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Energy
Trading

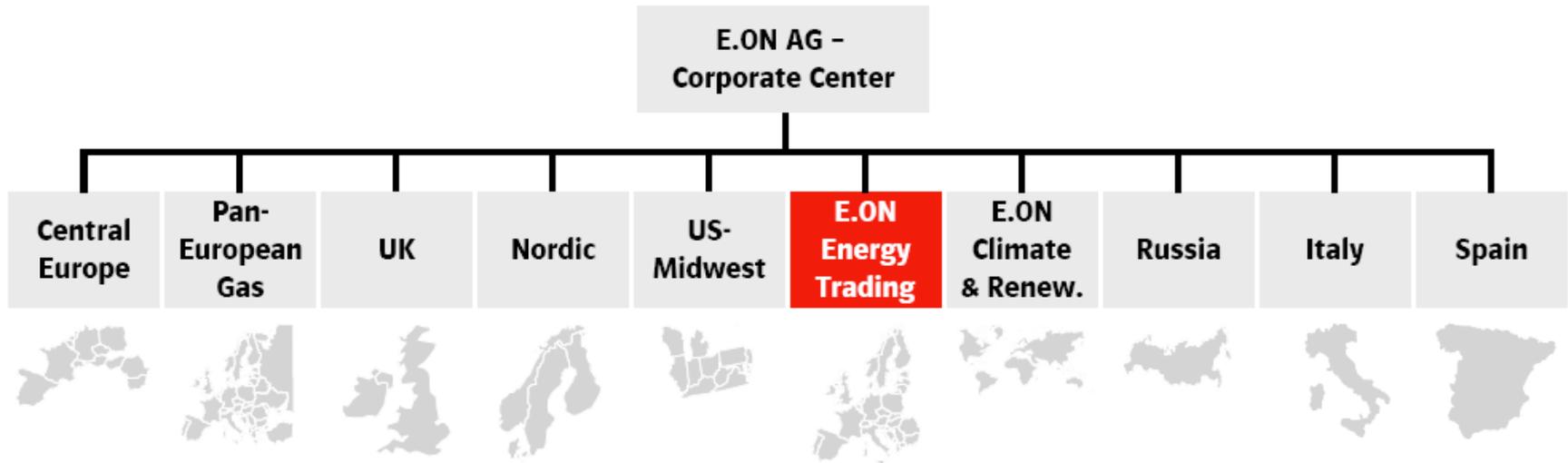
A trader's perspective on gas market development

Armin Schabert

Corporate Attorney, E.ON Energy Trading SE

Energy Law Group Meeting, Vienna, 30 April 2010

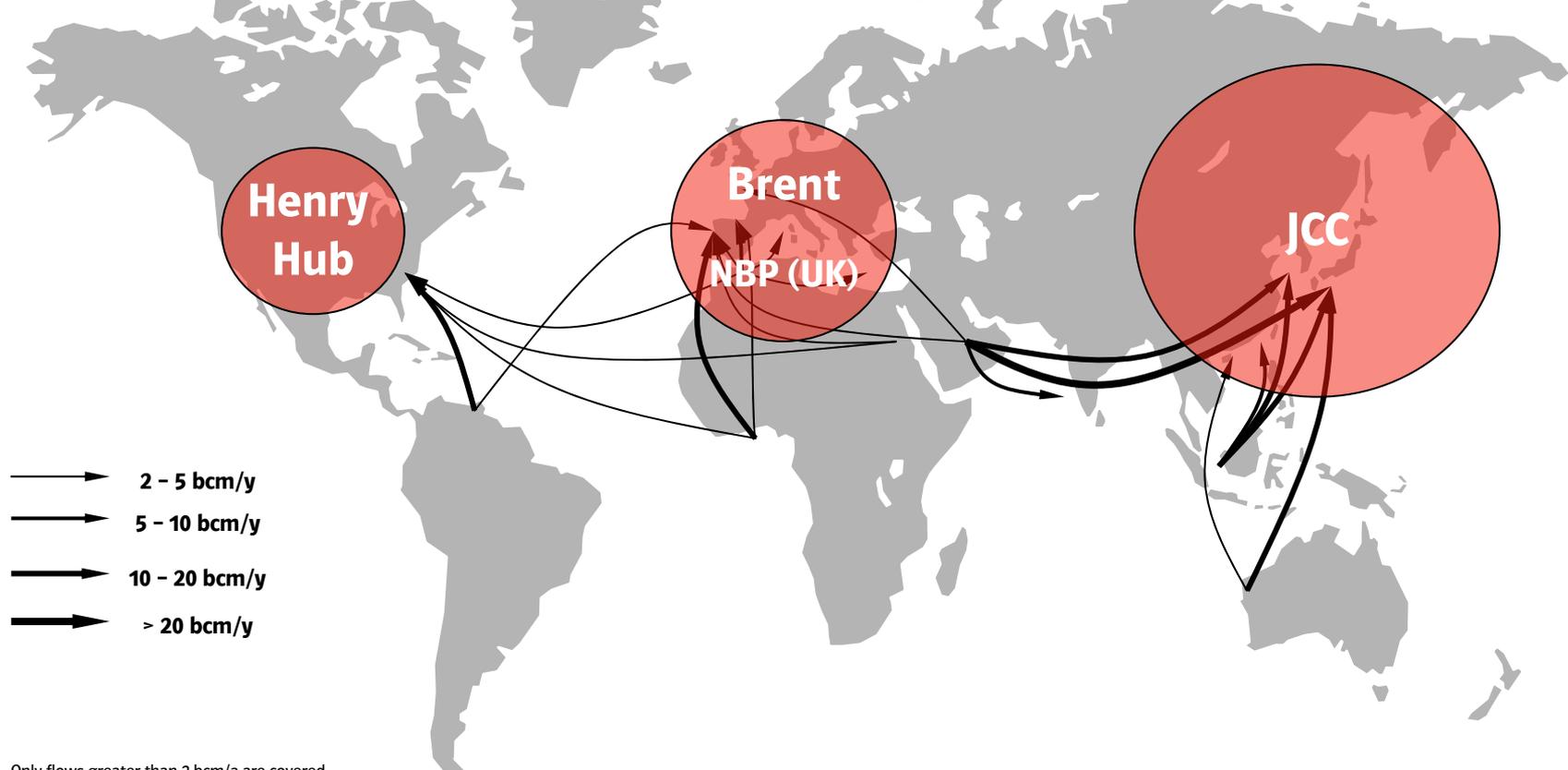
E.ON is organized in 10 market units – E.ON Energy Trading is the commercial heart of the business



E.ON Energy Trading is the central commodity risk manager for the Group

The global gas market has undergone dramatic changes in the last 12-18 months

US unconventional gas development, weaker demand, flexible LNG flows and reduced correlation to oil leading to distinct changes

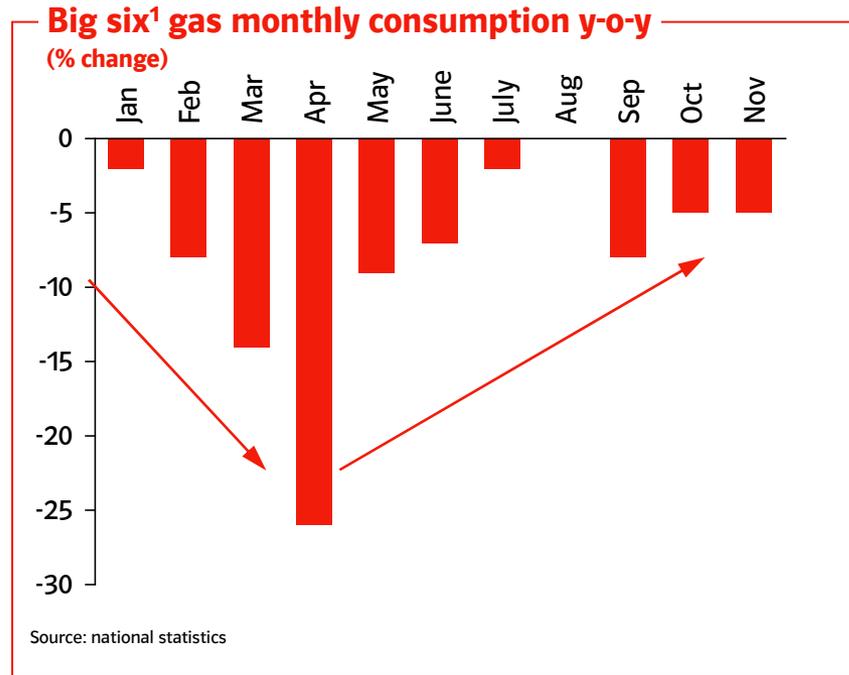


Only flows greater than 2 bcm/a are covered

The following countries are clustered into supply regions: Oman, Qatar, UAE, Yemen (Mid East), EQ Guinea, Libya, Nigeria (West Africa), Brunei, Indonesia, Malaysia (SE Asia)

Source: E.ON Energy Trading Analysis

Global economic crisis has led to significant erosion of demand



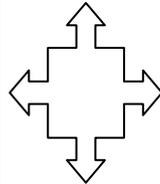
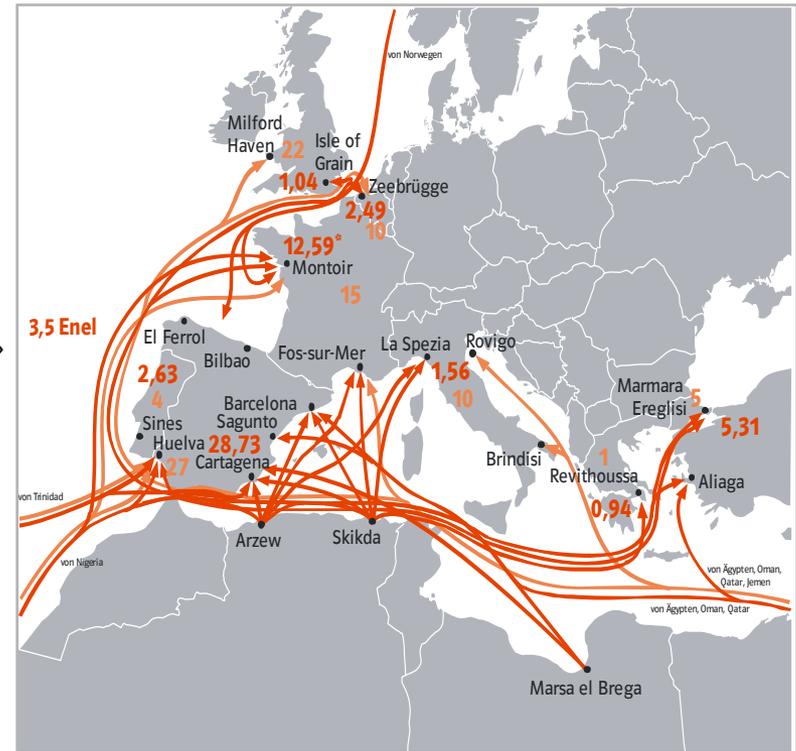
Demand decrease especially in gas-to-power & industrial consumption

These changes have reinforced the developments in the European gas markets

Pipelines connecting European Gas Markets...

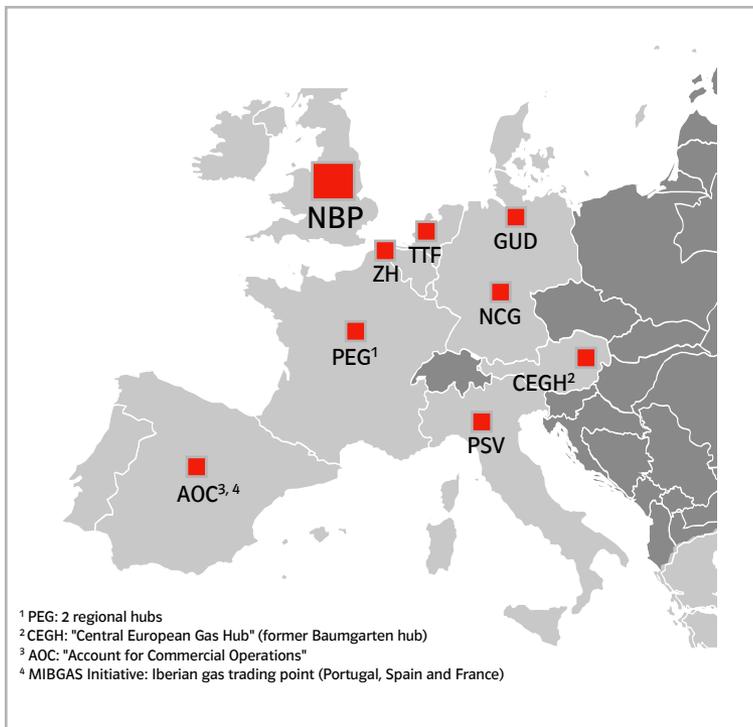


...and LNG connecting World Gas Markets

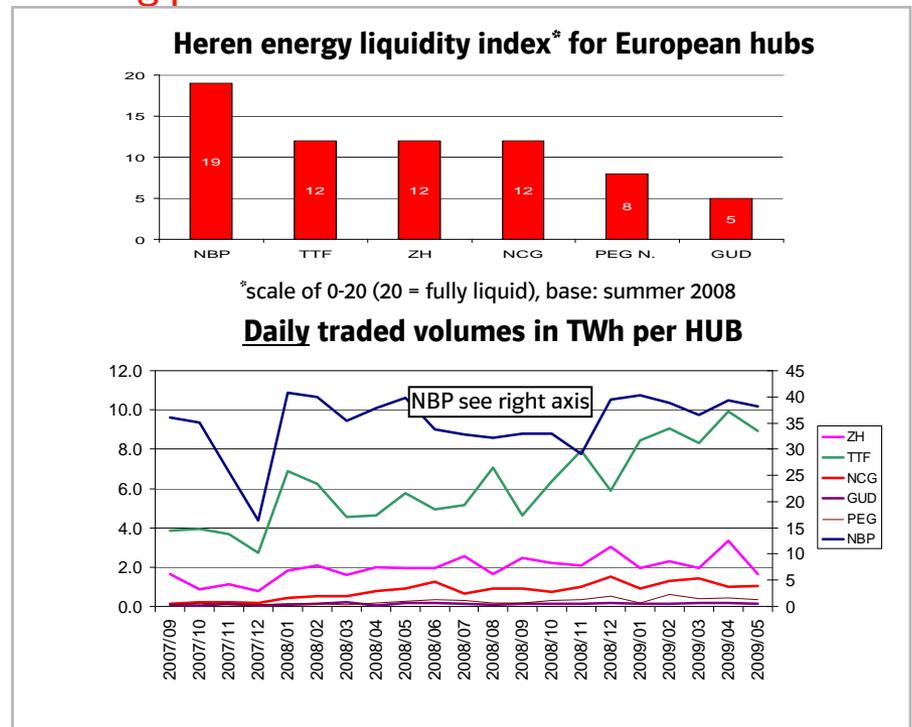


Together they have led to a more uniform and more competitive European natural gas market...

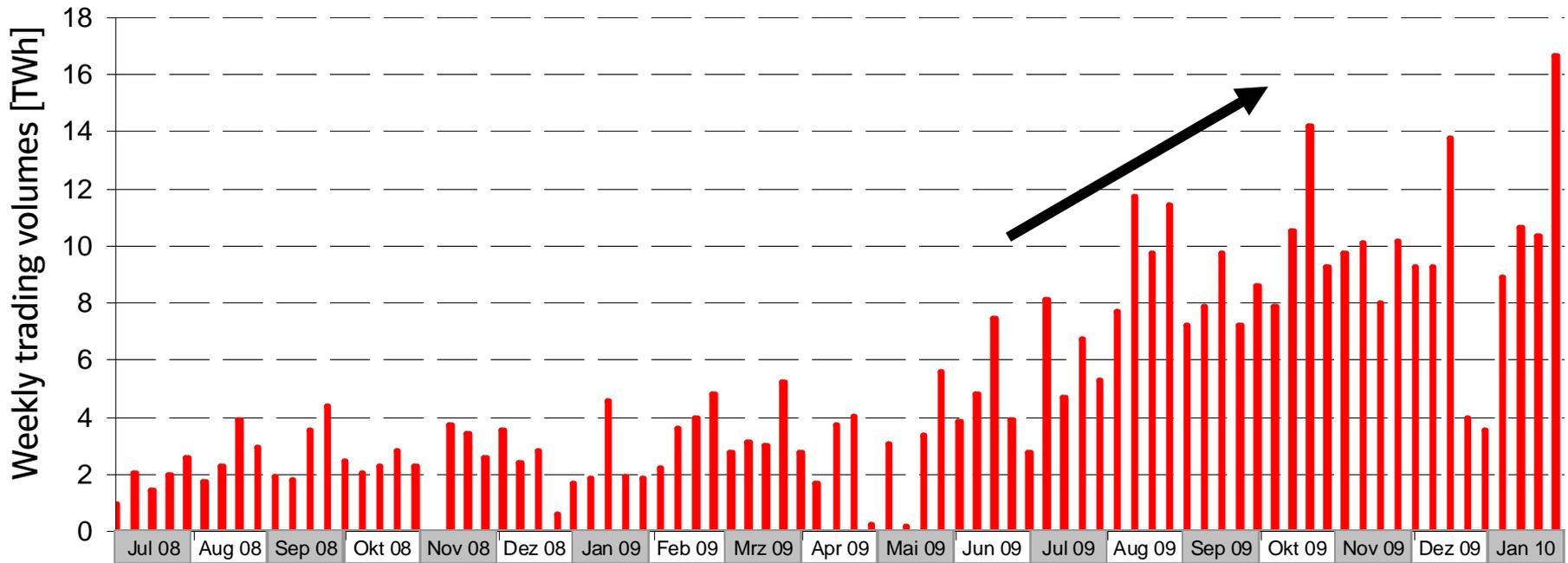
Existing and planned trading points



Liquidity and price developments at leading trading points



Traded volumes at German OTC gas markets are showing an upwards trend

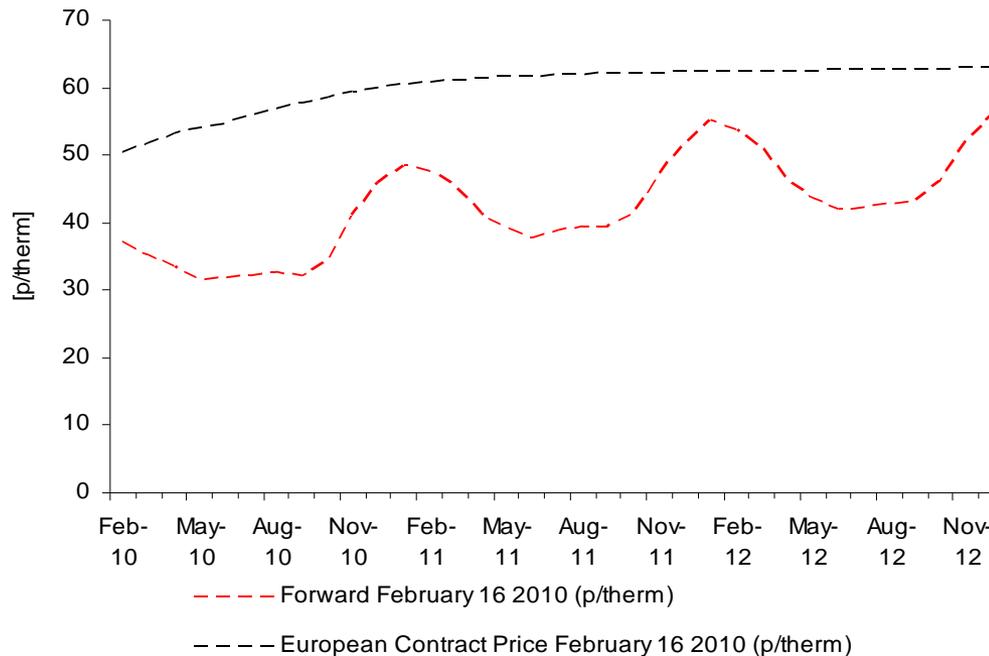


Sources: ICIS Heren ESGM, Trading volumes at VHPs in Germany

The decoupling of gas and oil prices is very clear

NBP versus European contract price forecast in p/therm

February 16 2010

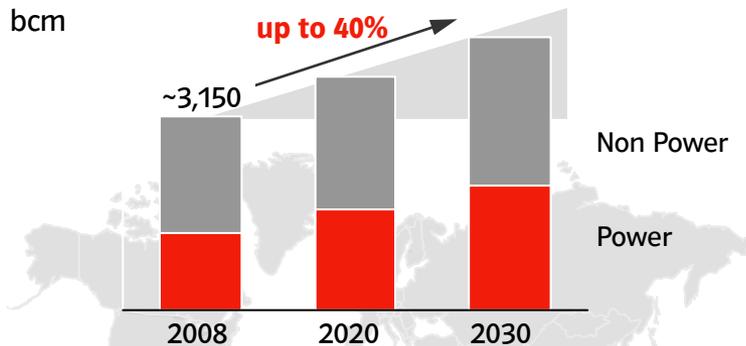


In the mid-term, unconventional gas will have a continued impact, although European development has challenges

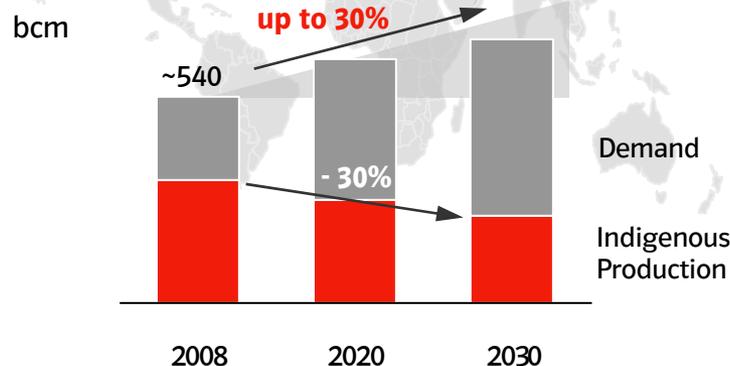
- Unconventional gas resources are 7 times smaller in Europe compared to North America;
- Geology of unconventional gas in Europe is not well understood so far;
- Access to resources more difficult than in North America;
- Higher environmental constraints;
- Services more expensive;
- Production will be later, slower and more expensive than in North America;
- But, unconventional gas will offset some of the declining North Sea production and thereby reduce expected future import needs in mid to long term.

The global and European demand for gas will increase in the mid-term: natural gas is a key part of a low carbon world

Development of world gas demand



Development of European Gas Demand



Source: E.ON analysis based on various external and internal analysis. Scenario driven forecasts vary broadly. Europe = EU27+Norway.

After crisis gas demand returns to growth path

- Main drivers:
 - Economic growth
 - Climate protection measures
 - Role of gas in power generation

Transition to lower carbon world only realistic with Gas

- Global commodity, abundantly available
- Cleanest fossil fuel
- Very efficient and variable
- Complement to renewable energy

Gas is not only a 'bridge' but a 'destination' fuel in a lower-carbon world

Conclusions

- Global developments (LNG, US shale) have had a huge impact on European gas markets – and will continue to do so;
- Trading at European hubs has continued to develop and the overall liquidity trend in European energy markets is very positive;
- More can and should be done to connect regions;
- This dynamic market creates opportunities for Traders – and competition between them;
- And ultimately Increased integration and competition is good for consumers.

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