The rise of the “International National Oil Companies”
and their challenge to International Oil Companies

Jonathan Green
Director, New Ventures & Strategic Consulting Practice
IHS Consulting
UK/Switzerland

This presentation seeks to illustrate the significant rise of the “international national oil company” in the world’s exploration and production business and to highlight the challenges to the traditional international oil companies as state companies go global in their search for new oil and gas reserves. In doing so, it is hoped that some insight will be provided to the pipeline industry as its embraces the challenges of this new business environment.

Not since the early 1980s has the national resource holder had such a significant impact on the upstream oil and gas industry. The high oil and gas prices of the last three years and the resulting renewed enthusiasm for major investment in both production and exploration have moved the balance of power back to the supply side of the equation. Coupled with this is the paucity of quality upstream investment opportunities; an over-supply of funds generated from increased production revenues; political unrest or embargos in some major producing countries; a perception of tightening supply and demand balance and an ever increasing world demand for hydrocarbons. As if this is not sufficient to generate serious concerns in the board rooms of the world’s major oil and gas companies, there is also a recent trend of hydrocarbon nationalism in some of the key producing countries. Finally, a number of major hydrocarbon countries are seeing their reserves decline as their domestic demand rapidly rises, which is encouraging their state-owned oil companies to look to invest abroad to ensure their long-term survival and to build strategic energy supplies.

Perhaps the single biggest novelty in what could otherwise be considered yet another wave in the eternally cyclical oil business is the realisation by many producer countries that they are now able to feast at the same table as the traditional publicly traded major oil companies. The national oil and gas companies of many of these countries have developed the technical and commercial competence to leave the privileged safe haven of their home
country to compete abroad. What is more, most if not all of these “international” national oil companies have understood the significant competitive advantage that can be had in using their government to promote their interests; in leveraging domestic assets to gain access to foreign assets; and in exploiting the empathy created from cultural ties and from their status of state-owned enterprise when partnering with their peers abroad.
The rise of the “International National Oil Companies” and their challenge to traditional International Oil Companies

Plenary Session “World Pipeline Outlook”
3rd PIPELINE TECHNOLOGY CONFERENCE 2008
HANNOVER MESSE 2008
21 - 23 April 2008

Presented by

Jonathan Green
Director, New Ventures & Strategic Consulting Practice
IHS Consulting
We exist to aid our customer-partners’ innovative and successful decision-making.

Products and Solutions spanning four areas of information:

- From design engineering to maintenance and disposition
- From material selection to hazardous waste disposal to emissions
- From risk assessment to supporting military operations
- From exploration to consumption

Copyright © 2008 IHS Inc. All Rights Reserved.
Energy Overview

Critical Information: Critical technical and business information for the oil & gas industry, delivered to fit in customers’ workflows

Decision Support Tools: Leveraging our Critical Information to allow customers to perform technical and commercial analysis

Consulting Services: Leveraging Critical Information and Decision Support Tools to help customers make informed decisions on strategic and tactical investments

Strategic Research: serving the energy industry bringing unique and early insight into global energy trends and their impact on our customers
The rise of NOCs and their challenge to international oil and gas companies
International National Oil Companies (INOCs)

• INOCs are a force to be reckoned with
• Their strategy has been rapid expansion, when will this stop?
• INOC identity crisis – are they so different from the rest?
• What lies ahead for the INOCs?
National Oil Company – International Oil Company business in the news

• Putin adds support to Lukoil CEO’s talks with Iraq for West Qurna 2
  “Our companies are ready to increase their input into reconstruction and modernization of Iraqi infrastructure, first of all in the energy and oil and gas spheres” President Putin

• Arrest of TNK-BP employee may be linked to Gazprom’s desire for stake in company
  “Speculation was already rife ... some analysts suggesting it could be a move by Russian authorities to increase pressure on TNK-BP’s Russian shareholders to sell their 50% stake to state-owned Gazprom... others going as far as to consider the BP stake also to be targeted”...
  “Gazprom and TNK-BP are currently negotiating the transfer of TNK-BP’s 62.98% stake in Rusia Petroleum, owner of the Kovykta gas field in East Siberia, following pressure from the Russian authorities to withdraw the license as a result of the operator’s failure to attain production levels set by the license agreement.”

• Japan’s METI & Rosneft sign MoU on Siberia development JVs
  “The Ministry of Economy, Trade and Industry has signed a memorandum of understanding with Russian state-run Rosneft for the joint development of upstream and downstream oil and gas projects focusing on Eastern Siberia.”
NOC – IOC business in the news

• Competition for energy is the UK’s principal threat 20 March 2008
  “Britain’s first National Security Strategy portrays increasing competition for energy supplies as one of the principal future threats to the country, warning that Russia and China have put control of energy supply at the top of their foreign policies.”

• Algeria’s Sonatrach acquires a 20% stake from Total in Mauritania 20 March 2008
  “Total said it was showing its commitment to establishing a strategic partnership with Sonatrach both in Algeria and elsewhere.”

• PetroVietnam to explore Danan block, Iran 13 March 2008
  “National Iranian Oil Company and Vietnam’s state-owned PetroVietnam have signed an exploration contract for the onshore Danan block worth $115 million”

• Shell’s 2007 reserves figures hearten investors 18 March 2008
  “Shell hopes to develop more than 20 potential new projects that could yield 800,000 million boe/d from 6 billion boe of discovered resources. The company identified North American heavy oil and tight gas, and LNG in Australia as being particularly important.”
NOC – IOC business in the news

• Abu Dhabi’s TAQA in talks to acquire Shell and ExxonMobil North Sea assets 17 March 2008
  “The Abu Dhabi National Energy Company, majority owned by the Emirate of Abu Dhabi, announced that it is in exclusive negotiations with Shell and Exxon-Mobil to buy their interests in the Tern, Eider, Cormorant North, South Cormorant fields and infrastructure.
  In recent years, the company has expanded out of its core business of power generation and is building a diverse portfolio of upstream investments in the Middle East, Asia, North Africa, Europe and North America. In 2007 it took over management of BP’s Netherlands gas upstream assets”

• Abu Dhabi’s IPIC signs cooperation agreement with Occidental 11 March 2008
  “Occidental Petroleum and OPIC have signed an agreement calling for joint participation in “hydrocarbon-related” investments. The US company stated that future projects would include upstream and downstream ventures both within and outside the Middle East.”

• Oman acquires 8% of MOL’s stock for $1.28 billion in cash and assets 11 March 2008
  “The companies have also agreed on jointly developing ‘future business opportunities as strategic partners’ ...’This strategic co-operation will provide MOL significant growth potential in upstream and downstream businesses in the Middle-East, Central Asia and other regions.”
NOC – IOC business in the news

• **Iran aims to wrap CNOOC Pars Deal Worth $16 Billion** 26 Feb 2008

  “Iran hopes to finalise a deal with China National Offshore Oil Corporation (CNOOC) by the end of March to develop the country's North Pars gas field. Iran plans to export the northern Pars production in the form of liquefied natural gas (LNG).’

  ‘The US, which is leading international efforts to isolate Tehran over its atomic activities, has sought to discourage international companies from investing in one of the world's largest oil exporters.’

  ‘But fast-growing China has in recent years expanded commercial ties with the Islamic Republic and has been reluctant to impose tough economic sanctions on Tehran. Iran is China's third-largest supplier of oil.”

• **Dubai World Sets Up Venture For Foreign Oil, Gas Buys** 27 March 2008

  “Dubai-government funded investment company Dubai World has discreetly set up a venture for petroleum acquisitions abroad... With plenty of cash after three years of soaring oil revenue, they are also spending abroad in a bid to diversify their investment portfolios and to gain further access to advanced technology and know-how. The Dubai government already has an international oil investment arm, Dubai Energy.”
Global Fundamentals and the Changing Role of NOC’s

- NOC’s* control 93% of world remaining resources.

* And Russian private companies

Source: IHS Inc.
The International National Oil Company
National Oil Companies Going International

• NOCs are pushing abroad, but why?
  • Security of energy or primary resource supply
  • Purely commercial
    • Diminishing local investment opportunities
    • Capture market advantages, especially in the gas chain
  • Gaining international experience
  • Exploit abroad partnerships developed at home

• Because everyone else is.......

Copyright © 2008 IHS Inc. All Rights Reserved.
National Oil Company Transaction Value

Source: John S Herold, an IHS company
Latin America – International NOCs 1995

- Petrobras
- Ecopetrol
- PDVSA
- KNOC
- CNPC
- Sinopec
- CNOOC
- Petronas
- ONGC
- Statoil
- Gazprom

5 Countries

- Mexico
- Cuba
- Martinique
- Saint Lucia
- Saint Vincent & Grenadines
- Grenada
- Trinidad & Tobago
- Colombia
- Ecuador
- Peru
- Bolivia
- Brazil
- Argentina
- Martinique
- Saint Lucia
- Saint Vincent & Grenadines
- Grenada
- Trinidad & Tobago
- Colombia
- Ecuador
- Peru
- Bolivia
- Brazil
- Argentina

5 Countries
7 Boyacá (Machete)
9 Junín (Zuata)
7 Ayacucho (Hamaca)
4 Carabobo (Cerro Negro)

Blocks Assigned: 2 Boyacá
4 Junín  4 Ayacucho  1 Carabobo

Source: Modified after PDVSA
The Advantages of an INOC

- Subject to different commercial models
  - Limited short term profit constraints
  - Reserves/production over rate of return
  - Limited regulation
  - Single shareholder
- Part of a bigger government supported commercial picture
  - China investing in the developing world
  - Malaysia investing in the Muslim world
  - E&P operations support diverse service industry
    - Rigs/seismic crews, etc
    - Infrastructure
    - Construction
NOCs Going International

• NOCs are exploiting ethnic or religious affinity in developing world
  • Petronas in Muslim world
  • Petrobras in South America and Mexico
• They go where others fear to tread
  • Limited (but growing) restriction in operating in environmentally sensitive areas
  • Limited shareholder pressure on non-commercial issues
  • Limited (but growing) NGO pressure
  • Limited geopolitical restrictions: Indians/Chinese/Malaysians in Sudan and Burma
The challenges of an INOC

- Some NOCs struggle to improve bureaucracy and training while others become partners of choice
- Uncompetitive employers
  - Losing talent to the IOCs
- Nationalistic rejection
  - Unocal vs China
    - Local popular opposition to massive imports of Chinese labour
- Competition between INOCs is driving asset cost of purchase
- Increasingly limited numbers of good deals
- Growing international exposure & partial listing leading to accountability demands
Spotlight on China – Into Africa
Chinese Foreign Acreage Holdings in Africa

Source: IHS Inc.
Spotlight on China – Into Africa

• Since 1995, five Chinese NOCs signed about 70 E&P contracts in 16 African countries
• Acreage held covers 872,129 sq km (gross) and 646,000 sq km (net)
Spotlight on China – Into Africa

- In 2006 China invested $16 billion globally
  - 32% above 2005.
- Sino-Africa trade $55.5 billion in 2006
  - 40% above 2005.
- China’s largest source of oil imports.

<table>
<thead>
<tr>
<th>Country</th>
<th>Trade ($1 million)</th>
<th>Growth (year-on-year)</th>
<th>Country</th>
<th>Trade ($1 million)</th>
<th>Growth (year-on-year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seychelles</td>
<td>3</td>
<td>88%</td>
<td>Ghana</td>
<td>769</td>
<td>30%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>470</td>
<td>67%</td>
<td>Kenya</td>
<td>475</td>
<td>30%</td>
</tr>
<tr>
<td>Sudan</td>
<td>3,908</td>
<td>55%</td>
<td>Nigeria</td>
<td>2,830</td>
<td>30%</td>
</tr>
<tr>
<td>Republic Congo</td>
<td>2,420</td>
<td>46%</td>
<td>Morocco</td>
<td>1,500</td>
<td>28%</td>
</tr>
<tr>
<td>Angola</td>
<td>6,950</td>
<td>42%</td>
<td>South Africa</td>
<td>7,270</td>
<td>23%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>165</td>
<td>39%</td>
<td>Uganda</td>
<td>100</td>
<td>13%</td>
</tr>
<tr>
<td>Namibia</td>
<td>137</td>
<td>38%</td>
<td>Cameroon</td>
<td>197</td>
<td>-21%</td>
</tr>
<tr>
<td>Egypt</td>
<td>2,145</td>
<td>36%</td>
<td>Liberia</td>
<td>164</td>
<td>-21%</td>
</tr>
<tr>
<td>Zambia</td>
<td>300</td>
<td>35%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Commerce of China
Spotlight on China – Into Africa

• Take long-term, broad-range view of Africa

• Chinese government – commercial relationship.
  • Chinese government plays parental role with high-profile state visits;
  • Companies bear reciprocal corporate obligations to national security of supply

• President & Premier visited Africa 3 times since early last year, visiting 17 countries

• In November 2006, 48 African heads of state attended Forum on China-Africa Cooperation (FOCAC)
  • Established in 2000 to foster dialogue and trade to facilitate common development.
  • China waived debt of $1.4 billion in 31 African countries

• Empathise with developing economies
Spotlight on China – Into Africa

Challenges

• Face resistance in oil producing countries and competition from foreign IOCs
• Many oil producers are heavily westernized
  • Still have preference for IOCs on major capital projects.
  • When agreement cannot be reached with IOCs countries tend to turn to Chinese.
• Chinese improving their image
  • Removing unfavourable local misconceptions concerning expertise, experience, quality, and technology.
What is the future of an International National Oil Company?
Petronas Foreign Acreage Holdings 2000

Source: IHS Inc.
Petrobras Foreign Acreage Holdings 2000

Source: IHS Inc.
ONGC Foreign Acreage Holdings 2000

Source: IHS Inc.
ONGC Foreign Infrastructure Holdings 2007
Chinese Foreign Acreage Holdings 2000

Source: IHS Inc.
Chinese NOCs Foreign Infrastructure Holdings 2007
Gazprom Foreign Acreage Holdings 2000
Gazprom Foreign Acreage Holdings 2000 & 2007
Gazprom Foreign Infrastructure Holdings 2007
So what really is an International National Oil Company?
IOC-International NOC
A blurring of the edges

“[We are] a world-leading integrated energy corporation with businesses covering oil and gas upstream and downstream operations, oilfield services, engineering and construction, petroleum material and equipment manufacturing and supply.”

Values and operating principle
Dynamic, loyal, honest, committed Achieving excellence through innovation and integrity

Company mission
The company is committed to “Caring for Energy, Caring for You”. We strive for harmonious relationships between operation and safety, energy and environment, corporate and community interests, and employers and employees.
We are committed to protecting the environment and saving resources, promoting the research, development and application of environmentally friendly products, fulfilling our responsibilities to society and promoting development that benefits all.
What is an INOC?

• Is the “International NOC” a permanent condition or phase of maturity?

• Statoil and Petrobras the chameleons: NOC or IOC?

• Total SA, OMV, BG, ENI, Repsol-YPF, Petro-Canada were all NOCs
What is an INOC?
The future for International National Oil Companies

- Restructured overseas operations
  - Making strategic changes and optimizing current assets
  - Decentralizing certain decision-making responsibilities and operational responsibilities to regions: CNPC’s Central Asia-Russia, Africa, Americas, Middle East, Asia Pacific
  - Some companies emphasize producing assets over risky exploration
  - Strong impetus for trans-national M&A
  - Building integrated businesses
- Success is driven by improved efficiencies, capabilities, and experience,
- More successful INOCs investing heavily in training – language, technical and corporate
- Gap diminishing between NOCs and IOCs
- INOCs becoming partners of choice
In conclusion

• Not since the 1970s has the importance of the National Oil Company been so great
• Internationalisation of an NOC is a natural evolution
• Ultimately today’s INOCs will loose their “N”
• What next?
  • Greater demands on profitability
  • Rationalisation of current acreage, but when?
  • Greater demands on corporate social responsibility
  • Downstream integration
  • Additional entrants – Citic Resources, Sinochem, Ecopetrol, Sonangol, Petro SA?......
Thank you

Presented by

Jonathan Green
Director, New Ventures & Strategic Consulting Practice
IHS Consulting