Session 2: Experiences and views of market players

2A: Views on demand: Operators in offshore oil development

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World demand 2014: 92.4mb/d the smallest annual increase in five years

Ample supply from non-OPEC countries: US production over 9 mb/d

OPEC production over its 30 mb/d allocation

Large disequilibrium oil supply/demand balance

Crude oil price falling back to 2010 levels

In this context, what future for Offshore Development

Sources: IFPEN, Argus, IEA
Offshore Oil & Gas developments

- Offshore Oil & Gas Reserves
  - Offshore contribution to world hydrocarbons reserves
- Recent Exploration Activity
  - Most Promising Zones
- Current and Future Offshore Activity
- Exploration & Production Investment – Past and Future trends
Oil and Gas Reserves 2013: 3037 Gboe

ME, LA, NA: 78% of Oil Reserves – ME, CIS, FE: 75% of Gas Reserves

Sources: IFPEN, IHS
Oil & Gas Offshore Reserves
901 Gboe: 30% of World Reserves

Oil Offshore: ME, LA, Sub AF: 75% / Gas Offshore: ME, FE, CIS: 75%

Region | Oil Gboe | Gas Gboe | Total Gboe
--- | --- | --- | ---
Australasia | 5 | 35 | 39
C.I.S. | 28 | 60 | 88
Europe | 20 | 29 | 49
Far East | 20 | 57 | 76
Latin America | 84 | 30 | 114
Middle East | 114 | 297 | 411
North America | 7 | 3 | 9
Saharan Africa | 4 | 14 | 18
Sub-Saharan Africa | 45 | 51 | 96
World | 325 | 576 | 901

Sources: IFPEN, IHS
Offshore holds today about 20% of oil reserves and 45% of gas reserves.

Current tendency is:
- small discoveries onshore,
- large discoveries in the deep to ultra deep-offshore and mainly natural gas.

Sources: IFPEN, IHS
Oil & Gas recent exploration activity

New discoveries mainly in deep offshore...

Number of discoveries announced 152 (2014) vs. 177 (2013)

- Smaller discoveries onshore
- Giant fields discovered offshore
- DEEP and L’ULTRA-DEEP OFFSHORE: strategic zones for Oil & Gas companies but exploration remains very capital intensive
Exploration
Today’s Most Promising Zones

- **ONSHORE**
  - Irak and Iran
  - China (mainly for non conventional hydrocarbons)

- **OFFSHORE**
  - Reevaluation of existing zones (ex.: North Sea)

- **DEEP OFFSHORE**
  - Brazil and West Africa continental margin (« subsalt »)
  - East Africa (Mozambique, Tanzanie)
  - Many other opportunities
    - Mexican Gulf
    - Mediterranean.
    - Australia.

- **ARCTIC**
ARCTIC
Oil & Gas Potential

PROVED RESERVED
- Limited potential – Mainly western Siberia
  - Oil: 84 Gboe
  - Gas: 54 Tcm (318 Gboe)
- More Gas than Oil
- Complex and diversified regions: mountains, ultradeep offshore, ...

YET TO FIND
- Difficult to assess as very limited exploration
- Not so big: between 62 Mbep (TOTAL) and 412 Mbep (USGS).

Oil offshore production: 21.5 mb/d. About 26% of world production in decline since 2010 as activity in main zones reduced: Europe, Middle East, Africa, North America.

Though offshore projects have recently experienced a slowdown in investment levels, this decline is part of a natural cycle, and activity levels are expected to increase again. Both Deepwater and Ultradeepwater are necessary to develop in order to meet our demand outlook.

Perspectives: Rebound in production likely as onshore will continue to decline (Offshore developed by IOC vs. NOC onshore)

Sources: IFPEN, IHS, Rystad
Gas offshore production: 90 Bcfd

About 26% of world production in slight decline since 2010 as activity in main zones is reduced: Middle East, Europe, North America

Perspectives: rebound in offshore production likely to reach 30% of total production by 2025

Sources: IFPEN, IHS, Rystad
Past few years saw a rapid increase in upstream costs (capital and operating cost)

Many projects are vulnerable to an oil price drop below US$80/bbl (Brent).

Around one-third of these new projects - amounting to about 3.5 million b/d in 2020 - could be at risk

Sources: IFPEN, Wood Mackenzie
Offshore and Onshore drilling Market

Offshore market: in 2013, activity increasing in all regions
- Number of offshore wells: +10% in 2013 (mainly in GoM, AS and AF)
- Slowdown expected in NA and mainly in LA (Brazil – financing issues).
  - Main activity to be located in AF, Australia, India.
- Offshore drilling market increasing by 14% in 2013 to 56 G$
  - In 2014, should reach 61 G$ (+10%)

Turnover 2013 +6%
  - Onshore drilling: +1%
  - Offshore drilling: +14%
  - Fracturation: -4% (x2 since 2008)

Turnover 2014 +6%
  - Onshore drilling: +3%
  - Offshore drilling: +10%
  - Fracturation: +5%

Turnover 2015 +5%

Sources: IFPEN, Baker Hughes, Spears
Offshore platform construction activity and market

- Project Complexity for deep and ultra deep offshore
- No standardization
- Local content requirement in some countries
- Large project delayed or cancelled

**Turnover 2013** +7%
- Const. offshore 2%
- Equipment subsea 20%
- Services prod. offshore 5%

**Estimation 2014** +5%

**Forecast 2015** +3%

**Construction Sector mi-2014**
- FPS/FPSO: -10%,
- Subsea stable
- Jackups drilling rigs +15%,
- Semisubs drilling rigs +17%,
- Drilling ships -14%

-8 à -10% for constructions without future contract

Sources: IFPEN, Baker Hughes, Spears
Overall Exploration
and Production Investment

- Oil industry is known for cyclicalities
- In 2015, total E&P investment still increasing but at moderate rate (+4%)
- Majors: stabilize or even decline slightly
- Investment in EU expected to drop significantly

- NOC and independents keep on investing
- US activity remains high (shales)
- Offshore investment somewhat less impacted
- Given world’s need for oil, exploration and production market is ready to ramp up again to reach new records
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