

# Political Developments and Unconventional Gas in China

**The Changing Geopolitics of  
Natural Gas: The Rise of  
Unconventional Gas and Its  
Implications for Global Natural  
Gas Markets, Geopolitical  
Relations and US Energy  
Security**  
**Baker Institute Energy Forum**  
**March 17, 2011**

**Steven W. Lewis**  
**James A. Baker III Institute for  
Public Policy,**  
**Ting Tsung and Wei Fong Chao**  
**Center for Asian Studies**  
**Rice University**

## China's National Political Climate and Energy Policy

- 12<sup>th</sup> Five Year Plan Targets
- National Policy Making Bodies
- NOCs and Local Governments
- Localities and Shale Gas Potential

Potential Impact of Politics on Development of Unconventional Gas in China

## General Targets of National 12<sup>th</sup> FYP (2011-2015)

- Economic growth annual 7%
- 45 million new jobs
- Urban unemployment kept to 5%
- Inflation to be kept to 4%
- Increased domestic consumption
- Double GDP per capita to \$10,000 by 2020
- Service sector value-added output to increase 4% to 47% of GDP
- Reform monopoly industries to increase competition
- Encourage enterprises to list on stock exchanges
- Urbanization rate to increase 4% to 51.5%
- Life span per person to increase one year (1.4 billion)
- 10% of all residents to be listed as community volunteers

## Energy Sector Targets of National 12<sup>th</sup> FYP (2011-2015)

- First FYP to address climate change
- Reduce energy consumption per unit GDP by 16%
- Reduce CO<sub>2</sub> emission per unit GDP by 17%
- Non-fossil fuel to account for 11.4% TPEC
- Priority investment in “emerging strategic industries”
  - New-generation information technology, **energy-saving and environmental protection**, **new energy**, biology, high-end equipment manufacturing, new materials and **new-energy cars**
- National energy sector plan to follow later in spring in “harmonization” of national energy sector and local FYP
- Former NEA Director Zhang Guobao:
  - China to cap total energy use 4 billion TCE (3.5 fossil fuel)
  - Debate over nuclear power

## Energy Sector Targets of National 12<sup>th</sup> FYP (2011-2015)

- Tracking: Premier Wen Jiabao said, “well-equipped statistical and monitoring systems for greenhouse gas emissions, energy conservation and emissions reductions” will be created.
- Introduces a “10,000 Enterprise Plan” of energy efficiency, following the “1,000 Enterprise Plan” of 2006-2010. Details TBA.
- Promotes development of Energy Service Companies (ala LBL projects in Shanghai)
- Wind: 70 gigawatts of additional installation
- Nuclear 40 gigawatts of additional installation, above current 10 gigawatts; WRI: on target for 70 by 2020. Note that 3/15/2011 State Council announced suspension and review of all new projects
- High speed rail: 35,000 km of new tracks, connecting every city greater than 500,000 population (approx 115; 50 over 1 million)
- Urban transportation: Green light to continue developing subways and also regional transportation hubs (e.g. Hongqiao in Shanghai)

### National Energy Policy Bodies:

- 老样子 (lao yangzi = nothin' new) in near future
- Non-expert National Energy Commission with unclear relation to National Development Reform Commission
- Under-powered National Energy Administration
- Non-expert regional development leadership small groups and NDRC
- Disproportionate relationships to NOCs and energy companies in Central Committee
- Disproportionate relationships to NOCs in Politburo
- Continued use of nomenklatura system of Party control over NOCs
- Unclear leadership transition approaching 2012: will CPC poach more NOC leaders for Politburo, CPC-CC?
- Unclear future of political reform as Wen Jiabao retires
- Unclear influence of popular opinion: civil society, NGOs, protest and microblogging

可能受污染的范围图示..



### NOCs and Local Governments:

Local governments are the major investors in energy in China

Power industry, Coal industry, Coalgas

Local governments are major owners in industry, including most energy intense companies (concrete, ceramics, steel, aluminum)

Local governments are primary provider of assistance to laid off workers, including non-core production workers from NOCs

Local governments are primary actor in monitoring and cleaning up industrial environmental damage

Local governments receive little revenue, royalties from oil/gas

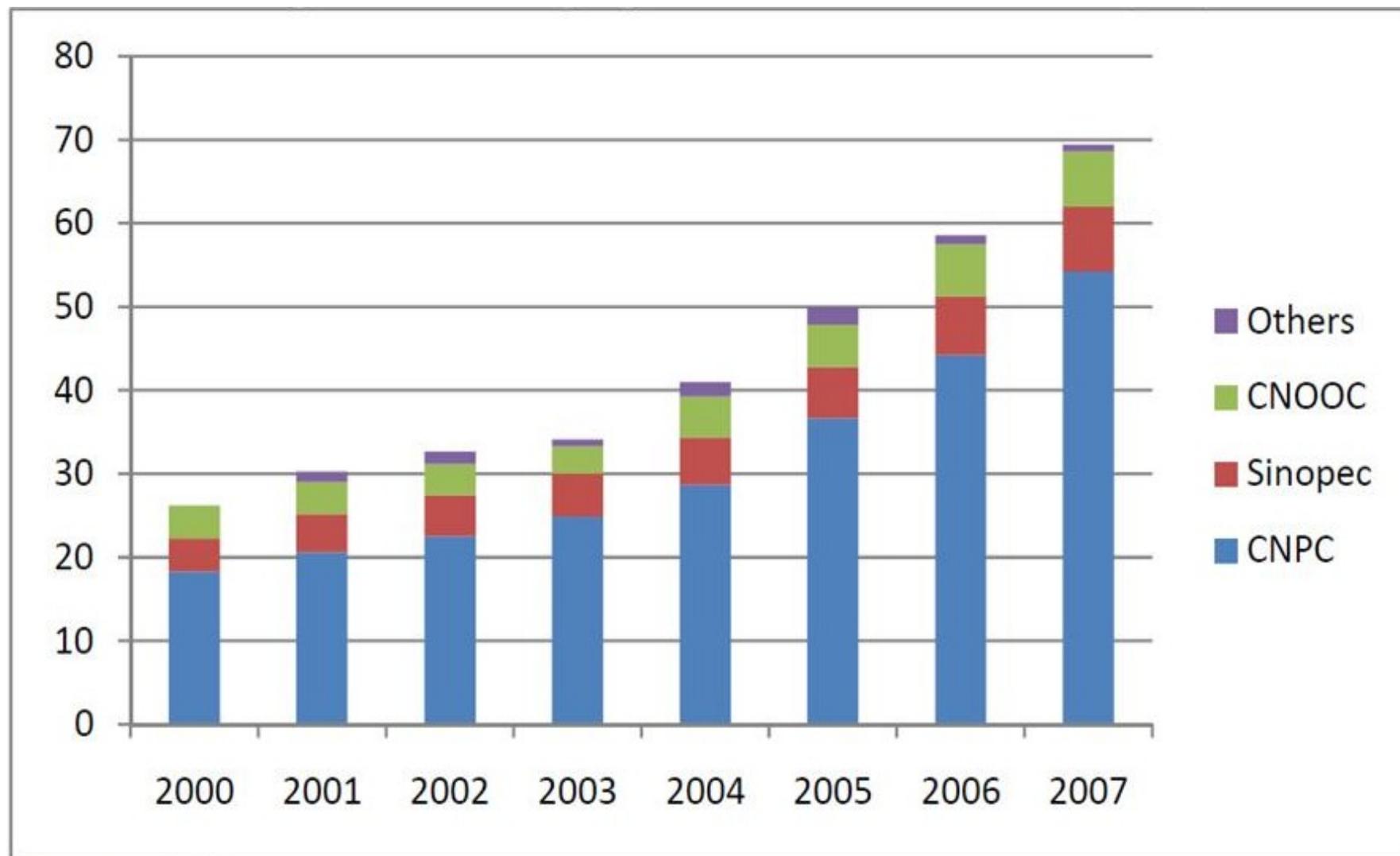
CNPC, Sinopec and CNOOC tied in to local Party

Three NOCs are self-insured for environmental disasters, not contributing to compensation funds

Tight gas counted as conventional gas in statistics in China

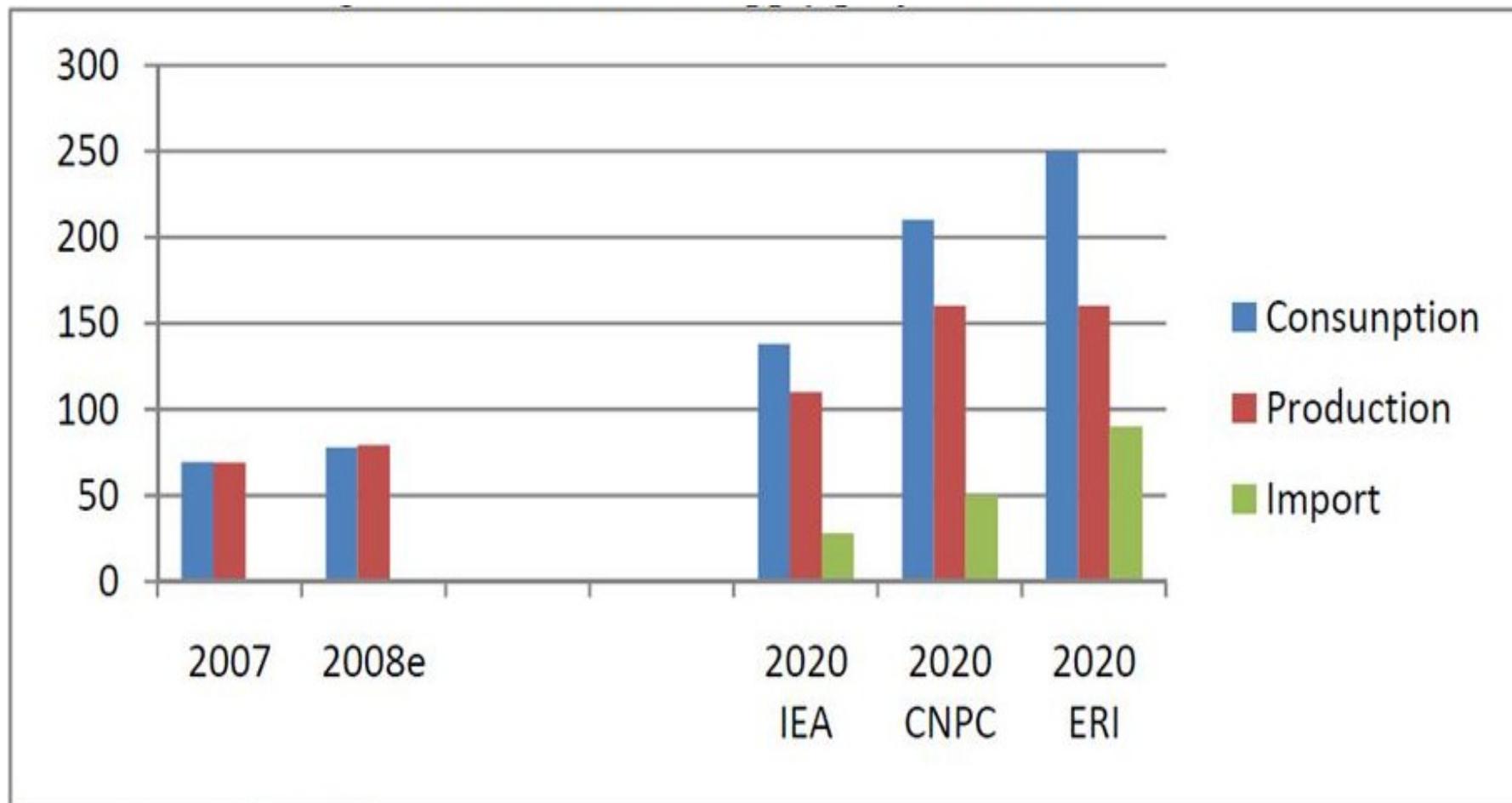
CBM ubiquitous; CUCBM monopoly on coalbed methane eliminated 2007, all three NOCs, foreign partners exploring shale gas

## Natural Gas Production in China 2000-2007 (bcm) (IEA 2009)



Source: CNPC.

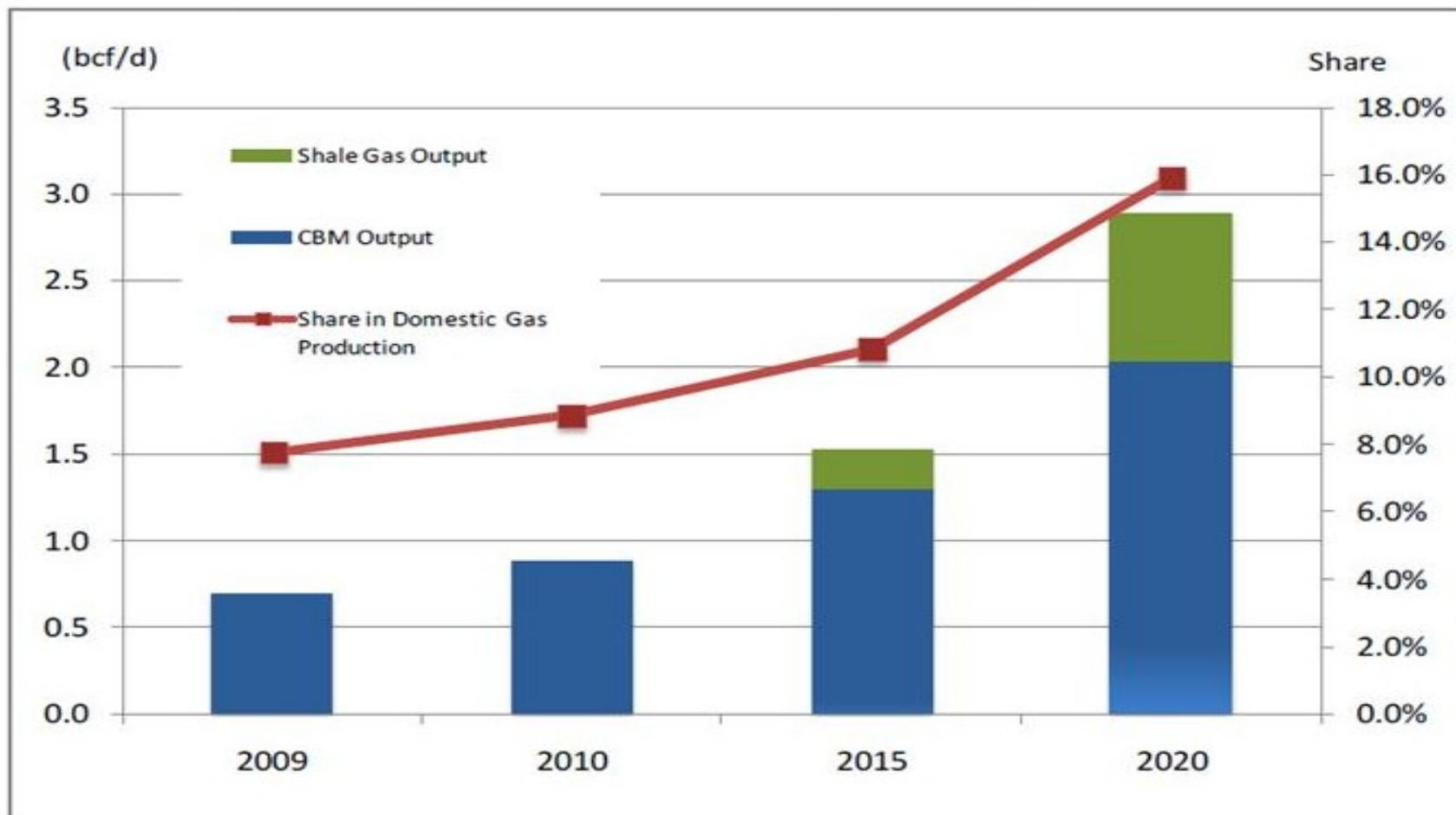
## Gas Demand and Supply Projections to 2020 (IEA 2009)



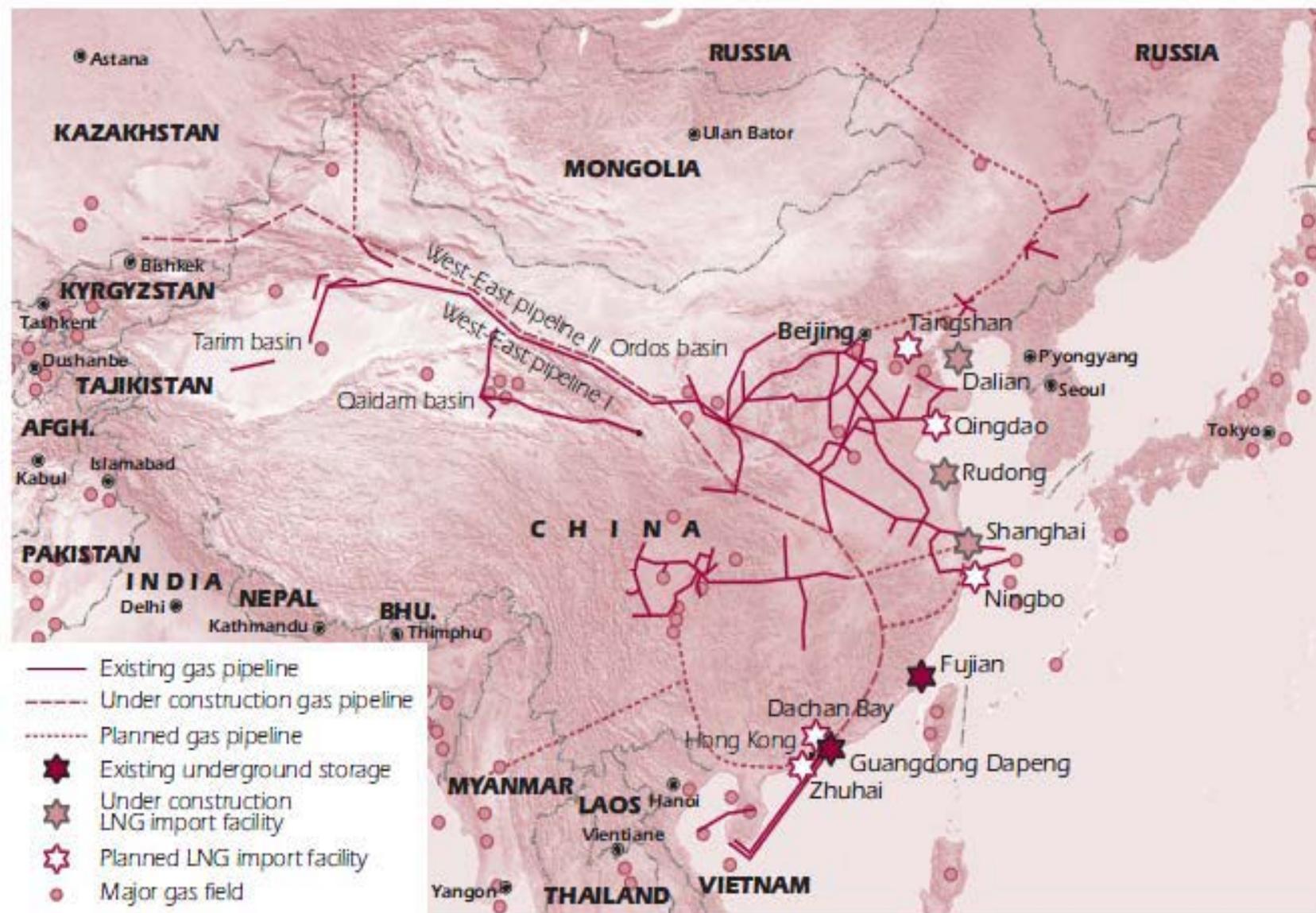
Source: IEA, CNPC, ERI

## Foreign Industry Outlook for Unconventional Gas Production in China

(FACTS Global Energy 2011)

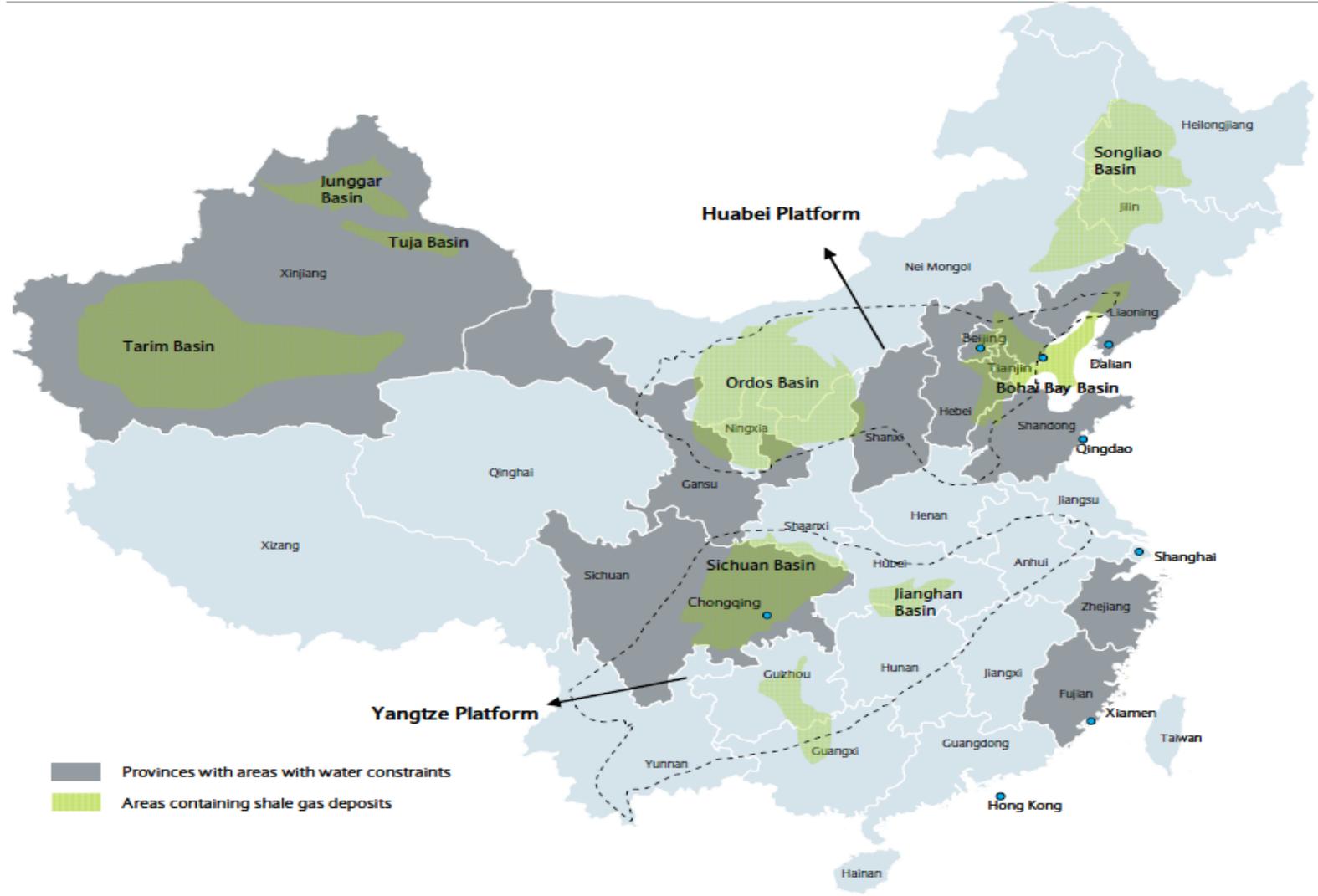






The boundaries and names shown and the designations used on maps included in this publication do not imply official endorsement or acceptance by the IEA.

Figure 4: Major shale gas resources and areas with water constraints in China



Source: Barclays Capital

### Xinjiang SAR and Shale Gas:

Higher water constraints

Low local economy demand but high energy economy influence

Mainly long-distance pipeline to East

Higher political risk from ethnic/separatist movement

High CNPC, Sinopec and central government influence

### Sichuan Province and Shale Gas:

Some Water constraints

High local economy demand, but already extensive conventional natural gas

Very developed gas distribution/transmission network

Low political risk, high political influence of agriculture (fertilizer)

Potential competition from Myanmar/Yunnan pipeline,  
Hydropower from Three Gorges Dam

High autonomy of Sichuan Oilfield Administration

Near-term high central government influence from earthquake relief; strong local ties to individual coastal provinces

### Shaanxi Province and Shale Gas:

Low water constraints

High future local economy demand and energy economy influence

Long-distance pipeline to Northeast, East and South

Low political risk, high potential influence of agriculture

High CNPC, central gov. influence, influential oilfield subsidiary

### Inner Mongolia SAR and Shale Gas :

Low water constraints

Low local economy demand (low urbanization), undeveloped gas network and energy economy

Low political influence of agriculture (fertilizer)

Potential competition from central coal enterprises

High central government influence, low political risk

High future local government energy economy development

NOCs influence low: CNPC in transit

# RICE UNIVERSITY Central Asia Gas Pipelines (IEA/OECD 2009)



Only major trunk lines (mostly trans-national) are shown.

The boundaries and names shown and the designations used on maps included in this publication do not imply official endorsement or acceptance by the IEA.

Thank You

[swlewis@rice.edu](mailto:swlewis@rice.edu)