China’s Age of Gas

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Imagination at work.
GE Oil and Gas … From extraction, to transportation, to end use

Cutting edge technology & service solutions across the value chain

Liquefaction of Natural Gas (LNG)
Gas Storage & Pipeline Compression
Power Generation
Distributed Gas
Refining & Petrochemical
Subsea
Drilling
Offshore

On- and Offshore Oil & Gas Production
Services & Predictivity Skills Development

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Today’s topics

✓ China’s Age of Gas
✓ Learnings in North America
✓ Technology for Innovation
Age of gas … is upon us

Global gas consumption growth ‘13-’20
Bcm per year

<table>
<thead>
<tr>
<th>Region</th>
<th>1990</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>175</td>
<td>176</td>
</tr>
<tr>
<td>Asia</td>
<td>131</td>
<td>126</td>
</tr>
<tr>
<td>US-Can</td>
<td>60</td>
<td>56</td>
</tr>
<tr>
<td>ME</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Africa</td>
<td>56</td>
<td>56</td>
</tr>
<tr>
<td>Lat. Am</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>EU-Eurasia</td>
<td>61</td>
<td>61</td>
</tr>
</tbody>
</table>

Source: GE Age of Gas Outlook update June ‘14

Key Benefits

COMPETITIVENESS → SECURITY - RESILIENCE → SUSTAINABILITY

Natural gas has increasing role in global energy mix

www.ge.com/AgeofGas

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Why natural gas? … China’s environmental targets

Urgent need for efficiency gains and pollution reductions

<table>
<thead>
<tr>
<th>CO₂ Intensity of GDP</th>
<th>Energy Intensity of GDP</th>
<th>Air Pollution NOₓ, SO₂ &amp; PM₂.₅</th>
<th>Coal use in North Coastal China</th>
</tr>
</thead>
<tbody>
<tr>
<td>45%</td>
<td>16%</td>
<td>~10%</td>
<td>~14%</td>
</tr>
<tr>
<td>2020</td>
<td>2015</td>
<td>2015</td>
<td>2017</td>
</tr>
</tbody>
</table>

Sources: China 12th five year plan, Morgan Stanley Asia Research

Natural gas is critical to achieve goals…
What is … China’s Age of Gas?

Making progress on supply … creates opportunity for growth

Supply diversity increasing

1. ✓ Caspian pipeline deals
2. ✓ LNG capacity increases
3. ✓ Gas price reform
4. ✓ Russia pipeline deals
5. □ Expand Shale development

Natural gas % share primary energy

- Actual
- GE “Age of Gas” Outlook
- Gov’t targets

Sources: GE strategy and Analytics 2013, IEA, China 12th FYP

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Lessons from North America

Upstream

Learning by doing …
✓ Innovation – exploration
✓ Development

Standardization is difficult because each basin/well is different

Competitive industry structure
+ Fast scale up
+ Rapid investment
- Coordination issues & constraints

Midstream & downstream

Integrating infrastructures
✓ Gas with renewable energy
✓ Gas for transportation

Gas network evolution

Developing Phase: Point-to-point
+
Pipeline
+ LNG
+ CNG

Growth Phase: Hub-and-spoke

Mature phase:

Multiple Networks

Source: GE Global Strategy & Analytics “Age of Gas” 2013

COGA: Gas Networks 8/7/14

Combine entrepreneurial activity with strategic planning
Where GE is driving innovation

- Reduced Environmental Impact
- Efficient and Optimized Operations
- Improved Resource Recovery
- Monetization and Network Reliability
- Partnering, Collaboration, and Policy

Diesel Replacement
Water Management
Fugitive Emissions
Controls & Inspection
Electrification
Fueling the future of Bakkan shale operations

Last Mile™ fueling solution

Natural gas expertise and solutions, capital and commercial investment

Energy services, expertise in supply and delivery of cryogenic products (CNG/LNG)

Reliable, fully-integrated natural gas fueling solution for E&P

Source: GE-Ferus
Supporting shale development in China
Shale field – Distributed power

Waukesha VHP rich gas engines
China’s leading drill rig manufacturer

Unmatched fuel flexibility, reduces diesel use

Source: Images Antero Resources, West Virginia
Source: GE Distributed Power
Supporting shale development in China
Small scale LNG from flare capture to transportation

Total LNG solution

Operating Installations

- 11 plants in operation
- China, U.S., Others
- 13 plants being built
- enCryo JV in China

A leading gas system engineer in China

Strategic MOU

- MOU for 8 LNG plants
- Diesel replacement for long-haul buses / trucks
- Support unconventional gas for LNG market

Diversifying gas supply to improve gas usage efficiency
How to support gas industry development

Five areas of focus

1. Gov’t policy
   Balancing incentives with competitiveness

2. Unleash the innovators
   Create space for experimentation and new technology

3. Keep it clean
   Culture of continuous improvement

4. Expand gas networks
   Linking infrastructure and expand access for efficiency and resilience

5. Build the service systems
   Develop talent to sustain growth
Thank you for participating today and in the important oil & gas conversation