

Problem identification - Recent changes in the legal framework, market dynamics and system requirements

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1st ACER GTM workshop, Vienna, 8 October 2013



Overall context

- Several components of the conceptual model were already codified in the 3rd Energy Package (e.g. entry/exit models).
- In addition, rules are currently laid down in legislation through the development of FGs/NCs.
- → Priority: complete the 3rd Package implementation process + FGs/NCs
- In addition an updated GTM
- → should give an overall guidance for the drafting of further FGs/NCs, which are in turn the ideal instruments to define detailed rules on specific matters and enable the integrated market.
- → should define and analyse additional areas where possible (regulatory) measures are necessary
- → should identify what building blocks might be missing to reach the IEM



Why do we need a GTM review

3rd package is not the end of the process

- Gas sector has also evolved and further change can be predicted
 - Declining demand in general and especially in power generation
 - Global price effects of shale gas in US (EU?)
 - Growth of LNG trade will link Europe more closely to the global market
 - New usage of gas
- Some current weaknesses justify further action beyond measures in the 3rd Package (e.g. upstream competition not as effective as it could be)

Timescales are long

 New measures take a long time to conceive, develop and translate into legislation and be implemented – cannot wait until we know complete outcome of 3rd Package

Need for early start

- We need to start work now
 - on measures that address predictable problems and weaknesses
 - on developing a concrete idea in which direction the gas market develops



Overview of CMP obligations

Problem: at most European IPs capacities are fully booked (long-term), but the physical flows are much lower.

Objective: measures to free up unused capacities

ACER Monitoring (Report on Congestion)

Oversubscription & Surrender of buy-back scheme contracted capacity Implementation as of Implementation as of 1 October 2013 1 October 2013 Long-term use-it-Firm day-ahead or-lose-it (UIOLI) use-it-or-lose-it (UIOLI) Implementation as of 1 October 2013 Implementation as of 1 July 2016

→ What will be the real effects on the market?

- → When?
- → Remaining barriers?

Data provision (additions to Transparency Guidelines)

Scope

- CMP Guidelines apply at IPs between adjacent entry-exit systems
- Application to IPs with non-EU countries decided by the NRA



Capacity allocation mechanisms

2011 Framework Guidelines

2011-2011 Network Code

Comitology

Entry into force

Applicable

Effects

Problem:

The **allocation of free capacities**, if available, is mostly done via First-Come-First-Served principle.

Players who have an information lead get all the capacities.

Objectives:

Promotion of harmonised capacity allocation mechanisms and products in order to facilitate gas transport and trading across the EU;

Design of standardised auction procedures for IPs within Europe

- Auctions
- Bundled products
- Virtual Interconnection Points
- Capacity set-aside

Adopted in comitology on 15 April 2013

November 2013? (waiting for publication in OJEU)

Applies from 1 November 2015

First yearly capacity auction March 2017

Early implementation, e.g. PRISMA

- → What will be the real effects on the market?
- → When?
- → Remaining barriers?



Incremental capacity

2013 NC amendment guidance

> 2014 ENTSOG proposal

Comitology

Entry into force

Applicable

Effects

Problem:

During CAM NC development, calls for inclusion of incremental Due to time constraints process postponed

Objectives:

To develope harmonized approaches to market-based procedures

- define in CAM NC when an offer of incremental or new capacity shall be made at least
- test and consult how best to integrate incremental capacity into CAM NC algorithm and draft detailed provisions accordingly
- clarify that Open Season procedures are still possible where integration into CAM NC allocation is impractical and to lift some GGPOS principles. Conditional bids / bid revisions possible

2015

2015-2016?

2017?

First yearly capacity auction March 2017 or 2018?

- → What will be the real effects on the market?
- → When?
- → Remaining barriers?



Balancing

2011 Framework Guidelines Problem:

Different **balancing regimes** are barrier to cross-border trade and, thus, segment markets

2012-2013 Network Code Objectives:

Non-discriminatory and transparent balancing in order to guarantee fair conditions for new market entrants Development of network-related rules on nominations procedures, rules for imbalance charges and rules for operational balancing between transmission systems

- Daily balancing period with within day constraints and at the end of the day cash-out;
- Market based imbalance charges
- Merit order of appropriate balancing actions

Comitology

Entry into force

Applicable

Adopted in comitology on 2 October 2013

Beginning 2014? (waiting for publication in OJEU)

Applies from 1 October 2015

Possible transitional period: 24 months as from 1 October 2014 → October 2016

Effects

- → What will be the real effects on the market?
- → When?
- → Remaining barriers to trade with regard to balancing?



Harmonised transmission tariffs

Framework Guidelines

Problem:

Insufficient level of transparency in order for shippers to anticipate and estimate tariff changes Cases of undue discrimination between cross-border and domestic network usage Tariff structures which do not promote an efficient use of the infrastructure

Network Code Objectives:

The overall final aim of the Network Code on Tariffs is to lead to gas transmission tariff structures in Europe which do not discriminate between cross-border and domestic network users and do not have detrimental effects on cross-border trade

Comitology

2015

Entry into force

2015?

Applicable

2017?

Effects

- → What will be the real effects on the market?
- → When?
- → Remaining barriers?



Problem identification - Issues for the Gas Target Model update

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Overall context

2014 deadline for the IEM completion is approaching

- need for strategy on post-2014 work and for a vision to serve as a bridge towards the future
- Overarching considerations on key factors, challenges and possible responses for the coming years to 2025, including the enhancement of the Gas Target Model
- → Following considerations are aiming at triggering discussion and do not represent an agreed ACER view at this stage.



Strategic context

Demand

- Industrial demand very dependent on competitive gas prices
- Use in power generation will continue but role will change and volumes will decline sharply
- Use of gas in heating likely to decline
- Potential for new demand in mobility
- Very likely gas demand will not surpass pre-crises levels

Supply

- Conventional EU production will decline
- Dependence on imported gas will grow
- LNG will continue to grow but fluctuate according to prices
- Uncertain potential for unconventional sources in Europe

Sustainability

- Gas is the cleanest of the fossil fuels should replace coal in electricity generation, industry and oil based transport fuels
- Gas will achieve this role only if the price is "right"
- Gas-fired power can complement growth of wind and solar energy – but again price is key



Strategic context

Gas market characteristics are changing

- Continuous growth in gas demand until 2008 → declining gas demand since then (wholesale and retail)
- Oil-price indexation → more than 50% of gas is priced according to hub prices, or other price baskets
- Long-term contracts → clear trend to more flexible and more short term oriented contracts

New challenges

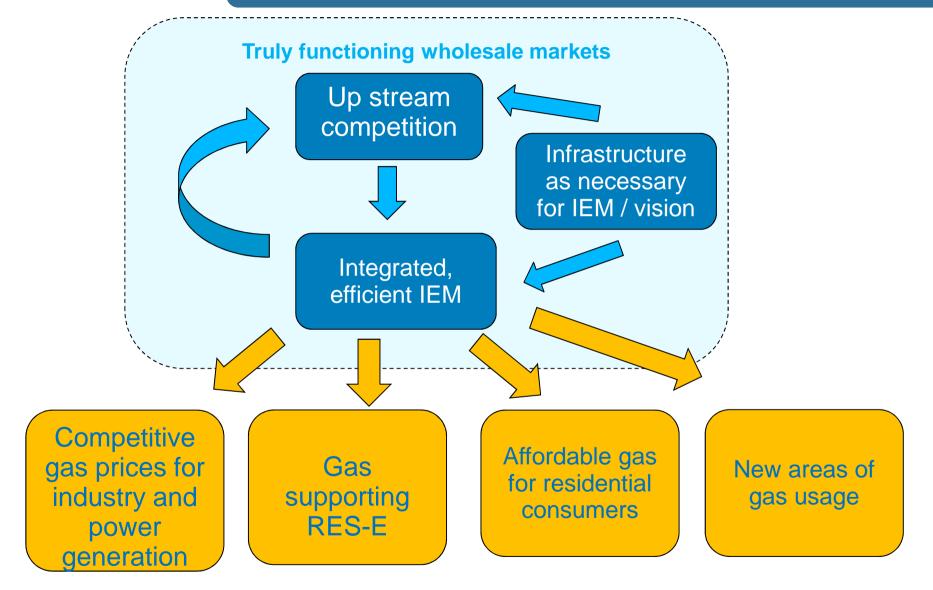
- Growing interrelations between electricity and gas
- Higher flexibility requirements to back-up intermittent renewable electricity generation
- Will gas be the fuel of choice for this?
- Changing role of gas storage and LNG

Difficulties

- Declining gas demand
- Massive price spread between Europa and US
- Structural problem: need for gas fired power plant to back-up intermittent RES generation →← gas is priced out of electricity generation – will this change?
- Retail markets: Mixed level of competition across MS



Concept for the future of gas





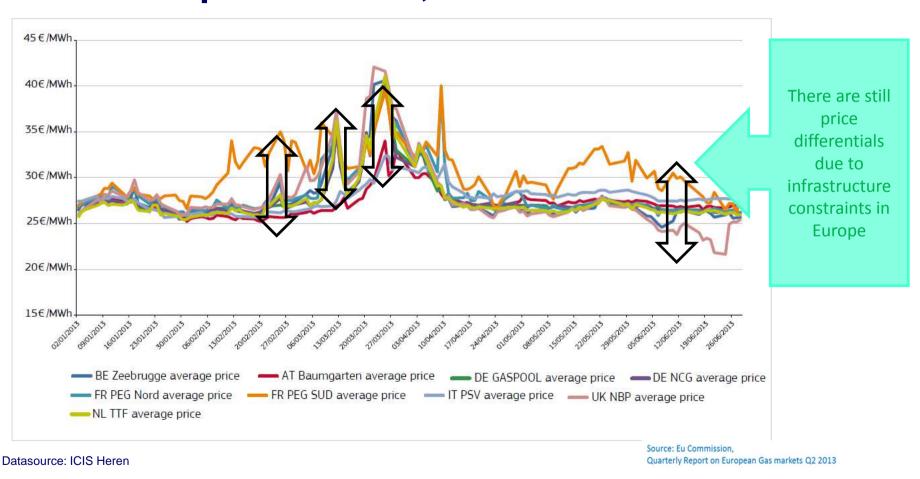
Challenges arise in four areas

Competitive and integrated wholesale market Contribution of gas to a sustainable energy mix **Retail competition** New usage of gas



Remaining price differentials

Gas prices show that we still don't have a European market, while...





Evidence 2 - Criteria for competition

Measure	GTM* criteria	Status quo
Infrastructure RSI	RSI > 110% for more than 95% of the days	Not yet assessed ?
Size of Entry-Exit zones	≥ 20 BCM (215 TWh)	Only 6 national markets ≥ 20 bcm demand
Pluralism of sources of supply	≥ 3 significant sources	Importing entities < 3 in Baltic States, FI and SE
Market concentration	HHI < 2000	Problematic in most markets (except for UK and DE)
Liquidity of the market	Churn rates > 8	Only TTF and NBP achieve churn > 8 (ZEE close to 8)

.....GTM criteria generally not yet met

^{*}According to CEER (2011): Vision for a European gas target model.



Possible areas for action

Increasing diversity of gas sources

- Historically gas sources have been limited
- Need to encourage new sources
 - LNG, biogas, shale gas, pipelines from new areas

Creating alternative infrastructure

- Without alternatives in transportation capacity, sources of gas cannot compete
 - In markets with declining demand, TSOs need incentives to maintain redundancy in order to promote competition
- However, necessary to avoid redundant infrastructure that increase tariffs and do not provide additional benefits

Access arrangements to facilitate competition

 Physical capacity needs to be complemented by tariff arrangements that facilitate competition

..to complete vision of IEM



Possible fields of action

Competitive and integrated wholesale market Contribution of gas to a sustainable energy mix **Retail Competition** 4 New usage of gas



Nature of the problem

Growth of RES

Role of gas plants

Implications for gas

- Electricity demand growth expected
- Decarbonisation means increasing % of RES-E
- Intermittent wind and solar will be dominant RES-E technologies
- Intermittency combined with short-term forecasting errors (<4hrs)

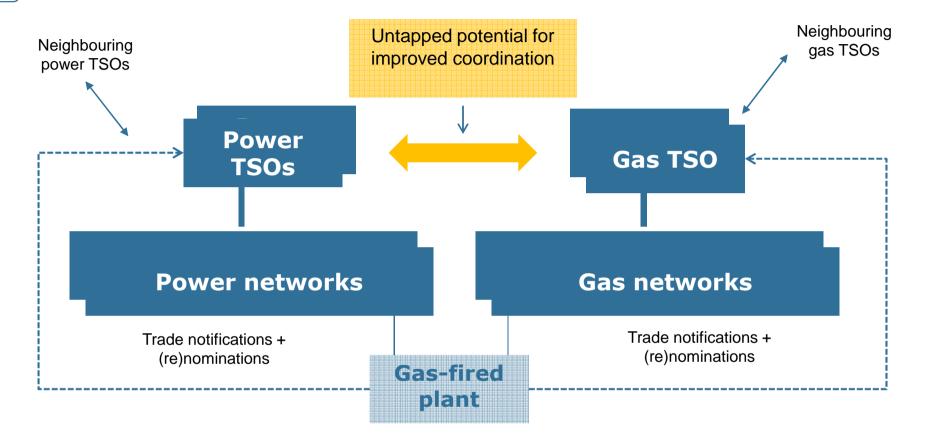
- Gas fired plants should become dominant thermal plant due to flexibility and low emissions relative to coal
- Able to start and reach full output within one hour with high ramping rates
- Frequent within-day adjustments to complement uncertain RES-E
- Flexibility for network users and TSOs

- Plant's gas offtake direct from transmission system
- Significant withinday variations – expected at D-1 and unexpected:
 - Need for intra day markets with short term products
 - Need to renominate offtake volumes to TSO

Costs help to inform case for alternative balancing options in power sector



Gas plants are link between sectors



Under network codes, emphasis is on cooperation between TSOs for same energy type (e.g. for x-border balancing) and not between TSOs in gas and power within an area. Plant must operate within separate balancing arrangements of each sector.

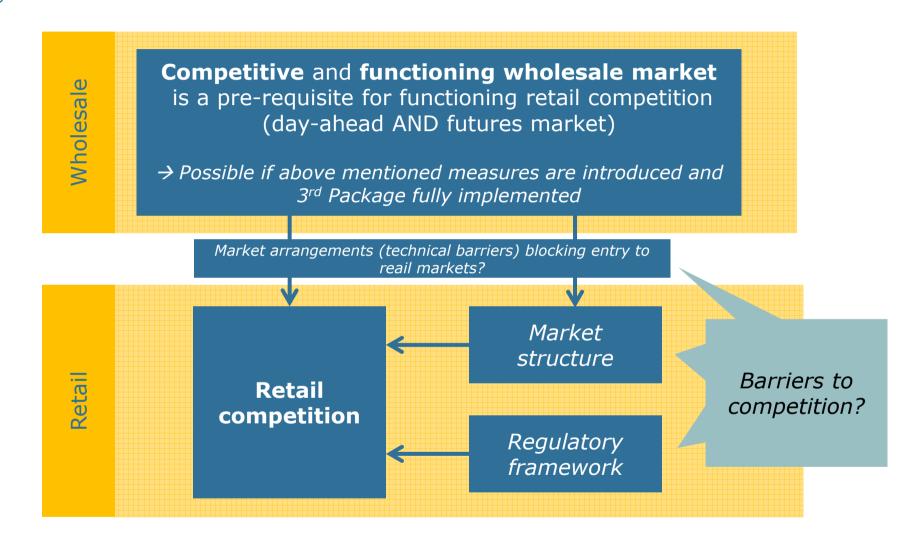


Possible fields of action

Competitive and integrated wholesale market Contribution of gas to a sustainable energy mix **Retail Competition** 4 New usage of gas



Retail competition



... to be achieved through competitive wholesale markets

Retail competition - challenges

Price regulation - is still reality!

 15 MS in gas (and 18 in electricity) with end-user price regulation for household customers

Price regulation - obstacle towards competitive markets

- IEM Communication: phase-out of regulated prices "taking into account universal service obligation and effective protection of vulnerable customers"
- Prevents suppliers from offering attractive services, tailor-made and dynamic pricing schemes
- In some countries even regulated at a level below market costs, threatening SoS
- Discourages new entrants
- No signal for efficient energy use
- Economically unsustainable

Switching rates are still on a low level in most MS



Possible areas for action

Competition instead regulated prices

- Phase out price regulation at least on retail level
- Where price regulation exists it has to be in line with market conditions
- Price regulation for all household customers is no adequate means to help the poorest → improve the social security systems

Possible harmonisation

- Harmonised market arrangements and regulatory framework could facilitate market entry
- Further harmonisation arrangements for consumer switching?
- Integration of DSOs in balancing zone to facilitate retail competition?
- What do we mean with ,internal market' when we talk about retail markets?
 - Cross-border supply: great opportunity for small MS
 - Recognition of retail licenses from other MS?
 - A real Internal Retail Energy Market: political commitment necessary

..to the benefit of customers



Possible fields of action

Competitive and integrated wholesale market Contribution of gas to a sustainable energy mix **Retail Competition** 4 New usage of gas



Exploring new markets for gas

- Natural gas for vehicles
 - LNG
 - Compressed Natural Gas (CNG)



- Biogas
- Power to gas







