“Three pillars of the golden age of natural gas”

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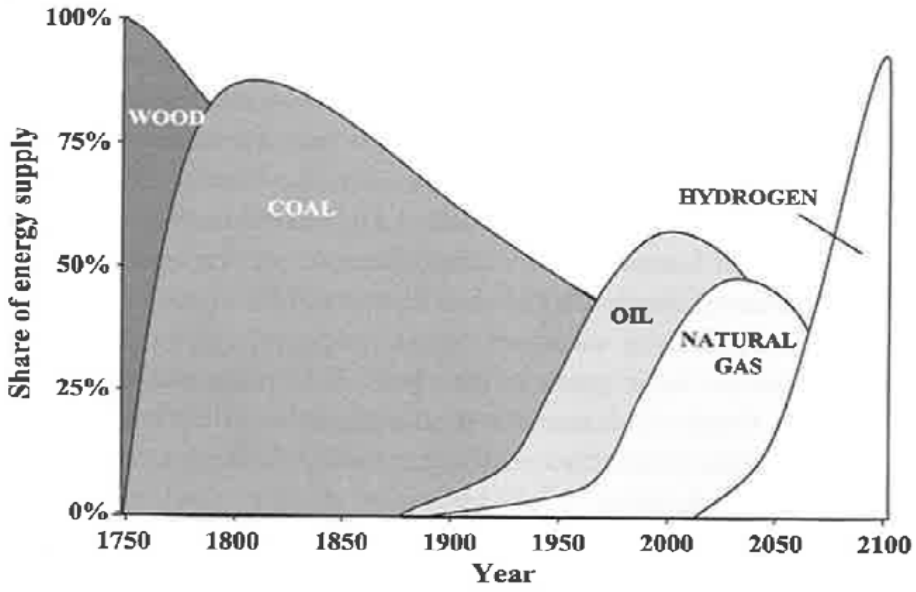
Outline

- Evolution of global energy system
- The arguments in favour of natural gas
- The three pillars
  - Availability of gas
  - Transportation of gas
  - Significant investments
- Legal framework to support and maintain the golden era of natural gas

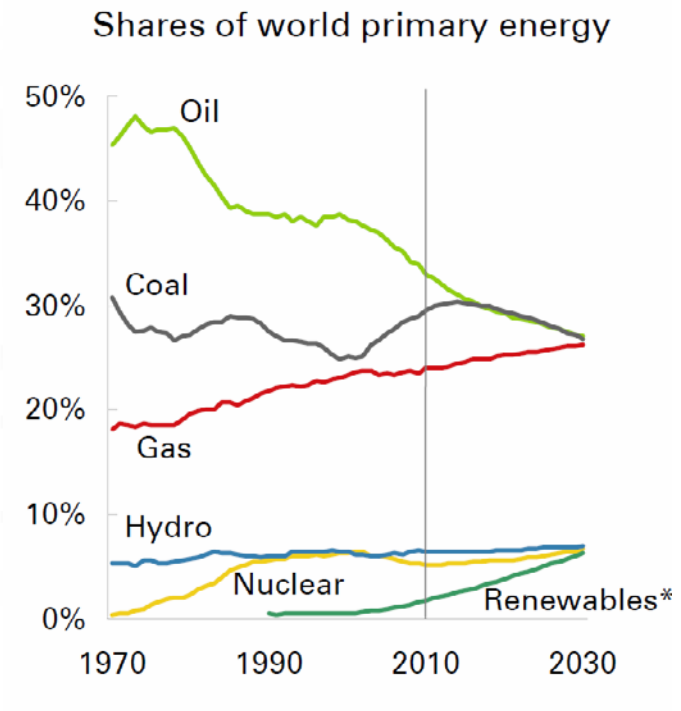
Trends of dominant energy forms

1750-2100



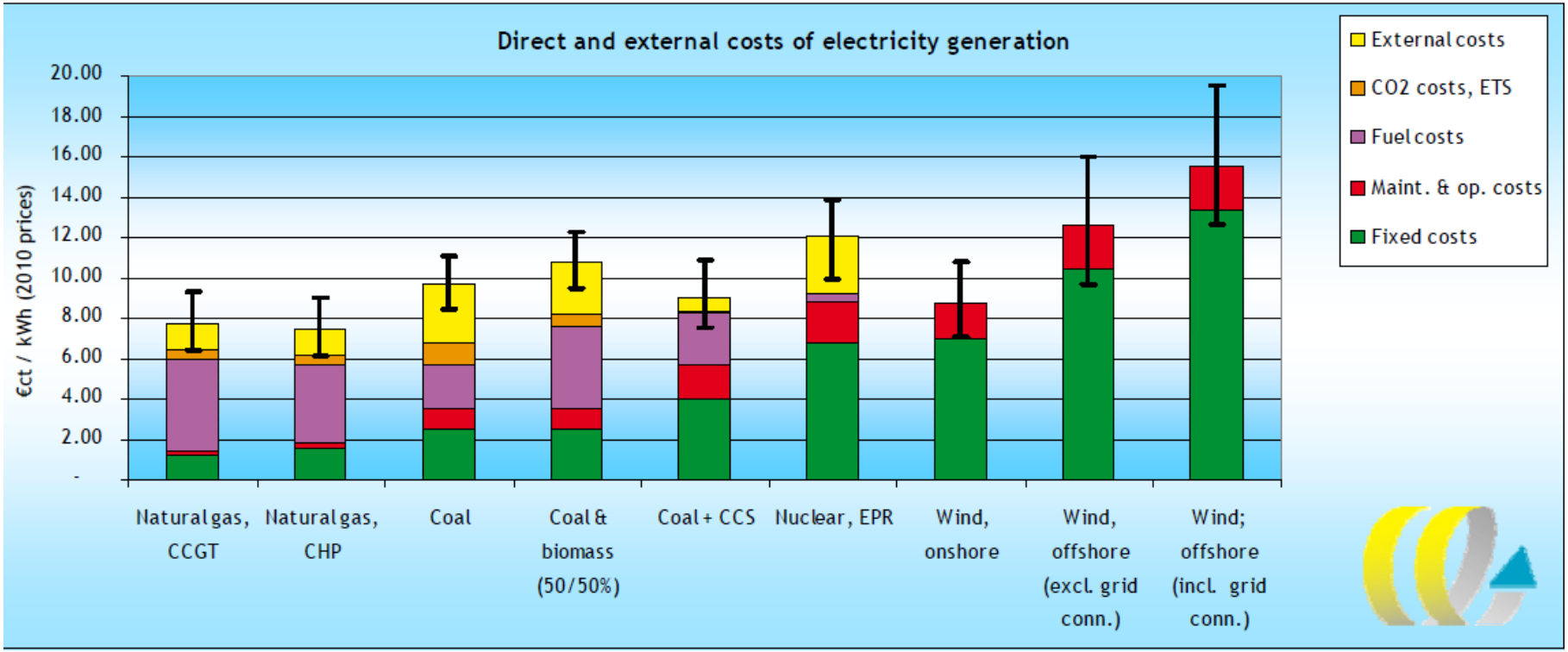
Source: Jaccard, Sustainable Fossil Fuels

1970-2030



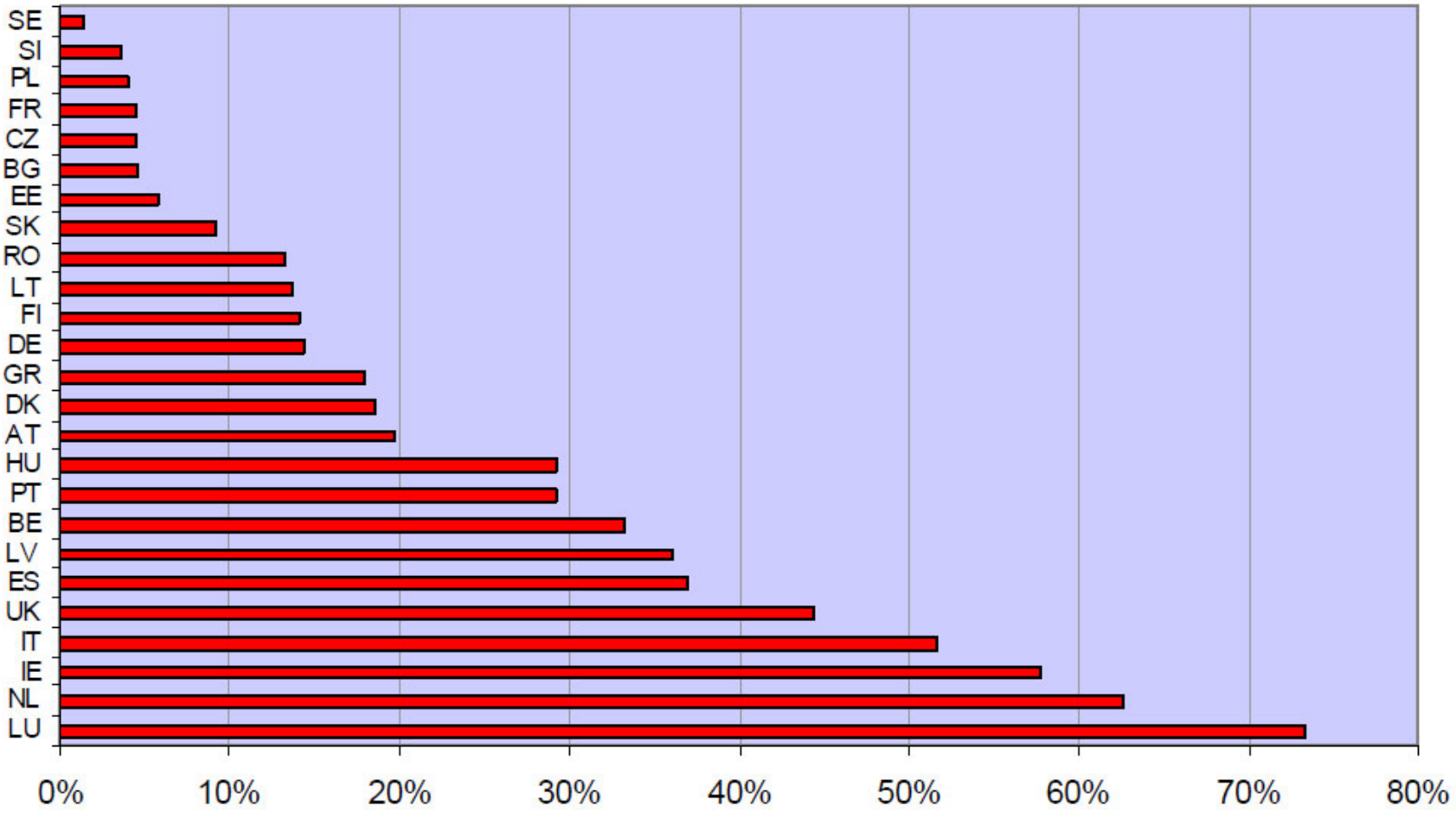
Source: BP, Energy Outlook 2030

Costs of electricity generation



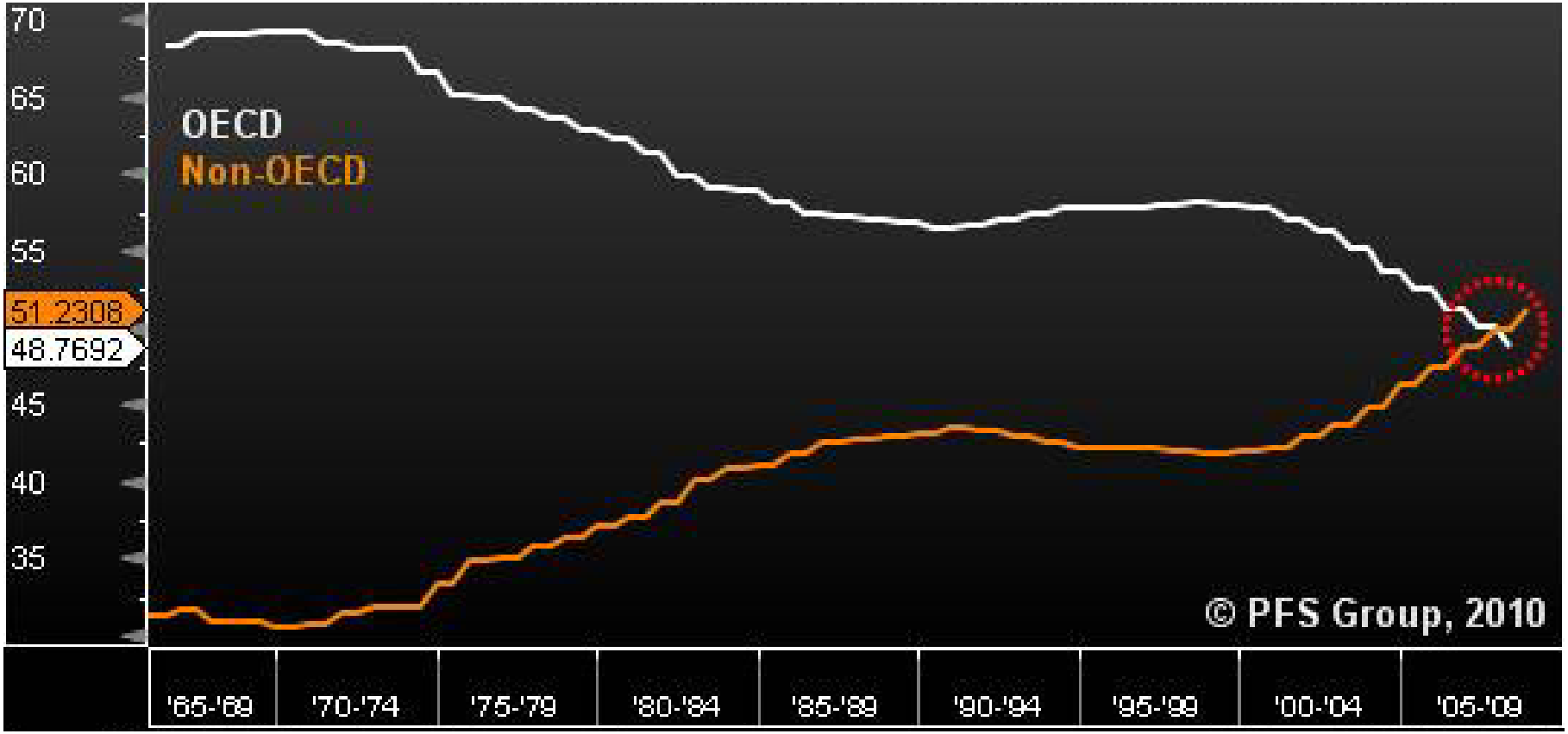
Source: Study on Nuclear energy: the difference between costs and prices, July 2011

Share of gas in electricity generation in EU27, 2009 (%)



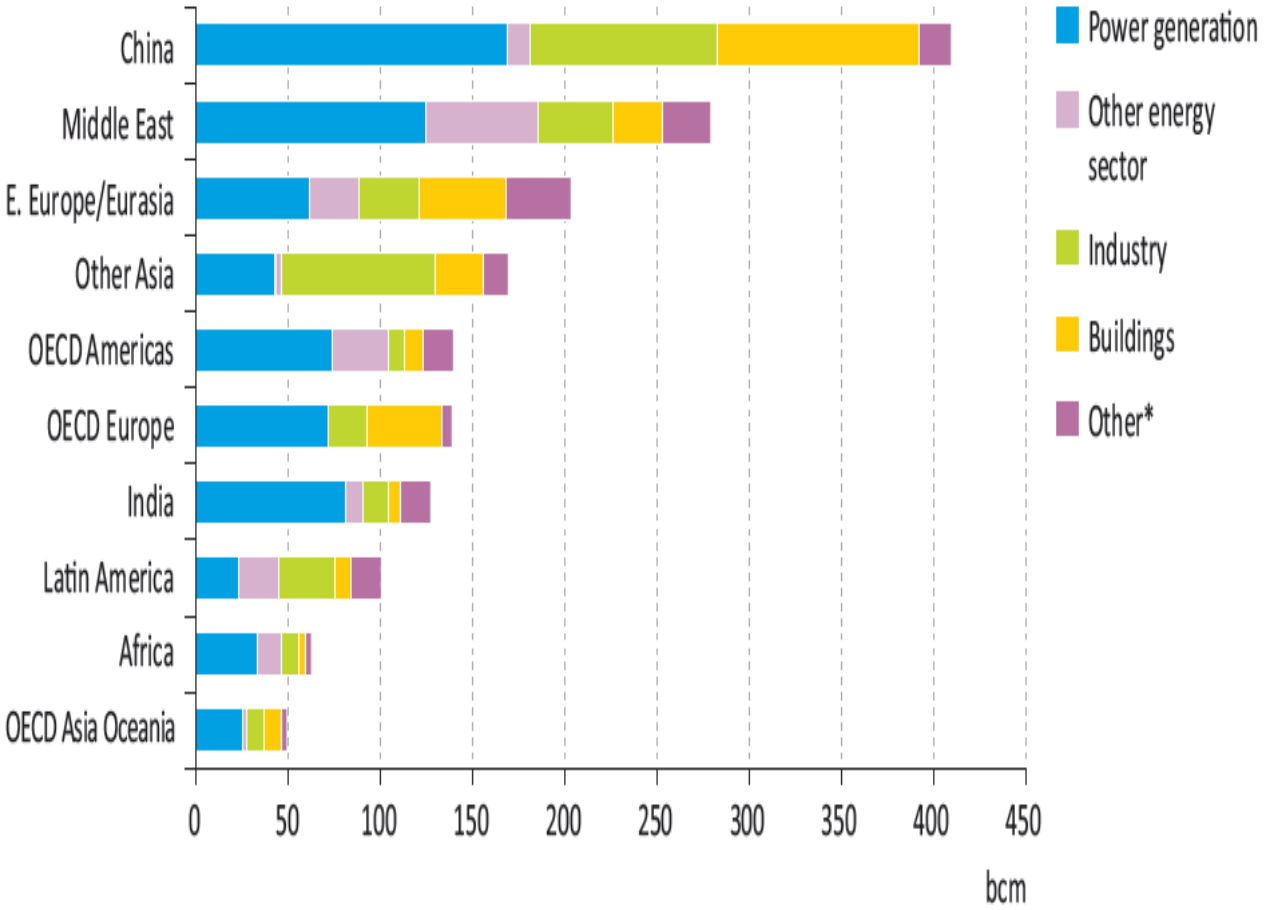
Source: Eurostat, May 2011

Share of world total energy consumption (%)



Source: Bloomberg Finance L.P., January 2010

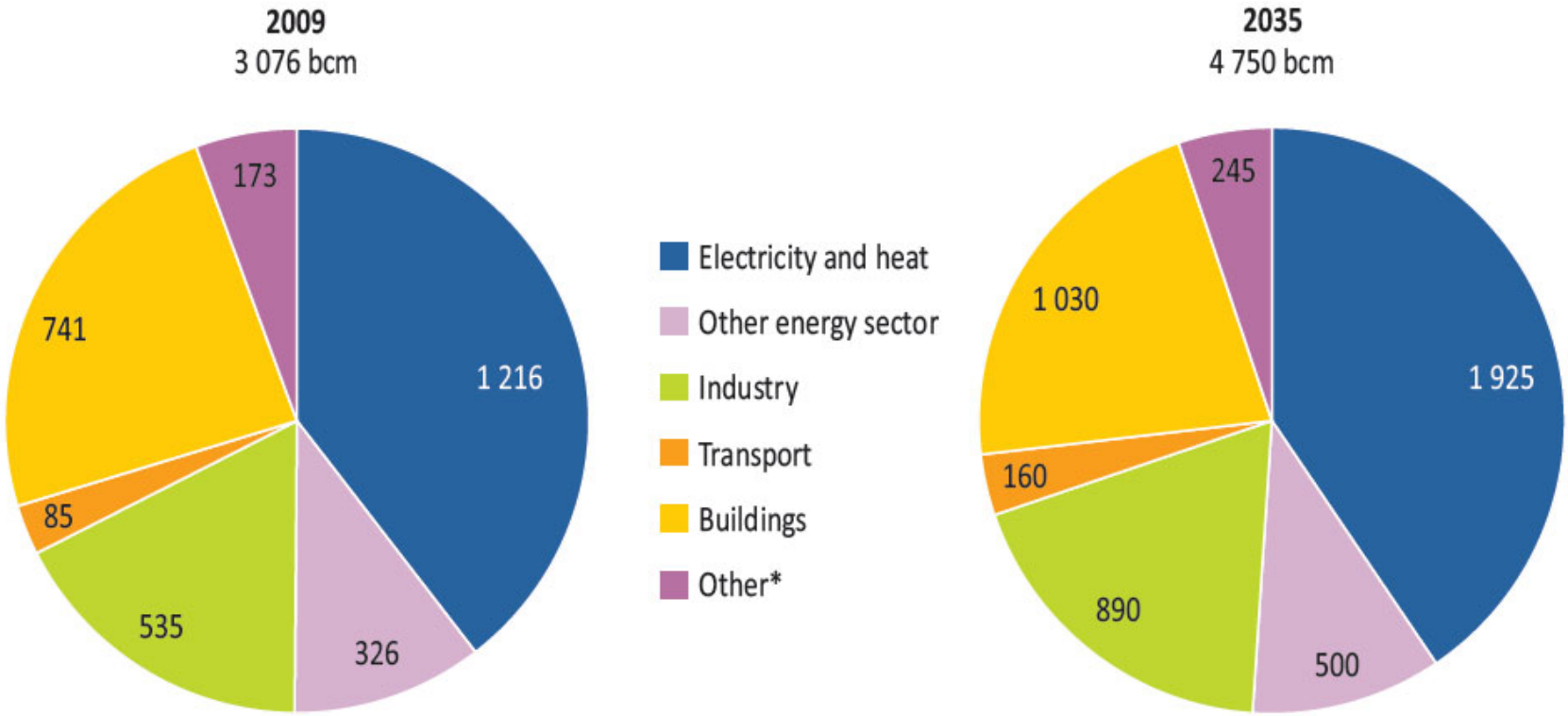
Incremental primary natural gas demand by regions



*Includes agriculture, transport and non-energy use.

Source: IEA, New Policies Scenario, 2009-2035

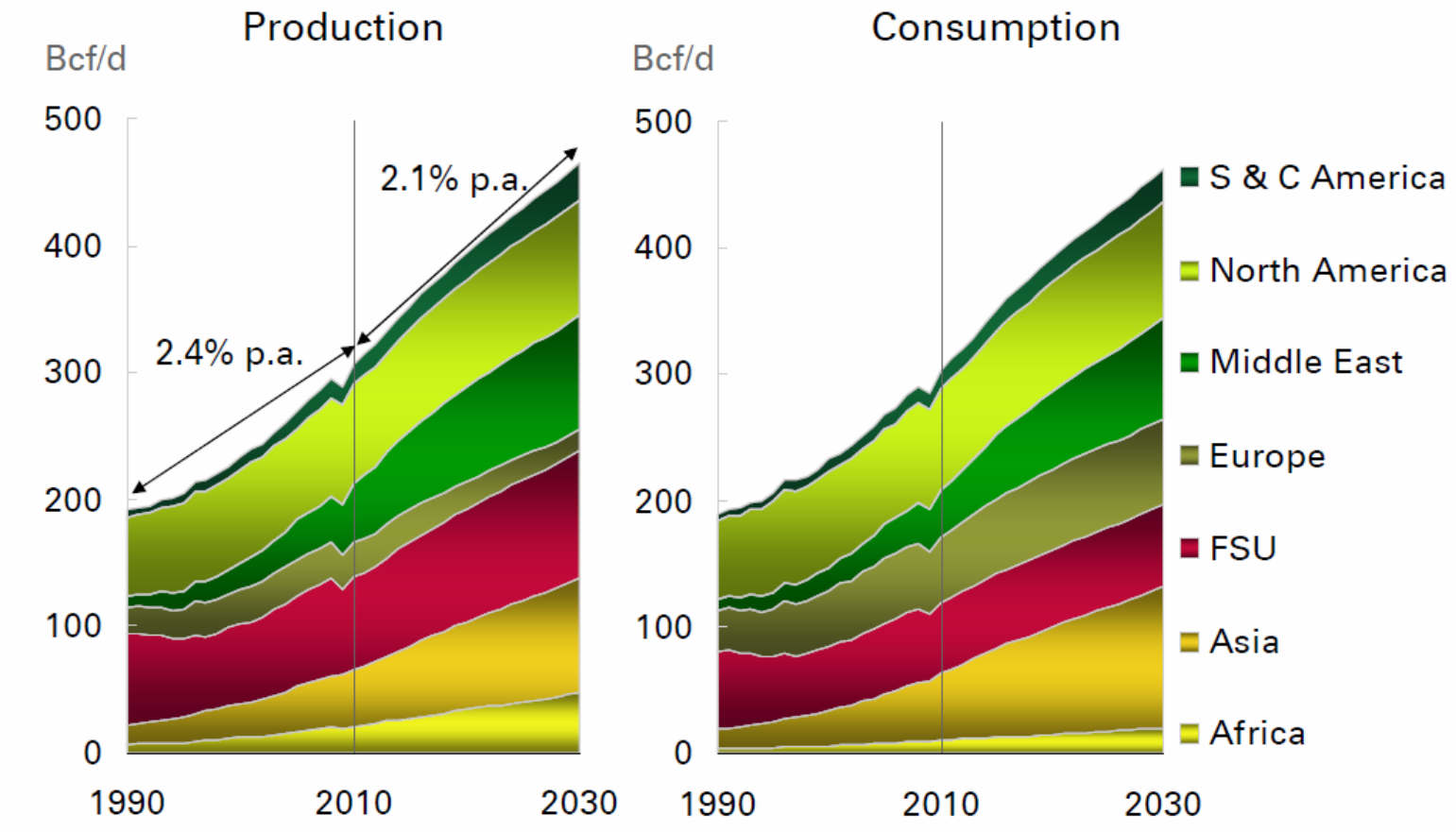
Primary natural gas demand by sector



*Includes agriculture and non-energy use.

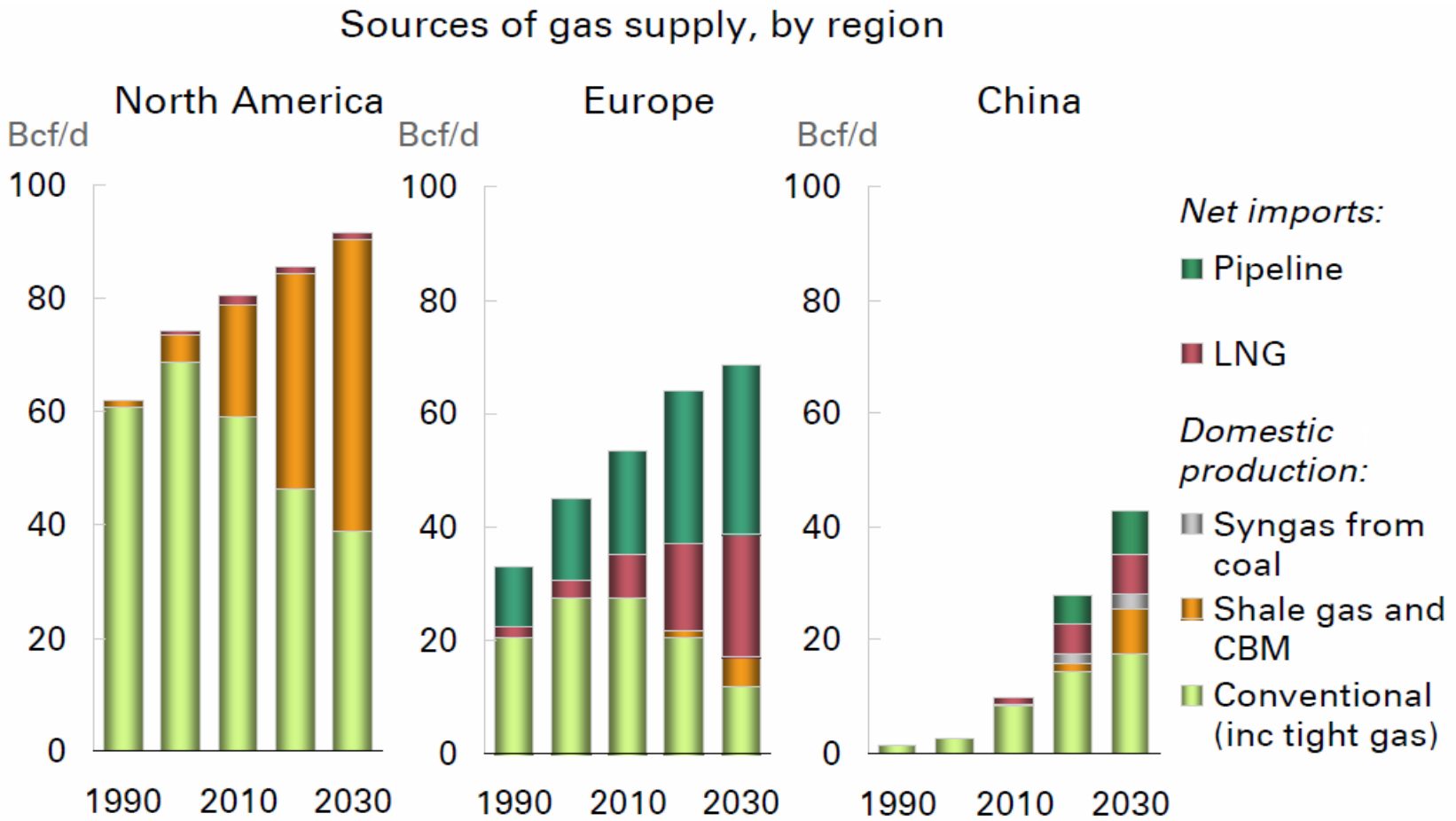
Source: IEA, New Policies Scenario, 2009-2035

Gas consumption and production



Source: BP, Energy Outlook 2030

Growing role of unconventional gas



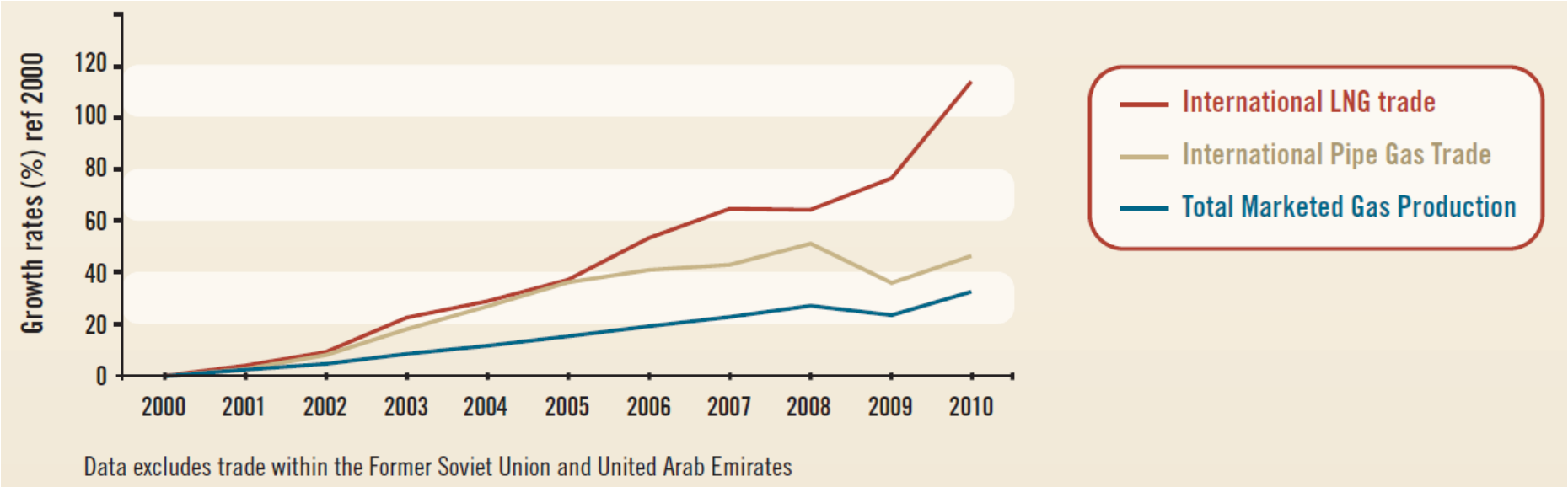
Source: BP, Energy Outlook 2030

Unconventional gas, is it the answer?



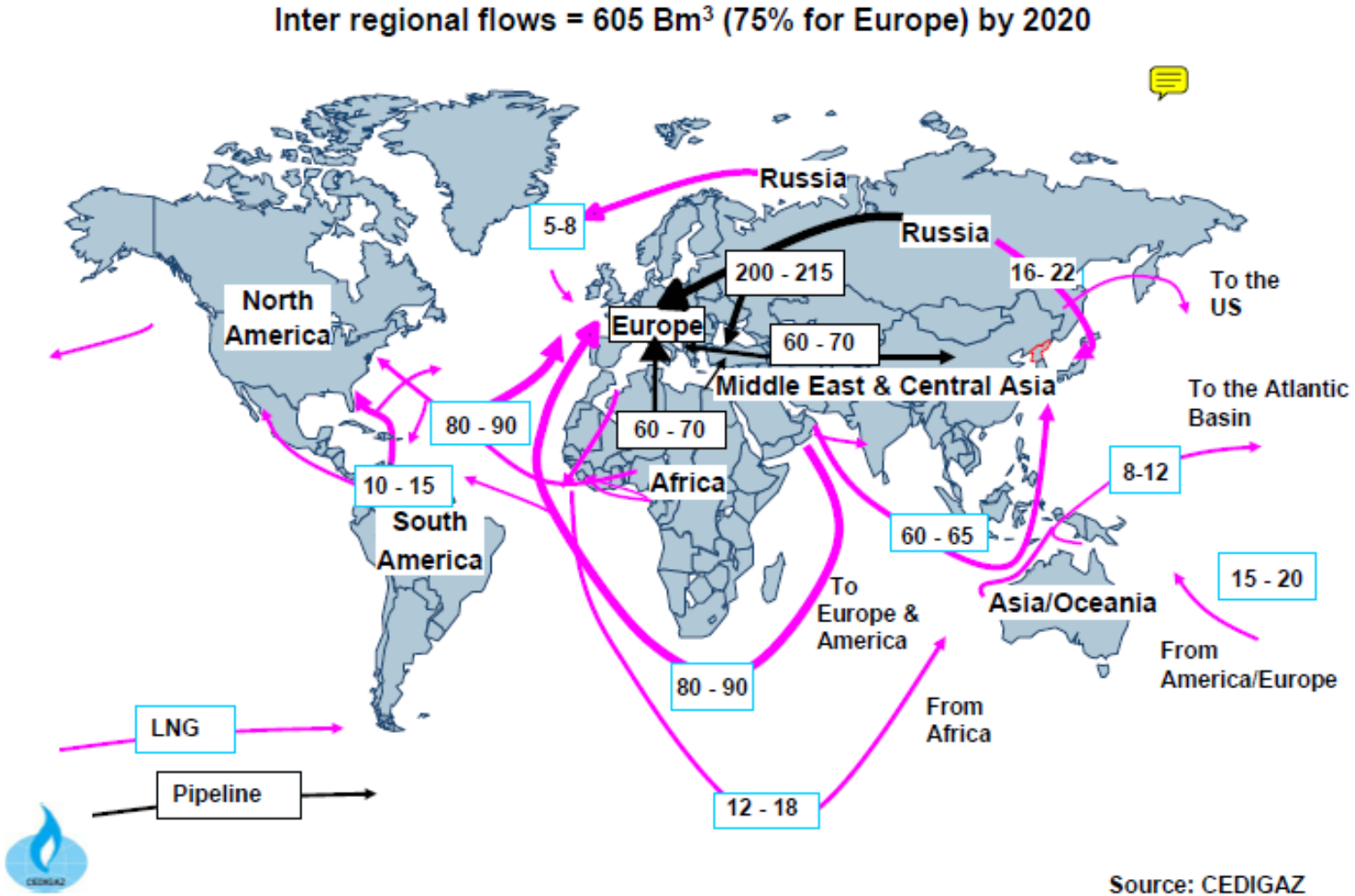
Source: The Economist, 2011

Cross-border and LNG trade since 2000



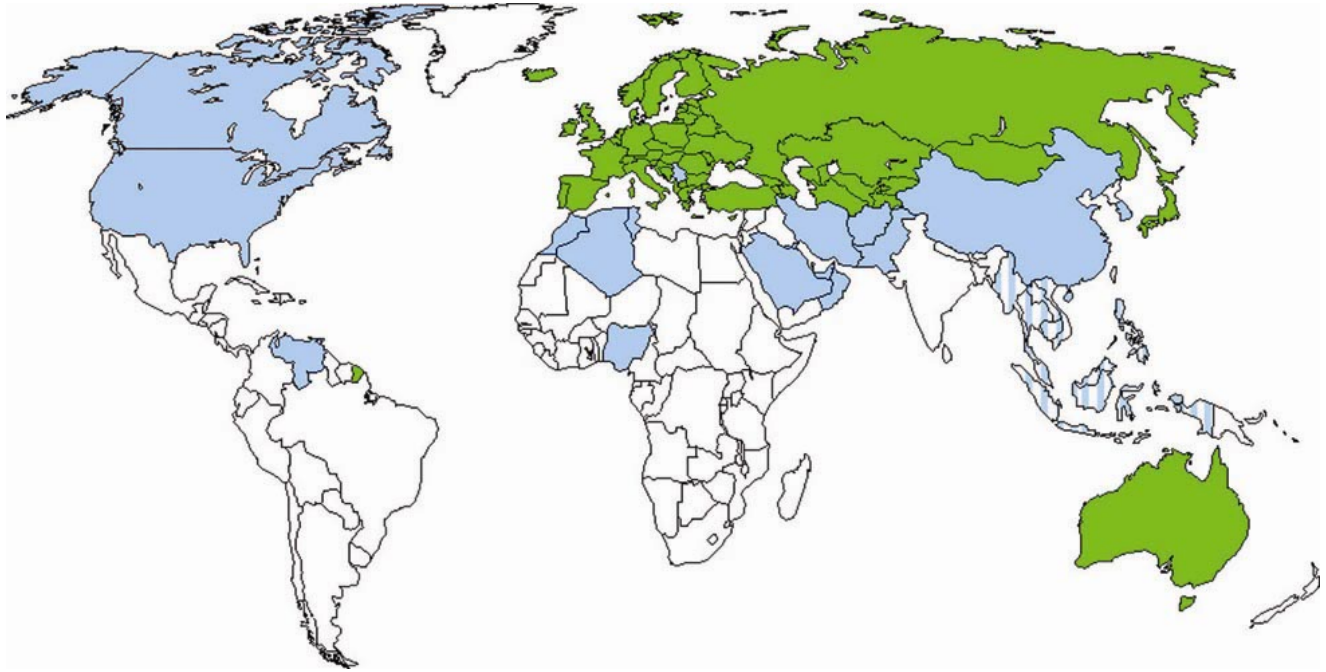
Source: BP Statistical review of World Energy, June 2010 and Cedigaz

Projected growth in international trade of natural gas up to 2020



Source: CEDIGAZ

Energy Charter



- **51 Signatory Countries (green) represent:**
  - **Around 40% of global GDP**
  - **Around 40% of global gas production**
  - **Around 25% of global oil production**

Energy Charter Treaty

1. Investments
   - Protects existing investments and endeavours the creation of a favourable investment climate for new investments
2. Transit
   - Facilitates cross-border grid-bound energy flows using infrastructure
3. Trade
   - Promotes international energy trade through WTO-based principles
4. Energy Efficiency
   - Encourages international cooperation in developing and implementing energy efficiency strategies and policies

Conclusions

- Continued and growing need for natural gas to satisfy increased demand
- Unconventional gas could significantly contribute to satisfy global demand
- More infrastructure is needed to make physical delivery to the markets
- Energy Charter Treaty serves as a functioning and reliable legal framework to promote investments and facilitate transportation of gas to demand centres

Thank you for your attention

Energy Charter Secretariat

www.encharter.org