project development**
- ◆ **Technology:** horizontal long borehole drilling, vertical wells with horizontal branches
- ◆ **Gas ownership:** more leading companies authorized to develop CBM projects with foreign partners
- ◆ **Profitability:** subsidy for CMM drainage and higher price for power generated by CMM power plants
- ◆ **Financing:** profit growing of coal mining companies, more loans from domestic banks, ADB, WB, CDM, and M2M
- ◆ **Lack of support for private developers: problems still remain**

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- Drainage and Utilization of CMM/CBM in China
 - 2005: Drainage Volume: 2.3 Billion m³
 - Utilization Volume: 0.9 Billion m³
 - Utilization Rate: 42.6%
 - 2006: Drainage Volume: 3.2 Billion m³
 - Utilization Volume: 11.5 Billion m³
 - Utilization Rate: 35.5%

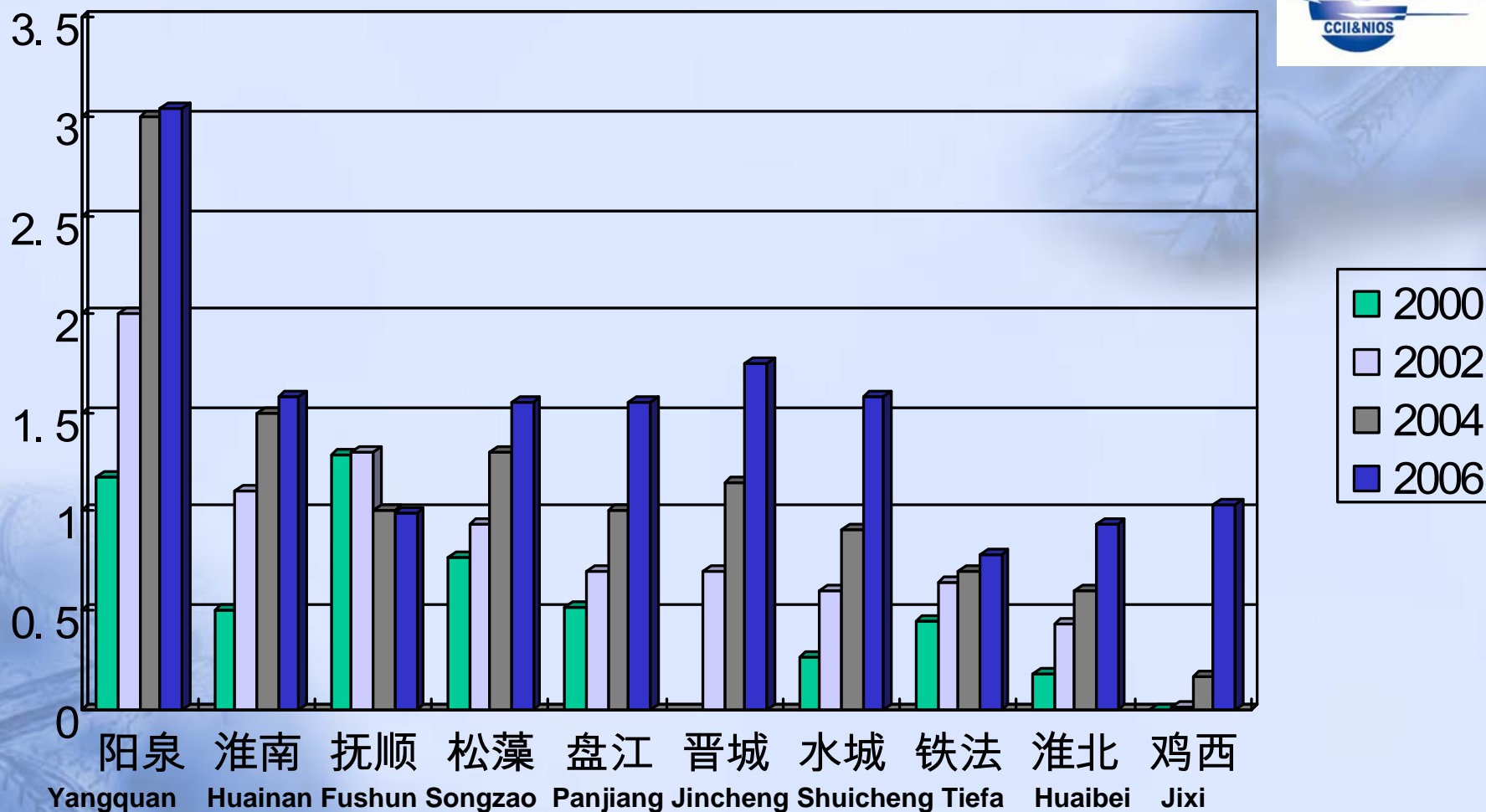


图 国有重点煤矿煤层气抽放量最大的十个矿区 (亿m³)

Fig 10 Key State Owned coal mining companies with CMM drainage over 100 million m³

Mm³

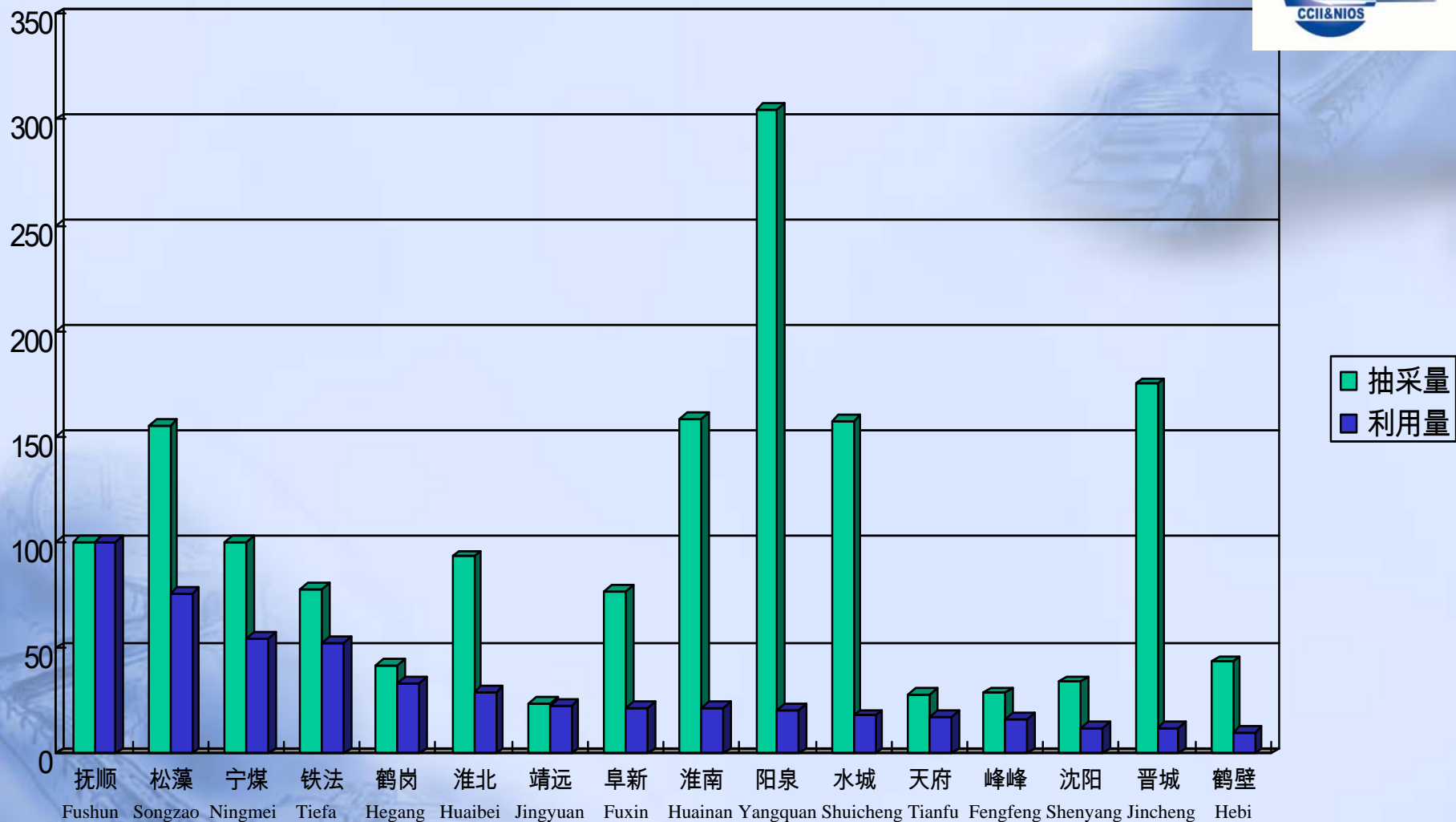


图 2006年利用量超过1000万立方米的十六个煤矿企业抽采量、利用量表

Fig Drainage and utilization volume of 16 coal companies with utilization volume over 10Mm³ in 2006



谢谢!
Thanks!