European Gas: What are the issues and outlook?

GB stakeholder event, 13 October 2010

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Rationale for Ofgem's engagement in European gas – in summary…

- **GB net importer** of gas (increasingly) so EU matters
  - Alongside direct deliveries of LNG & Norwegian pipeline gas
  - Interconnectors with Ireland (Moffat), Belgium (IUK), Netherlands (BBL); GB transits gas to Ireland

- Continental **EU gas market** is in **early stages** of further liberalisation (driven by Third Package)
  - We can bring thought **leadership** to this
    - GB gas market: most liberalised & liquid gas market in EU
  - Anticipated net **benefits** of further liberalisation for consumers
    - If (potential) risks are managed well…

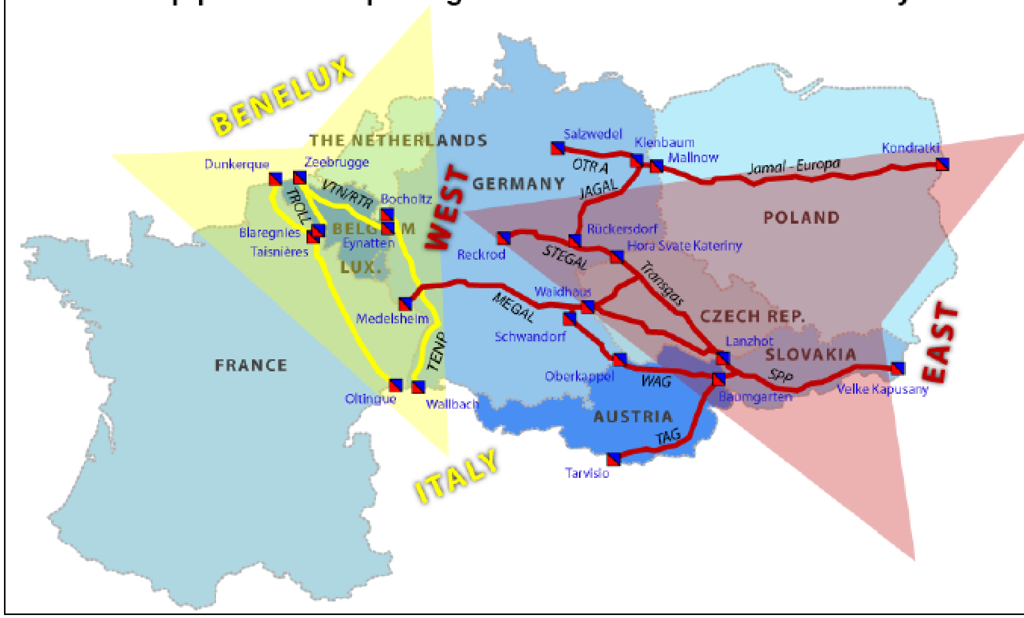
There are <u>benefits</u> to GB of further liberalisation in the continental EU gas market (incl. better access to gas, at competitive prices); this is likely to trigger some <u>changes</u> here.

Where is the continental EU gas market at?

Key problems identified in Commission's "Sector Enquiry" (2007)

- Large **vertically integrated** incumbents
- **Public service obligations** & strategic reserves
- Long term **take-or-pay contracts** with producers & importers
- Limited access to gas networks & **contractual congestion**
- **No flexibility** left for new entrants
- **Lack of transparency**

Transit pipelines comprising the East-West and Benelux-Italy axes



Source: Energy Sector Inquiry 2005/2006

Recent achievements: Increased transparency; consolidation of German network zones; entry/exit becoming the norm; hubs emerging

Continental market is (still) far from being liberalised; however, momentum for change is growing (driven by new & binding provisions in the Third Package)

There are large differences between countries' markets. An <u>example</u> in gas balancing…

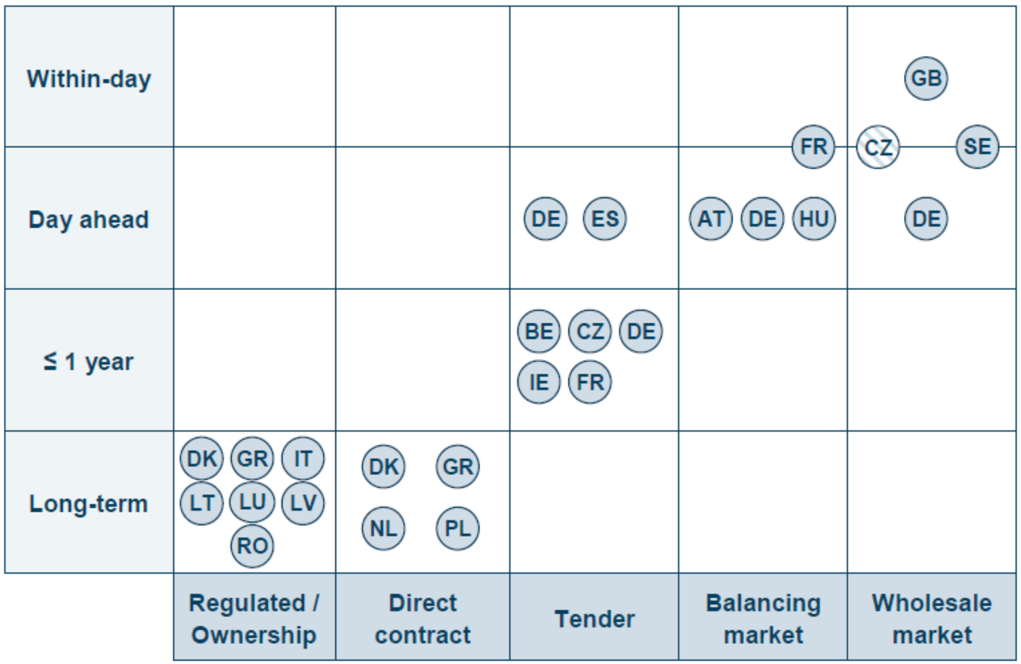


Figure 6: Procurement mechanism and time horizon for balancing services

Source: KEMA (December 2009), Gas balancing and tariffs study

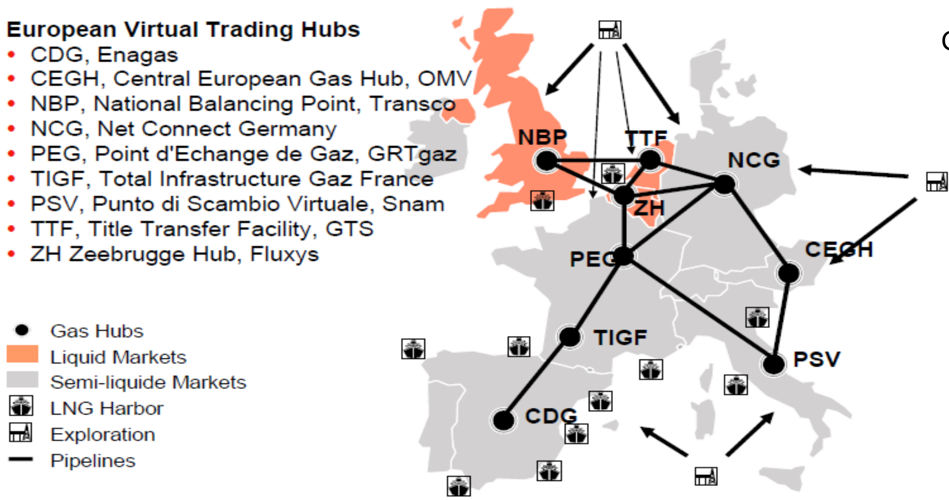
- **TSO procurement** of balancing services: differs significantly across MSs
- How will this picture **change** as EU gas market becomes more liberalised?

Differences between Member States reflect, in part,
local (system & economic) realities. How to manage the transition to a market?

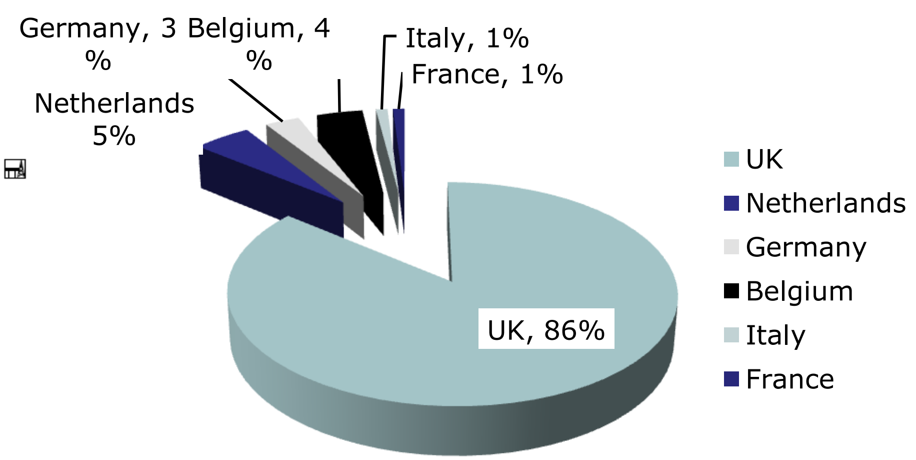
Increasing liquidity at some continental trading hubs; NBP still (by far) most liquid

- Approx 14,200 TWh of gas traded in Europe in 2008, up 11%
- Price differentials between hubs (NBP-ZBH-TTF-NCG etc) reducing
- Emergence of new trading hubs…
  - Germany fastest growing traded gas market in Europe (NCG and Gaspool)
- Divergence of wholesale & contract prices leading to lesser oil-price indexation in long term? (~Uncertain supply/demand outlook)

Connectivity within the European Gas Market



European traded volumes 2008



What does the Third Package require for gas? Building a 'well-functioning' EU gas market…

- **Entry/exit principles** to be implemented throughout EU
  - By Sept-2011, network charges "shall not be calculated on the basis of contract paths" (Art. 13 of Gas Regulation 715/2009)
- Non-discriminatory **third party access** to:
  - Transmission pipeline systems
    - Incl. cost-reflective (or market-based) tariffs
  - Storage & LNG
- **Market-based gas balancing**
- **Transparency** on network capacities & gas flows
- Facilitating emergence of a '**well-functioning' wholesale market**
  - Transparent, competitive & liquid
  - Supporting security of gas supply

Third Package envisages effective competition, non-discrimination and efficient functioning of the internal EU gas market; through <u>new, binding provisions</u>

What's needed for a well-functioning (competitive & liquid) EU gas market? Some initial views…

1. Improved **access to network capacity** for new entrants & other non-incumbents

   - For existing capacity:
     - Address contractual congestion, using effective tools, so that more capacity is **freed up** to the market
     - Market-based mechanisms for **allocating** capacity (i.e. auctions)
     - Encourage **efficient use** of capacity, e.g. through cost-reflective charging

   - For new capacity (or, ensuring there is sufficient capacity)
     - Regulatory frameworks for **cross border** investment
     - Role for **incentives**, where investment is needed

(Cont.)

(Cont.) What's needed for a well-functioning (competitive & liquid) EU gas market?

2. Improved **access to (flexible) gas**:

   - Developing **market-based gas balancing** regimes
   - Improved access to gas in **storage** (& other flexible gas)

3. **Transparency** to the market about **capacity & flows** on pipeline networks and other facilities

   - So parties can participate in the market and trade
   - A fundamental <u>pre-requisite</u> to a well-functioning market

Our views are informed by the GB experience; however, intrinsic differences with other markets & systems need to be recognised.
Some aspects that work well for GB may not (be perceived to) work well elsewhere…

How does Third Package envisage a well-functioning EU gas market will come about?

- **Default route: Through the process of TSOs developing "network codes" for the different areas of gas market design**

  - Initial codes for **capacity allocation**, **balancing**, **tariff structures**
  - Codes set **binding** EU-wide rules, for national implementation
  - 'High level group' sets annual **priorities**: what codes to develop
  - "Network code" ≠ the GB UNC (likely to be much less detailed?)
  - Not merely cross border? Impacts on national systems…

- **Regulators** (through ACER) set 'clear and objective principles' for the network codes in (non-binding) **framework guidelines**

- **Member States (MSs)** negotiate the final network codes (through "comitology" process)

(Cont.)

(Cont.) How does Third Package envisage a well-functioning EU gas market will come about?

- **Alternative route: Commission can "fast-track" certain areas (perceived as high-priority) through "direct comitology" guidelines**
  - Examples: **transparency** (~done), **congestion management** (started)
  - In future, **storage**..? (to improve EU-wide access to flexibility)
- TSOs & regulators & MSs developing and negotiating detailed binding rules for gas market design is going into **new territory**
  - This is the start of a **learning** process

Third Package sets a broad framework for EU gas market design; the detailed design, however, is left to guidelines & network codes processes. Important for GB!

What are the key challenges for the network codes & framework guidelines?

1. Developing **market-based mechanisms** (through network codes) that strike an appropriate **balance** between:
   - being sufficiently **harmonised** (to build a market & avoid trade/entry barriers), and
   - recognising national/regional system & economic **realities** (incl. different stages of market development)

2. Determining **interim steps** in the network codes & framework guidelines
   - In **GB**, market-based mechanisms & liquid gas markets didn't come about in one clean sweep; it was a gradual process
   - Will it be the same **elsewhere** in EU; or can some countries "leap-frog"?

(Cont.)

Need for interim steps (in transition to market based mechanisms) may no longer seem obvious to us in GB; but is likely to be an important issue in some other MSs.

(Cont.) What are the key challenges for the network codes & framework guidelines?

3. Considering **transitional impacts** (e.g. on legacy contracts)
   - Legacy contracts to be "**brought in line**" with provisions of EU law (Madrid Forum conclusions, 27-28 Sept 2010)
   - Market-based mechanisms should continue to allow effective **long-distance pipeline transport** from distant supply sources (e.g. Russia; North Africa) to demand centres (incl. NW Europe)
   - So, need to **avoid (unintended) barriers** to long-distance transport
   - "**Pancaking**" example? Entry/exit charges at each system border

4. Regulators, TSOs and MSs having to **jointly develop & negotiate** detailed binding rules for gas market design
   - EU negotiations (incl. on framework & other guidelines; network codes) are about **compromise**

For GB, <u>compromise</u> includes a need to identify – as input into future regulatory/MS negotiations – <u>which features contribute most</u> to protecting current & future consumers/citizens (in GB & across EU)…

What else is needed? A <u>target model</u> setting a strategic vision for the EU gas market…

- There is **no common strategic vision** of what the EU gas market should look like in, say, 5-10 years time
  - After TP provisions (incl. network codes) fully implemented
- European regulators will be chairing a process through 2010-11 to establish a **<u>target model</u>** for the EU gas market
  - Initial outline by end 2010 (cf. Madrid Forum, 27-28 Sept 2010)
  - Key to success of this process: **buy-in** from across sector
- What does this target model need to do?
  - Set a vision for how the different codes fit together & ensure **consistency**
  - Stay within broad framework set by Third Package
- What will be required to develop a target model?
  - Analysis of different **options** (existing market models/ others)

How best to achieve buy-in into a strategic vision for the EU gas market through this process? What views do GB stakeholders have on options?

How could continental EU gas market develop to, say, 2020? Four potential scenarios…

	National Champions	Harmonised Europe	Diverse Europe	Competitive Markets
Political will to act together	Low	High	Low	High
Diversity of gas imports into EU	Low	Low	High	High
Scenario	MSs act in their own interests; **'beggar thy neighbour'** policies adopted because of low diversity	MSs adopt a co-ordinated approach, with **harmonised standards & rules** across EU; this helps to address low diversity	MSs do not act together, but have **'luxury'** of high diversity; each MS adopts its **own preferred position** on markets vs. PSOs spectrum	MSs act together by progressing towards liberalised EU gas market; **relying on markets** to meet their energy policy objectives

A fully liberalised, competitive EU gas market is one – but not the only – possible (longer term) outcome. Key drivers are uncertain supply/demand outlook & political will.

Four key messages…

1. Developments in EU gas policy (including new, **binding provisions of TP**) are **important for GB**, because of our increasing gas import dependency

2. Getting progress in liberalising continental gas markets (with benefits of increased access to gas for GB) is likely to require some **changes here**

3. There are **opportunities for GB stakeholders** to influence the future shape of the EU gas market

4. "Gas market **target model**" process (chaired by European regulators) brings together all the various aspects of EU gas market design

To what extent can the GB gas market model 'survive' on a pan-European basis? What compromises may GB want to make & what changes to GB market could these result in?

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European gas: What has been achieved to date?

GB Stakeholder event 13 October 2010

Overview

- Transparency
- Capacity Allocation Mechanisms
- Congestion Management Procedures
- Security of Supply Regulation

Transmission Transparency has improved significantly

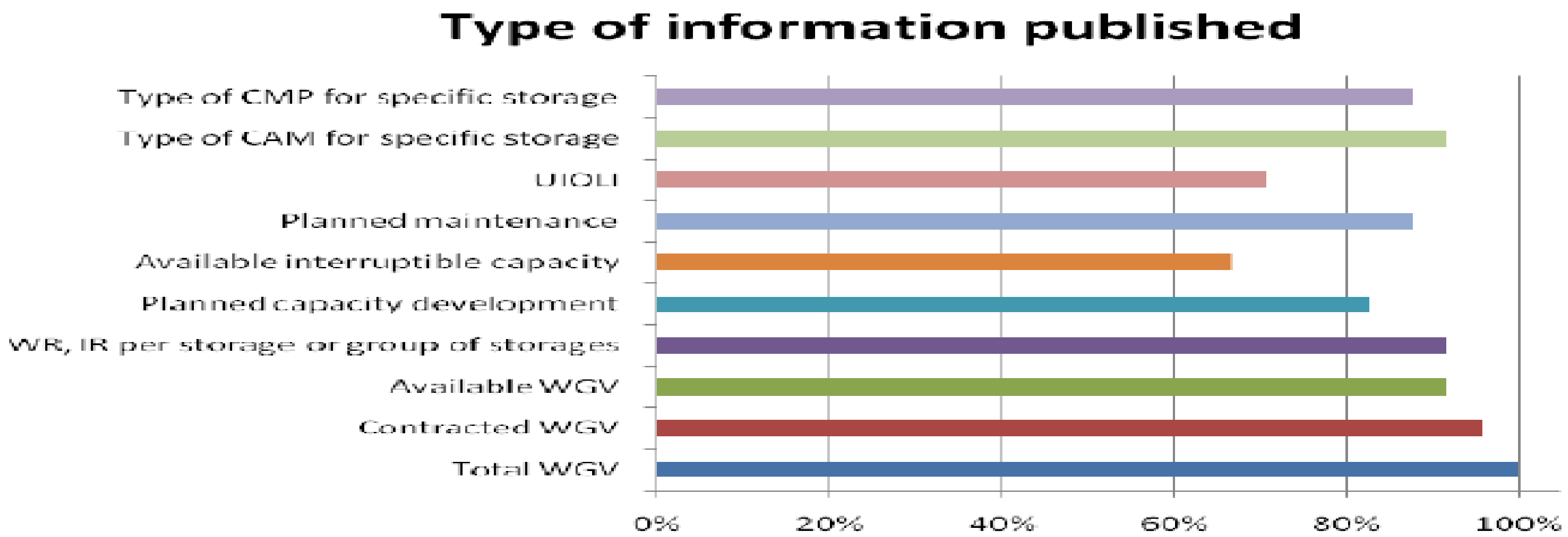
	E.ON GT	Fluxys	Svenska Kraftnät	RWE TNG	National Grid	IUK	Gas-link	WIN-GAS	Ontras	GRT-gaz	Energinet.dk	Gasunie DT	DEP	Swedegas	GRT-gaz DT	GTS	BBL
(C1) Max technical capacity	in place	in place		in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place
(C2) Interruption	in place	in place		in place	in place	in place	in place	in place	In place	in place	in place	in place	in place		in place	in place	in place
(C3) Daily commercial firm and interruptible capacity	in place	in place		in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place
(F1) Daily flow / aggregated Allocation	in place	in place		in place	in place	in place	in place	In place	In place	in place	In place	in place	in place	in place	in place	in place	In place
(F2) Daily prompt allocation information	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place	in place		in place	in place	in place
(F3) Daily aggregate day-ahead nominations	in place	in place	in place	in place	in place	in place	in place	In place	In place	In place	May 2009 – Delay?	Dec 2009?	Dec 2009?		Dec 2009?	in place	In place
(F4) Historic gas flow information database	in place	in place		in place	in place	in place	in place	in place	In place	in place	in place	in place	in place	in place	in place	in place	In place
Number of IPs	22	19	1	5	8	4	1	8	3	9	6	7	2	1	5	25	4
3 minus rule IPs	0	5	0	3	0	0	0	3	2	0	0	0	0	0	0	12	0

TSOs report published
Less than three shippers
Not applicable

Specific date
Not committed to date

Storage Transparency has significantly improved

- A wide range of data is published predominantly on daily basis (70% of all SSOs).
- All SSOs publish information on capacity
- All but one SSO make available all information also in English



Transparency

- Amendment to Annex of Gas Regulation 715/2009 to be adopted in November builds on N.W. gas region project

- EC has asked ERGEG to consider further requirements
  - Are the current levels of transparency provided for by system operators sufficient?
  - Are there areas along the gas value chain (production, transmission, LNG, storage, distribution, wholesale market) where additional transparency is needed?

How can Transparency be further enhanced?

Capacity allocation (CAM)

- **ERGEG's** pilot framework guideline (June-10)
  - Scope: interconnection points (**IPs**); existing pipeline
  - **Auctions** are the target model; pro-rata an interim step
  - (NRA decides); use of FCFS restricted to intra-day
  - Proposal to introduce '**bundled products**' at IPs:
  - Reservation of some capacity for **short-term** allocation
- Impact on GB's interconnectors

Capacity Allocation Mechanisms

- **Commission's** reaction to pilot (of Sept-10) - ERGEG has 3 months to review:
  - Aim for **greater harmonisation** (auctions only), w/o need for further NRA decisions
  - Clarify what it means by two new concepts, 'bundled services' and 'virtual interconnection points'
  - Exiting **supply contracts** to remain in tact
  - Harmonised 'Gas Day', rules on reserve prices
  - Auctions not sufficient for capacity yet to be built

Implications of the Commission's reaction ?

Congestion management (CMP)

- **Commission's letter**:
  - Maximisation of capacity by means of transparent and clear rules on capacity calculation approved by NRAs
  - Overbooking and buy back incentive scheme approved by NRAs
  - Surrender of capacity to the TSO approved by NRAs?
  - Creation of firm day ahead capacity market by restricting re nomination rights to 50%
  - Long term use it or lose it as last resort

Are these provisions sufficient to free up capacity?

Security of Supply

- GB becoming more reliant on imports
- Ukraine-Russia dispute Jan. 2009
- Gas Security of Supply Regulation adopted 11 October
  - Establishment of preventative actions plans, emergency plans, risk assessment
  - Infrastructure standard
  - Physical reverse flow
  - Greater transparency:
    - Obligation to publish public service obligations
    - Review plans, information exchange

Conclusions

- Have the Gas regional Initiatives run out of steam?
- Will these proposals have a substantial impact on European gas market liberalisation?
- What do the proposals mean for GB i?

Progress has been made but more needs to be done

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What's next on the European gas agenda?

Konrad Keyserlingk, Policy Manager (European Strategy Team)

Introduction

Direct Comitology Procedure

Framework Guidelines/ Network Codes

Other European Legislation

Voluntary Guidelines of Good Practice

Voluntary Regional Cooperation

Impact on GB: opportunities for good outcomes and risks for bad outcomes.

Framework Guideline and Network Code for Gas Balancing (1)

Problem	Lack of harmonisation and lack of cross-border cooperation may create **barriers to trade**.	Non-market based balancing regimes are **bad for liquidity**.
Objectives of FG	Objective 1: move towards greater integration of EU energy markets	Objective 2: move towards market-based balancing
Proposed solutions	Cross-border cooperation, harmonisation of balancing periods, merging of balancing zones	Shipper-led balancing (reduced role for TSOs), Market-based TSO procurement

Framework Guideline and Network Code for Gas Balancing (2)

- How can we create **harmonised** balancing regimes that meet the **specific** requirements of each market?
- How can we define **criteria** for the application of options such as interim steps?
- What **information** needs to be made available to network users?
- …

Consultation closes on 28 October and can be found on ERGEG's website (http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_CONSULT/OPEN%20PUBLIC%20CONSULTATIONS/Framework%20guideline%20on%20gas%20balancing/CD)

Next steps

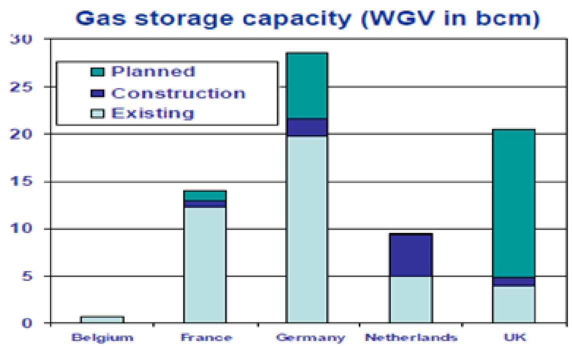
- ERGEG* to publish a Framework Guideline by February
- ENTSOG to draft a Network Code
- ACER to give an opinion
- European Commission to submit the Network Code to Comitology

*(*The Framework Guideline will at some point need to be adopted by ACER)*

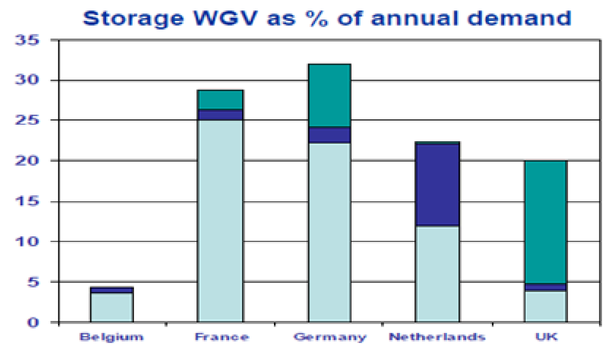
Storage (1)

- Efficient, transparent and non-discriminatory access to storage is important to provide flexibility, facilitate competition and ensure security of supply.

Significant new storage is planned across the NW region
– some of which looks set to play a cross-border role



Source: GSE data (Feb 2009) & Centrica Energy updates

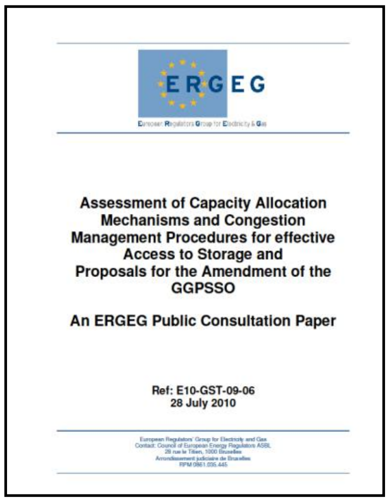


Note: based on 2008 consumption

- Ofgem led improvements in transparency (but more to do)
- Access to EU storage capacity is restricted in many countries due to long-term contracts between the SSO and the former incumbent e.g. Austria, Germany

ERGEG's 2008 and 2009 "Status Reviews" highlighted weaknesses of current arrangements for storage capacity management

Storage (2)


ERGEG
European Regulators' Group for Electricity & Gas

Assessment of Capacity Allocation Mechanisms and Congestion Management Procedures for effective Access to Storage and Proposals for the Amendment of the GGPSSO

An ERGEG Public Consultation Paper

Ref: E10-GST-09-06
28 July 2010

"SSOs shall publish non-discriminatory and transparent capacity allocation mechanisms […]"
(Gas Regulation, Article 17)

"Storage facility contracts shall include measures to prevent capacity-hoarding […] "
(Gas Regulation, Article 17)

ERGEG has consulted on proposed changes to the 2005 Guidelines of Good Practice (deadline was 9 October):

Auctions to be preferred allocation method, increased transparency requirements

Secondary markets to be supported by SSOs
Potential for more prescriptive UIOLI mechanisms

Next steps:
ERGEG or ACER to consider consultation responses and potentially revise Guidelines of Good Practice

Harmonised transmission tariff structures Framework Guideline & Network Code

- European Commission likely to invite ACER to draft the FG in March 2011

- ACER will then consult and produce a Framework Guideline within 6 months

Issues that **may** be included:

- How to implement charging for Entry-Exit systems
- Make CAM work: practicalities around auctions, bundled products, etc…
- Avoid “Pancaking”
- How to charge for short-term or interruptible capacity
- Prevent discrimination between user groups
- Facilitate incentives for investment

Next step: ACER to publish consultation following the Commission’s invitation in March

Investment Issues

- High priority for many stakeholders, addressed in many contexts

Gas Regulation	• Every two years, TSOs (ENTSOG) need to draft non-binding Community wide **ten-year network development plans** and **Regional Investment plans** (Gas Regulation, Articles 8, 9 and 12)
ERGEG's work	• Considered in many of ERGEG's work streams (e.g. Tariff Structures Framework Guideline)
Energy Infrastructure Package (European Commission announcement expected in November)	• Likely to include gas, electricity, CCS and oil infrastructure • Remove obstacles to delivery of investment by markets • Look at regional coordination and how investment is permitted and funded
ERGEG's Regional Initiatives	• Investment issues feature highly on the agenda of ERGEG's Regional Initiatives

"Market signals" versus "central planning"?

“Gas Target model”

- How can we ensure that all this fits together?
- How can we ensure that work is progressed most efficiently?

- **Proposal to formulate an over-arching “target model”**

- Stakeholders expressed support at Madrid Forum in September
- ERGEG expressed its readiness to chair this process, and to present an outline on the definition and the scope of the work later this year.

Next step: ERGEG statement later this year.

Item	Next steps
Capacity Allocation Mechanisms Framework Guideline (CAM FG)	- ERGEG to revise Framework Guideline in 2010 - European Commission to invite ENTSOG to draft Network Code
Congestion Management Procedures	- European Commission to initiative Comitology Procedure
Gas Balancing Framework Guideline	- ERGEG to publish FG in February 2011 - ENTSOG to draft Network Code
Tariff Structures Framework Guideline	- ACER to consult in March and complete the Framework Guideline within 6 months
Infrastructure Package	- November Communication and IA from the European Commission - Legislative proposal next summer
Target model	- ERGEG statement this year
Storage	- ERGEG or ACER to consider publishing revised Guidelines for Good Practice
Interoperability Framework Guideline	- ACER public consultation during Q3/ 2011

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Any questions?