INOGATE Gas Cross Border Trading
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Model contracts
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Gas demand and supply in Partner Countries

- Gas producers and exporters, such as Turkmenistan and Azerbaijan
- Gas importers with some domestic production, such as Ukraine
- Gas importers with no domestic production
- EU is main export market for both PC gas and transit gas
- Increasing export possibilities elsewhere, such as China and India
Forecast EU gas demand

EU27 Natural Gas demand outlook by sector
Forecast EU gas supply

Mtoe

Total Demand

- Additional Supplies to be defined
- Contracted Imports and possible prolongations from outside Europe
- Potential Norwegian exports
- Indigenous Production (EU27)

2005  2010  2015  2020  2025  2030
Model Contracts for Gas Cross Border Trading

- Long term supply contracts (LTC)
- Short term contracts (STC)
- Spot markets
- Futures markets
- Hub-based contracts
- Trading platforms such as PRISMA European Capacity Platform
- Transit contracts
Long term contracts

- Traditional system in gas industry
- Long term security needed to justify large investments in production facilities, pipelines and gas power stations
- Often monopoly producers and consumers
- LTC still very common in Eastern Europe and Central Asia
- LTC now much less common in Northern Europe
Move away from LTC

- Diversification of gas supplies, such as LNG imports and shale gas
- EU policies for unbundling and increased competition through Gas Directives
- EU policies in support of domestic consumers
- Increased competition in some EU countries
- Increased involvement of traders and other financial institutions
**EU gas supply breakdown**

Figure 17: Estimated split of European gas supply in 2011

- Gazprom (oil) 23%
- 58% still oil-indexed
- 42% market priced
- Sonatrach (oil) 10%
- Norway (oil) 9%
- GasTerra (oil) 7%
- Other oil index 9%
- Other Spot (incl. of Gazprom, Norway and GasTerra) 25%

Source: SG Cross Asset Research
Variety of short term contracts

- Whole day (WD)
- Day ahead (DA)
- Balance of week (BOW)
- Working days next week (WDNW)
- Balance of month (BOM)
- Month ahead (MA)
Zeebrugge traded volumes

Figure 3: Traded OTC volumes at TTF: January 2009 – March 2012

Source: GasTerra
Note: Product acronyms: The spot and prompt contracts cover days or groups of days such as Within Day (WD), Day Ahead (DA), Balance of Week (BOW), Working Days Next Week (WDNW), Balance of Month (BOM) and the Month Ahead (MA) contract, also known as the first or front month. The curve trades in months (M), quarters (Q), seasons (S) and years (both calendar (CY) and gas year (GY)).
Transit contracts and tariffs

- All gas in region transported by pipeline
- Transit pipelines in some of the Partner Countries
- Growth in LNG trade in EU has significantly reduced importance of pipeline gas but little possibility of LNG import terminals in PCs
- Transit tariffs open to negotiation
- Georgia takes gas as part payment for BTC transit pipeline
- Key role for regulators in determining fair gas transit tariffs
Gas pricing issues

- Standard pricing model: production + operating costs + profits
- EU and other concerns about too high monopoly and oligopoly profits, reflected in high gas prices for some consumers
- Also concerns about negative impacts of subsidised prices in many countries, particularly in Eastern Europe and Central Asia!
- Subsidies distort consumer demand
Setting gas prices (1)

- Traditionally linked to oil prices but recent move away. Gazprom, however, and some other suppliers still prefer oil price links.
- Oil prices are in US $, with main choice of Brent or West Texas Intermediate (WTI).
- Spot gas prices currently dominated by NPB in UK £ per therm.
- Some preference to use €/MWh but that raises currency risks with $ and £.
Setting gas prices (2)

- Oil and gas prices used to be regarded as close substitutes, e.g., for power generation
- Now no longer close substitutes
- Oil mainly used as transport fuel
- Gas mainly domestic heating, petrochemicals and power generation
- Oil prices now much higher than gas prices so obvious need for decoupling
- Some pipeline gas able to get “monopoly profits” but LNG growth has reduced those in some countries
- Shale gas in USA has dramatically reduced gas prices and could possibly do the same in Europe
Differences in oil and gas prices

Figure 15: Global gas and Brent prices: January 2007 – December 2011

Sources: Argus, BAFA, EIA, ICIS Heren, H.V. Rogers
Market gas prices in EU (1)

- Market now very transparent with plenty of information on traded gas volumes and prices.
- Published information suggests very competitive markets....see next slide.
- Range of information sources, such as Argus European Natural Gas daily market report.
- Small differences in published gas prices between the various hubs.
- However, some concerns about accuracy of published prices and recent allegations of “market rigging”.
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<th>Contract</th>
<th>Bid</th>
<th>Ask</th>
<th>+/-</th>
<th>Unit</th>
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<td>NBP Day ahead</td>
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<td>-0.150</td>
<td>€/MWh</td>
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Conclusions

• Substantial move away from long term contracts (LTC) in Northern Europe
• Increasingly wide range of short term contracts (STC) in use
• Relatively little change in Southern and Eastern Europe
• Increasing involvement of traders, both physical and virtual/paper
• Increasing opposition to oil-indexed contracts favoured by Gazprom and some others
• Trading hubs such as NBP and TTF increasingly set gas market prices