

Global LNG Supply Outlook

Marie-Françoise Chabrelie
CEDIGAZ



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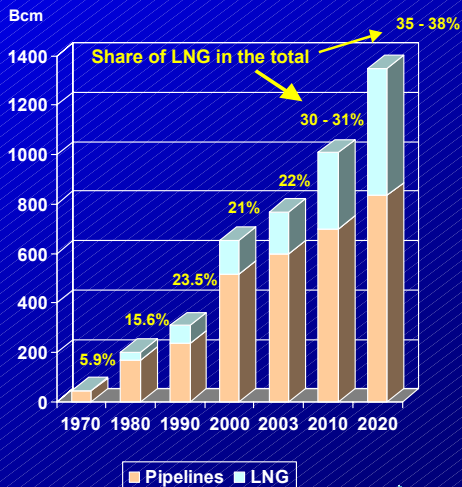
The growing role of international gas trade

**World gas expansion
2003 - 2020**

→ **World demand:
+2 - 2.5%/year**

→ **International trade:
+3 - 3.5%/year**

↻ **LNG flows: +6.5 - 7%/year**



Bcm: Billion cubic meters

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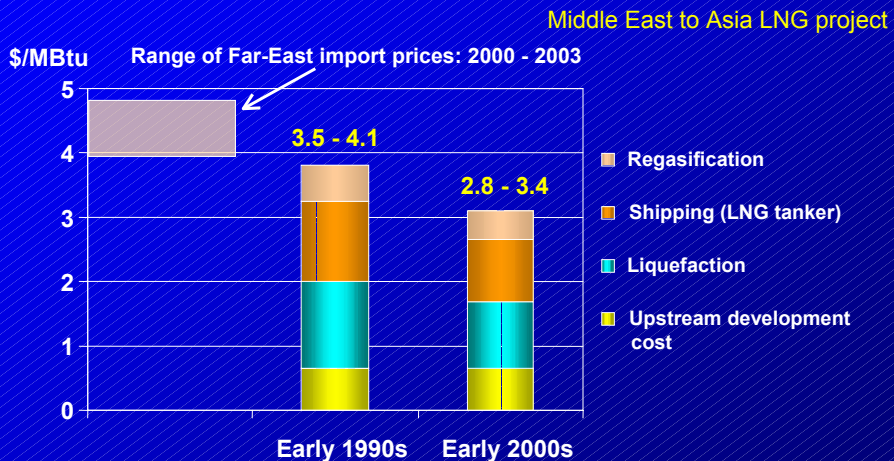
Key drivers underpin LNG potential for growth

- The liberalisation of the electric and gas sectors opens the way to a new market design in which the number of players is growing.
- The search for more flexibility and the diversification of supply sources.
- The limits of the pipeline option, sometimes even on rather short distances.
- LNG becomes the privileged energy of the power sector and its players.

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Cost reductions and improved competitiveness in the LNG chain



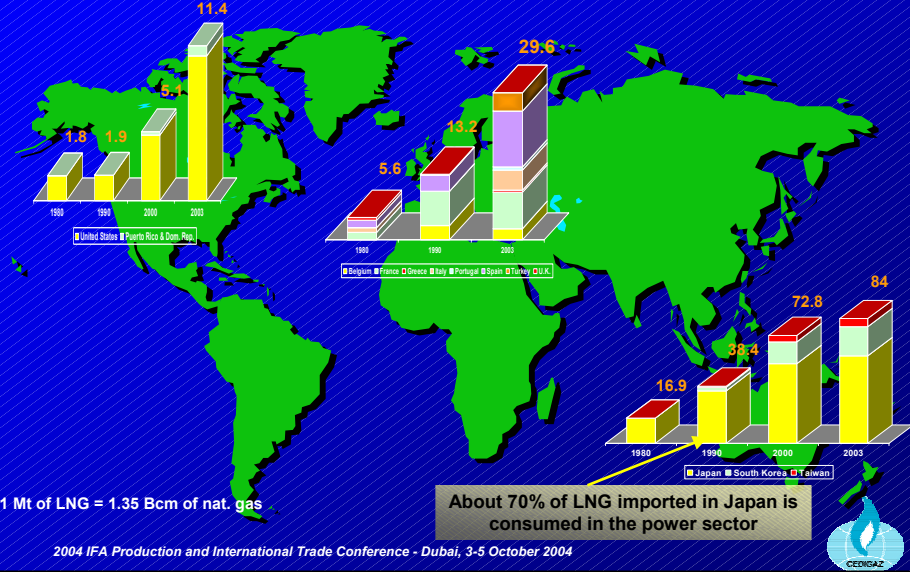
Source: Total, Gaz de France, CEDIGAZ, WEC 2001

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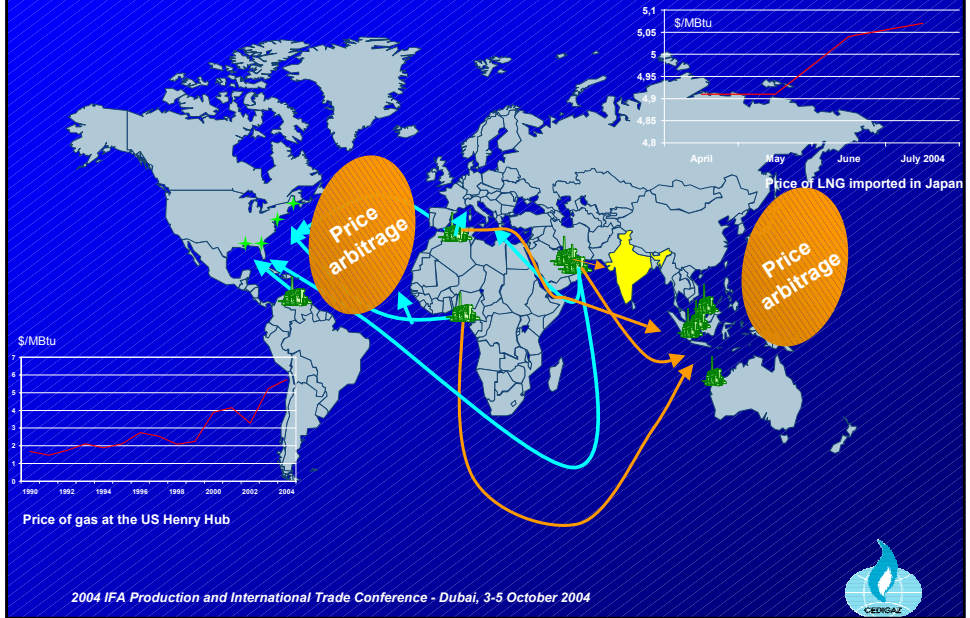


LNG markets: Asia, Europe, United States

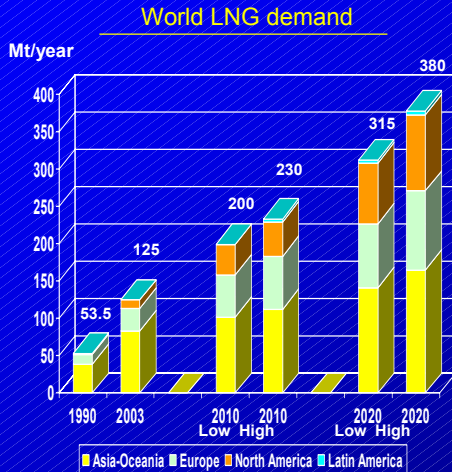
Unit: Mt/year



Recent developments and trends in 2004



Strong growth prospects on all the markets



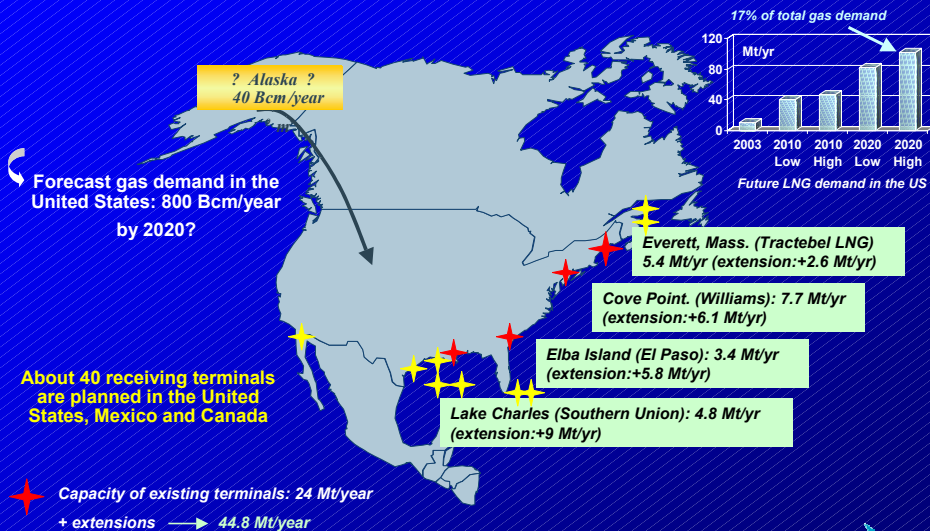
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Main driver: The power sector

- **Traditional and recent markets:**
 - sustained growth
- **The come-back of «old» markets to the scene:**
 - high growth anticipated in the United States and in the United Kingdom.
- **Emerging markets:** promising prospects in Asia (China, Singapore,...), Latin America,...



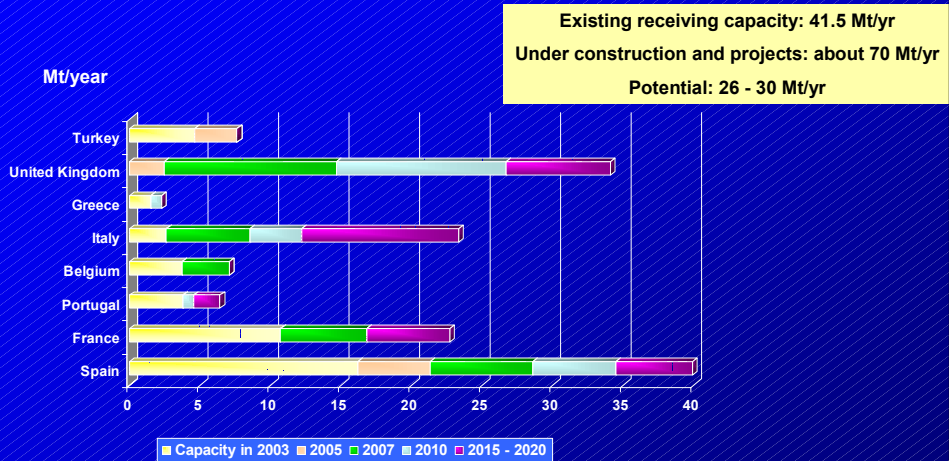
Future LNG demand in the United States: Impact on world supply



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LNG: A masterpiece on the European gas scene

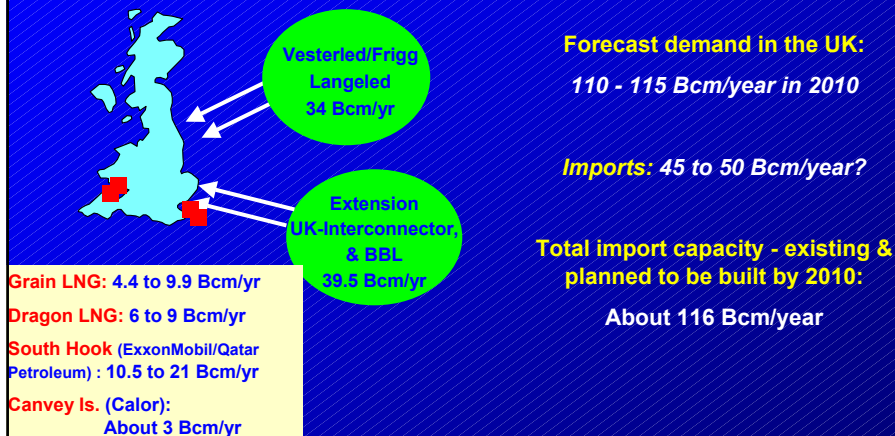


Dormant projects (Germany - Wilhemshaven, Poland)

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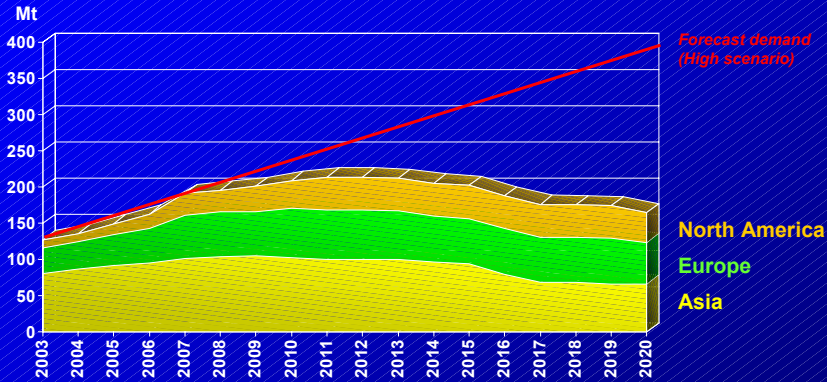
Pipeline versus LNG: Competition The British case



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World LNG demand outlook versus contracted quantities*



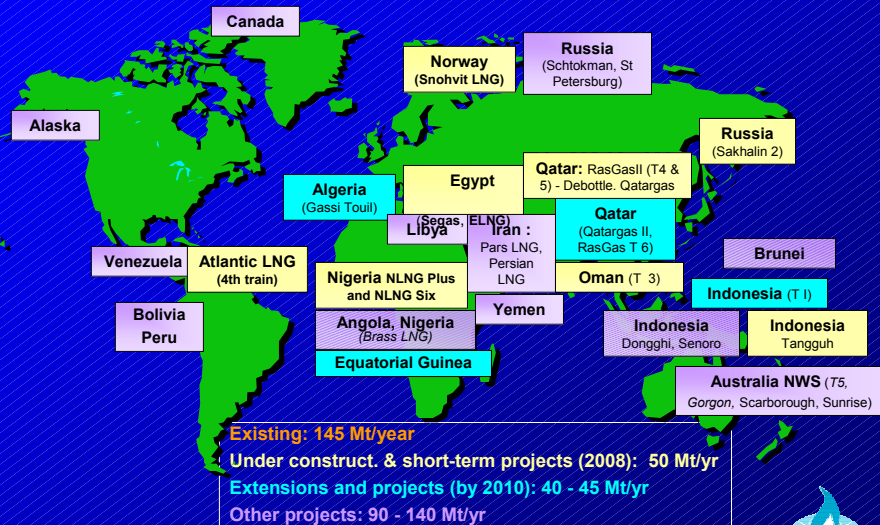
Firm contracts and HoA

In this scenario, most of the contracts due to expire after 2010 have been extended.

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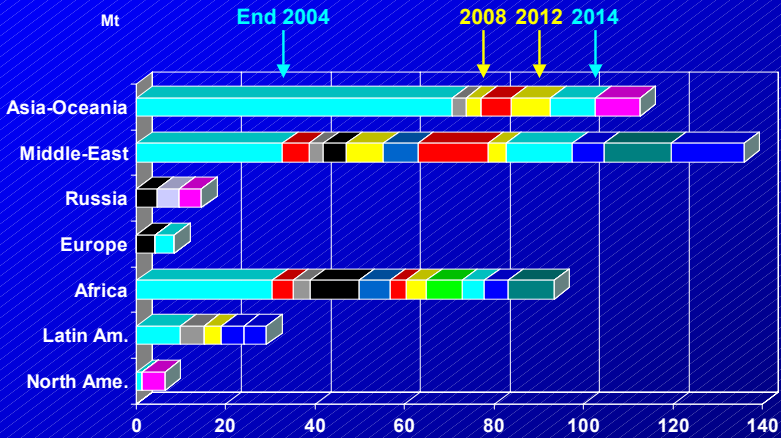
LNG supply: Additional capacities in the short-term and a plethora of projects



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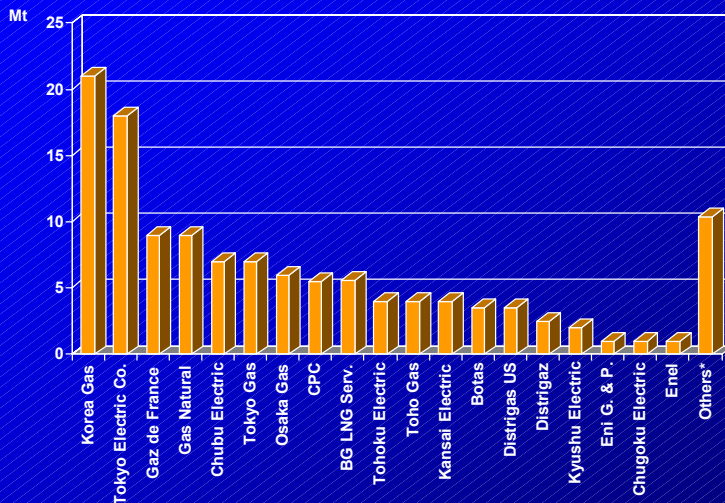
2020: About 40% of liquefaction capacities will be located in the Middle-East?



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LNG imports by company in 2003



* Less than 1 Mt

Source of data: companies, GIIGNL, Cedigaz

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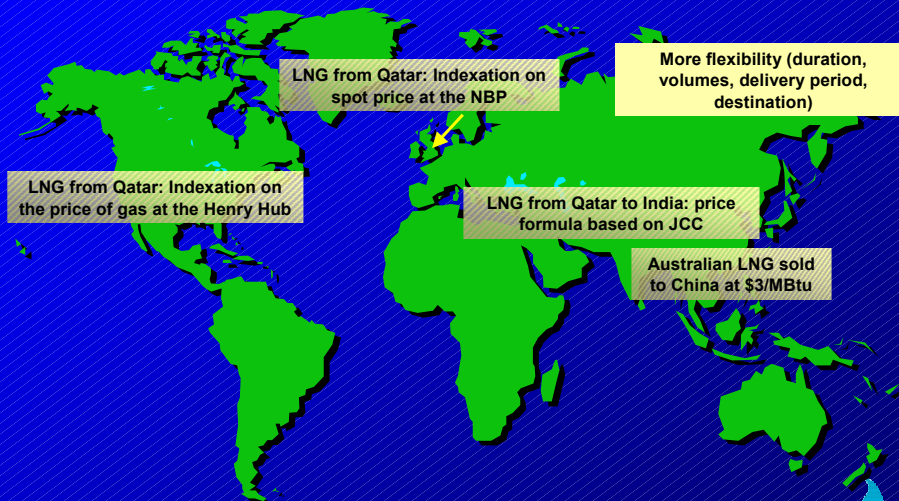
Companies strategies: Strong positioning on the LNG chain

- Major international oil companies are active on the overall chain.
- Power companies take stakes in the liquefaction plants (Union Fenosa in Oman, Egypt), possess their methane tanker fleet and build regasification terminals (Union Fenosa, Iberdrola, Endesa, Enel, Edison).
- Gas companies invest in liquefaction (Gaz de France in Egypt and Norway, BG in Egypt,..) and in shipping (Tokyo Gas).
- Producers look for a direct access to the markets and purchase assets worldwide:
 - → Capacity reservation and participation in the receiving terminals: Sonatrach (Grain LNG in the United Kingdom, Reganosa in Spain), Statoil in the United States, Petronas (Dragon LNG), Qatar Petroleum (Zeebrugge, South Hook).

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Prices and contracts: Recent evolutions



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Conclusion

- Flexibility and diversification of supply sources are undeniably major assets for the LNG option.
- The rapid and substantial development of flows will necessitate that huge investments are made at all stages of the chain.
- Projects are many but some of them involve major technological challenges. Should demand for LNG grow according to plans, supply will very likely be tight in some periods.
- Close co-operation among actors will accordingly remain a key element for the promising future, which is anticipated for LNG, to materialize.

