

**Response to ERGEG call for evidence  
(Ref: C10-GWG-70-03)  
on a Conceptual Model for the European Gas Market**

Gas Committee  
European Federation of Energy Traders<sup>1</sup>  
January 2011

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<sup>1</sup> The European Federation of Energy Traders (EFET) promotes and facilitates European energy trading in open, transparent and liquid wholesale markets, unhindered by national borders or other undue obstacles. EFET currently represents more than 100 energy trading companies, active in over 27 European countries. For more information: [www.efet.org](http://www.efet.org).

A clear understanding of the direction that Europe must take to establish a single European Gas Market is essential, including target dates for key steps. Whilst there is still debate about some of the building blocks for the optimum conceptual model, we believe that it is now necessary to establish a set of principles and characteristics that are accepted as the common reference point. We hope that further analysis and discussion with EFET and other stakeholders will resolve the remaining issues during the coming months. Meanwhile we would like to set out some key features that will be needed for success.

The target model should:

- Ensure that groups of transmission systems are efficiently operated together (e.g. each group with one multi-system<sup>2</sup> operator who optimises capacity and facilitates trading);
- Ensure that capacity from one group of transmission systems to another is efficiently enhanced, efficiently allocated and efficiently used, all in response to market needs.
- Ensure that the main features of key operational, commercial and regulatory requirements affecting the gas market are the same for each group of transmission systems (e.g. balancing regime, capacity regime, regulatory incentives, information provision, contractual arrangements etc.);
- Allow that necessary differences in national energy policies can be accommodated within the single European gas market;
- Build on the basic principle to provide only the necessary regulatory framework to allow a liberalised gas market to function properly on a commercial basis and avoid unnecessarily complicated, detailed or administratively burdensome regulation.

Consistent with these key features, we would expect that throughout Europe, albeit with varying degrees of liquidity, there would be all maturities of contracts for buying and selling wholesale gas on the:

- Forward market;
- Day-Ahead market; and
- Intra-day & balancing market(s).

Overall, the target model should provide a framework which requires greater consistency leading to regional or EU consolidation of several operational and regulatory functions. We envisage a target date of 2012/13 for underlying consistency of all capacity products, nomination procedures and balancing regimes, with consolidation of common operational and regulatory functions throughout Europe by 2015. A future target gas model should be implemented gradually, respecting existing contracts (transportation, storage, commodity), established under the current market design and environment, assuming that such contracts do not favour capacity hoarding or any other rule that would worsen capacity congestion or undermine the overriding principle of non-discrimination.

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<sup>2</sup> The concept of multi-system operator was presented at the Madrid Gas Forum in May 2009 in a joint paper by CEFIC, EFET, Eurogas, IFIEC, Eurelectric and Geode.

**1. *What are in your view the main goals to be aimed at by the gas target model beneath the high-level policy goals set out by the 3rd Package?***

The goal of a target model should be to achieve consistency in operational and regulatory functions that affect the gas market, and then to facilitate consolidation of these functions to improve efficiency. This will include making sure that Network Codes and other Third IEM package requirements are fully compatible with each other, describing how they inter-relate, and that implementation is consistent with markets integrating towards a single EU gas market.

The target model needs to be a high level explanation of principles, so that it can be a consistent reference point. The target model should also be sufficiently adaptable to changing market environments, due to e.g. introduction of wind power, and thereby requiring more flexibility also for gas. It may need to evolve to suit longer term changes to market conditions, but it should not become so detailed that it requires frequent amendment. There is already a major challenge to be addressed to enable market participants to propose and obtain necessary modifications to future EU Network Codes. If the target model itself became too detailed, then this might raise governance issues about modification procedures for the goals of the model itself.

**2. *What are in your view the major developments and anticipated changes in the European gas market (on national and international level) and where would a target model bring added value? Including:***

**a. *The role of long term capacity contracts in the future European gas markets.***

The role of long-term capacity contracts is set out in the suggestions of EFET for Capacity Allocation Framework Guidelines (2010). A holistic approach to primary capacity is essential if the problems of investment and allocation of primary capacity are to be resolved. Markets must be allowed to influence investment decisions, and to do this efficiently. Regulators and TSOs must agree and make public the economic test and the investment trigger level<sup>3</sup>. Long-term capacity (both existing and enhancements) must be offered to the market on a regular basis.

**b. *The role of hubs / gas exchanges.***

Traded gas markets would need to exist throughout Europe for the Third Package to be successfully implemented. Increased demand volatility, import dependence and competition for gas on a global basis all require liquid markets for shippers efficiently to manage their risk and greater integration to provide security of demand for gas producers. In particular, market-based balancing requires that intra-day markets exist.

Experience has shown that an exchange can only be established successfully after the underlying conditions have enabled sufficient gas trading to take place, some standard products to emerge and price transparency to be reported for these products. This would suggest that the target model must allow confidence in OTC

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<sup>3</sup> This would include how much capacity is underwritten by network user demand before investment takes place, capacity that is sold short-term and capacity that is financed by the wider public / socialised.

trading to be maintained so that the embryonic gas trading market can reach a state of maturity that could support exchange-based trading, as well as OTC trading.

**3. What are in your view the key elements of a conceptual model for the European gas market to contribute to non-discrimination, effective competition, and the efficient functioning of the internal gas market? Please include views on the key aspects of market design such as, capacity allocation and congestion management procedures, network tariff arrangements, wholesale market pricing, balancing arrangements and, gas quality specifications? Please consider the interaction of these arrangements.**

Most of the key aspects of market design (both the process and the expected results) have been set out by EFET during the last few years (see Gas Position Papers at [www.EFET.org](http://www.EFET.org)). Some key examples are given in the following tables:

ISSUE	PRINCIPLE or PROCESS	EXPECTATION or RESULT
<b>Regional gas grids (November 2007)</b>	Wholesale trading is unimpeded by national borders or barriers to entry. Characteristics are: <ul style="list-style-type: none"> <li>• Non- discriminatory access</li> <li>• Efficiency</li> <li>• Transparency</li> <li>• Liquidity, and</li> <li>• Resilience of the system</li> </ul>	Independent regional grid operators optimise capacity and facilitate trading (at virtual points) for all maturities of contracts for buying and selling wholesale gas on the: <ul style="list-style-type: none"> <li>• Forward market</li> <li>• Day-Ahead market</li> <li>• Intra-day &amp; balancing market(s)</li> </ul>
<b>Market-based balancing (May 2008)</b>	Within day balancing markets with cost-reflective cash-out prices.	Economic signals ensure within-day market response so flexibility is used efficiently & liquidity improves.
<b>Primary capacity allocation (Sept 2008)</b>	Market-based processes for LT to ST capacity allocation with consistent economic models for TSO investment decisions.	Pricing based on investment costs for long-term allocations and on market value for shorter-term sales.

ISSUE	PRINCIPLE or PROCESS	EXPECTATION or RESULT
<b>Regional Cooperation (June 2009, joint paper)</b>	ENTSOG helps TSOs to develop action plans and timetables for multi-system operation.	Creation of larger and more efficient market areas (balancing zones).
<b>Access to storage (July 2009)</b>	Storage is only regulated if so determined by EU approved competition test.	Storage is a competitive service and 'administered allocation' is minimised.
<b>Interruptible capacity (November 2009)</b>	A single product for interruptible capacity throughout Europe with market based price mechanism.	Simpler interruptible capacity product auctioned with a zero reserve price.
<b>LNG (December 2009, joint paper)</b>	Standardized terminal rules, regulations, directives, and orders applicable to LNG Receiving Terminals in Europe.	Further development of the secondary capacity market.
<b>Capacity Allocation Essentials (February 2010)</b>	Adjacent TSOs jointly offer (by auctions) harmonised firm and interruptible capacity at interconnection points.	Transport between interconnected balancing zones is offered by a single allocation procedure with a single contract and single nomination.
<b>Congestion Management Essentials (March 2010)</b>	Dynamic recalculation of firm capacity, optimal selling of firm capacity (oversubscription and buy-back), remarketing booked capacity and proper facilitation of secondary capacity trading.	TSOs and existing capacity holders obliged and/or incentivised to take action so that capacity is available to those who need it.
<b>Framework Guidelines on gas balancing (June 2010)</b>	Transmission system users bid or offer flexibility and balance their inputs and outputs through a cash-out mechanism that uses prices from the local intraday balancing market.	Users have the information and the flexibility tools to balance their portfolios within the (daily) balancing period and contribute to the efficient balancing of the system.
<b>Transparency Response to ERGEG consultation (November 2010)</b>	TSOs must provide more detailed and frequent (within day) information on capacity and real time flow information at import points, terminals and interconnection points.	Facilitates more efficient network operation better understanding and management of security of supply and greater liquidity in wholesale traded markets.

**4. What level of detail, e.g. level of harmonisation, do you expect from the CEER vision paper on a conceptual model for the European gas market? For example:**

- a. *Do we need a definition of an EU-wide gas day? If yes, what should this definition be?*

Yes, the EASEE-gas definition (06:00hrs-06:00hrs CET).

- b. *How deep should the "reach" of the EU gas market model be, i.e. should it encompass DSOs? Is there a trade-off between vertical depth (i.e. including all levels of national gas markets) and horizontal depth (i.e. integrating balancing zones cross border)?*

The level of depth for the EU gas market model depends on the respective market area. For example, with regards to balancing it is necessary to encompass DSOs in order to ensure the required level of detail when it comes to information provision, but implementation needs to be dealt with through the Network Codes, not set out in the gas market model. Overall the focus should be on the transmission system and the wholesale market, with interactions upstream and downstream only when necessary.

**5. Which areas or aspects of the gas market should be affected by the target model and what are the constraints for such a model?**

The critical aspects of the model should be how the transmission infrastructure operators facilitate efficient use of the capacity in their systems and the interaction between access to capacity and the freely traded wholesale market. Interactions upstream and downstream should only be necessary when that has an impact of cross-border trade.

The target model should concentrate on those aspects of the gas market for which ENTSOG are required to develop EU network codes under the Third IEM package.

**6. Which areas or aspects of the gas market should be excluded from the target model description and left to national/regional decision making?**

A list of the areas that do not have any impact on wholesale markets, so that these can be excluded from the target model, could be established in a stakeholder consultation process under the guidance of ACER, in order to have a common/harmonised approach as to what is in the target model and what is impacted by the target model.

As a related point, we would emphasise the need for national authorities who are consulting on issues that do relate to the wholesale market (e.g. balancing, access to storage, transmission capacity issues etc.) to ensure that these consultations are held in a major European language, preferably in English. Too frequently well-meaning consultations on issues that affect the international gas market are unduly restricted by documents and meetings only in the local language.

**7. *What are the options for integrating the currently fragmented European markets?***

Whilst we do not yet know the extent to which market areas/ balancing zones can integrate, the harmonisation of core market operations will encourage integration and co-operation, making it easier to determine the physical limits to which integration is possible. The challenge for Regulators is to provide sufficient consistency in their approach to enable integration to occur organically: the implementation of the Third Package, particularly the development of EU-wide Network Codes, should stimulate competition within market areas and some price convergence through efficient arbitrage, regardless whether integration has taken place or not.

Market integration also requires integrated network models of the TSO systems. A bottom-up approach would be worthwhile here, to encourage small groups of two or three TSOs to analyse how their combined systems could be more efficiently operated and then to test the market as to what additional capacity might be required. Until that is done there will always remain doubt about the effectiveness of new investment decisions.

Once there are integrated network models and regular offers to the market for new capacity, then wherever the pre-agreed investment test is met (including contributions from socialised funding if appropriate) the determined capacity must be built and/ or reverse flow implemented. The availability of capacity at the interconnection may then be sufficient for the zones to be fully integrated.

Where the investment test is not fully<sup>4</sup> met, then we can expect that some physical constraints will still occur and the operation of the market will remain with a price difference between the zones.

Overall, a clear target model will help to guide the EU Network Codes and reduce fragmentation, while the active involvement of ACER should help to ensure consistency. Strong co-operation between TSOs, Regulators and Governments will be necessary to find international solutions and encourage multi-grid operation.

**8. *Are there any existing models you would like to recommend? In case your answer is yes, we would be interested to learn about the features of this model and if there are also any draw-backs in this model in your view.***

Rather than copying other commodity markets, or even gas markets in other part of the world, there are useful models from which we can learn within Europe.

In NW Europe, specifically the traded markets of UK, Netherlands and Belgium, there has already been significant new investment encouraged by the market and traded market prices in the forward market are well correlated. Fine-tuning is still required to ensure that the extra needed cross-border capacity and secondary capacity trading platforms operate efficiently, but for many market participants the target should be to encourage the rest of Europe to reach the high standards of transparency and liquidity that already exist in the North West.

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<sup>4</sup> For example, the market might have bid for additional capacity, but not to a sufficient level or for a sufficiently long period to enable economic investment to take place.



Slightly further into the continent, gas market areas have merged in France and Germany and further progress is already underway. There are other examples, like in Austria, where one TSO is now responsible for multiple systems. Although these national models may not always be entirely appropriate in the context of a single European Gas Market, each of them includes interesting elements of market design that have been demonstrated to increase market liquidity and efficiency.

The key prerequisites for successful mergers seem to be (a) an identical balancing regime and (b) the need to operate (including grid capacity calculation) of the merged market area/ balancing zone on a strongly coordinated basis (or preferably by one appointed common system operator) in order to maximize cross-border access and thus market liquidity.

The tendency to strive for national balancing zones has provided useful momentum for merging smaller zones within the same country, but the model we would recommend would be economically, not politically led. A few countries might have more than one zone, while others would combine across national borders. This obviously requires good political and regulatory cooperation.

- a. *Should we merge balancing zones to create cross border or regional balancing zones or market areas? How many balancing zones does Europe need and how big should they be?*

Market design should not force a particular number of balancing zones, but should create the conditions to enable such zones to emerge organically. There will, however, be some countries that are too small to sustain a local balancing market and the local TSO/ Regulators/ Governments might wish to take the initiative with their neighbours to combine the TSO networks. When there is enough physical capacity between neighbouring balancing zones governed by consistent balancing regimes with compatible cash-out times, consistency of capacity products (and how they are regulated, allocated nominated, etc.) is the key to allowing the technical and economic drivers to increase or reduce the size of balancing zones.

- b. *Is the coupling of market areas as it is being developed in European electricity markets appropriate for gas?*

There are certainly lessons that can be learnt from the power sector, and we must be mindful that the gas market is increasingly linked with the power market. Whilst both gas and power would benefit from robust and liquid intra-day markets, the ideal way to integrate the gas market on the day is, however, unlikely to be the same as for electricity.

Developing the rules, mechanisms and governance structure necessary to implement 'market coupling'<sup>5</sup> in gas cannot be done overnight and should not divert regulatory

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<sup>5</sup> The term 'market coupling' is widely used but rarely defined. In this context we refer to market coupling in the way that it has been implemented in the NW Europe electricity market, in which at gate closure on a day-ahead basis all un-nominated capacity returns to the TSO, and the energy flow using the capacity on the day is determined by the exchange-traded prices in the connected markets.



or stakeholder resource from developing and implementing the Framework Guidelines and EU network codes laid out in the Third IEM Package.

EFET will continue to develop ideas to improve the integration of the European gas market. Meanwhile, the building blocks we offer in the answer to question 3 provide most of the framework for a consistent approach, which, with Government support, would naturally lead to the consolidation of efficient market areas, regulatory function and TSO operations across national boundaries.