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

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China’s National Political Climate and Energy Policy

- 12th 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

- 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

• First FYP to address climate change
• Reduce energy consumption per unit GDP by 16%
• Reduce CO2 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

• 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)
Chinese 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
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)
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
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

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